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# **RsCmwLteMeas**

***Release 4.0.110.26***

**Rohde & Schwarz**

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## REVISION HISTORY

### 1.1 RsCmwLteMeas

Rohde & Schwarz CMW LTE Measurement RsCmwLteMeas instrument driver.

Basic Hello-World code:

```
from RsCmwLteMeas import *

instr = RsCmwLteMeas('TCPIP::192.168.2.101::hislip0')
idn = instr.query('*IDN?')
print('Hello, I am: ' + idn)
```

Supported instruments: CMW500, CMW100

The package is hosted here: <https://pypi.org/project/RsCmwLteMeas/>

Documentation: <https://RsCmwLteMeas.readthedocs.io/>

Examples: <https://github.com/Rohde-Schwarz/Examples/>

#### 1.1.1 Version history

Release Notes:

Latest release notes summary: Update for FW 4.0.110

##### **Version 4.0.110**

- Update for FW 4.0.110

##### **Version 3.8.xx2**

- Fixed several misspelled arguments and command headers

##### **Version 3.8.xx1**

- Bluetooth and WLAN update for FW versions 3.8.xxx

**Version 3.7.xx8**

- Added documentation on ReadTheDocs

**Version 3.7.xx7**

- Added 3G measurement subsystems RsCmwGsmMeas, RsCmwCdma2kMeas, RsCmwEvdoMeas, RsCmwWcdmaMeas
- Added new data types for commands accepting numbers or ON/OFF:
  - int or bool
  - float or bool

**Version 3.7.xx6**

- Added new UDF integer number recognition

**Version 3.7.xx5**

- Added RsCmwDau

**Version 3.7.xx4**

- Fixed several interface names
- New release for CMW Base 3.7.90
- New release for CMW Bluetooth 3.7.90

**Version 3.7.xx3**

- Second release of the CMW python drivers packet
- New core component RsInstrument
- Previously, the groups starting with CATalog: e.g. 'CATalog:SIGNaling:TOPology:PLMN' were reordered to 'SIGNaling:TOPology:PLMN:CATALOG' give more contextual meaning to the method/property name. This is now reverted back, since it was hard to find the desired functionality.
- Reorganized Utilities interface to sub-groups

**Version 3.7.xx2**

- Fixed some misspeling errors
- Changed enum and repCap types names
- All the assemblies are signed with Rohde & Schwarz signature

**Version 1.0.0.0**

- First released version

## GETTING STARTED

### 2.1 Introduction



**RsCmwLteMeas** is a Python remote-control communication module for Rohde & Schwarz SCPI-based Test and Measurement Instruments. It represents SCPI commands as fixed APIs and hence provides SCPI autocompletion and helps you to avoid common string typing mistakes.

Basic example of the idea:

SCPI command:

SYSTem:REFeRence:FREQuency:SOURce

Python module representation:

writing:

```
driver.system.reference.frequency.source.set()
```

reading:

```
driver.system.reference.frequency.source.get()
```

Check out this RsCmwBase example:

```
""" Example on how to use the python RsCmw auto-generated instrument driver showing:
- usage of basic properties of the cmw_base object
- basic concept of setting commands and repcaps: DISPlay:WINDow<n>:SElect
- cmw_xxx drivers reliability interface usage
"""

from RsCmwBase import * # install from pypi.org

RsCmwBase.assert_minimum_version('3.7.90.38')
cmw_base = RsCmwBase('TCPIP::10.112.1.116::INSTR', True, False)
print(f'CMW Base IND: {cmw_base.utilities.idn_string}')
print(f'CMW Instrument options:\n{",".join(cmw_base.utilities.instrument_options)}')
cmw_base.utilities.visa_timeout = 5000

# Sends OPC after each command
cmw_base.utilities.opc_query_after_write = False
```

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```

# Checks for syst:err? after each command / query
cmw_base.utilities.instrument_status_checking = True

# DISPLAY:WINDOW<n>:SELECT
cmw_base.display.window.select.set(repcap.Window.Win1)
cmw_base.display.window.repcap_window_set(repcap.Window.Win2)
cmw_base.display.window.select.set()

# Self-test
self_test = cmw_base.utilities.self_test()
print(f'CMW self-test result: {self_test} - {"Passed" if self_test[0] == 0 else "Failed"}'
      ↪ '')

# Driver's Interface reliability offers a convenient way of reacting on the return value ↪
↪ Reliability Indicator
cmw_base.reliability.ExceptionOnError = True

# Callback to use for the reliability indicator update event
def my_reliability_handler(event_args: ReliabilityEventArgs):
    print(f'Base Reliability updated.\nContext: {event_args.context}\nMessage:
    ↪ {event_args.message}')

# We register a callback for each change in the reliability indicator
cmw_base.reliability.on_update_handler = my_reliability_handler

# You can obtain the last value of the returned reliability
print(f"\nReliability last value: {cmw_base.reliability.last_value}, context '{cmw_base.
    ↪ reliability.last_context}', message: {cmw_base.reliability.last_message}")

# Reference Frequency Source
cmw_base.system.reference.frequency.set_source(enums.SourceIntExt.INTERNAL)

# Close the session
cmw_base.close()

```

Couple of reasons why to choose this module over plain SCPI approach:

- Type-safe API using typing module
- You can still use the plain SCPI communication
- You can select which VISA to use or even not use any VISA at all
- Initialization of a new session is straight-forward, no need to set any other properties
- Many useful features are already implemented - reset, self-test, opc-synchronization, error checking, option checking
- Binary data blocks transfer in both directions
- Transfer of arrays of numbers in binary or ASCII format
- File transfers in both directions
- Events generation in case of error, sent data, received data, chunk data (for big files transfer)



- Multithreading session locking - you can use multiple threads talking to one instrument at the same time
- Logging feature tailored for SCPI communication - different for binary and ascii data

## 2.2 Installation

RsCmwLteMeas is hosted on [pypi.org](https://pypi.org). You can install it with pip (for example, `pip.exe` for Windows), or if you are using Pycharm (and you should be :-)) direct in the Pycharm `Package Management` GUI.

### Preconditions

- Installed VISA. You can skip this if you plan to use only socket LAN connection. Download the Rohde & Schwarz VISA for Windows, Linux, Mac OS from [here](#)

### Option 1 - Installing with pip.exe under Windows

- Start the command console: WinKey + R, type `cmd` and hit ENTER
- Change the working directory to the Python installation of your choice (adjust the user name and python version in the path):

```
cd c:\Users\John\AppData\Local\Programs\Python\Python37\Scripts
```

- Install with the command: `pip install RsCmwLteMeas`

### Option 2 - Installing in Pycharm

- In Pycharm Menu `File->Settings->Project->Project Interpreter` click on the '+' button on the top left (the last PyCharm version)
- Type `RsCmwLteMeas` in the search box
- If you are behind a Proxy server, configure it in the Menu: `File->Settings->Appearance->System Settings->HTTP Proxy`

For more information about Rohde & Schwarz instrument remote control, check out our [Instrument Remote Control Web Series](#).

### Option 3 - Offline Installation

If you are still reading the installation chapter, it is probably because the options above did not work for you - proxy problems, your boss saw the internet bill... Here are 6 steps for installing the RsCmwLteMeas offline:

- Download this python script (**Save target as**): [rsinstrument\\_offline\\_install.py](#) This installs all the preconditions that the RsCmwLteMeas needs.
- Execute the script in your offline computer (supported is python 3.6 or newer)
- Download the RsCmwLteMeas package to your computer from the [pypi.org](https://pypi.org/project/RsCmwLteMeas/#files): <https://pypi.org/project/RsCmwLteMeas/#files> to for example `c:\temp\`
- Start the command line WinKey + R, type `cmd` and hit ENTER
- Change the working directory to the Python installation of your choice (adjust the user name and python version in the path):

```
cd c:\Users\John\AppData\Local\Programs\Python\Python37\Scripts
```

- Install with the command: `pip install c:\temp\RsCmwLteMeas-4.0.110.26.tar`

## 2.3 Finding Available Instruments

Like the pyvisa's ResourceManager, the RsCmwLteMeas can search for available instruments:

```
"""
Find the instruments in your environment
"""

from RsCmwLteMeas import *

# Use the instr_list string items as resource names in the RsCmwLteMeas constructor
instr_list = RsCmwLteMeas.list_resources("?*")
print(instr_list)
```

If you have more VISAs installed, the one actually used by default is defined by a secret widget called Visa Conflict Manager. You can force your program to use a VISA of your choice:

```
"""
Find the instruments in your environment with the defined VISA implementation
"""

from RsCmwLteMeas import *

# In the optional parameter visa_select you can use for example 'rs' or 'ni'
# Rs Visa also finds any NRP-Zxx USB sensors
instr_list = RsCmwLteMeas.list_resources('?*', 'rs')
print(instr_list)
```

---

**Tip:** We believe our R&S VISA is the best choice for our customers. Here are the reasons why:

- Small footprint
  - Superior VXI-11 and HiSLIP performance
  - Integrated legacy sensors NRP-Zxx support
  - Additional VXI-11 and LXI devices search
  - Availability for Windows, Linux, Mac OS
-

## 2.4 Initiating Instrument Session

RsCmwLteMeas offers four different types of starting your remote-control session. We begin with the most typical case, and progress with more special ones.

### Standard Session Initialization

Initiating new instrument session happens, when you instantiate the RsCmwLteMeas object. Below, is a simple Hello World example. Different resource names are examples for different physical interfaces.

```
"""
Simple example on how to use the RsCmwLteMeas module for remote-controlling your
↳ instrument
Preconditions:

- Installed RsCmwLteMeas Python module Version 4.0.110 or newer from pypi.org
- Installed VISA, for example R&S Visa 5.12 or newer
"""

from RsCmwLteMeas import *

# A good practice is to assure that you have a certain minimum version installed
RsCmwLteMeas.assert_minimum_version('4.0.110')
resource_string_1 = 'TCPIP::192.168.2.101::INSTR' # Standard LAN connection (also
↳ called VXI-11)
resource_string_2 = 'TCPIP::192.168.2.101::hislip0' # Hi-Speed LAN connection - see
↳ 1MA208
resource_string_3 = 'GPIB::20::INSTR' # GPIB Connection
resource_string_4 = 'USB::0x0AAD::0x0119::022019943::INSTR' # USB-TMC (Test and
↳ Measurement Class)

# Initializing the session
driver = RsCmwLteMeas(resource_string_1)

idn = driver.utilities.query_str('*IDN?')
print(f"\nHello, I am: '{idn}'")
print(f'RsCmwLteMeas package version: {driver.utilities.driver_version}')
print(f'Visa manufacturer: {driver.utilities.visa_manufacturer}')
print(f'Instrument full name: {driver.utilities.full_instrument_model_name}')
print(f'Instrument installed options: {",".join(driver.utilities.instrument_options)}')

# Close the session
driver.close()
```

**Note:** If you are wondering about the missing ASRL1::INSTR, yes, it works too, but come on... it's 2023.

Do not care about specialty of each session kind; RsCmwLteMeas handles all the necessary session settings for you. You immediately have access to many identification properties in the interface `driver.utilities`. Here are some of them:

- `idn_string`

- driver\_version
- visa\_manufacturer
- full\_instrument\_model\_name
- instrument\_serial\_number
- instrument\_firmware\_version
- instrument\_options

The constructor also contains optional boolean arguments `id_query` and `reset`:

```
driver = RsCmwLteMeas('TCPIP::192.168.56.101::hislip0', id_query=True, reset=True)
```

- Setting `id_query` to `True` (default is `True`) checks, whether your instrument can be used with the `RsCmwLteMeas` module.
- Setting `reset` to `True` (default is `False`) resets your instrument. It is equivalent to calling the `reset()` method.

## Selecting a Specific VISA

Just like in the function `list_resources()`, the `RsCmwLteMeas` allows you to choose which VISA to use:

```
"""
Choosing VISA implementation
"""

from RsCmwLteMeas import *

# Force use of the Rs Visa. For NI Visa, use the "SelectVisa='ni'"
driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR', True, True, "SelectVisa='rs'")

idn = driver.utilities.query_str('*IDN?')
print(f"\nHello, I am: '{idn}'")
print(f"\nI am using the VISA from: {driver.utilities.visa_manufacturer}")

# Close the session
driver.close()
```

## No VISA Session

We recommend using VISA when possible preferably with HiSlip session because of its low latency. However, if you are a strict VISA denier, `RsCmwLteMeas` has something for you too - **no Visa installation raw LAN socket**:

```
"""
Using RsCmwLteMeas without VISA for LAN Raw socket communication
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.56.101::5025::SOCKET', True, True, "SelectVisa=
↪ 'socket'")
print(f'Visa manufacturer: {driver.utilities.visa_manufacturer}')
```

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```
print(f"\nHello, I am: '{driver.utilities.idn_string}')"

# Close the session
driver.close()
```

**Warning:** Not using VISA can cause problems by debugging when you want to use the communication Trace Tool. The good news is, you can easily switch to use VISA and back just by changing the constructor arguments. The rest of your code stays unchanged.

## Simulating Session

If a colleague is currently occupying your instrument, leave him in peace, and open a simulating session:

```
driver = RsCmwLteMeas('TCPIP::192.168.56.101::hislip0', True, True, "Simulate=True")
```

More option\_string tokens are separated by comma:

```
driver = RsCmwLteMeas('TCPIP::192.168.56.101::hislip0', True, True, "SelectVisa='rs', ↵
↵Simulate=True")
```

## Shared Session

In some scenarios, you want to have two independent objects talking to the same instrument. Rather than opening a second VISA connection, share the same one between two or more RsCmwLteMeas objects:

```
"""
Sharing the same physical VISA session by two different RsCmwLteMeas objects
"""

from RsCmwLteMeas import *

driver1 = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR', True, True)
driver2 = RsCmwLteMeas.from_existing_session(driver1)

print(f'driver1: {driver1.utilities.idn_string}')
print(f'driver2: {driver2.utilities.idn_string}')

# Closing the driver2 session does not close the driver1 session - driver1 is the
↵ 'session master'
driver2.close()
print(f'driver2: I am closed now')

print(f'driver1: I am still opened and working: {driver1.utilities.idn_string}')
driver1.close()
print(f'driver1: Only now I am closed.')
```

**Note:** The driver1 is the object holding the 'master' session. If you call the driver1.close(), the driver2 loses its instrument session as well, and becomes pretty much useless.

## 2.5 Plain SCPI Communication

After you have opened the session, you can use the instrument-specific part described in the RsCmwLteMeas API Structure. If for any reason you want to use the plain SCPI, use the utilities interface's two basic methods:

- `write_str()` - writing a command without an answer, for example `*RST`
- `query_str()` - querying your instrument, for example the `*IDN?` query

You may ask a question. Actually, two questions:

- **Q1:** Why there are not called `write()` and `query()` ?
- **Q2:** Where is the `read()` ?

**Answer 1:** Actually, there are - the `write_str()` / `write()` and `query_str()` / `query()` are aliases, and you can use any of them. We promote the `_str` names, to clearly show you want to work with strings. Strings in Python3 are Unicode, the *bytes* and *string* objects are not interchangeable, since one character might be represented by more than 1 byte. To avoid mixing string and binary communication, all the method names for binary transfer contain `_bin` in the name.

**Answer 2:** Short answer - you do not need it. Long answer - your instrument never sends unsolicited responses. If you send a set command, you use `write_str()`. For a query command, you use `query_str()`. So, you really do not need it...

**Bottom line** - if you are used to `write()` and `query()` methods, from pyvisa, the `write_str()` and `query_str()` are their equivalents.

Enough with the theory, let us look at an example. Simple write, and query:

```
"""
Basic string write_str / query_str
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver.utilities.write_str('*RST')
response = driver.utilities.query_str('*IDN?')
print(response)

# Close the session
driver.close()
```

This example is so-called “*University-Professor-Example*” - good to show a principle, but never used in praxis. The abovementioned commands are already a part of the driver's API. Here is another example, achieving the same goal:

```
"""
Basic string write_str / query_str
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver.utilities.reset()
print(driver.utilities.idn_string)
```

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```
# Close the session
driver.close()
```

One additional feature we need to mention here: **VISA timeout**. To simplify, VISA timeout plays a role in each `query_xxx()`, where the controller (your PC) has to prevent waiting forever for an answer from your instrument. VISA timeout defines that maximum waiting time. You can set/read it with the `visa_timeout` property:

```
# Timeout in milliseconds
driver.utilities.visa_timeout = 3000
```

After this time, the RsCmwLteMeas raises an exception. Speaking of exceptions, an important feature of the RsCmwLteMeas is **Instrument Status Checking**. Check out the next chapter that describes the error checking in details.

For completion, we mention other string-based `write_xxx()` and `query_xxx()` methods - all in one example. They are convenient extensions providing type-safe float/boolean/integer setting/querying features:

```
"""
Basic string write_xxx / query_xxx
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver.utilities.visa_timeout = 5000
driver.utilities.instrument_status_checking = True
driver.utilities.write_int('SWEEP:COUNT ', 10) # sending 'SWEEP:COUNT 10'
driver.utilities.write_bool('SOURCE:RF:OUTPUT:STATE ', True) # sending
↳ 'SOURCE:RF:OUTPUT:STATE ON'
driver.utilities.write_float('SOURCE:RF:FREQUENCY ', 1E9) # sending 'SOURCE:RF:FREQUENCY_
↳ 10000000000'

sc = driver.utilities.query_int('SWEEP:COUNT?') # returning integer number sc=10
out = driver.utilities.query_bool('SOURCE:RF:OUTPUT:STATE?') # returning boolean_
↳ out=True
freq = driver.utilities.query_float('SOURCE:RF:FREQUENCY?') # returning float number_
↳ freq=1E9

# Close the session
driver.close()
```

Lastly, a method providing basic synchronization: `query_opc()`. It sends query **\*OPC?** to your instrument. The instrument waits with the answer until all the tasks it currently has in a queue are finished. This way your program waits too, and this way it is synchronized with the actions in the instrument. Remember to have the VISA timeout set to an appropriate value to prevent the timeout exception. Here's the snippet:

```
driver.utilities.visa_timeout = 3000
driver.utilities.write_str("INIT")
driver.utilities.query_opc()

# The results are ready now to fetch
results = driver.utilities.query_str("FETCH:MEASUREMENT?")
```

**Tip:** Wait, there's more: you can send the **\*OPC?** after each `write_xxx()` automatically:

```
# Default value after init is False
driver.utilities.opc_query_after_write = True
```

## 2.6 Error Checking

RsCmwLteMeas pushes limits even further (internal R&S joke): It has a built-in mechanism that after each command/query checks the instrument's status subsystem, and raises an exception if it detects an error. For those who are already screaming: **Speed Performance Penalty!!!**, don't worry, you can disable it.

Instrument status checking is very useful since in case your command/query caused an error, you are immediately informed about it. Status checking has in most cases no practical effect on the speed performance of your program. However, if for example, you do many repetitions of short write/query sequences, it might make a difference to switch it off:

```
# Default value after init is True
driver.utilities.instrument_status_checking = False
```

To clear the instrument status subsystem of all errors, call this method:

```
driver.utilities.clear_status()
```

Instrument's status system error queue is clear-on-read. It means, if you query its content, you clear it at the same time. To query and clear list of all the current errors, use this snippet:

```
errors_list = driver.utilities.query_all_errors()
```

See the next chapter on how to react on errors.

## 2.7 Exception Handling

The base class for all the exceptions raised by the RsCmwLteMeas is `RsInstrException`. Inherited exception classes:

- `ResourceError` raised in the constructor by problems with initiating the instrument, for example wrong or non-existing resource name
- `StatusException` raised if a command or a query generated error in the instrument's error queue
- `TimeoutException` raised if a visa timeout or an opc timeout is reached

In this example we show usage of all of them. Because it is difficult to generate an error using the instrument-specific SCPI API, we use plain SCPI commands:

```
"""
Showing how to deal with exceptions
"""

from RsCmwLteMeas import *

driver = None
# Try-catch for initialization. If an error occurs, the ResourceError is raised
try:
```

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```

    driver = RsCmwLteMeas('TCPIP::10.112.1.179::hislip0')
except ResourceError as e:
    print(e.args[0])
    print('Your instrument is probably OFF...')
    # Exit now, no point of continuing
    exit(1)

# Dealing with commands that potentially generate errors OPTION 1:
# Switching the status checking OFF temporarily
driver.utilities.instrument_status_checking = False
driver.utilities.write_str('MY:MISSpelled:COMMAND')
# Clear the error queue
driver.utilities.clear_status()
# Status checking ON again
driver.utilities.instrument_status_checking = True

# Dealing with queries that potentially generate errors OPTION 2:
try:
    # You might want to reduce the VISA timeout to avoid long waiting
    driver.utilities.visa_timeout = 1000
    driver.utilities.query_str('MY:WRONG:QUERy?')

except StatusException as e:
    # Instrument status error
    print(e.args[0])
    print('Nothing to see here, moving on...')

except TimeoutException as e:
    # Timeout error
    print(e.args[0])
    print('That took a long time...')

except RsInstrException as e:
    # RsInstrException is a base class for all the RsCmwLteMeas exceptions
    print(e.args[0])
    print('Some other RsCmwLteMeas error...')

finally:
    driver.utilities.visa_timeout = 5000
    # Close the session in any case
    driver.close()

```

**Tip:** General rules for exception handling:

- If you are sending commands that might generate errors in the instrument, for example deleting a file which does not exist, use the **OPTION 1** - temporarily disable status checking, send the command, clear the error queue and enable the status checking again.
- If you are sending queries that might generate errors or timeouts, for example querying measurement that can not be performed at the moment, use the **OPTION 2** - try/except with optionally adjusting the timeouts.

## 2.8 Transferring Files

### Instrument -> PC

You definitely experienced it: you just did a perfect measurement, saved the results as a screenshot to an instrument's storage drive. Now you want to transfer it to your PC. With RsCmwLteMeas, no problem, just figure out where the screenshot was stored on the instrument. In our case, it is `/var/user/instr_screenshot.png`:

```
driver.utilities.read_file_from_instrument_to_pc(  
    r'/var/user/instr_screenshot.png',  
    r'c:\temp\pc_screenshot.png')
```

### PC -> Instrument

Another common scenario: Your cool test program contains a setup file you want to transfer to your instrument: Here is the RsCmwLteMeas one-liner split into 3 lines:

```
driver.utilities.send_file_from_pc_to_instrument(  
    r'c:\MyCoolTestProgram\instr_setup.sav',  
    r'/var/appdata/instr_setup.sav')
```

## 2.9 Writing Binary Data

### Writing from bytes

An example where you need to send binary data is a waveform file of a vector signal generator. First, you compose your `wform_data` as bytes, and then you send it with `write_bin_block()`:

```
# MyWaveform.wv is an instrument file name under which this data is stored  
driver.utilities.write_bin_block(  
    "SOUR:BB:ARB:WAV:DATA 'MyWaveform.wv'",  
    wform_data)
```

---

**Note:** Notice the `write_bin_block()` has two parameters:

- string parameter `cmd` for the SCPI command
  - bytes parameter `payload` for the actual binary data to send
- 

### Writing from PC files

Similar to querying binary data to a file, you can write binary data from a file. The second parameter is then the PC file path the content of which you want to send:

```
driver.utilities.write_bin_block_from_file(  
    "SOUR:BB:ARB:WAV:DATA 'MyWaveform.wv'",  
    r"c:\temp\wform_data.wv")
```

## 2.10 Transferring Big Data with Progress

We can agree that it can be annoying using an application that shows no progress for long-lasting operations. The same is true for remote-control programs. Luckily, the RsCmwLteMeas has this covered. And, this feature is quite universal - not just for big files transfer, but for any data in both directions.

RsCmwLteMeas allows you to register a function (programmers fancy name is `callback`), which is then periodically invoked after transfer of one data chunk. You can define that chunk size, which gives you control over the callback invoke frequency. You can even slow down the transfer speed, if you want to process the data as they arrive (direction instrument -> PC).

To show this in praxis, we are going to use another *University-Professor-Example*: querying the `*IDN?` with chunk size of 2 bytes and delay of 200ms between each chunk read:

```
"""
Event handlers by reading
"""

from RsCmwLteMeas import *
import time

def my_transfer_handler(args):
    """Function called each time a chunk of data is transferred"""
    # Total size is not always known at the beginning of the transfer
    total_size = args.total_size if args.total_size is not None else "unknown"

    print(f"Context: '{args.context}{'with opc' if args.opc_sync else ''}', "
          f"chunk {args.chunk_ix}, "
          f"transferred {args.transferred_size} bytes, "
          f"total size {total_size}, "
          f"direction {'reading' if args.reading else 'writing'}, "
          f"data '{args.data}'")

    if args.end_of_transfer:
        print('End of Transfer')
        time.sleep(0.2)

driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')

driver.events.on_read_handler = my_transfer_handler
# Switch on the data to be included in the event arguments
# The event arguments args.data will be updated
driver.events.io_events_include_data = True
# Set data chunk size to 2 bytes
driver.utilities.data_chunk_size = 2
driver.utilities.query_str('*IDN?')
# Unregister the event handler
driver.utilities.on_read_handler = None

# Close the session
driver.close()
```

If you start it, you might wonder (or maybe not): why is the `args.total_size = None`? The reason is, in this particular case the RsCmwLteMeas does not know the size of the complete response up-front. However, if you use the same mechanism for transfer of a known data size (for example, file transfer), you get the information about the total size too, and hence you can calculate the progress as:

```
progress [pct] = 100 * args.transferred_size / args.total_size
```

Snippet of transferring file from PC to instrument, the rest of the code is the same as in the previous example:

```
driver.events.on_write_handler = my_transfer_handler
driver.events.io_events_include_data = True
driver.data_chunk_size = 10000
driver.utilities.send_file_from_pc_to_instrument(
    r'c:\MyCoolTestProgram\my_big_file.bin',
    r'/var/user/my_big_file.bin')
# Unregister the event handler
driver.events.on_write_handler = None
```

## 2.11 Multithreading

You are at the party, many people talking over each other. Not every person can deal with such crosstalk, neither can measurement instruments. For this reason, RsCmwLteMeas has a feature of scheduling the access to your instrument by using so-called **Locks**. Locks make sure that there can be just one client at a time *talking* to your instrument. Talking in this context means completing one communication step - one command write or write/read or write/read/error check.

To describe how it works, and where it matters, we take three typical multithread scenarios:

### One instrument session, accessed from multiple threads

You are all set - the lock is a part of your instrument session. Check out the following example - it will execute properly, although the instrument gets 10 queries at the same time:

```
"""
Multiple threads are accessing one RsCmwLteMeas object
"""

import threading
from RsCmwLteMeas import *

def execute(session):
    """Executed in a separate thread."""
    session.utilities.query_str('*IDN?')

driver = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver, ))
    t.start()
    threads.append(t)
print('All threads started')
```

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```

# Wait for all threads to join this main thread
for t in threads:
    t.join()
print('All threads ended')

driver.close()

```

### Shared instrument session, accessed from multiple threads

Same as the previous case, you are all set. The session carries the lock with it. You have two objects, talking to the same instrument from multiple threads. Since the instrument session is shared, the same lock applies to both objects causing the exclusive access to the instrument.

Try the following example:

```

"""
Multiple threads are accessing two RsCmwLteMeas objects with shared session
"""

import threading
from RsCmwLteMeas import *

def execute(session: RsCmwLteMeas, session_ix, index) -> None:
    """Executed in a separate thread."""
    print(f'{index} session {session_ix} query start...')
    session.utilities.query_str('*IDN?')
    print(f'{index} session {session_ix} query end')

driver1 = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver2 = RsCmwLteMeas.from_existing_session(driver1)
driver1.utilities.visa_timeout = 200
driver2.utilities.visa_timeout = 200
# To see the effect of crosstalk, uncomment this line
# driver2.utilities.clear_lock()

threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver1, 1, i))
    t.start()
    threads.append(t)
    t = threading.Thread(target=execute, args=(driver2, 2, i))
    t.start()
    threads.append(t)
print('All threads started')

# Wait for all threads to join this main thread
for t in threads:
    t.join()

```

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```
print('All threads ended')

driver2.close()
driver1.close()
```

As you see, everything works fine. If you want to simulate some party crosstalk, uncomment the line `driver2.utilities.clear_lock()`. This causes the driver2 session lock to break away from the driver1 session lock. Although the driver1 still tries to schedule its instrument access, the driver2 tries to do the same at the same time, which leads to all the fun stuff happening.

## Multiple instrument sessions accessed from multiple threads

Here, there are two possible scenarios depending on the instrument's VISA interface:

- You are lucky, because your instrument handles each remote session completely separately. An example of such instrument is SMW200A. In this case, you have no need for session locking.
- Your instrument handles all sessions with one set of in/out buffers. You need to lock the session for the duration of a talk. And you are lucky again, because the RsCmwLteMeas takes care of it for you. The text below describes this scenario.

Run the following example:

```
"""
Multiple threads are accessing two RsCmwLteMeas objects with two separate sessions
"""

import threading
from RsCmwLteMeas import *

def execute(session: RsCmwLteMeas, session_ix, index) -> None:
    """Executed in a separate thread."""
    print(f'{index} session {session_ix} query start...')
    session.utilities.query_str('*IDN?')
    print(f'{index} session {session_ix} query end')

driver1 = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver2 = RsCmwLteMeas('TCPIP::192.168.56.101::INSTR')
driver1.utilities.visa_timeout = 200
driver2.utilities.visa_timeout = 200

# Synchronise the sessions by sharing the same lock
driver2.utilities.assign_lock(driver1.utilities.get_lock()) # To see the effect of
↳ crosstalk, comment this line

threads = []
for i in range(10):
    t = threading.Thread(target=execute, args=(driver1, 1, i))
    t.start()
    threads.append(t)
    t = threading.Thread(target=execute, args=(driver2, 2, i))
```

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```

    t.start()
    threads.append(t)
print('All threads started')

# Wait for all threads to join this main thread
for t in threads:
    t.join()
print('All threads ended')

driver2.close()
driver1.close()

```

You have two completely independent sessions that want to talk to the same instrument at the same time. This will not go well, unless they share the same session lock. The key command to achieve this is `driver2.utilities.assign_lock(driver1.utilities.get_lock())` Try to comment it and see how it goes. If despite commenting the line the example runs without issues, you are lucky to have an instrument similar to the SMW200A.

## 2.12 Logging

Yes, the logging again. This one is tailored for instrument communication. You will appreciate such handy feature when you troubleshoot your program, or just want to protocol the SCPI communication for your test reports.

What can you actually do with the logger?

- Write SCPI communication to a stream-like object, for example console or file, or both simultaneously
- Log only errors and skip problem-free parts; this way you avoid going through thousands lines of texts
- Investigate duration of certain operations to optimize your program's performance
- Log custom messages from your program

Let us take this basic example:

```

"""
Basic logging example to the console
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.1.101::INSTR')

# Switch ON logging to the console.
driver.utilities.logger.log_to_console = True
driver.utilities.logger.mode = LoggingMode.On
driver.utilities.reset()

# Close the session
driver.close()

```

Console output:

```

10:29:10.819    TCPIP::192.168.1.101::INSTR    0.976 ms  Write: *RST
10:29:10.819    TCPIP::192.168.1.101::INSTR  1884.985 ms  Status check: OK

```

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10:29:12.704	TCPIP::192.168.1.101::INSTR	0.983 ms	Query OPC: 1
10:29:12.705	TCPIP::192.168.1.101::INSTR	2.892 ms	Clear status: OK
10:29:12.708	TCPIP::192.168.1.101::INSTR	3.905 ms	Status check: OK
10:29:12.712	TCPIP::192.168.1.101::INSTR	1.952 ms	Close: Closing session

The columns of the log are aligned for better reading. Columns meaning:

- (1) Start time of the operation
- (2) Device resource name (you can set an alias)
- (3) Duration of the operation
- (4) Log entry

**Tip:** You can customize the logging format with `set_format_string()`, and set the maximum log entry length with the properties:

- `abbreviated_max_len_ascii`
- `abbreviated_max_len_bin`
- `abbreviated_max_len_list`

See the full logger help [here](#).

Notice the SCPI communication starts from the line `driver.utilities.reset()`. If you want to log the initialization of the session as well, you have to switch the logging ON already in the constructor:

```
driver = RsCmwLteMeas('TCPIP::192.168.56.101::hislip0', options='LoggingMode=On')
```

Parallel to the console logging, you can log to a general stream. Do not fear the programmer's jargon... under the term **stream** you can just imagine a file. To be a little more technical, a stream in Python is any object that has two methods: `write()` and `flush()`. This example opens a file and sets it as logging target:

```
"""
Example of logging to a file
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.1.101::INSTR')

# We also want to log to the console.
driver.utilities.logger.log_to_console = True

# Logging target is our file
file = open(r'c:\temp\my_file.txt', 'w')
driver.utilities.logger.set_logging_target(file)
driver.utilities.logger.mode = LoggingMode.On

# Instead of the 'TCPIP::192.168.1.101::INSTR', show 'MyDevice'
driver.utilities.logger.device_name = 'MyDevice'

# Custom user entry
```

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```

driver.utilities.logger.info_raw('----- This is my custom log entry. ---- ')

driver.utilities.reset()

# Close the session
driver.close()

# Close the log file
file.close()

```

**Tip:** To make the log more compact, you can skip all the lines with Status check: OK:

```
driver.utilities.logger.log_status_check_ok = False
```

**Hint:** You can share the logging file between multiple sessions. In such case, remember to close the file only after you have stopped logging in all your sessions, otherwise you get a log write error.

For logging to a UDP port in addition to other log targets, use one of the lines:

```

driver.utilities.logger.log_to_udp = True
driver.utilities.logger.log_to_console_and_udp = True

```

You can select the UDP port to log to, the default is 49200:

```
driver.utilities.logger.udp_port = 49200
```

Another cool feature is logging only errors. To make this mode usefull for troubleshooting, you also want to see the circumstances which lead to the errors. Each driver elementary operation, for example, `write_str()`, can generate a group of log entries - let us call them **Segment**. In the logging mode **Errors**, a whole segment is logged only if at least one entry of the segment is an error.

The script below demonstrates this feature. We use a direct SCPI communication to send a misspelled SCPI command **\*CLS**, which leads to instrument status error:

```

"""
Logging example to the console with only errors logged
"""

from RsCmwLteMeas import *

driver = RsCmwLteMeas('TCPIP::192.168.1.101::INSTR', options='LoggingMode=Errors')

# Switch ON logging to the console.
driver.utilities.logger.log_to_console = True

# Reset will not be logged, since no error occurred there
driver.utilities.reset()

# Now a misspelled command.
driver.utilities.write('*CLaS')

```

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```
# A good command again, no logging here
idn = driver.utilities.query('*IDN?')

# Close the session
driver.close()
```

Console output:

```
12:11:02.879 TCPIP::192.168.1.101::INSTR    0.976 ms  Write string: *CLaS
12:11:02.879 TCPIP::192.168.1.101::INSTR    6.833 ms  Status check: StatusException:
                                           Instrument error detected: Undefined header;
↪ *CLaS
```

Notice the following:

- Although the operation **Write string: \*CLaS** finished without an error, it is still logged, because it provides the context for the actual error which occurred during the status checking right after.
- No other log entries are present, including the session initialization and close, because they were all error-free.

### 3.1 Band

```
# First value:
value = enums.Band.OB1
# Last value:
value = enums.Band.OB9
# All values (63x):
OB1 | OB10 | OB11 | OB12 | OB13 | OB14 | OB15 | OB16
OB17 | OB18 | OB19 | OB2 | OB20 | OB21 | OB22 | OB23
OB24 | OB25 | OB250 | OB26 | OB27 | OB28 | OB3 | OB30
OB31 | OB33 | OB34 | OB35 | OB36 | OB37 | OB38 | OB39
OB4 | OB40 | OB41 | OB42 | OB43 | OB44 | OB45 | OB46
OB47 | OB48 | OB49 | OB5 | OB50 | OB51 | OB52 | OB53
OB6 | OB65 | OB66 | OB68 | OB7 | OB70 | OB71 | OB72
OB73 | OB74 | OB8 | OB85 | OB87 | OB88 | OB9
```

### 3.2 CarrAggrLocalOscLocation

```
# Example value:
value = enums.CarrAggrLocalOscLocation.AUTO
# All values (3x):
AUTO | CACB | CECC
```

### 3.3 CarrAggrMaping

```
# First value:
value = enums.CarrAggrMaping.INV
# Last value:
value = enums.CarrAggrMaping.SCC7
# All values (9x):
INV | PCC | SCC1 | SCC2 | SCC3 | SCC4 | SCC5 | SCC6
SCC7
```

## 3.4 CarrAggrMode

```
# Example value:  
value = enums.CarrAggrMode.ICD  
# All values (4x):  
ICD | ICE | INTRaband | OFF
```

## 3.5 ChannelBandwidth

```
# Example value:  
value = enums.ChannelBandwidth.B014  
# All values (6x):  
B014 | B030 | B050 | B100 | B150 | B200
```

## 3.6 ChannelTypeDetection

```
# Example value:  
value = enums.ChannelTypeDetection.AUTO  
# All values (3x):  
AUTO | PUCCh | PUSCh
```

## 3.7 ChannelTypeVewFilter

```
# Example value:  
value = enums.ChannelTypeVewFilter.OFF  
# All values (4x):  
OFF | ON | PUCCh | PUSCh
```

## 3.8 CmwsConnector

```
# First value:  
value = enums.CmwsConnector.R11  
# Last value:  
value = enums.CmwsConnector.RB8  
# All values (48x):  
R11 | R12 | R13 | R14 | R15 | R16 | R17 | R18  
R21 | R22 | R23 | R24 | R25 | R26 | R27 | R28  
R31 | R32 | R33 | R34 | R35 | R36 | R37 | R38  
R41 | R42 | R43 | R44 | R45 | R46 | R47 | R48  
RA1 | RA2 | RA3 | RA4 | RA5 | RA6 | RA7 | RA8  
RB1 | RB2 | RB3 | RB4 | RB5 | RB6 | RB7 | RB8
```

## 3.9 CyclicPrefix

```
# Example value:  
value = enums.CyclicPrefix.EXTended  
# All values (2x):  
EXTended | NORMal
```

## 3.10 DuplexMode

```
# Example value:  
value = enums.DuplexMode.FDD  
# All values (2x):  
FDD | TDD
```

## 3.11 FrameStructure

```
# Example value:  
value = enums.FrameStructure.T1  
# All values (2x):  
T1 | T2
```

## 3.12 LaggingExclPeriod

```
# Example value:  
value = enums.LaggingExclPeriod.MS05  
# All values (3x):  
MS05 | MS25 | OFF
```

## 3.13 LeadingExclPeriod

```
# Example value:  
value = enums.LeadngExclPeriod.MS25  
# All values (2x):  
MS25 | OFF
```

### 3.14 ListMode

```
# Example value:  
value = enums.ListMode.ONCE  
# All values (2x):  
ONCE | SEGment
```

### 3.15 LocalOscLocation

```
# Example value:  
value = enums.LocalOscLocation.CCB  
# All values (2x):  
CCB | CN
```

### 3.16 LowHigh

```
# Example value:  
value = enums.LowHigh.HIGH  
# All values (2x):  
HIGH | LOW
```

### 3.17 MeasCarrier

```
# Example value:  
value = enums.MeasCarrier.PCC  
# All values (2x):  
PCC | SCC1
```

### 3.18 MeasCarrierEnhanced

```
# Example value:  
value = enums.MeasCarrierEnhanced.CC1  
# All values (4x):  
CC1 | CC2 | CC3 | CC4
```

## 3.19 MeasFilter

```
# Example value:  
value = enums.MeasFilter.BANDpass  
# All values (2x):  
BANDpass | GAUSS
```

## 3.20 MeasurementMode

```
# Example value:  
value = enums.MeasurementMode.MELMode  
# All values (3x):  
MELMode | NORMAl | TMODe
```

## 3.21 MeasureSlot

```
# Example value:  
value = enums.MeasureSlot.ALL  
# All values (3x):  
ALL | MS0 | MS1
```

## 3.22 MevAcquisitionMode

```
# Example value:  
value = enums.MevAcquisitionMode.SLOT  
# All values (2x):  
SLOT | SUBFrame
```

## 3.23 ModScheme

```
# Example value:  
value = enums.ModScheme.AUTO  
# All values (5x):  
AUTO | Q16 | Q256 | Q64 | QPSK
```

## 3.24 Modulation

```
# Example value:
value = enums.Modulation.Q16
# All values (4x):
Q16 | Q256 | Q64 | QPSK
```

## 3.25 Nbandwidth

```
# Example value:
value = enums.Nbandwidth.M010
# All values (4x):
M010 | M020 | M040 | M080
```

## 3.26 NetworkSigValue

```
# First value:
value = enums.NetworkSigValue.NS01
# Last value:
value = enums.NetworkSigValue.NS32
# All values (32x):
NS01 | NS02 | NS03 | NS04 | NS05 | NS06 | NS07 | NS08
NS09 | NS10 | NS11 | NS12 | NS13 | NS14 | NS15 | NS16
NS17 | NS18 | NS19 | NS20 | NS21 | NS22 | NS23 | NS24
NS25 | NS26 | NS27 | NS28 | NS29 | NS30 | NS31 | NS32
```

## 3.27 NetworkSigValueNoCarrAggr

```
# First value:
value = enums.NetworkSigValueNoCarrAggr.NS01
# Last value:
value = enums.NetworkSigValueNoCarrAggr.NS99
# All values (288x):
NS01 | NS02 | NS03 | NS04 | NS05 | NS06 | NS07 | NS08
NS09 | NS10 | NS100 | NS101 | NS102 | NS103 | NS104 | NS105
NS106 | NS107 | NS108 | NS109 | NS11 | NS110 | NS111 | NS112
NS113 | NS114 | NS115 | NS116 | NS117 | NS118 | NS119 | NS12
NS120 | NS121 | NS122 | NS123 | NS124 | NS125 | NS126 | NS127
NS128 | NS129 | NS13 | NS130 | NS131 | NS132 | NS133 | NS134
NS135 | NS136 | NS137 | NS138 | NS139 | NS14 | NS140 | NS141
NS142 | NS143 | NS144 | NS145 | NS146 | NS147 | NS148 | NS149
NS15 | NS150 | NS151 | NS152 | NS153 | NS154 | NS155 | NS156
NS157 | NS158 | NS159 | NS16 | NS160 | NS161 | NS162 | NS163
NS164 | NS165 | NS166 | NS167 | NS168 | NS169 | NS17 | NS170
NS171 | NS172 | NS173 | NS174 | NS175 | NS176 | NS177 | NS178
```

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NS179	NS18	NS180	NS181	NS182	NS183	NS184	NS185
NS186	NS187	NS188	NS189	NS19	NS190	NS191	NS192
NS193	NS194	NS195	NS196	NS197	NS198	NS199	NS20
NS200	NS201	NS202	NS203	NS204	NS205	NS206	NS207
NS208	NS209	NS21	NS210	NS211	NS212	NS213	NS214
NS215	NS216	NS217	NS218	NS219	NS22	NS220	NS221
NS222	NS223	NS224	NS225	NS226	NS227	NS228	NS229
NS23	NS230	NS231	NS232	NS233	NS234	NS235	NS236
NS237	NS238	NS239	NS24	NS240	NS241	NS242	NS243
NS244	NS245	NS246	NS247	NS248	NS249	NS25	NS250
NS251	NS252	NS253	NS254	NS255	NS256	NS257	NS258
NS259	NS26	NS260	NS261	NS262	NS263	NS264	NS265
NS266	NS267	NS268	NS269	NS27	NS270	NS271	NS272
NS273	NS274	NS275	NS276	NS277	NS278	NS279	NS28
NS280	NS281	NS282	NS283	NS284	NS285	NS286	NS287
NS288	NS29	NS30	NS31	NS32	NS33	NS34	NS35
NS36	NS37	NS38	NS39	NS40	NS41	NS42	NS43
NS44	NS45	NS46	NS47	NS48	NS49	NS50	NS51
NS52	NS53	NS54	NS55	NS56	NS57	NS58	NS59
NS60	NS61	NS62	NS63	NS64	NS65	NS66	NS67
NS68	NS69	NS70	NS71	NS72	NS73	NS74	NS75
NS76	NS77	NS78	NS79	NS80	NS81	NS82	NS83
NS84	NS85	NS86	NS87	NS88	NS89	NS90	NS91
NS92	NS93	NS94	NS95	NS96	NS97	NS98	NS99

## 3.28 ParameterSetMode

```
# Example value:
value = enums.ParameterSetMode.GLOBal
# All values (2x):
GLOBal | LIST
```

## 3.29 Path

```
# Example value:
value = enums.Path.NETWork
# All values (2x):
NETWork | STANdalone
```

### 3.30 PeriodPreamble

```
# Example value:  
value = enums.PeriodPreamble.MS05  
# All values (3x):  
MS05 | MS10 | MS20
```

### 3.31 PucchFormat

```
# Example value:  
value = enums.PucchFormat.F1  
# All values (7x):  
F1 | F1A | F1B | F2 | F2A | F2B | F3
```

### 3.32 RbTableChannelType

```
# Example value:  
value = enums.RbTableChannelType.DL  
# All values (8x):  
DL | NONE | PSBCh | PSCCh | PSSCh | PUCCh | PUSCh | SSUB
```

### 3.33 Rbw

```
# Example value:  
value = enums.Rbw.K030  
# All values (3x):  
K030 | K100 | M1
```

### 3.34 RbwExtended

```
# Example value:  
value = enums.RbwExtended.K030  
# All values (6x):  
K030 | K050 | K100 | K150 | K200 | M1
```

### 3.35 Repeat

```
# Example value:
value = enums.Repeat.CONTinuous
# All values (2x):
CONTinuous | SINGleshot
```

### 3.36 ResourceState

```
# Example value:
value = enums.ResourceState.ACTive
# All values (8x):
ACTive | ADJusted | INValid | OFF | PENDIng | QUEued | RDY | RUN
```

### 3.37 ResultStatus2

```
# First value:
value = enums.ResultStatus2.DC
# Last value:
value = enums.ResultStatus2.ULEU
# All values (10x):
DC | INV | NAV | NCAP | OFF | OFL | OK | UFL
ULEL | ULEU
```

### 3.38 RetriggerFlag

```
# Example value:
value = enums.RetriggerFlag.IFPNarrow
# All values (4x):
IFPNarrow | IFPower | OFF | ON
```

### 3.39 RxConnector

```
# First value:
value = enums.RxConnector.I11I
# Last value:
value = enums.RxConnector.RH8
# All values (163x):
I11I | I13I | I15I | I17I | I21I | I23I | I25I | I27I
I31I | I33I | I35I | I37I | I41I | I43I | I45I | I47I
IFI1 | IFI2 | IFI3 | IFI4 | IFI5 | IFI6 | IQ1I | IQ3I
IQ5I | IQ7I | R10D | R11 | R11C | R11D | R12 | R12C
R12D | R12I | R13 | R13C | R14 | R14C | R14I | R15
```

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R16	R17	R18	R21	R21C	R22	R22C	R22I
R23	R23C	R24	R24C	R24I	R25	R26	R27
R28	R31	R31C	R32	R32C	R32I	R33	R33C
R34	R34C	R34I	R35	R36	R37	R38	R41
R41C	R42	R42C	R42I	R43	R43C	R44	R44C
R44I	R45	R46	R47	R48	RA1	RA2	RA3
RA4	RA5	RA6	RA7	RA8	RB1	RB2	RB3
RB4	RB5	RB6	RB7	RB8	RC1	RC2	RC3
RC4	RC5	RC6	RC7	RC8	RD1	RD2	RD3
RD4	RD5	RD6	RD7	RD8	RE1	RE2	RE3
RE4	RE5	RE6	RE7	RE8	RF1	RF1C	RF2
RF2C	RF2I	RF3	RF3C	RF4	RF4C	RF4I	RF5
RF5C	RF6	RF6C	RF7	RF7C	RF8	RF8C	RF9C
RFAC	RFBC	RFBI	RG1	RG2	RG3	RG4	RG5
RG6	RG7	RG8	RH1	RH2	RH3	RH4	RH5
RH6	RH7	RH8					

## 3.40 RxConverter

```
# First value:
value = enums.RxConverter.IRX1
# Last value:
value = enums.RxConverter.RX44
# All values (40x):
IRX1 | IRX11 | IRX12 | IRX13 | IRX14 | IRX2 | IRX21 | IRX22
IRX23 | IRX24 | IRX3 | IRX31 | IRX32 | IRX33 | IRX34 | IRX4
IRX41 | IRX42 | IRX43 | IRX44 | RX1 | RX11 | RX12 | RX13
RX14 | RX2 | RX21 | RX22 | RX23 | RX24 | RX3 | RX31
RX32 | RX33 | RX34 | RX4 | RX41 | RX42 | RX43 | RX44
```

## 3.41 Scenario

```
# Example value:
value = enums.Scenario.CSPath
# All values (4x):
CSPath | MAPRotocol | NAV | SALone
```

## 3.42 SegmentChannelTypeExtended

```
# Example value:
value = enums.SegmentChannelTypeExtended.AUTO
# All values (6x):
AUTO | PSBCh | PSCCh | PSSCh | PUCCh | PUSCh
```

### 3.43 Sharing

```
# Example value:  
value = enums.Sharing.FSHared  
# All values (3x):  
FSHared | NSHared | OCONnection
```

### 3.44 SidelinkChannelType

```
# Example value:  
value = enums.SidelinkChannelType.PSBCh  
# All values (3x):  
PSBCh | PSCCh | PSSCh
```

### 3.45 SignalSlope

```
# Example value:  
value = enums.SignalSlope.FEDGE  
# All values (2x):  
FEDGE | REDGE
```

### 3.46 SignalType

```
# Example value:  
value = enums.SignalType.SL  
# All values (2x):  
SL | UL
```

### 3.47 StopCondition

```
# Example value:  
value = enums.StopCondition.NONE  
# All values (2x):  
NONE | SLFail
```

## 3.48 SyncMode

```
# Example value:  
value = enums.SyncMode.ENHanced  
# All values (2x):  
ENHanced | NORMal
```

## 3.49 TargetMainState

```
# Example value:  
value = enums.TargetMainState.OFF  
# All values (3x):  
OFF | RDY | RUN
```

## 3.50 TargetSyncState

```
# Example value:  
value = enums.TargetSyncState.ADJusted  
# All values (2x):  
ADJusted | PENDing
```

## 3.51 TimeMask

```
# Example value:  
value = enums.TimeMask.GOO  
# All values (3x):  
GOO | PPSRs | SBLanking
```

## 3.52 TraceSelect

```
# Example value:  
value = enums.TraceSelect.AVERage  
# All values (3x):  
AVERage | CURRent | MAXimum
```

### 3.53 UplinkChannelType

```
# Example value:  
value = enums.UplinkChannelType.PUCCh  
# All values (2x):  
PUCCh | PUSCh
```





## REPCAPS

## 4.1 Instance (Global)

```
# Setting:
driver.repcap_instance_set(repcap.Instance.Inst1)
# Range:
Inst1 .. Inst16
# All values (16x):
Inst1 | Inst2 | Inst3 | Inst4 | Inst5 | Inst6 | Inst7 | Inst8
Inst9 | Inst10 | Inst11 | Inst12 | Inst13 | Inst14 | Inst15 | Inst16
```

## 4.2 AbsMarker

```
# First value:
value = repcap.AbsMarker.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.3 Area

```
# First value:
value = repcap.Area.Nr1
# Range:
Nr1 .. Nr12
# All values (12x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12
```

## 4.4 CarrierComponent

```
# First value:  
value = repcap.CarrierComponent.Nr1  
# Values (4x):  
Nr1 | Nr2 | Nr3 | Nr4
```

## 4.5 ChannelBw

```
# First value:  
value = repcap.ChannelBw.Bw14  
# Range:  
Bw14 .. Bw200  
# All values (6x):  
Bw14 | Bw30 | Bw50 | Bw100 | Bw150 | Bw200
```

## 4.6 DeltaMarker

```
# First value:  
value = repcap.DeltaMarker.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.7 Difference

```
# First value:  
value = repcap.Difference.Nr1  
# Values (2x):  
Nr1 | Nr2
```

## 4.8 EutraBand

```
# First value:  
value = repcap.EutraBand.Nr30  
# Values (2x):  
Nr30 | Nr50
```

## 4.9 FirstChannelBw

```
# First value:
value = repcap.FirstChannelBw.Bw100
# Values (3x):
Bw100 | Bw150 | Bw200
```

## 4.10 Limit

```
# First value:
value = repcap.Limit.Nr1
# Range:
Nr1 .. Nr12
# All values (12x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12
```

## 4.11 MaxRange

```
# First value:
value = repcap.MaxRange.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.12 MinRange

```
# First value:
value = repcap.MinRange.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.13 Preamble

```
# First value:
value = repcap.Preamble.Nr1
# Range:
Nr1 .. Nr400
# All values (400x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
Nr33 | Nr34 | Nr35 | Nr36 | Nr37 | Nr38 | Nr39 | Nr40
```

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Nr41	Nr42	Nr43	Nr44	Nr45	Nr46	Nr47	Nr48
Nr49	Nr50	Nr51	Nr52	Nr53	Nr54	Nr55	Nr56
Nr57	Nr58	Nr59	Nr60	Nr61	Nr62	Nr63	Nr64
Nr65	Nr66	Nr67	Nr68	Nr69	Nr70	Nr71	Nr72
Nr73	Nr74	Nr75	Nr76	Nr77	Nr78	Nr79	Nr80
Nr81	Nr82	Nr83	Nr84	Nr85	Nr86	Nr87	Nr88
Nr89	Nr90	Nr91	Nr92	Nr93	Nr94	Nr95	Nr96
Nr97	Nr98	Nr99	Nr100	Nr101	Nr102	Nr103	Nr104
Nr105	Nr106	Nr107	Nr108	Nr109	Nr110	Nr111	Nr112
Nr113	Nr114	Nr115	Nr116	Nr117	Nr118	Nr119	Nr120
Nr121	Nr122	Nr123	Nr124	Nr125	Nr126	Nr127	Nr128
Nr129	Nr130	Nr131	Nr132	Nr133	Nr134	Nr135	Nr136
Nr137	Nr138	Nr139	Nr140	Nr141	Nr142	Nr143	Nr144
Nr145	Nr146	Nr147	Nr148	Nr149	Nr150	Nr151	Nr152
Nr153	Nr154	Nr155	Nr156	Nr157	Nr158	Nr159	Nr160
Nr161	Nr162	Nr163	Nr164	Nr165	Nr166	Nr167	Nr168
Nr169	Nr170	Nr171	Nr172	Nr173	Nr174	Nr175	Nr176
Nr177	Nr178	Nr179	Nr180	Nr181	Nr182	Nr183	Nr184
Nr185	Nr186	Nr187	Nr188	Nr189	Nr190	Nr191	Nr192
Nr193	Nr194	Nr195	Nr196	Nr197	Nr198	Nr199	Nr200
Nr201	Nr202	Nr203	Nr204	Nr205	Nr206	Nr207	Nr208
Nr209	Nr210	Nr211	Nr212	Nr213	Nr214	Nr215	Nr216
Nr217	Nr218	Nr219	Nr220	Nr221	Nr222	Nr223	Nr224
Nr225	Nr226	Nr227	Nr228	Nr229	Nr230	Nr231	Nr232
Nr233	Nr234	Nr235	Nr236	Nr237	Nr238	Nr239	Nr240
Nr241	Nr242	Nr243	Nr244	Nr245	Nr246	Nr247	Nr248
Nr249	Nr250	Nr251	Nr252	Nr253	Nr254	Nr255	Nr256
Nr257	Nr258	Nr259	Nr260	Nr261	Nr262	Nr263	Nr264
Nr265	Nr266	Nr267	Nr268	Nr269	Nr270	Nr271	Nr272
Nr273	Nr274	Nr275	Nr276	Nr277	Nr278	Nr279	Nr280
Nr281	Nr282	Nr283	Nr284	Nr285	Nr286	Nr287	Nr288
Nr289	Nr290	Nr291	Nr292	Nr293	Nr294	Nr295	Nr296
Nr297	Nr298	Nr299	Nr300	Nr301	Nr302	Nr303	Nr304
Nr305	Nr306	Nr307	Nr308	Nr309	Nr310	Nr311	Nr312
Nr313	Nr314	Nr315	Nr316	Nr317	Nr318	Nr319	Nr320
Nr321	Nr322	Nr323	Nr324	Nr325	Nr326	Nr327	Nr328
Nr329	Nr330	Nr331	Nr332	Nr333	Nr334	Nr335	Nr336
Nr337	Nr338	Nr339	Nr340	Nr341	Nr342	Nr343	Nr344
Nr345	Nr346	Nr347	Nr348	Nr349	Nr350	Nr351	Nr352
Nr353	Nr354	Nr355	Nr356	Nr357	Nr358	Nr359	Nr360
Nr361	Nr362	Nr363	Nr364	Nr365	Nr366	Nr367	Nr368
Nr369	Nr370	Nr371	Nr372	Nr373	Nr374	Nr375	Nr376
Nr377	Nr378	Nr379	Nr380	Nr381	Nr382	Nr383	Nr384
Nr385	Nr386	Nr387	Nr388	Nr389	Nr390	Nr391	Nr392
Nr393	Nr394	Nr395	Nr396	Nr397	Nr398	Nr399	Nr400

## 4.14 PreambleFormat

```
# First value:
value = repcap.PreambleFormat.Fmt1
# Range:
Fmt1 .. Fmt5
# All values (5x):
Fmt1 | Fmt2 | Fmt3 | Fmt4 | Fmt5
```

## 4.15 QAMmodOrder

```
# First value:
value = repcap.QAMmodOrder.Qam16
# Values (3x):
Qam16 | Qam64 | Qam256
```

## 4.16 RBcount

```
# First value:
value = repcap.RBcount.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.17 RBoffset

```
# First value:
value = repcap.RBoffset.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.18 RBWkHz

```
# First value:
value = repcap.RBWkHz.Rbw30
# Range:
Rbw30 .. Rbw1000
# All values (6x):
Rbw30 | Rbw50 | Rbw100 | Rbw150 | Rbw200 | Rbw1000
```

## 4.19 Ripple

```
# First value:
value = repcap.Ripple.Nr1
# Values (2x):
Nr1 | Nr2
```

## 4.20 SecondaryCC

```
# First value:
value = repcap.SecondaryCC.CC1
# Range:
CC1 .. CC7
# All values (7x):
CC1 | CC2 | CC3 | CC4 | CC5 | CC6 | CC7
```

## 4.21 SecondChannelBw

```
# First value:
value = repcap.SecondChannelBw.Bw50
# Values (4x):
Bw50 | Bw100 | Bw150 | Bw200
```

## 4.22 Segment

```
# First value:
value = repcap.Segment.Nr1
# Range:
Nr1 .. Nr128
# All values (128x):
Nr1 | Nr2 | Nr3 | Nr4 | Nr5 | Nr6 | Nr7 | Nr8
Nr9 | Nr10 | Nr11 | Nr12 | Nr13 | Nr14 | Nr15 | Nr16
Nr17 | Nr18 | Nr19 | Nr20 | Nr21 | Nr22 | Nr23 | Nr24
Nr25 | Nr26 | Nr27 | Nr28 | Nr29 | Nr30 | Nr31 | Nr32
Nr33 | Nr34 | Nr35 | Nr36 | Nr37 | Nr38 | Nr39 | Nr40
Nr41 | Nr42 | Nr43 | Nr44 | Nr45 | Nr46 | Nr47 | Nr48
Nr49 | Nr50 | Nr51 | Nr52 | Nr53 | Nr54 | Nr55 | Nr56
Nr57 | Nr58 | Nr59 | Nr60 | Nr61 | Nr62 | Nr63 | Nr64
Nr65 | Nr66 | Nr67 | Nr68 | Nr69 | Nr70 | Nr71 | Nr72
Nr73 | Nr74 | Nr75 | Nr76 | Nr77 | Nr78 | Nr79 | Nr80
Nr81 | Nr82 | Nr83 | Nr84 | Nr85 | Nr86 | Nr87 | Nr88
Nr89 | Nr90 | Nr91 | Nr92 | Nr93 | Nr94 | Nr95 | Nr96
Nr97 | Nr98 | Nr99 | Nr100 | Nr101 | Nr102 | Nr103 | Nr104
Nr105 | Nr106 | Nr107 | Nr108 | Nr109 | Nr110 | Nr111 | Nr112
Nr113 | Nr114 | Nr115 | Nr116 | Nr117 | Nr118 | Nr119 | Nr120
Nr121 | Nr122 | Nr123 | Nr124 | Nr125 | Nr126 | Nr127 | Nr128
```

## 4.23 Table

```
# First value:  
value = repcap.Table.Nr1  
# Range:  
Nr1 .. Nr5  
# All values (5x):  
Nr1 | Nr2 | Nr3 | Nr4 | Nr5
```

## 4.24 ThirdChannelBw

```
# First value:  
value = repcap.ThirdChannelBw.Bw100  
# Values (3x):  
Bw100 | Bw150 | Bw200
```

## 4.25 UltraAdjChannel

```
# First value:  
value = repcap.UltraAdjChannel.Ch1  
# Values (2x):  
Ch1 | Ch2
```





## EXAMPLES

For more examples, visit our [Rohde & Schwarz Github repository](#).

```

""" Example on how to use the python RsCmw auto-generated instrument driver showing:
- usage of basic properties of the cmw_base object
- basic concept of setting commands and repcaps: DISPLAY:WINDow<n>:SElect
- cmw_xxx drivers reliability interface usage
"""

from RsCmwBase import * # install from pypi.org

RsCmwBase.assert_minimum_version('3.7.90.38')
cmw_base = RsCmwBase('TCPIP::10.112.1.116::INSTR', True, False)
print(f'CMW Base IND: {cmw_base.utilities.idn_string}')
print(f'CMW Instrument options:\n{" ".join(cmw_base.utilities.instrument_options)}')
cmw_base.utilities.visa_timeout = 5000

# Sends OPC after each command
cmw_base.utilities.opc_query_after_write = False

# Checks for syst:err? after each command / query
cmw_base.utilities.instrument_status_checking = True

# DISPLAY:WINDow<n>:SElect
cmw_base.display.window.select.set(repcap.Window.Win1)
cmw_base.display.window.repcap_window_set(repcap.Window.Win2)
cmw_base.display.window.select.set()

# Self-test
self_test = cmw_base.utilities.self_test()
print(f'CMW self-test result: {self_test} - {"Passed" if self_test[0] == 0 else "Failed"}')
↪ ''')

# Driver's Interface reliability offers a convenient way of reacting on the return value.
↪ Reliability Indicator
cmw_base.reliability.ExceptionOnError = True

# Callback to use for the reliability indicator update event
def my_reliability_handler(event_args: ReliabilityEventArgs):
    print(f'Base Reliability updated.\nContext: {event_args.context}\nMessage:

```

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```
↪ {event_args.message}')

# We register a callback for each change in the reliability indicator
cmw_base.reliability.on_update_handler = my_reliability_handler

# You can obtain the last value of the returned reliability
print(f"\nReliability last value: {cmw_base.reliability.last_value}, context '{cmw_base.
↪ reliability.last_context}', message: {cmw_base.reliability.last_message}")

# Reference Frequency Source
cmw_base.system.reference.frequency.set_source(enums.SourceIntExt.INTERNAL)

# Close the session
cmw_base.close()
```

## RSCMWLTEMEAS API STRUCTURE

### Global RepCaps

```
driver = RsCmwLteMeas('TCPIP::192.168.2.101::hislip0')
# Instance range: Inst1 .. Inst16
rc = driver.repcap_instance_get()
driver.repcap_instance_set(repcap.Instance.Inst1)
```

**class RsCmwLteMeas**(resource\_name: str, id\_query: bool = True, reset: bool = False, options: str = None, direct\_session: object = None)

890 total commands, 7 Subgroups, 0 group commands

Initializes new RsCmwLteMeas session.

#### Parameter options tokens examples:

- Simulate=True - starts the session in simulation mode. Default: False
- SelectVisa=socket - uses no VISA implementation for socket connections - you do not need any VISA-C installation
- SelectVisa=rs - forces usage of RohdeSchwarz Visa
- SelectVisa=ivi - forces usage of National Instruments Visa
- QueryInstrumentStatus = False - same as driver.utilities.instrument\_status\_checking = False. Default: True
- WriteDelay = 20, ReadDelay = 5 - Introduces delay of 20ms before each write and 5ms before each read. Default: 0ms for both
- OpcWaitMode = OpcQuery - mode for all the opc-synchronised write/reads. Other modes: StbPolling, StbPollingSlow, StbPollingSuperSlow. Default: StbPolling
- AddTermCharToWriteBinBlock = True - Adds one additional LF to the end of the binary data (some instruments require that). Default: False
- AssureWriteWithTermChar = True - Makes sure each command/query is terminated with termination character. Default: Interface dependent
- TerminationCharacter = "\r" - Sets the termination character for reading. Default: \n (LineFeed or LF)
- DataChunkSize = 10E3 - Maximum size of one write/read segment. If transferred data is bigger, it is split to more segments. Default: 1E6 bytes
- OpcTimeout = 10000 - same as driver.utilities.opc\_timeout = 10000. Default: 30000ms
- VisaTimeout = 5000 - same as driver.utilities.visa\_timeout = 5000. Default: 10000ms

- `ViClearExeMode` = Disabled - `viClear()` execution mode. Default: `execute_on_all`
- `OpcQueryAfterWrite` = True - same as `driver.utilities.opc_query_after_write` = True. Default: False
- `StbInErrorCheck` = False - if true, the driver checks errors with `*STB?` If false, it uses `SYST:ERR?`. Default: True
- `ScpiQuotes` = double'. - for SCPI commands, you can define how strings are quoted. With single or double quotes. Possible values: `single` | `double` | `{char}`. Default: ```single`
- `LoggingMode` = On - Sets the logging status right from the start. Default: Off
- `LoggingName` = 'MyDevice' - Sets the name to represent the session in the log entries. Default: 'resource\_name'
- `LogToGlobalTarget` = True - Sets the logging target to the class-property previously set with `RsCmwLteMeas.set_global_logging_target()` Default: False
- `LoggingToConsole` = True - Immediately starts logging to the console. Default: False
- `LoggingToUdp` = True - Immediately starts logging to the UDP port. Default: False
- `LoggingUdpPort` = 49200 - UDP port to log to. Default: 49200

#### Parameters

- **resource\_name** – VISA resource name, e.g. 'TCPIP::192.168.2.1::INSTR'
- **id\_query** – if True, the instrument's model name is verified against the models supported by the driver and eventually throws an exception.
- **reset** – Resets the instrument (sends `*RST` command) and clears its status subsystem.
- **options** – string tokens alternating the driver settings.
- **direct\_session** – Another driver object or pyVisa object to reuse the session instead of opening a new session.

**static** `assert_minimum_version(min_version: str) → None`

Asserts that the driver version fulfills the minimum required version you have entered. This way you make sure your installed driver is of the entered version or newer.

**classmethod** `clear_global_logging_relative_timestamp() → None`

Clears the global relative timestamp. After this, all the instances using the global relative timestamp continue logging with the absolute timestamps.

**close()** → None

Closes the active `RsCmwLteMeas` session.

**classmethod** `from_existing_session(session: object, options: str = None) → RsCmwLteMeas`

Creates a new `RsCmwLteMeas` object with the entered 'session' reused.

#### Parameters

- **session** – can be another driver or a direct pyvisa session.
- **options** – string tokens alternating the driver settings.

**classmethod** `get_global_logging_relative_timestamp() → datetime`

Returns global common relative timestamp for log entries.

**classmethod** `get_global_logging_target()`

Returns global common target stream.

**get\_session\_handle()** → object

Returns the underlying session handle.

**get\_total\_execution\_time()** → timedelta

Returns total time spent by the library on communicating with the instrument. This time is always shorter than `get_total_time()`, since it does not include gaps between the communication. You can reset this counter with `reset_time_statistics()`.

**get\_total\_time()** → timedelta

Returns total time spent by the library on communicating with the instrument. This time is always shorter than `get_total_time()`, since it does not include gaps between the communication. You can reset this counter with `reset_time_statistics()`.

**static** `list_resources(expression: str = '?*::INSTR', visa_select: str = None)` → List[str]

**Finds all the resources defined by the expression**

- `'*'` - matches all the available instruments
- `'USB::*'` - matches all the USB instruments
- `'TCPIP::192*'` - matches all the LAN instruments with the IP address starting with 192

**Parameters**

- **expression** – see the examples in the function
- **visa\_select** – optional parameter selecting a specific VISA. Examples: `'@ivi'`, `'@rs'`

**reset\_time\_statistics()** → None

Resets all execution and total time counters. Affects the results of `get_total_time()` and `get_total_execution_time()`

**restore\_all\_repcaps\_to\_default()** → None

Sets all the Group and Global repcaps to their initial values

**classmethod** `set_global_logging_relative_timestamp(timestamp: datetime)` → None

Sets global common relative timestamp for log entries. To use it, call the following:  
`io.utilities.logger.set_relative_timestamp_global()`

**classmethod** `set_global_logging_relative_timestamp_now()` → None

Sets global common relative timestamp for log entries to this moment. To use it, call the following:  
`io.utilities.logger.set_relative_timestamp_global()`.

**classmethod** `set_global_logging_target(target)` → None

Sets global common target stream that each instance can use. To use it, call the following:  
`io.utilities.logger.set_logging_target_global()`. If an instance uses global logging target, it automatically uses the global relative timestamp (if set). You can set the target to None to invalidate it.

## Subgroups

### 6.1 Configure

#### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:BAND
CONFigure:LTE:MEASurement<Instance>:SPATH
CONFigure:LTE:MEASurement<Instance>:STYPe
CONFigure:LTE:MEASurement<Instance>:DMODE
CONFigure:LTE:MEASurement<Instance>:FSTRucture
```

#### class ConfigureCls

Configure commands group definition. 209 total commands, 9 Subgroups, 5 group commands

**get\_band()** → Band

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:BAND
value: enums.Band = driver.configure.get_band()
```

#### Selects the operating band (OB) .

INTRO\_CMD\_HELP: The allowed input range has dependencies:

- FDD UL: OB1 | ... | OB28 | OB30 | OB31 | OB65 | OB66 | OB68 | OB70 | ... | OB74 | OB85 | OB87 | OB88
- TDD UL: OB33 | ... | OB45 | OB48 | OB50 | ... | OB53 | OB250
- Sidelink: OB47

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>[:PCC]:BAND
- CONFigure:LTE:SIGN<i>:SCC<c>:BAND

#### return

band: OB1 to OB250, see list above

**get\_dmode()** → DuplexMode

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:DMODE
value: enums.DuplexMode = driver.configure.get_dmode()
```

#### Selects the duplex mode of the LTE signal: FDD or TDD.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>[:PCC]:DMODE
- CONFigure:LTE:SIGN<i>:SCC<c>:DMODE
- CONFigure:LTE:SIGN<i>[:PCC]:DMODE:UCSPecific

#### return

mode: FDD | TDD

**get\_fstructure()** → FrameStructure

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:FSTRucture
value: enums.FrameStructure = driver.configure.get_fstructure()
```

Queries the frame structure type of the LTE signal. The value depends on the duplex mode (method RsCmwLteMeas.Configure.dmode).

**return**  
frame\_structure: T1 | T2 T1: Type 1, FDD signal T2: Type 2, TDD signal

**get\_spath()** → Path

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SPATH
value: enums.Path = driver.configure.get_spath()
```

No command help available

**return**  
path: No help available

**get\_stype()** → SignalType

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:STYPE
value: enums.SignalType = driver.configure.get_stype()
```

Selects the type of the measured signal.

**return**  
signal\_type: UL | SL UL: LTE uplink signal with PUSCH or PUCCH SL: V2X sidelink signal with PSSCH and PSCCH

**set\_band(band: Band)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:BAND
driver.configure.set_band(band = enums.Band.OB1)
```

**Selects the operating band (OB) .**

INTRO\_CMD\_HELP: The allowed input range has dependencies:

- FDD UL: OB1 | ... | OB28 | OB30 | OB31 | OB65 | OB66 | OB68 | OB70 | ... | OB74 | OB85 | OB87 | OB88
- TDD UL: OB33 | ... | OB45 | OB48 | OB50 | ... | OB53 | OB250
- Sidelink: OB47

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>[:PCC]:BAND
- CONFIGure:LTE:SIGN<i>:SCC<c>:BAND

**param band**  
OB1 to OB250, see list above

**set\_dmode(mode: DuplexMode)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:DMODE
driver.configure.set_dmode(mode = enums.DuplexMode.FDD)
```

Selects the duplex mode of the LTE signal: FDD or TDD.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>[:PCC]:DMODE
- CONFIGure:LTE:SIGN<i>:SCC<c>:DMODE
- CONFIGure:LTE:SIGN<i>[:PCC]:DMODE:UCSPecific

**param mode**

FDD | TDD

**set\_spath**(path: Path) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SPATH
driver.configure.set_spath(path = enums.Path.NETWork)
```

No command help available

**param path**

No help available

**set\_stype**(signal\_type: SignalType) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:STYPe
driver.configure.set_stype(signal_type = enums.SignalType.SL)
```

Selects the type of the measured signal.

**param signal\_type**

UL | SL UL: LTE uplink signal with PUSCH or PUCCH SL: V2X sidelink signal with PSSCH and PSCCH

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.clone()
```

## Subgroups

### 6.1.1 CarrierAggregation

**class CarrierAggregationCls**

CarrierAggregation commands group definition. 11 total commands, 6 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.carrierAggregation.clone()
```

## Subgroups

### 6.1.1.1 ChannelBw

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:CAGGregation:CBANdwidth:AGGRegated
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_aggregated()** → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation:CBANdwidth:AGGRegated
value: float = driver.configure.carrierAggregation.channelBw.get_aggregated()
```

Queries the width of the aggregated channel bandwidth.

```
return
    ch_bandwidth: float Unit: Hz
```

### 6.1.1.2 Frequency

#### class FrequencyCls

Frequency commands group definition. 3 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.carrierAggregation.frequency.clone()
```

## Subgroups

### 6.1.1.2.1 Aggregated

#### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:CAGGregation:FREquency:AGGRegated:LOW
CONFigure:LTE:MEASurement<Instance>:CAGGregation:FREquency:AGGRegated:CENTer
CONFigure:LTE:MEASurement<Instance>:CAGGregation:FREquency:AGGRegated:HIGH
```

#### class AggregatedCls

Aggregated commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_center()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:CAGGregation:FREQuency:AGGRegated:CENter
value: float = driver.configure.carrierAggregation.frequency.aggregated.get_
↪center()
```

Queries the center frequency of the aggregated bandwidth.

```
return
    frequency_center: float Unit: Hz
```

**get\_high()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:CAGGregation:FREQuency:AGGRegated:HIGH
value: float = driver.configure.carrierAggregation.frequency.aggregated.get_
↪high()
```

Queries the upper edge of the aggregated bandwidth.

```
return
    frequency_high: float Unit: Hz
```

**get\_low()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:CAGGregation:FREQuency:AGGRegated:LOW
value: float = driver.configure.carrierAggregation.frequency.aggregated.get_
↪low()
```

Queries the lower edge of the aggregated bandwidth.

```
return
    frequency_low: float Unit: Hz
```

### 6.1.1.3 Mapping

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MAPing:PCC
CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MAPing
```

#### class MappingCls

Mapping commands group definition. 3 total commands, 1 Subgroups, 2 group commands

#### class ValueStruct

Structure for reading output parameters. Fields:

- Cc\_1: enums.CarrAggrMapping: INV | PCC | SCC1 | SCC2 | SCC3 | SCC4 | SCC5 | SCC6 | SCC7  
Carrier mapped to CC1
- Cc\_2: enums.CarrAggrMapping: INV | PCC | SCC1 | SCC2 | SCC3 | SCC4 | SCC5 | SCC6 | SCC7  
Carrier mapped to CC2
- Cc\_3: enums.CarrAggrMapping: INV | PCC | SCC1 | SCC2 | SCC3 | SCC4 | SCC5 | SCC6 | SCC7  
Carrier mapped to CC3

- Cc\_4: enums.CarrAggrMapping: INV | PCC | SCC1 | SCC2 | SCC3 | SCC4 | SCC5 | SCC6 | SCC7  
Carrier mapped to CC4

**get\_pcc()** → str

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation:MAPing:PCC
value: str = driver.configure.carrierAggregation.mapping.get_pcc()
```

This command is only relevant for combined signal path measurements with contiguous uplink CA. It queries to which CC the PCC is mapped. The measurement identifies the aggregated carriers as CC1 to CC4. The signaling application uses PCC and SCC<n>.

**return**

cc: string Examples: 'CC1', 'CC2', 'INV' 'INV' means that the PCC is not contained in the measured set of aggregated uplink carriers.

**get\_value()** → ValueStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation:MAPing
value: ValueStruct = driver.configure.carrierAggregation.mapping.get_value()
```

This command is only relevant for combined signal path measurements with contiguous uplink CA. It queries which carriers are mapped to CC1 to CC4. The measurement identifies the aggregated carriers as CC1 to CC4. The signaling application uses PCC and SCC<n>. A returned INV means that no carrier is mapped to the CC.

**return**

structure: for return value, see the help for ValueStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.carrierAggregation.mapping.clone()
```

## Subgroups

### 6.1.1.3.1 Scc<SecondaryCC>

## RepCap Settings

```
# Range: CC1 .. CC7
rc = driver.configure.carrierAggregation.mapping.scc.repcap_secondaryCC_get()
driver.configure.carrierAggregation.mapping.scc.repcap_secondaryCC_set(repcap.SecondaryCC.
→CC1)
```

**SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:CAGGregation:MAPing:SCC<Carrier>
```

**class SccCls**

Scc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: SecondaryCC, default value after init: SecondaryCC.CC1

**get**(secondaryCC=SecondaryCC.Default) → str

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation:MAPing:SCC<Carrier>
value: str = driver.configure.carrierAggregation.mapping.scc.get(secondaryCC = ↵
↵repcap.SecondaryCC.Default)
```

This command is only relevant for combined signal path measurements with contiguous uplink CA. It queries to which CC the SCC<n> is mapped. The measurement identifies the aggregated carriers as CC1 to CC4. The signaling application uses PCC and SCC<n>.

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface 'Scc')

**return**

cc: string Examples: 'CC1', 'CC2', 'INV' 'INV' means that the SCCn is not contained in the measured set of aggregated uplink carriers.

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.carrierAggregation.mapping.scc.clone()
```

**6.1.1.4 Mcarrier****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:CAGGregation:MCARrier:ENHanced
```

**class McarrierCls**

Mcarrier commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_enhanced**() → MeasCarrierEnhanced

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation:MCARrier:ENHanced
value: enums.MeasCarrierEnhanced = driver.configure.carrierAggregation.mcarrier.
↵get_enhanced()
```

Selects a component carrier for single-carrier measurements.

**return**

meas\_carrier: CC1 | CC2 | CC3 | CC4

**set\_enhanced**(*meas\_carrier: MeasCarrierEnhanced*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MCARrier:ENHanced
driver.configure.carrierAggregation.mcarrier.set_enhanced(meas_carrier = enums.
↳ MeasCarrierEnhanced.CC1)
```

Selects a component carrier for single-carrier measurements.

**param meas\_carrier**  
CC1 | CC2 | CC3 | CC4

### 6.1.1.5 Mode

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MODE:CSPath
CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MODE
```

#### class ModeCls

Mode commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_combined\_signal\_path**() → CarrAggrMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MODE:CSPath
value: enums.CarrAggrMode = driver.configure.carrierAggregation.mode.get_
↳ combined_signal_path()
```

Queries the carrier aggregation mode in the CSP scenario. The mode is configured indirectly via method RsCmwLteMeas.Route.Scenario.CombinedSignalPath.set.

**return**  
ca\_mode: OFF | INTRaband | ICD | ICE OFF: no carrier aggregation INTRaband:  
intra-band contiguous CA (BW class B & C) ICD: intra-band contiguous CA (BW  
class D) ICE: intra-band contiguous CA (BW class E)

**get\_value**() → CarrAggrMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MODE
value: enums.CarrAggrMode = driver.configure.carrierAggregation.mode.get_value()
```

Selects how many component carriers with intra-band contiguous aggregation are measured. For the combined signal path scenario, use method RsCmwLteMeas.Route.Scenario.CombinedSignalPath.set.

**return**  
ca\_mode: OFF | INTRaband | ICD | ICE OFF: only one carrier is measured INTRa-  
band: two carriers (BW class B & C) ICD: three carriers (BW class D) ICE: four  
carriers (BW class E)

**set\_value**(*ca\_mode: CarrAggrMode*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:CAGGregation:MODE
driver.configure.carrierAggregation.mode.set_value(ca_mode = enums.CarrAggrMode.
↳ ICD)
```

Selects how many component carriers with intra-band contiguous aggregation are measured. For the combined signal path scenario, use method RsCmwLteMeas.Route.Scenario.CombinedSignalPath.set.

**param ca\_mode**

OFF | INTRaband | ICD | ICE OFF: only one carrier is measured INTRaband: two carriers (BW class B & C) ICD: three carriers (BW class D) ICE: four carriers (BW class E)

**6.1.1.6 Scc<SecondaryCC>****RepCap Settings**

```
# Range: CC1 .. CC7
rc = driver.configure.carrierAggregation.scc.repcap_secondaryCC_get()
driver.configure.carrierAggregation.scc.repcap_secondaryCC_set(repcap.SecondaryCC.CC1)
```

**class SccCls**

Scc commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: SecondaryCC, default value after init: SecondaryCC.CC1

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.carrierAggregation.scc.clone()
```

**Subgroups****6.1.1.6.1 AcSpacing****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:CAGGregation[:SCC<Nr>]:ACSPacing
```

**class AcSpacingCls**

AcSpacing commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**(secondaryCC=SecondaryCC.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CAGGregation[:SCC<Nr>]:ACSPacing
driver.configure.carrierAggregation.scc.acSpacing.set(secondaryCC = repcap.
↳SecondaryCC.Default)
```

Adjusts the component carrier frequencies, so that the carriers are aggregated contiguously. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>:CAGGregation:SET.

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface 'Scc')

**set\_with\_opc**(secondaryCC=SecondaryCC.Default, opc\_timeout\_ms: int = -1) → None

## 6.1.2 Cc<CarrierComponent>

### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.configure.cc.repcap_carrierComponent_get()
driver.configure.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

#### class CcCls

Cc commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.cc.clone()
```

### Subgroups

#### 6.1.2.1 ChannelBw

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:CC<Nr>:CBANDwidth
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → ChannelBandwidth

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CC<Nr>:CBANDwidth
value: enums.ChannelBandwidth = driver.configure.cc.channelBw.
get(carrierComponent = repcap.CarrierComponent.Default)
```

**Selects the channel bandwidth of component carrier CC<no>. Without carrier aggregation, you can omit <no>.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:CELL:BANDwidth[:PCC]:DL
- CONFigure:LTE:SIGN<i>:CELL:BANDwidth:SCC<c>:DL

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

channel\_bw: B014 | B030 | B050 | B100 | B150 | B200 B014: 1.4 MHz B030: 3 MHz  
B050: 5 MHz B100: 10 MHz B150: 15 MHz B200: 20 MHz

**set**(channel\_bw: ChannelBandwidth, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:CC<Nr>:CBANdwidth
driver.configure.cc.channelBw.set(channel_bw = enums.ChannelBandwidth.B014,
↳ carrierComponent = repcap.CarrierComponent.Default)
```

Selects the channel bandwidth of component carrier CC<no>. Without carrier aggregation, you can omit <no>.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:CELL:BANDwidth[:PCC]:DL
- CONFigure:LTE:SIGN<i>:CELL:BANDwidth:SCC<c>:DL

**param channel\_bw**

B014 | B030 | B050 | B100 | B150 | B200 B014: 1.4 MHz B030: 3 MHz B050: 5 MHz  
B100: 10 MHz B150: 15 MHz B200: 20 MHz

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

### 6.1.3 Emtc

#### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:EMTC:ENABle
CONFigure:LTE:MEASurement<instance>:EMTC:MB<number>
CONFigure:LTE:MEASurement<Instance>:EMTC:NBANd
```

#### class EmtcCls

Emtc commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_enable()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:EMTC:ENABle
value: bool = driver.configure.emtc.get_enable()
```

Enables or disables eMTC. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>[:PCC]:EMTC:ENABle.

**return**

enable: OFF | ON

**get\_mb()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<instance>:EMTC:MB<number>
value: bool = driver.configure.emtc.get_mb()
```

Selects the maximum eMTC bandwidth. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>[:PCC]:EMTC:MB<number>.

**return**

enable: OFF | ON OFF: Max bandwidth 1.4 MHz ON: Max bandwidth 5 MHz

**get\_nband()** → int



```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:EMTC:NBANd
value: int = driver.configure.emtc.get_nband()
```

Selects the narrowband used for eMTC.

**return**

number: numeric The maximum depends on the channel BW, see ‘RB allocation, narrowbands and widebands for eMTC’. Range: 0 to 15

**set\_enable**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:EMTC:ENABLE
driver.configure.emtc.set_enable(enable = False)
```

Enables or disables eMTC. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>[:PCC]:EMTC:ENABLE.

**param enable**

OFF | ON

**set\_mb**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<instance>:EMTC:MB<number>
driver.configure.emtc.set_mb(enable = False)
```

Selects the maximum eMTC bandwidth. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>[:PCC]:EMTC:MB<number>.

**param enable**

OFF | ON OFF: Max bandwidth 1.4 MHz ON: Max bandwidth 5 MHz

**set\_nband**(number: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:EMTC:NBANd
driver.configure.emtc.set_nband(number = 1)
```

Selects the narrowband used for eMTC.

**param number**

numeric The maximum depends on the channel BW, see ‘RB allocation, narrowbands and widebands for eMTC’. Range: 0 to 15

## 6.1.4 MultiEval

### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:TOUT
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MMode
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:REPetition
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SCONdition
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:ULDL
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SSUBframe
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MOEXception
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CPRefix
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CTYPE
```

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```

CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SCType
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:PSEarch
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:PFormat
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:NVFilter
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:ORVFilter
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CTVFilter
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:DSSPusch
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:GHOPping
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MSLot

```

**class MultiEvalCls**

MultiEval commands group definition. 138 total commands, 16 Subgroups, 18 group commands

**get\_cp\_prefix()** → CyclicPrefix

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CPRefix
value: enums.CyclicPrefix = driver.configure.multiEval.get_cp_prefix()

```

Selects the type of cyclic prefix of the LTE signal. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:CPRefix.

```

return
    cyclic_prefix: NORMal | EXTended

```

**get\_ctv\_filter()** → ChannelTypeVewFilter

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CTVFilter
value: enums.ChannelTypeVewFilter = driver.configure.multiEval.get_ctv_filter()

```

Specifies, enables or disables the channel type view filter. If the filter is active, only slots with detected channel type PUSCH or PUCCH are measured.

```

return
    channel_type: PUSCh | PUCCh | ON | OFF PUSCh: measure only PUSCH PUCCh:
    measure only PUCCH ON: enable the filter OFF: disable the filter

```

**get\_ctype()** → ChannelTypeDetection

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CTYPE
value: enums.ChannelTypeDetection = driver.configure.multiEval.get_ctype()

```

Configures the channel type detection for uplink measurements.

```

return
    channel_type: AUTO | PUSCh | PUCCh Automatic detection of channel type or man-
    ual selection

```

**get\_dss\_pusch()** → int

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:DSSPusch
value: int = driver.configure.multiEval.get_dss_pusch()

```

Specifies the delta sequence shift value (ss) used to calculate the sequence shift pattern for PUSCH.

```

return
    delta_seq_sh_pusch: integer Range: 0 to 29

```

**get\_ghopping()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:GHOPping
value: bool = driver.configure.multiEval.get_ghopping()
```

Specifies whether group hopping is used or not. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CONNection:GHOPping.

**return**  
value: OFF | ON

**get\_mmode()** → MeasurementMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MMODE
value: enums.MeasurementMode = driver.configure.multiEval.get_mmode()
```

Selects the measurement mode.

**return**  
measurement\_mode: NORMal | TMODE | MELMode  
NORMal: normal mode  
TMODE: TPC mode MELMode: multi-evaluation list mode

**get\_mo\_exception()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MOEXception
value: bool = driver.configure.multiEval.get_mo_exception()
```

Specifies whether measurement results identified as faulty or inaccurate are rejected.

**return**  
meas\_on\_exception: OFF | ON  
OFF: Faulty results are rejected. ON: Results are never rejected.

**get\_mslot()** → MeasureSlot

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MSlot
value: enums.MeasureSlot = driver.configure.multiEval.get_mslot()
```

Selects which slots of the ‘Measure Subframe’ are measured.

**return**  
measure\_slot: MS0 | MS1 | ALL  
MS0: slot number 0 only MS1: slot number 1 only  
ALL: both slots

**get\_nvfilter()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:NVFilter
value: int or bool = driver.configure.multiEval.get_nvfilter()
```

Specifies, enables or disables the number of resource blocks (NRB) view filter. If the filter is active, only slots with a matching number of allocated resource blocks are measured. Within the indicated input range, only specific numbers are allowed as defined in 3GPP TS 36.211. For details, see ‘Resources in time and frequency domain’.

**return**  
nrb\_view\_filter: (integer or boolean) numeric | ON | OFF  
Number of allocated resource blocks Range: 1 to 100  
ON | OFF enables or disables the filter.

**get\_orv\_filter()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:ORVFilter
value: int or bool = driver.configure.multiEval.get_orv_filter()
```

Specifies, enables or disables the RB offset view filter. If the filter is active, only slots with a matching number of RB offset are measured. The indicated input range applies to a 20-MHz channel bandwidth. The maximum value depends on the bandwidth (maximum number of RBs minus one) .

**return**

offset\_rb: (integer or boolean) numeric | ON | OFF Offset of the first allocated RB  
Range: 0 to 99 ON | OFF enables or disables the filter.

**get\_peak\_search()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PSearch
value: bool = driver.configure.multiEval.get_peak_search()
```

No command help available

**return**

pucch\_search: No help available

**get\_pformat()** → PucchFormat

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PFormat
value: enums.PucchFormat = driver.configure.multiEval.get_pformat()
```

Specifies the PUCCH format (only relevant for signals containing a PUCCH) . The formats are defined in 3GPP TS 36.211.

**return**

pucch\_format: F1 | F1A | F1B | F2 | F2A | F2B | F3

**get\_repetition()** → Repeat

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:REpetition
value: enums.Repeat = driver.configure.multiEval.get_repetition()
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCount to determine the number of measurement intervals per single shot.

**return**

repetition: SINGleshot | CONTInuous SINGleshot: Single-shot measurement CON-  
Tinuus: Continuous measurement

**get\_sch\_type()** → SidelinkChannelType

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCType
value: enums.SidelinkChannelType = driver.configure.multiEval.get_sch_type()
```

Configures the channel type for modulation results of sidelink measurements.

**return**

channel\_type: PSSch | PSCCh

**get\_scondition()** → StopCondition

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCONdition
value: enums.StopCondition = driver.configure.multiEval.get_scondition()
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**return**

stop\_condition: NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**get\_ssubframe()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SSUBframe
value: int = driver.configure.multiEval.get_ssubframe()
```

Selects a special subframe configuration, defining the inner structure of special subframes. This parameter is only relevant for frame structure ‘Type 2’ (method RsCmwLteMeas.Configure.fstructure) . The special subframe configurations are defined in 3GPP TS 36.211, chapter 4, ‘Frame Structure’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:SSUBframe
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:SSUBframe
- CONFIGure:LTE:SIGN<i>:CELL:TDD:SPECific

**return**

special\_subframe: integer Range: 0 to 8

**get\_timeout()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:TOUT
value: float = driver.configure.multiEval.get_timeout()
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot) , the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**return**

timeout: numeric Unit: s

**get\_ul\_dl()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:ULDL
value: int = driver.configure.multiEval.get_ul_dl()
```

Selects an UL-DL configuration, defining the combination of uplink, downlink and special subframes within a radio frame. This parameter is only relevant for frame structure ‘Type 2’ (method RsCmwLteMeas.Configure.fstructure) . The UL-DL configurations are defined in 3GPP TS 36.211, chapter 4, ‘Frame Structure’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:ULDL
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:ULDL
- CONFIGure:LTE:SIGN<i>:CELL:TDD:SPECific

**return**

uplink\_downlink: integer Range: 0 to 6

**set\_cpPREFIX**(*cyclic\_prefix*: *CyclicPrefix*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:CPRefix
driver.configure.multiEval.set_cpPREFIX(cyclic_prefix = enums.CyclicPrefix.
↳EXTended)
```

Selects the type of cyclic prefix of the LTE signal. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:CPRefix.

**param cyclic\_prefix**

NORMal | EXTended

**set\_ctv\_filter**(*channel\_type*: *ChannelTypeVewFilter*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:CTVFilter
driver.configure.multiEval.set_ctv_filter(channel_type = enums.
↳ChannelTypeVewFilter.OFF)
```

Specifies, enables or disables the channel type view filter. If the filter is active, only slots with detected channel type PUSCH or PUCCH are measured.

**param channel\_type**

PUSCh | PUCCh | ON | OFF PUSCh: measure only PUSCH PUCCh: measure only  
PUCCH ON: enable the filter OFF: disable the filter

**set\_ctype**(*channel\_type*: *ChannelTypeDetection*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:CTYPE
driver.configure.multiEval.set_ctype(channel_type = enums.ChannelTypeDetection.
↳AUTO)
```

Configures the channel type detection for uplink measurements.

**param channel\_type**

AUTO | PUSCh | PUCCh Automatic detection of channel type or manual selection

**set\_dss\_pusch**(*delta\_seq\_sh\_pusch*: *int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:DSSPusch
driver.configure.multiEval.set_dss_pusch(delta_seq_sh_pusch = 1)
```

Specifies the delta sequence shift value (ss) used to calculate the sequence shift pattern for PUSCH.

**param delta\_seq\_sh\_pusch**

integer Range: 0 to 29

**set\_ghopping**(*value: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:GHOPping
driver.configure.multiEval.set_ghopping(value = False)
```

Specifies whether group hopping is used or not. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CONNection:GHOPping.

**param value**  
OFF | ON

**set\_rmode**(*measurement\_mode: MeasurementMode*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MMODE
driver.configure.multiEval.set_rmode(measurement_mode = enums.MeasurementMode.
↳ MELMode)
```

Selects the measurement mode.

**param measurement\_mode**  
NORMAL | TMODE | MELMode  
NORMAL: normal mode TMODE: TPC mode  
MELMode: multi-evaluation list mode

**set\_mo\_exception**(*meas\_on\_exception: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MOEXception
driver.configure.multiEval.set_mo_exception(meas_on_exception = False)
```

Specifies whether measurement results identified as faulty or inaccurate are rejected.

**param meas\_on\_exception**  
OFF | ON  
OFF: Faulty results are rejected. ON: Results are never rejected.

**set\_mslot**(*measure\_slot: MeasureSlot*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MSlot
driver.configure.multiEval.set_mslot(measure_slot = enums.MeasureSlot.ALL)
```

Selects which slots of the ‘Measure Subframe’ are measured.

**param measure\_slot**  
MS0 | MS1 | ALL  
MS0: slot number 0 only MS1: slot number 1 only ALL: both slots

**set\_nvfilter**(*nrb\_view\_filter: int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:NVFilter
driver.configure.multiEval.set_nvfilter(nrb_view_filter = 1)
```

Specifies, enables or disables the number of resource blocks (NRB) view filter. If the filter is active, only slots with a matching number of allocated resource blocks are measured. Within the indicated input range, only specific numbers are allowed as defined in 3GPP TS 36.211. For details, see ‘Resources in time and frequency domain’.

**param nrb\_view\_filter**  
(integer or boolean) numeric | ON | OFF  
Number of allocated resource blocks Range: 1 to 100  
ON | OFF enables or disables the filter.

**set\_orv\_filter**(*offset\_rb*: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:ORVFilter
driver.configure.multiEval.set_orv_filter(offset_rb = 1)
```

Specifies, enables or disables the RB offset view filter. If the filter is active, only slots with a matching number of RB offset are measured. The indicated input range applies to a 20-MHz channel bandwidth. The maximum value depends on the bandwidth (maximum number of RBs minus one) .

**param offset\_rb**

(integer or boolean) numeric | ON | OFF Offset of the first allocated RB Range: 0 to 99 ON | OFF enables or disables the filter.

**set\_peak\_search**(*pucch\_search*: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PSearch
driver.configure.multiEval.set_peak_search(pucch_search = False)
```

No command help available

**param pucch\_search**

No help available

**set\_pformat**(*pucch\_format*: PucchFormat) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PFormat
driver.configure.multiEval.set_pformat(pucch_format = enums.PucchFormat.F1)
```

Specifies the PUCCH format (only relevant for signals containing a PUCCH) . The formats are defined in 3GPP TS 36.211.

**param pucch\_format**

F1 | F1A | F1B | F2 | F2A | F2B | F3

**set\_repetition**(*repetition*: Repeat) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:REpetition
driver.configure.multiEval.set_repetition(repetition = enums.Repeat.CONTinuous)
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCOunt to determine the number of measurement intervals per single shot.

**param repetition**

SINGleshot | CONTinuous SINGleshot: Single-shot measurement CONTinuous: Continuous measurement

**set\_sch\_type**(*channel\_type*: SidelinkChannelType) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCType
driver.configure.multiEval.set_sch_type(channel_type = enums.
↪SidelinkChannelType.PSBCh)
```

Configures the channel type for modulation results of sidelink measurements.

**param channel\_type**

PSSCh | PSCCh



**set\_scondition**(*stop\_condition*: *StopCondition*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCONdition
driver.configure.multiEval.set_scondition(stop_condition = enums.StopCondition.
↳NONE)
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**param stop\_condition**

NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail:  
Stop measurement on limit failure.

**set\_ssubframe**(*special\_subframe*: *int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SSUBframe
driver.configure.multiEval.set_ssubframe(special_subframe = 1)
```

Selects a special subframe configuration, defining the inner structure of special subframes. This parameter is only relevant for frame structure ‘Type 2’ (method RsCmwLteMeas.Configure.fstructure) . The special subframe configurations are defined in 3GPP TS 36.211, chapter 4, ‘Frame Structure’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:SSUBframe
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:SSUBframe
- CONFIGure:LTE:SIGN<i>:CELL:TDD:SPECific

**param special\_subframe**

integer Range: 0 to 8

**set\_timeout**(*timeout*: *float*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:TOUT
driver.configure.multiEval.set_timeout(timeout = 1.0)
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot) , the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCH or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**param timeout**

numeric Unit: s

**set\_ul\_dl**(*uplink\_downlink*: *int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:ULDL
driver.configure.multiEval.set_ul_dl(uplink_downlink = 1)
```

Selects an UL-DL configuration, defining the combination of uplink, downlink and special subframes within a radio frame. This parameter is only relevant for frame structure ‘Type 2’ (method RsCmwLteMeas.Configure.fstructure) . The UL-DL configurations are defined in 3GPP TS 36.211, chapter 4, ‘Frame Structure’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:ULDL
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:ULDL
- CONFIGure:LTE:SIGN<i>:CELL:TDD:SPECific

**param uplink\_downlink**  
integer Range: 0 to 6

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.clone()
```

## Subgroups

### 6.1.4.1 Bler

#### class BlerCls

Bler commands group definition. 1 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.bler.clone()
```

## Subgroups

### 6.1.4.1.1 Sframes

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:BLER:SFRames
```

#### class SframesCls

Sframes commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SframesStruct

Response structure. Fields:

- Sub\_Frames: int: integer Number of subframes to be measured Range: 1 subframe to 200E+3 subframes
- Sched\_Subfr\_Per\_Fr: int: integer Number of scheduled subframes per radio frame in the generated downlink signal Range: 1 subframe to 10 subframes

**get()** → SframesStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:BLER:SFRames
value: SframesStruct = driver.configure.multiEval.bler.sframes.get()
```

Specifies the statistic count (number of measured subframes) and the number of scheduled subframes per radio frame for the BLER measurement. BLER is a single shot measurement.

**return**

structure: for return value, see the help for SframesStruct structure arguments.

**set**(sub\_frames: int, sched\_subfr\_per\_fr: int = None) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:BLER:SFRames
driver.configure.multiEval.bler.sframes.set(sub_frames = 1, sched_subfr_per_fr_
↪= 1)
```

Specifies the statistic count (number of measured subframes) and the number of scheduled subframes per radio frame for the BLER measurement. BLER is a single shot measurement.

**param sub\_frames**

integer Number of subframes to be measured Range: 1 subframe to 200E+3 subframes

**param sched\_subfr\_per\_fr**

integer Number of scheduled subframes per radio frame in the generated downlink signal Range: 1 subframe to 10 subframes

#### 6.1.4.2 Cc<CarrierComponent>

##### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.configure.multiEval.cc.repcap_carrierComponent_get()
driver.configure.multiEval.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

**class CcCls**

Cc commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.cc.clone()
```

##### Subgroups

#### 6.1.4.2.1 Plcid

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:CC<Nr>:PLCid
```

**class PlcIdCls**

PlcId commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(carrierComponent=CarrierComponent.Default) → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CC<Nr>:PLCid
value: int = driver.configure.multiEval.cc.plcId.get(carrierComponent = repcap.
↳ CarrierComponent.Default)
```

**Specifies the physical layer cell ID of component carrier CC<no>. Without carrier aggregation, you can omit <no>.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:PCID
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:PCID

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

phs\_layer\_cell\_id: integer Range: 0 to 503

**set**(phs\_layer\_cell\_id: int, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:CC<Nr>:PLCid
driver.configure.multiEval.cc.plcId.set(phs_layer_cell_id = 1, carrierComponent.
↳ repcap.CarrierComponent.Default)
```

**Specifies the physical layer cell ID of component carrier CC<no>. Without carrier aggregation, you can omit <no>.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL[:PCC]:PCID
- CONFIGure:LTE:SIGN<i>:CELL:SCC<c>:PCID

**param phs\_layer\_cell\_id**

integer Range: 0 to 503

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**6.1.4.3 Limit****class LimitCls**

Limit commands group definition. 40 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.clone()
```

## Subgroups

### 6.1.4.3.1 Aclr

#### **class AclrCls**

Aclr commands group definition. 8 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.clone()
```

## Subgroups

### 6.1.4.3.1.1 Eutra

#### **class EutraCls**

Eutra commands group definition. 4 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.clone()
```

## Subgroups

### 6.1.4.3.1.2 CarrierAggregation

#### **class CarrierAggregationCls**

CarrierAggregation commands group definition. 3 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.clone()
```

## Subgroups

### 6.1.4.3.1.3 ChannelBw1st<FirstChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.repcap_
↳firstChannelBw_get()
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.repcap_
↳firstChannelBw_set(repcap.FirstChannelBw.Bw100)
```

#### class ChannelBw1stCls

ChannelBw1st commands group definition. 2 total commands, 1 Subgroups, 0 group commands Repeated Capability: FirstChannelBw, default value after init: FirstChannelBw.Bw100

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳clone()
```

## Subgroups

### 6.1.4.3.1.4 ChannelBw2nd<SecondChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw200
rc = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳channelBw2nd.repcap_secondChannelBw_get()
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.channelBw2nd.
↳repcap_secondChannelBw_set(repcap.SecondChannelBw.Bw50)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:EUTRa:CAGGregation:CBANdwidth
↳<Band1>:CBANdwidth<Band2>
```

#### class ChannelBw2ndCls

ChannelBw2nd commands group definition. 2 total commands, 1 Subgroups, 1 group commands Repeated Capability: SecondChannelBw, default value after init: SecondChannelBw.Bw50

#### class ChannelBw2ndStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

- **Absolute\_Level**: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(*firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default*) → ChannelBw2ndStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
value: ChannelBw2ndStruct = driver.configure.multiEval.limit.aclr.eutra.
↳carrierAggregation.channelBw1st.channelBw2nd.get(firstChannelBw = repcap.
↳FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**return**

structure: for return value, see the help for ChannelBw2ndStruct structure arguments.

**set**(*relative\_level: float, absolute\_level: float, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳channelBw2nd.set(relative_level = 1.0, absolute_level = 1.0, firstChannelBw =
↳repcap.FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.
↳Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳channelBw2nd.clone()
```

## Subgroups

### 6.1.4.3.1.5 ChannelBw3rd<ThirdChannelBw>

## RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.repcap_thirdChannelBw_get()
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.channelBw2nd.
↳channelBw3rd.repcap_thirdChannelBw_set(repcap.ThirdChannelBw.Bw100)
```

## SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:CBANdwidth
↳<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
```

### class ChannelBw3rdCls

ChannelBw3rd commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ThirdChannelBw, default value after init: ThirdChannelBw.Bw100

#### class ChannelBw3rdStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.
- Absolute\_Level: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) → ChannelBw3rdStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
↳:CBANdwidth<Band3>
value: ChannelBw3rdStruct = driver.configure.multiEval.limit.aclr.eutra.
↳carrierAggregation.channelBw1st.channelBw2nd.channelBw3rd.get(firstChannelBw,
↳= repcap.FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.
↳Default, thirdChannelBw = repcap.ThirdChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.



**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

**return**

structure: for return value, see the help for ChannelBw3rdStruct structure arguments.

**set**(*relative\_level*: float, *absolute\_level*: float, *firstChannelBw*=FirstChannelBw.Default, *secondChannelBw*=SecondChannelBw.Default, *thirdChannelBw*=ThirdChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳ :MEvaluation:LIMit:ACLR:EUTRa:CAGgregation:CBANdwidth<Band1>:CBANdwidth<Band2>
↳ :CBANdwidth<Band3>
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳ channelBw2nd.channelBw3rd.set(relative_level = 1.0, absolute_level = 1.0,
↳ firstChannelBw = repcap.FirstChannelBw.Default, secondChannelBw = repcap.
↳ SecondChannelBw.Default, thirdChannelBw = repcap.ThirdChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.clone()
```

### 6.1.4.3.1.6 Ocombination

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:OCOMbination
```

#### class OcombinationCls

Ocombination commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class OcombinationStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.
- Absolute\_Level: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get()** → OcombinationStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:OCOMbination
value: OcombinationStruct = driver.configure.multiEval.limit.aclr.eutra.
↳carrierAggregation.ocombination.get()
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

#### return

structure: for return value, see the help for OcombinationStruct structure arguments.

**set(relative\_level: float, absolute\_level: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:LIMit:ACLR:EUTRa:CAGGregation:OCOMbination
driver.configure.multiEval.limit.aclr.eutra.carrierAggregation.ocombination.
↳set(relative_level = 1.0, absolute_level = 1.0)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

#### param relative\_level

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

#### param absolute\_level

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

### 6.1.4.3.1.7 ChannelBw<ChannelBw>

#### RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.aclr.eutra.channelBw.repcap_channelBw_get()
driver.configure.multiEval.limit.aclr.eutra.channelBw.repcap_channelBw_set(repcap.
↳ ChannelBw.Bw14)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:EUTRa:CBANdwidth<Band>
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

#### class ChannelBwStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.
- Absolute\_Level: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(channelBw=ChannelBw.Default) → ChannelBwStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳ :MEvaluation:LIMit:ACLR:EUTRa:CBANdwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.limit.aclr.eutra.channelBw.
↳ get(channelBw = repcap.ChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth.

#### param channelBw

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

#### return

structure: for return value, see the help for ChannelBwStruct structure arguments.

**set**(relative\_level: float, absolute\_level: float, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳ :MEvaluation:LIMit:ACLR:EUTRa:CBANdwidth<Band>
driver.configure.multiEval.limit.aclr.eutra.channelBw.set(relative_level = 1.0,
↳ absolute_level = 1.0, channelBw = repcap.ChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in an adjacent E-UTRA channel. The settings are defined separately for each channel bandwidth.

#### param relative\_level

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON  
| OFF enables or disables the limit check.

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface  
'ChannelBw')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.eutra.channelBw.clone()
```

**6.1.4.3.1.8 Utra<UtraAdjChannel>****RepCap Settings**

```
# Range: Ch1 .. Ch2
rc = driver.configure.multiEval.limit.aclr.utra.repcap_utraAdjChannel_get()
driver.configure.multiEval.limit.aclr.utra.repcap_utraAdjChannel_set(repcap.
↪ UtraAdjChannel.Ch1)
```

**class UtraCls**

Utra commands group definition. 4 total commands, 2 Subgroups, 0 group commands Repeated Capability:  
UtraAdjChannel, default value after init: UtraAdjChannel.Ch1

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.clone()
```

**Subgroups****6.1.4.3.1.9 CarrierAggregation****class CarrierAggregationCls**

CarrierAggregation commands group definition. 3 total commands, 2 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.clone()
```

## Subgroups

### 6.1.4.3.1.10 ChannelBw1st<FirstChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.repcap_
↳firstChannelBw_get()
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.repcap_
↳firstChannelBw_set(repcap.FirstChannelBw.Bw100)
```

#### class ChannelBw1stCls

ChannelBw1st commands group definition. 2 total commands, 1 Subgroups, 0 group commands Repeated Capability: FirstChannelBw, default value after init: FirstChannelBw.Bw100

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳clone()
```

## Subgroups

### 6.1.4.3.1.11 ChannelBw2nd<SecondChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw200
rc = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳channelBw2nd.repcap_secondChannelBw_get()
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.channelBw2nd.
↳repcap_secondChannelBw_set(repcap.SecondChannelBw.Bw50)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:CBANDwidth<Band1>:CBANDwidth<Band2>
```

#### class ChannelBw2ndCls

ChannelBw2nd commands group definition. 2 total commands, 1 Subgroups, 1 group commands Repeated Capability: SecondChannelBw, default value after init: SecondChannelBw.Bw50

#### class ChannelBw2ndStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

- **Absolute\_Level**: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(*utraAdjChannel*=*UtraAdjChannel.Default*, *firstChannelBw*=*FirstChannelBw.Default*, *secondChannelBw*=*SecondChannelBw.Default*) → *ChannelBw2ndStruct*

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳ :CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
value: ChannelBw2ndStruct = driver.configure.multiEval.limit.aclr.utra.
↳ carrierAggregation.channelBw1st.channelBw2nd.get(utraAdjChannel = repcap.
↳ UtraAdjChannel.Default, firstChannelBw = repcap.FirstChannelBw.Default,
↳ secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ... :CBANdwidth100:CBANdwidth50.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**return**

structure: for return value, see the help for *ChannelBw2ndStruct* structure arguments.

**set**(*relative\_level*: float, *absolute\_level*: float, *utraAdjChannel*=*UtraAdjChannel.Default*, *firstChannelBw*=*FirstChannelBw.Default*, *secondChannelBw*=*SecondChannelBw.Default*) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳ :CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳ channelBw2nd.set(relative_level = 1.0, absolute_level = 1.0, utraAdjChannel =
↳ repcap.UtraAdjChannel.Default, firstChannelBw = repcap.FirstChannelBw.Default,
↳ secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ... :CBANdwidth100:CBANdwidth50.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface

‘Utra’)

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface ‘ChannelBw1st’)

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface ‘ChannelBw2nd’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳channelBw2nd.clone()
```

## Subgroups

### 6.1.4.3.1.12 ChannelBw3rd<ThirdChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.repcap_thirdChannelBw_get()
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.channelBw2nd.
↳channelBw3rd.repcap_thirdChannelBw_set(repcap.ThirdChannelBw.Bw100)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
```

#### class ChannelBw3rdCls

ChannelBw3rd commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ThirdChannelBw, default value after init: ThirdChannelBw.Bw100

#### class ChannelBw3rdStruct

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.
- Absolute\_Level: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

```
get(utraAdjChannel=UtraAdjChannel.Default, firstChannelBw=FirstChannelBw.Default,
secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) →
ChannelBw3rdStruct
```

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
value: ChannelBw3rdStruct = driver.configure.multiEval.limit.aclr.utra.
↳carrierAggregation.channelBw1st.channelBw2nd.channelBw3rd.get(utraAdjChannel,
↳= repcap.UtraAdjChannel.Default, firstChannelBw = repcap.FirstChannelBw.
↳Default, secondChannelBw = repcap.SecondChannelBw.Default, thirdChannelBw =
↳repcap.ThirdChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ... :CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

**return**

structure: for return value, see the help for ChannelBw3rdStruct structure arguments.

**set**(*relative\_level*: float, *absolute\_level*: float, *utraAdjChannel*=UtraAdjChannel.Default, *firstChannelBw*=FirstChannelBw.Default, *secondChannelBw*=SecondChannelBw.Default, *thirdChannelBw*=ThirdChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.set(relative_level = 1.0, absolute_level = 1.0,
↳utraAdjChannel = repcap.UtraAdjChannel.Default, firstChannelBw = repcap.
↳FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.Default,
↳thirdChannelBw = repcap.ThirdChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ... :CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.



**param ultraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.clone()
```

**6.1.4.3.1.13 Ocombination****SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:OCOMbination
```

**class OcombinationCls**

Ocombination commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class OcombinationStruct**

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.
- Absolute\_Level: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(ultraAdjChannel=UtraAdjChannel.Default) → OcombinationStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:OCOMbination
value: OcombinationStruct = driver.configure.multiEval.limit.aclr.utra.
↳carrierAggregation.ocombination.get(ultraAdjChannel = repcap.UtraAdjChannel.
↳Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param ultraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**

structure: for return value, see the help for OcombinationStruct structure arguments.

**set**(relative\_level: float, absolute\_level: float, ultraAdjChannel=UltraAdjChannel.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳:CAGGregation:OCOMbination
driver.configure.multiEval.limit.aclr.utra.carrierAggregation.ocombination.
↳set(relative_level = 1.0, absolute_level = 1.0, ultraAdjChannel = repcap.
↳UltraAdjChannel.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**param ultraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**6.1.4.3.1.14 ChannelBw<ChannelBw>****RepCap Settings**

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.aclr.utra.channelBw.repcap_channelBw_get()
driver.configure.multiEval.limit.aclr.utra.channelBw.repcap_channelBw_set(repcap.
↳ChannelBw.Bw14)
```

**SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>:CBANdwidth<Band>
```

**class ChannelBwCls**

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

**class ChannelBwStruct**

Response structure. Fields:

- Relative\_Level: float or bool: numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

- **Absolute\_Level**: float or bool: numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**get**(*utraAdjChannel*=*UtraAdjChannel.Default*, *channelBw*=*ChannelBw.Default*) → *ChannelBwStruct*

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳:CBANdwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.limit.aclr.utra.channelBw.
↳get(utraAdjChannel = repcap.UtraAdjChannel.Default, channelBw = repcap.
↳ChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**return**

structure: for return value, see the help for *ChannelBwStruct* structure arguments.

**set**(*relative\_level*: float, *absolute\_level*: float, *utraAdjChannel*=*UtraAdjChannel.Default*, *channelBw*=*ChannelBw.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:ACLR:UTRA<nr>
↳:CBANdwidth<Band>
driver.configure.multiEval.limit.aclr.utra.channelBw.set(relative_level = 1.0,
↳absolute_level = 1.0, utraAdjChannel = repcap.UtraAdjChannel.Default,
↳channelBw = repcap.ChannelBw.Default)
```

Defines relative and absolute limits for the ACLR measured in the first or second adjacent UTRA channel, depending on <no>. The settings are defined separately for each channel bandwidth.

**param relative\_level**

(float or boolean) numeric | ON | OFF Range: -256 dB to 256 dB, Unit: dB ON | OFF enables or disables the limit check.

**param absolute\_level**

(float or boolean) numeric | ON | OFF Range: -256 dBm to 256 dBm, Unit: dBm ON | OFF enables or disables the limit check.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.aclr.utra.channelBw.clone()
```

### 6.1.4.3.2 Pdynamics

#### class PdynamicsCls

Pdynamics commands group definition. 1 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.pdynamics.clone()
```

## Subgroups

### 6.1.4.3.2.1 ChannelBw<ChannelBw>

## RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.pdynamics.channelBw.repcap_channelBw_get()
driver.configure.multiEval.limit.pdynamics.channelBw.repcap_channelBw_set(repcap.
↳ChannelBw.Bw14)
```

## SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:PDYNamics:CBANdwidth<Band>
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

#### class ChannelBwStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- On\_Power\_Upper: float: numeric Upper limit for the 'ON power' Range: -256 dBm to 256 dBm, Unit: dBm
- On\_Power\_Lower: float: numeric Lower limit for the 'ON power' Range: -256 dBm to 256 dBm, Unit: dBm
- Off\_Power\_Upper: float: numeric Upper limit for the 'OFF power' and the 'SRS OFF' power Range: -256 dBm to 256 dBm, Unit: dBm

**get**(channelBw=ChannelBw.Default) → ChannelBwStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:PDYNamics:CBANdwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.limit.pdynamics.channelBw.
↳get(channelBw = repcap.ChannelBw.Default)
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement. Separate limits can be defined for each channel bandwidth.

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**return**

structure: for return value, see the help for ChannelBwStruct structure arguments.

**set**(enable: bool, on\_power\_upper: float, on\_power\_lower: float, off\_power\_upper: float, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:PDYNamics:CBANdwidth<Band>
driver.configure.multiEval.limit.pdynamics.channelBw.set(enable = False, on_
↳power_upper = 1.0, on_power_lower = 1.0, off_power_upper = 1.0, channelBw =
↳repcap.ChannelBw.Default)
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement. Separate limits can be defined for each channel bandwidth.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param on\_power\_upper**

numeric Upper limit for the 'ON power' Range: -256 dBm to 256 dBm, Unit: dBm

**param on\_power\_lower**

numeric Lower limit for the 'ON power' Range: -256 dBm to 256 dBm, Unit: dBm

**param off\_power\_upper**

numeric Upper limit for the 'OFF power' and the 'SRS OFF' power Range: -256 dBm to 256 dBm, Unit: dBm

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.pdynamics.channelBw.clone()
```

### 6.1.4.3.3 Qam<QAMmodOrder>

#### RepCap Settings

```
# Range: Qam16 .. Qam256
rc = driver.configure.multiEval.limit.qam.repcap_qAMmodOrder_get()
driver.configure.multiEval.limit.qam.repcap_qAMmodOrder_set(repcap.QAMmodOrder.Qam16)
```

#### class QamCls

Qam commands group definition. 9 total commands, 8 Subgroups, 0 group commands Repeated Capability: QAMmodOrder, default value after init: QAMmodOrder.Qam16

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.qam.clone()
```

### Subgroups

#### 6.1.4.3.3.1 EsFlatness

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QAM<ModOrder>:ESFlatness
```

#### class EsFlatnessCls

EsFlatness commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EsFlatnessStruct

Structure for setting input parameters. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Range\_1: float: numeric Upper limit for max(range 1) - min(range 1) Range: -256 dBpp to 256 dBpp, Unit: dBpp
- Range\_2: float: numeric Upper limit for max(range 2) - min(range 2) Range: -256 dBpp to 256 dBpp, Unit: dBpp
- Max\_1\_Min\_2: float: numeric Upper limit for max(range 1) - min(range 2) Range: -256 dB to 256 dB, Unit: dB
- Max\_2\_Min\_1: float: numeric Upper limit for max(range 2) - min(range 1) Range: -256 dB to 256 dB, Unit: dB
- Edge\_Frequency: float: numeric Frequency band edge distance of border between range 1 and range 2 Range: 0 MHz to 20 MHz, Unit: Hz

**get**(qAMmodOrder=QAMmodOrder.Default) → EsFlatnessStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QAM<ModOrder>
↳:ESFlatness
value: EsFlatnessStruct = driver.configure.multiEval.limit.qam.esFlatness.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines limits for the equalizer spectrum flatness, for QAM modulations.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for EsFlatnessStruct structure arguments.

**set**(structure: EsFlatnessStruct, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:ESFlatness
structure = driver.configure.multiEval.limit.qam.esFlatness.EsFlatnessStruct()
structure.Enable: bool = False
structure.Range_1: float = 1.0
structure.Range_2: float = 1.0
structure.Max_1_Min_2: float = 1.0
structure.Max_2_Min_1: float = 1.0
structure.Edge_Frequency: float = 1.0
driver.configure.multiEval.limit.qam.esFlatness.set(structure, qAMmodOrder =
↳repcap.QAMmodOrder.Default)
```

Defines limits for the equalizer spectrum flatness, for QAM modulations.

**param structure**

for set value, see the help for EsFlatnessStruct structure arguments.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

### 6.1.4.3.3.2 EvMagnitude

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EvMagnitudeStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get**(qAMmodOrder=QAMmodOrder.Default) → EvMagnitudeStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:EVMagnitude
value: EvMagnitudeStruct = driver.configure.multiEval.limit.qam.evMagnitude.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) , for QAM modulations.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set**(rms: float, peak: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:EVMagnitude
driver.configure.multiEval.limit.qam.evMagnitude.set(rms = 1.0, peak = 1.0,
↳qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) , for QAM modulations.

**param rms**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**param peak**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

### 6.1.4.3.3.3 FreqError

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:FERRor
```

#### class FreqErrorCls

FreqError commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(qAMmodOrder=QAMmodOrder.Default) → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:FERRor
value: float or bool = driver.configure.multiEval.limit.qam.freqError.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines an upper limit for the carrier frequency error, for QAM modulations.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

**return**

frequency\_error: (float or boolean) numeric | ON | OFF Range: 0 ppm to 1 ppm, Unit: ppm ON | OFF enables or disables the limit check.



**set**(frequency\_error: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:FERRor
driver.configure.multiEval.limit.qam.freqError.set(frequency_error = 1.0,
↳qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines an upper limit for the carrier frequency error, for QAM modulations.

**param frequency\_error**

(float or boolean) numeric | ON | OFF Range: 0 ppm to 1 ppm, Unit: ppm ON | OFF enables or disables the limit check.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

#### 6.1.4.3.3.4 Ibe

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:IBE
```

##### class IbeCls

Ibe commands group definition. 2 total commands, 1 Subgroups, 1 group commands

##### class IbeStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Minimum: float: numeric Range: -256 dB to 256 dB, Unit: dB
- Evm: float: numeric Range: 0 % to 100 %, Unit: %
- Rb\_Power: float: numeric Range: -256 dBm to 256 dBm, Unit: dBm
- Iq\_Image: float: numeric Range: -256 dB to 256 dB, Unit: dB

**get**(qAMmodOrder=QAMmodOrder.Default) → IbeStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:IBE
value: IbeStruct = driver.configure.multiEval.limit.qam.ibe.get(qAMmodOrder =
↳repcap.QAMmodOrder.Default)
```

Defines parameters used for calculation of an upper limit for the inband emission, for QAM modulations, see 'Inband emissions limits'.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

**return**

structure: for return value, see the help for IbeStruct structure arguments.

**set**(enable: bool, minimum: float, evm: float, rb\_power: float, iq\_image: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:IBE
driver.configure.multiEval.limit.qam.ibe.set(enable = False, minimum = 1.0, evm_
↳= 1.0, rb_power = 1.0, iq_image = 1.0, qAMmodOrder = repcap.QAMmodOrder.
↳Default)
```

Defines parameters used for calculation of an upper limit for the inband emission, for QAM modulations, see ‘Inband emissions limits’.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param minimum**

numeric Range: -256 dB to 256 dB, Unit: dB

**param evm**

numeric Range: 0 % to 100 %, Unit: %

**param rb\_power**

numeric Range: -256 dBm to 256 dBm, Unit: dBm

**param iq\_image**

numeric Range: -256 dB to 256 dB, Unit: dB

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface ‘Qam’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.qam.ibe.clone()
```

## Subgroups

### 6.1.4.3.3.5 IqOffset

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:IBE:IQOfFset
```

#### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class IqOffsetStruct

Response structure. Fields:

- Offset\_1: float: numeric Offset for high TX power range Range: -256 dBc to 256 dBc, Unit: dBc
- Offset\_2: float: numeric Offset for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dBc
- Offset\_3: float: numeric Offset for low TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**get**(qAMmodOrder=QAMmodOrder.Default) → IqOffsetStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:IBE:IQOffset
value: IqOffsetStruct = driver.configure.multiEval.limit.qam.ibe.iqOffset.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines I/Q origin offset values used for calculation of an upper limit for the inband emission, for QAM modulations. Three different values can be set for three TX power ranges, see ‘Inband emissions limits’.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface ‘Qam’)

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set**(offset\_1: float, offset\_2: float, offset\_3: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:IBE:IQOffset
driver.configure.multiEval.limit.qam.ibe.iqOffset.set(offset_1 = 1.0, offset_2,
↳= 1.0, offset_3 = 1.0, qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines I/Q origin offset values used for calculation of an upper limit for the inband emission, for QAM modulations. Three different values can be set for three TX power ranges, see ‘Inband emissions limits’.

**param offset\_1**

numeric Offset for high TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param offset\_2**

numeric Offset for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param offset\_3**

numeric Offset for low TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface ‘Qam’)

#### 6.1.4.3.3.6 IqOffset

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:IQOffset
```

##### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class IqOffsetStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Offset\_1: float: numeric I/Q origin offset limit for high TX power range Range: -256 dBc to 256 dBc, Unit: dBc

- Offset\_2: float: numeric I/Q origin offset limit for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dBc
- Offset\_3: float: numeric I/Q origin offset limit for low TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**get**(qAMmodOrder=QAMmodOrder.Default) → IqOffsetStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:IQOffset
value: IqOffsetStruct = driver.configure.multiEval.limit.qam.iqOffset.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the I/Q origin offset, for QAM modulations. Three different I/Q origin offset limits can be set for three TX power ranges. For details, see ‘I/Q origin offset limits’.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface ‘Qam’)

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set**(enable: bool, offset\_1: float, offset\_2: float, offset\_3: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:IQOffset
driver.configure.multiEval.limit.qam.iqOffset.set(enable = False, offset_1 = 1.
↳0, offset_2 = 1.0, offset_3 = 1.0, qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the I/Q origin offset, for QAM modulations. Three different I/Q origin offset limits can be set for three TX power ranges. For details, see ‘I/Q origin offset limits’.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param offset\_1**

numeric I/Q origin offset limit for high TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param offset\_2**

numeric I/Q origin offset limit for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param offset\_3**

numeric I/Q origin offset limit for low TX power range Range: -256 dBc to 256 dBc, Unit: dBc

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface ‘Qam’)

### 6.1.4.3.3.7 Merror

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:MERRor
```

#### class MerrorCls

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class MerrorStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get**(qAMmodOrder=QAMmodOrder.Default) → MerrorStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:MERRor
value: MerrorStruct = driver.configure.multiEval.limit.qam.merror.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the RMS and peak values of the magnitude error, for QAM modulations.

#### param qAMmodOrder

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

#### return

structure: for return value, see the help for MerrorStruct structure arguments.

**set**(rms: float, peak: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:MERRor
driver.configure.multiEval.limit.qam.merror.set(rms = 1.0, peak = 1.0,
↳qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines upper limits for the RMS and peak values of the magnitude error, for QAM modulations.

#### param rms

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

#### param peak

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

#### param qAMmodOrder

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

### 6.1.4.3.3.8 Perror

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:PERRor
```

#### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

**get**(qAMmodOrder=QAMmodOrder.Default) → PerrorStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:PERRor
value: PerrorStruct = driver.configure.multiEval.limit.qam.perror.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines symmetric limits for the RMS and peak values of the phase error, for QAM modulations. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

#### param qAMmodOrder

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

#### return

structure: for return value, see the help for PerrorStruct structure arguments.

**set**(rms: float, peak: float, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:PERRor
driver.configure.multiEval.limit.qam.perror.set(rms = 1.0, peak = 1.0,
↳qAMmodOrder = repcap.QAMmodOrder.Default)
```

Defines symmetric limits for the RMS and peak values of the phase error, for QAM modulations. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

#### param rms

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

#### param peak

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

#### param qAMmodOrder

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

### 6.1.4.3.3.9 Sflatness

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>:SFlatness
```

#### class SflatnessCls

Sflatness commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SflatnessStruct

Structure for setting input parameters. Fields:

- Enable: bool: No parameter help available
- Lower: float: No parameter help available
- Upper: float: No parameter help available
- Edge\_Lower: float: No parameter help available
- Edge\_Upper: float: No parameter help available
- Edge\_Frequency: float: No parameter help available

**get**(qAMmodOrder=QAMmodOrder.Default) → SflatnessStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:SFlatness
value: SflatnessStruct = driver.configure.multiEval.limit.qam.sflatness.
↳get(qAMmodOrder = repcap.QAMmodOrder.Default)
```

No command help available

#### param qAMmodOrder

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

#### return

structure: for return value, see the help for SflatnessStruct structure arguments.

**set**(structure: SflatnessStruct, qAMmodOrder=QAMmodOrder.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QAM<ModOrder>
↳:SFlatness
structure = driver.configure.multiEval.limit.qam.sflatness.SflatnessStruct()
structure.Enable: bool = False
structure.Lower: float = 1.0
structure.Upper: float = 1.0
structure.Edge_Lower: float = 1.0
structure.Edge_Upper: float = 1.0
structure.Edge_Frequency: float = 1.0
driver.configure.multiEval.limit.qam.sflatness.set(structure, qAMmodOrder =
↳recap.QAMmodOrder.Default)
```

No command help available

#### param structure

for set value, see the help for SflatnessStruct structure arguments.

**param qAMmodOrder**

optional repeated capability selector. Default value: Qam16 (settable in the interface 'Qam')

**6.1.4.3.4 Qpsk****SCPI Commands :**

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:FERRor
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:SFLatness
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:ESFLatness
```

**class QpskCls**

Qpsk commands group definition. 9 total commands, 5 Subgroups, 3 group commands

**class EsFlatnessStruct**

Structure for setting input parameters. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Range\_1: float: numeric Upper limit for max(range 1) - min(range 1) Range: -256 dBpp to 256 dBpp, Unit: dBpp
- Range\_2: float: numeric Upper limit for max(range 2) - min(range 2) Range: -256 dBpp to 256 dBpp, Unit: dBpp
- Max\_1\_Min\_2: float: numeric Upper limit for max(range 1) - min(range 2) Range: -256 dB to 256 dB, Unit: dB
- Max\_2\_Min\_1: float: numeric Upper limit for max(range 2) - min(range 1) Range: -256 dB to 256 dB, Unit: dB
- Edge\_Frequency: float: numeric Frequency band edge distance of border between range 1 and range 2 Range: 0 MHz to 20 MHz, Unit: Hz

**class SflatnessStruct**

Structure for setting input parameters. Fields:

- Enable: bool: No parameter help available
- Lower: float: No parameter help available
- Upper: float: No parameter help available
- Edge\_Lower: float: No parameter help available
- Edge\_Upper: float: No parameter help available
- Edge\_Frequency: float: No parameter help available

**get\_es\_flatness()** → EsFlatnessStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:ESFLatness
value: EsFlatnessStruct = driver.configure.multiEval.limit.qpsk.get_es_
↳ flatness()
```

Defines limits for the equalizer spectrum flatness (QPSK modulation) .

**return**

structure: for return value, see the help for EsFlatnessStruct structure arguments.



**get\_freq\_error()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:FERRor
value: float or bool = driver.configure.multiEval.limit.qpsk.get_freq_error()
```

Defines an upper limit for the carrier frequency error (QPSK modulation) .

**return**

frequency\_error: (float or boolean) numeric | ON | OFF Range: 0 ppm to 1 ppm, Unit: ppm ON | OFF enables or disables the limit check.

**get\_sflatness()** → SflatnessStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:SFLatness
value: SflatnessStruct = driver.configure.multiEval.limit.qpsk.get_sflatness()
```

No command help available

**return**

structure: for return value, see the help for SflatnessStruct structure arguments.

**set\_es\_flatness(value: EsFlatnessStruct)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:ESFLatness
structure = driver.configure.multiEval.limit.qpsk.EsFlatnessStruct()
structure.Enable: bool = False
structure.Range_1: float = 1.0
structure.Range_2: float = 1.0
structure.Max_1_Min_2: float = 1.0
structure.Max_2_Min_1: float = 1.0
structure.Edge_Frequency: float = 1.0
driver.configure.multiEval.limit.qpsk.set_es_flatness(value = structure)
```

Defines limits for the equalizer spectrum flatness (QPSK modulation) .

**param value**

see the help for EsFlatnessStruct structure arguments.

**set\_freq\_error(frequency\_error: float)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:FERRor
driver.configure.multiEval.limit.qpsk.set_freq_error(frequency_error = 1.0)
```

Defines an upper limit for the carrier frequency error (QPSK modulation) .

**param frequency\_error**

(float or boolean) numeric | ON | OFF Range: 0 ppm to 1 ppm, Unit: ppm ON | OFF enables or disables the limit check.

**set\_sflatness(value: SflatnessStruct)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:SFLatness
structure = driver.configure.multiEval.limit.qpsk.SflatnessStruct()
structure.Enable: bool = False
structure.Lower: float = 1.0
structure.Upper: float = 1.0
structure.Edge_Lower: float = 1.0
```

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```

structure.Edge_Upper: float = 1.0
structure.Edge_Frequency: float = 1.0
driver.configure.multiEval.limit.qpsk.set_sflatness(value = structure)

```

No command help available

**param value**

see the help for SflatnessStruct structure arguments.

## Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.qpsk.clone()

```

## Subgroups

### 6.1.4.3.4.1 EvMagnitude

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EvMagnitudeStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get()** → EvMagnitudeStruct

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:EVMagnitude
value: EvMagnitudeStruct = driver.configure.multiEval.limit.qpsk.evMagnitude.
    ↪ get()

```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QPSK.

**return**

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set(rms: float, peak: float)** → None

```

# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:EVMagnitude
driver.configure.multiEval.limit.qpsk.evMagnitude.set(rms = 1.0, peak = 1.0)

```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) for QPSK.

**param rms**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**param peak**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**6.1.4.3.4.2 Ibe****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE
```

**class IbeCls**

Ibe commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**class IbeStruct**

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Minimum: float: numeric Range: -256 dB to 256 dB, Unit: dB
- Evm: float: numeric Range: 0 % to 100 %, Unit: %
- Rb\_Power: float: numeric Range: -256 dBm to 256 dBm, Unit: dBm
- Iq\_Image: float: numeric Range: -256 dB to 256 dB, Unit: dB

**get()** → IbeStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE
value: IbeStruct = driver.configure.multiEval.limit.qpsk.ibe.get()
```

Defines parameters used for calculation of an upper limit for the inband emission (QPSK modulation) , see 'Inband emissions limits'.

**return**

structure: for return value, see the help for IbeStruct structure arguments.

**set(enable: bool, minimum: float, evm: float, rb\_power: float, iq\_image: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE
driver.configure.multiEval.limit.qpsk.ibe.set(enable = False, minimum = 1.0,
↪evm = 1.0, rb_power = 1.0, iq_image = 1.0)
```

Defines parameters used for calculation of an upper limit for the inband emission (QPSK modulation) , see 'Inband emissions limits'.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param minimum**

numeric Range: -256 dB to 256 dB, Unit: dB

**param evm**

numeric Range: 0 % to 100 %, Unit: %

**param rb\_power**  
 numeric Range: -256 dBm to 256 dBm, Unit: dBm

**param iq\_image**  
 numeric Range: -256 dB to 256 dB, Unit: dB

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.qpsk.ibe.clone()
```

## Subgroups

### 6.1.4.3.4.3 IqOffset

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE:IQOffset
```

#### class IqOffsetCls

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class IqOffsetStruct

Response structure. Fields:

- Offset\_1: float: numeric Offset for high TX power range Range: -256 dBc to 256 dBc, Unit: dB
- Offset\_2: float: numeric Offset for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dB
- Offset\_3: float: numeric Offset for low TX power range Range: -256 dBc to 256 dBc, Unit: dB

**get()** → IqOffsetStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE:IQOffset
value: IqOffsetStruct = driver.configure.multiEval.limit.qpsk.ibe.iqOffset.get()
```

Defines I/Q origin offset values used for calculation of an upper limit for the inband emission (QPSK modulation) . Three different values can be set for three TX power ranges, see 'Inband emissions limits'.

#### return

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(offset\_1: float, offset\_2: float, offset\_3: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IBE:IQOffset
driver.configure.multiEval.limit.qpsk.ibe.iqOffset.set(offset_1 = 1.0, offset_2_
↪ = 1.0, offset_3 = 1.0)
```

Defines I/Q origin offset values used for calculation of an upper limit for the inband emission (QPSK modulation) . Three different values can be set for three TX power ranges, see 'Inband emissions limits'.

#### param offset\_1

numeric Offset for high TX power range Range: -256 dBc to 256 dBc, Unit: dB

**param offset\_2**

numeric Offset for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dB

**param offset\_3**

numeric Offset for low TX power range Range: -256 dBc to 256 dBc, Unit: dB

**6.1.4.3.4.4 IqOffset****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IQOffset
```

**class IqOffsetCls**

IqOffset commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class IqOffsetStruct**

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- Offset\_1: float: numeric I/Q origin offset limit for high TX power range Range: -256 dBc to 256 dBc, Unit: dB
- Offset\_2: float: numeric I/Q origin offset limit for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dB
- Offset\_3: float: numeric I/Q origin offset limit for low TX power range Range: -256 dBc to 256 dBc, Unit: dB

**get()** → IqOffsetStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IQOffset
value: IqOffsetStruct = driver.configure.multiEval.limit.qpsk.iqOffset.get()
```

Defines upper limits for the I/Q origin offset (QPSK modulation) . Three different I/Q origin offset limits can be set for three TX power ranges. For details, see 'I/Q origin offset limits'.

**return**

structure: for return value, see the help for IqOffsetStruct structure arguments.

**set(enable: bool, offset\_1: float, offset\_2: float, offset\_3: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:IQOffset
driver.configure.multiEval.limit.qpsk.iqOffset.set(enable = False, offset_1 = 1.
↪0, offset_2 = 1.0, offset_3 = 1.0)
```

Defines upper limits for the I/Q origin offset (QPSK modulation) . Three different I/Q origin offset limits can be set for three TX power ranges. For details, see 'I/Q origin offset limits'.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param offset\_1**

numeric I/Q origin offset limit for high TX power range Range: -256 dBc to 256 dBc, Unit: dB

**param offset\_2**

numeric I/Q origin offset limit for intermediate TX power range Range: -256 dBc to 256 dBc, Unit: dB

**param offset\_3**

numeric I/Q origin offset limit for low TX power range Range: -256 dBc to 256 dBc, Unit: dB

**6.1.4.3.4.5 Merror****SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:MERRor
```

**class MerrorCls**

Merror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class MerrorStruct**

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get()** → MerrorStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:MERRor
value: MerrorStruct = driver.configure.multiEval.limit.qpsk.merror.get()
```

Defines upper limits for the RMS and peak values of the magnitude error for QPSK.

**return**

structure: for return value, see the help for MerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:QPSK:MERRor
driver.configure.multiEval.limit.qpsk.merror.set(rms = 1.0, peak = 1.0)
```

Defines upper limits for the RMS and peak values of the magnitude error for QPSK.

**param rms**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**param peak**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

#### 6.1.4.3.4.6 Perror

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
```

##### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

**get()** → PerrorStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
value: PerrorStruct = driver.configure.multiEval.limit.qpsk.perror.get()
```

Defines symmetric limits for the RMS and peak values of the phase error for QPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

##### return

structure: for return value, see the help for PerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:QPSK:PERRor
driver.configure.multiEval.limit.qpsk.perror.set(rms = 1.0, peak = 1.0)
```

Defines symmetric limits for the RMS and peak values of the phase error for QPSK. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

##### param rms

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

##### param peak

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.

#### 6.1.4.3.5 SeMask

##### class SeMaskCls

SeMask commands group definition. 13 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.clone()
```

## Subgroups

### 6.1.4.3.5.1 AtTolerance<EutraBand>

#### RepCap Settings

```
# Range: Nr30 .. Nr50
rc = driver.configure.multiEval.limit.seMask.atTolerance.repcap_eutraBand_get()
driver.configure.multiEval.limit.seMask.atTolerance.repcap_eutraBand_set(repcap.
↳ EutraBand.Nr30)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:ATTolerance<EUTRAband>
```

#### class AtToleranceCls

AtTolerance commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: EutraBand, default value after init: EutraBand.Nr30

**get**(eutraBand=EutraBand.Default) → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:ATTolerance
↳ <EUTRAband>
value: float = driver.configure.multiEval.limit.seMask.atTolerance.
↳ get(eutraBand = repcap.EutraBand.Default)
```

Defines additional test tolerances for the emission masks. The tolerance is added to the power values of all general and additional spectrum emission masks. A positive tolerance value relaxes the limits. For operating bands below 3 GHz, there is no additional test tolerance. You can define different additional test tolerances for bands above 3 GHz and for bands above 5 GHz.

#### param eutraBand

optional repeated capability selector. Default value: Nr30 (settable in the interface 'AtTolerance')

#### return

add\_test\_tol: numeric Additional test tolerance Range: -5 dB to 5 dB, Unit: dB

**set**(add\_test\_tol: float, eutraBand=EutraBand.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:ATTolerance
↳ <EUTRAband>
driver.configure.multiEval.limit.seMask.atTolerance.set(add_test_tol = 1.0,
↳ eutraBand = repcap.EutraBand.Default)
```

Defines additional test tolerances for the emission masks. The tolerance is added to the power values of all general and additional spectrum emission masks. A positive tolerance value relaxes the limits. For



operating bands below 3 GHz, there is no additional test tolerance. You can define different additional test tolerances for bands above 3 GHz and for bands above 5 GHz.

**param add\_test\_tol**

numeric Additional test tolerance Range: -5 dB to 5 dB, Unit: dB

**param eutraBand**

optional repeated capability selector. Default value: Nr30 (settable in the interface 'AtTolerance')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.atTolerance.clone()
```

### 6.1.4.3.5.2 Limit<Limit>

#### RepCap Settings

```
# Range: Nr1 .. Nr12
rc = driver.configure.multiEval.limit.seMask.limit.repcap_limit_get()
driver.configure.multiEval.limit.seMask.limit.repcap_limit_set(repcap.Limit.Nr1)
```

**class LimitCls**

Limit commands group definition. 8 total commands, 3 Subgroups, 0 group commands Repeated Capability: Limit, default value after init: Limit.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.clone()
```

## Subgroups

### 6.1.4.3.5.3 Additional<Table>

#### RepCap Settings

```
# Range: Nr1 .. Nr5
rc = driver.configure.multiEval.limit.seMask.limit.additional.repcap_table_get()
driver.configure.multiEval.limit.seMask.limit.additional.repcap_table_set(repcap.Table.
↪Nr1)
```

**class AdditionalCls**

Additional commands group definition. 4 total commands, 2 Subgroups, 0 group commands Repeated Capability: Table, default value after init: Table.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.additional.clone()
```

## Subgroups

### 6.1.4.3.5.4 CarrierAggregation

#### **class CarrierAggregationCls**

CarrierAggregation commands group definition. 2 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳clone()
```

## Subgroups

### 6.1.4.3.5.5 ChannelBw1st<FirstChannelBw>

## RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳channelBw1st.repcap_firstChannelBw_get()
driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.channelBw1st.
↳repcap_firstChannelBw_set(repcap.FirstChannelBw.Bw100)
```

#### **class ChannelBw1stCls**

ChannelBw1st commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: FirstChannelBw, default value after init: FirstChannelBw.Bw100

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳channelBw1st.clone()
```

## Subgroups

### 6.1.4.3.5.6 ChannelBw2nd<SecondChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
    ↳ channelBw1st.channelBw2nd.repcap_secondChannelBw_get()
driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.channelBw1st.
    ↳ channelBw2nd.repcap_secondChannelBw_set(repcap.SecondChannelBw.Bw50)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>:ADDITIONal<Table>
    ↳ :CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
```

#### class ChannelBw2ndCls

ChannelBw2nd commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: SecondChannelBw, default value after init: SecondChannelBw.Bw50

#### class ChannelBw2ndStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(limit=Limit.Default, table=Table.Default, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default) → ChannelBw2ndStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>
    ↳ :ADDITIONal<Table>:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
value: ChannelBw2ndStruct = driver.configure.multiEval.limit.seMask.limit.
    ↳ additional.carrierAggregation.channelBw1st.channelBw2nd.get(limit = repcap.
    ↳ Limit.Default, table = repcap.Table.Default, firstChannelBw = repcap.
    ↳ FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

#### param limit

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**return**

structure: for return value, see the help for ChannelBw2ndStruct structure arguments.

**set**(*enable*: bool, *frequency\_start*: float, *frequency\_end*: float, *level*: float, *rbw*: Rbw, *limit*=Limit.Default, *table*=Table.Default, *firstChannelBw*=FirstChannelBw.Default, *secondChannelBw*=SecondChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:ADDITIONal<Table>:CAGGregation:CBANDwidth<Band1>:CBANDwidth<Band2>
driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳channelBw1st.channelBw2nd.set(enable = False, frequency_start = 1.0,
↳frequency_end = 1.0, level = 1.0, rbw = enums.Rbw.K030, limit = repcap.Limit.
↳Default, table = repcap.Table.Default, firstChannelBw = repcap.FirstChannelBw.
↳Default, secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANDwidth100:CBANDwidth50.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳channelBw1st.channelBw2nd.clone()
```

**6.1.4.3.5.7 Ocombination****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>:ADDitional<Table>
↳:CAGGregation:OCOMbination
```

**class OcombinationCls**

Ocombination commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class OcombinationStruct**

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Level: float: numeric Upper limit for the area. Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(limit=Limit.Default, table=Table.Default) → OcombinationStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>
↳:ADDitional<Table>:CAGGregation:OCOMbination
value: OcombinationStruct = driver.configure.multiEval.limit.seMask.limit.
↳additional.carrierAggregation.ocombination.get(limit = repcap.Limit.Default,
↳table = repcap.Table.Default)
```

Defines additional requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**return**

structure: for return value, see the help for OcombinationStruct structure arguments.

**set**(*enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: Rbw, limit=Limit.Default, table=Table.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:ADDITIONal<Table>:CAGGregation:OCOMbination
driver.configure.multiEval.limit.seMask.limit.additional.carrierAggregation.
↳ocombination.set(enable = False, frequency_start = 1.0, frequency_end = 1.0,
↳level = 1.0, rbw = enums.Rbw.K030, limit = repcap.Limit.Default, table =
↳repcap.Table.Default)
```

Defines additional requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param level**

numeric Upper limit for the area. Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

### 6.1.4.3.5.8 ChannelBw<ChannelBw>

#### RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.additional.channelBw.repcap_channelBw_
↪get()
driver.configure.multiEval.limit.seMask.limit.additional.channelBw.repcap_channelBw_
↪set(repcap.ChannelBw.Bw14)
```

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>:ADDITIONal<Table>
↪:CBANDwidth<Band>
```

#### class ChannelBwCls

ChannelBw commands group definition. 2 total commands, 1 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

#### class ChannelBwStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the channel bandwidth. Range: see table below , Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the channel bandwidth. Range: see table below , Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.RbwExtended: K030 | K050 | K100 | K150 | K200 | M1 Resolution bandwidth to be used for the area. Only a subset of the values is allowed, depending on Table and Band, see table below. K030: 30 kHz K050: 50 kHz K100: 100 kHz K150: 150 kHz K200: 200 kHz M1: 1 MHz

**get**(limit=Limit.Default, table=Table.Default, channelBw=ChannelBw.Default) → ChannelBwStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↪:ADDITIONal<Table>:CBANDwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.limit.seMask.limit.
↪additional.channelBw.get(limit = repcap.Limit.Default, table = repcap.Table.
↪Default, channelBw = repcap.ChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>, for uplink measurements. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>. Several tables of additional requirements are available.

#### param limit

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

#### param table

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**return**

structure: for return value, see the help for ChannelBwStruct structure arguments.

**set**(*enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: RbwExtended, limit=Limit.Default, table=Table.Default, channelBw=ChannelBw.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:ADDITIONal<Table>:CBANdwidth<Band>
driver.configure.multiEval.limit.seMask.limit.additional.channelBw.set(enable =
↳False, frequency_start = 1.0, frequency_end = 1.0, level = 1.0, rbw = enums.
↳RbwExtended.K030, limit = repcap.Limit.Default, table = repcap.Table.Default,
↳channelBw = repcap.ChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>, for uplink measurements. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>. Several tables of additional requirements are available.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the channel bandwidth.  
Range: see table below , Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the channel bandwidth.  
Range: see table below , Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K050 | K100 | K150 | K200 | M1 Resolution bandwidth to be used for the area. Only a subset of the values is allowed, depending on Table and Band, see table below.  
K030: 30 kHz K050: 50 kHz K100: 100 kHz K150: 150 kHz K200: 200 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.additional.channelBw.clone()
```

## Subgroups

### 6.1.4.3.5.9 Sidelink

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>:ADDITIONal<Table>
↳:CBANDwidth<Band>:SIDelink
```

#### class SidelinkCls

Sidelink commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SidelinkStruct

Structure for setting input parameters. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the channel bandwidth. Range: 0 MHz to 25 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the channel bandwidth. Range: 0 MHz to 25 MHz, Unit: Hz
- Level: float: numeric Upper limit at FrequencyStart Range: -256 dBm to 256 dBm, Unit: dBm
- Slope: float: numeric Slope for the upper limit within the area Range: -256 dB/MHz to 256 dB/MHz, Unit: dB/MHz
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(limit=Limit.Default, table=Table.Default, channelBw=ChannelBw.Default) → SidelinkStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:ADDITIONal<Table>:CBANDwidth<Band>:SIDelink
value: SidelinkStruct = driver.configure.multiEval.limit.seMask.limit.
↳additional.channelBw.sidelink.get(limit = repcap.Limit.Default, table =
↳repcap.Table.Default, channelBw = repcap.ChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>, for sidelink measurements. The activation state, the area borders, the start value and slope of the upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>.

#### param limit

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

#### param table

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**return**

structure: for return value, see the help for SidelinkStruct structure arguments.

**set**(structure: SidelinkStruct, limit=Limit.Default, table=Table.Default, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:ADDITIONal<Table>:CBANDwidth<Band>:SIDelink
structure = driver.configure.multiEval.limit.seMask.limit.additional.channelBw.
↳sidelink.SidelinkStruct()
structure.Enable: bool = False
structure.Frequency_Start: float = 1.0
structure.Frequency_End: float = 1.0
structure.Level: float = 1.0
structure.Slope: float = 1.0
structure.Rbw: enums.Rbw = enums.Rbw.K030
driver.configure.multiEval.limit.seMask.limit.additional.channelBw.sidelink.
↳set(structure, limit = repcap.Limit.Default, table = repcap.Table.Default,
↳channelBw = repcap.ChannelBw.Default)
```

Defines additional requirements for the emission mask area <no>, for sidelink measurements. The activation state, the area borders, the start value and slope of the upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>.

**param structure**

for set value, see the help for SidelinkStruct structure arguments.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param table**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Additional')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

### 6.1.4.3.5.10 CarrierAggregation

#### class CarrierAggregationCls

CarrierAggregation commands group definition. 3 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.clone()
```

## Subgroups

### 6.1.4.3.5.11 ChannelBw1st<FirstChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳ repcap_firstChannelBw_get()
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.repcap_
↳ firstChannelBw_set(repcap.FirstChannelBw.Bw100)
```

#### class ChannelBw1stCls

ChannelBw1st commands group definition. 2 total commands, 1 Subgroups, 0 group commands Repeated Capability: FirstChannelBw, default value after init: FirstChannelBw.Bw100

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳ clone()
```

## Subgroups

### 6.1.4.3.5.12 ChannelBw2nd<SecondChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳ channelBw2nd.repcap_secondChannelBw_get()
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳ channelBw2nd.repcap_secondChannelBw_set(repcap.SecondChannelBw.Bw50)
```

**SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
```

**class ChannelBw2ndCls**

ChannelBw2nd commands group definition. 2 total commands, 1 Subgroups, 1 group commands Repeated Capability: SecondChannelBw, default value after init: SecondChannelBw.Bw50

**class ChannelBw2ndStruct**

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(*limit=Limit.Default, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default*) → ChannelBw2ndStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
value: ChannelBw2ndStruct = driver.configure.multiEval.limit.seMask.limit.
↳carrierAggregation.channelBw1st.channelBw2nd.get(limit = repcap.Limit.Default,
↳ firstChannelBw = repcap.FirstChannelBw.Default, secondChannelBw = repcap.
↳SecondChannelBw.Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**return**

structure: for return value, see the help for ChannelBw2ndStruct structure arguments.

**set**(*enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: Rbw, limit=Limit.Default, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳channelBw2nd.set(enable = False, frequency_start = 1.0, frequency_end = 1.0,
↳level = 1.0, rbw = enums.Rbw.K030, limit = repcap.Limit.Default,
↳firstChannelBw = repcap.FirstChannelBw.Default, secondChannelBw = repcap.
↳SecondChannelBw.Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳channelBw2nd.clone()
```

## Subgroups

### 6.1.4.3.5.13 ChannelBw3rd<ThirdChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
    ↪ channelBw2nd.channelBw3rd.repcap_thirdChannelBw_get()
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
    ↪ channelBw2nd.channelBw3rd.repcap_thirdChannelBw_set(repcap.ThirdChannelBw.Bw100)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
    ↪ :CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
```

#### class ChannelBw3rdCls

ChannelBw3rd commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ThirdChannelBw, default value after init: ThirdChannelBw.Bw100

#### class ChannelBw3rdStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(limit=Limit.Default, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) → ChannelBw3rdStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
    ↪ :CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
value: ChannelBw3rdStruct = driver.configure.multiEval.limit.seMask.limit.
    ↪ carrierAggregation.channelBw1st.channelBw2nd.channelBw3rd.get(limit = repcap.
    ↪ Limit.Default, firstChannelBw = repcap.FirstChannelBw.Default,
    ↪ secondChannelBw = repcap.SecondChannelBw.Default, thirdChannelBw = repcap.
    ↪ ThirdChannelBw.Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

**return**

structure: for return value, see the help for ChannelBw3rdStruct structure arguments.

**set**(enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: Rbw, limit=Limit.Default, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>:CBANdwidth<Band3>
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.set(enable = False, frequency_start = 1.0,
↳frequency_end = 1.0, level = 1.0, rbw = enums.Rbw.K030, limit = repcap.Limit.
↳Default, firstChannelBw = repcap.FirstChannelBw.Default, secondChannelBw =
↳repcap.SecondChannelBw.Default, thirdChannelBw = repcap.ThirdChannelBw.
↳Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface

‘Limit’)

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface ‘ChannelBw1st’)

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface ‘ChannelBw2nd’)

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface ‘ChannelBw3rd’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.clone()
```

### 6.1.4.3.5.14 Ocombination

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:OCOMbination
```

#### class OcombinationCls

Ocombination commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class OcombinationStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(limit=Limit.Default) → OcombinationStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:OCOMbination
value: OcombinationStruct = driver.configure.multiEval.limit.seMask.limit.
↳carrierAggregation.ocombination.get(limit = repcap.Limit.Default)
```



Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**return**

structure: for return value, see the help for OcombinationStruct structure arguments.

**set**(enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: Rbw, limit=Limit.Default)  
→ None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CAGGregation:OCOMbination
driver.configure.multiEval.limit.seMask.limit.carrierAggregation.ocombination.
↳set(enable = False, frequency_start = 1.0, frequency_end = 1.0, level = 1.0,
↳rbw = enums.Rbw.K030, limit = repcap.Limit.Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The settings apply to all 'other' channel bandwidth combinations, not covered by other commands in this chapter.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the aggregated channel bandwidth. Range: 0 MHz to 65 MHz, Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

#### 6.1.4.3.5.15 ChannelBw<ChannelBw>

##### RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.seMask.limit.channelBw.repcap_channelBw_get()
driver.configure.multiEval.limit.seMask.limit.channelBw.repcap_channelBw_set(repcap.
↳ChannelBw.Bw14)
```

**SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>:CBANDwidth<Band>
```

**class ChannelBwCls**

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

**class ChannelBwStruct**

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.
- Frequency\_Start: float: numeric Start frequency of the area, relative to the edges of the channel bandwidth. Range: see table below , Unit: Hz
- Frequency\_End: float: numeric Stop frequency of the area, relative to the edges of the channel bandwidth. Range: see table below , Unit: Hz
- Level: float: numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm
- Rbw: enums.Rbw: K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**get**(*limit=Limit.Default, channelBw=ChannelBw.Default*) → ChannelBwStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CBANDwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.limit.seMask.limit.
↳channelBw.get(limit = repcap.Limit.Default, channelBw = repcap.ChannelBw.
↳Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>.

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**return**

structure: for return value, see the help for ChannelBwStruct structure arguments.

**set**(*enable: bool, frequency\_start: float, frequency\_end: float, level: float, rbw: Rbw, limit=Limit.Default, channelBw=ChannelBw.Default*) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIMit:SEMask:LIMit<nr>
↳:CBANDwidth<Band>
driver.configure.multiEval.limit.seMask.limit.channelBw.set(enable = False,
↳frequency_start = 1.0, frequency_end = 1.0, level = 1.0, rbw = enums.Rbw.K030,
↳limit = repcap.Limit.Default, channelBw = repcap.ChannelBw.Default)
```

Defines general requirements for the emission mask area <no>. The activation state, the area borders, an upper limit and the resolution bandwidth must be specified. The emission mask applies to the channel bandwidth <Band>.

**param enable**

OFF | ON OFF: Disables the check of these requirements. ON: Enables the check of these requirements.

**param frequency\_start**

numeric Start frequency of the area, relative to the edges of the channel bandwidth.  
Range: see table below , Unit: Hz

**param frequency\_end**

numeric Stop frequency of the area, relative to the edges of the channel bandwidth.  
Range: see table below , Unit: Hz

**param level**

numeric Upper limit for the area Range: -256 dBm to 256 dBm, Unit: dBm

**param rbw**

K030 | K100 | M1 Resolution bandwidth to be used for the area. K030: 30 kHz K100: 100 kHz M1: 1 MHz

**param limit**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Limit')

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.limit.channelBw.clone()
```

### 6.1.4.3.5.16 ObwLimit

**class ObwLimitCls**

ObwLimit commands group definition. 4 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.clone()
```

## Subgroups

### 6.1.4.3.5.17 CarrierAggregation

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGGregation:OCOMbination
```

#### class CarrierAggregationCls

CarrierAggregation commands group definition. 3 total commands, 1 Subgroups, 1 group commands

**get\_ocombination()** → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGGregation:OCOMbination
value: float or bool = driver.configure.multiEval.limit.seMask.obwLimit.
↳carrierAggregation.get_ocombination()
```

Defines an upper limit for the occupied bandwidth. The setting applies to all ‘other’ channel bandwidth combinations, not covered by other commands in this chapter.

#### return

obw\_limit: (float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz  
ON | OFF enables or disables the limit check.

**set\_ocombination(obw\_limit: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGGregation:OCOMbination
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.set_
↳ocombination(obw_limit = 1.0)
```

Defines an upper limit for the occupied bandwidth. The setting applies to all ‘other’ channel bandwidth combinations, not covered by other commands in this chapter.

#### param obw\_limit

(float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz ON | OFF  
enables or disables the limit check.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.clone()
```

## Subgroups

### 6.1.4.3.5.18 ChannelBw1st<FirstChannelBw>

#### RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.
    ↪ repcap_firstChannelBw_get()
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.repcap_
    ↪ firstChannelBw_set(repcap.FirstChannelBw.Bw100)
```

#### class ChannelBw1stCls

ChannelBw1st commands group definition. 2 total commands, 1 Subgroups, 0 group commands Repeated Capability: FirstChannelBw, default value after init: FirstChannelBw.Bw100

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.
    ↪ channelBw1st.clone()
```

## Subgroups

### 6.1.4.3.5.19 ChannelBw2nd<SecondChannelBw>

#### RepCap Settings

```
# Range: Bw50 .. Bw200
rc = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.
    ↪ channelBw2nd.repcap_secondChannelBw_get()
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.
    ↪ channelBw2nd.repcap_secondChannelBw_set(repcap.SecondChannelBw.Bw50)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>
    ↪ :MEValuation:LIMit:SEMask:OBWLimit:CAGGregation:CBANdwidth<Band1>:CBANdwidth<Band2>
```

#### class ChannelBw2ndCls

ChannelBw2nd commands group definition. 2 total commands, 1 Subgroups, 1 group commands Repeated Capability: SecondChannelBw, default value after init: SecondChannelBw.Bw50

**get**(firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default) → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
    ↪ :MEValuation:LIMit:SEMask:OBWLimit:CAGGregation:CBANdwidth<Band1>:CBANdwidth
    ↪ <Band2>
```

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```
value: float or bool = driver.configure.multiEval.limit.seMask.obwLimit.  
↪ carrierAggregation.channelBw1st.channelBw2nd.get(firstChannelBw = repcap.  
↪ FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth. The setting is defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**return**

obw\_limit: (float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz  
ON | OFF enables or disables the limit check.

**set**(obw\_limit: float, firstChannelBw=FirstChannelBw.Default,  
secondChannelBw=SecondChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>  
↪ :MEValuation:LIMit:SEMask:OBWLimit:CAGGregation:CBANdwidth<Band1>:CBANdwidth  
↪ <Band2>  
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.  
↪ channelBw1st.channelBw2nd.set(obw_limit = 1.0, firstChannelBw = repcap.  
↪ FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth. The setting is defined separately for each channel bandwidth combination, for two aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth100:CBANdwidth50.

**param obw\_limit**

(float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz ON | OFF  
enables or disables the limit check.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.
↳channelBw1st.channelBw2nd.clone()
```

## Subgroups

### 6.1.4.3.5.20 ChannelBw3rd<ThirdChannelBw>

## RepCap Settings

```
# Range: Bw100 .. Bw200
rc = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.repcap_thirdChannelBw_get()
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.channelBw1st.
↳channelBw2nd.channelBw3rd.repcap_thirdChannelBw_set(repcap.ThirdChannelBw.Bw100)
```

## SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGgregation:CBANdwidth<Band1>:CBANdwidth<Band2>
↳:CBANdwidth<Band3>
```

## class ChannelBw3rdCls

ChannelBw3rd commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ThirdChannelBw, default value after init: ThirdChannelBw.Bw100

**get**(firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGgregation:CBANdwidth<Band1>:CBANdwidth
↳<Band2>:CBANdwidth<Band3>
value: float or bool = driver.configure.multiEval.limit.seMask.obwLimit.
↳carrierAggregation.channelBw1st.channelBw2nd.channelBw3rd.get(firstChannelBw,
↳= repcap.FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.
↳Default, thirdChannelBw = repcap.ThirdChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.

### param firstChannelBw

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

### param secondChannelBw

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')

**return**

obw\_limit: (float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz  
ON | OFF enables or disables the limit check.

**set**(obw\_limit: float, firstChannelBw=FirstChannelBw.Default, secondChannelBw=SecondChannelBw.Default, thirdChannelBw=ThirdChannelBw.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CAGgregation:CBANdwidth<Band1>:CBANdwidth
↳<Band2>:CBANdwidth<Band3>
driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.
↳channelBw1st.channelBw2nd.channelBw3rd.set(obw_limit = 1.0, firstChannelBw =
↳repcap.FirstChannelBw.Default, secondChannelBw = repcap.SecondChannelBw.
↳Default, thirdChannelBw = repcap.ThirdChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth. The settings are defined separately for each channel bandwidth combination, for three aggregated carriers. The following bandwidth combinations are supported: Example: For the first line in the figure, use ...:CBANdwidth200:CBANdwidth150:CBANdwidth100.

**param obw\_limit**

(float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz ON | OFF enables or disables the limit check.

**param firstChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw1st')

**param secondChannelBw**

optional repeated capability selector. Default value: Bw50 (settable in the interface 'ChannelBw2nd')

**param thirdChannelBw**

optional repeated capability selector. Default value: Bw100 (settable in the interface 'ChannelBw3rd')



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.carrierAggregation.
↳channelBw1st.channelBw2nd.channelBw3rd.clone()
```

### 6.1.4.3.5.21 ChannelBw<ChannelBw>

#### RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.limit.seMask.obwLimit.channelBw.repcap_channelBw_get()
driver.configure.multiEval.limit.seMask.obwLimit.channelBw.repcap_channelBw_set(repcap.
↳ChannelBw.Bw14)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIMit:SEMask:OBWLimit:CBANdwidth<Band>
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

**get**(channelBw=ChannelBw.Default) → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CBANdwidth<Band>
value: float or bool = driver.configure.multiEval.limit.seMask.obwLimit.
↳channelBw.get(channelBw = repcap.ChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth, depending on the channel bandwidth.

#### param channelBw

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

#### return

obw\_limit: (float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz  
ON | OFF enables or disables the limit check.

**set**(obw\_limit: float, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:LIMit:SEMask:OBWLimit:CBANdwidth<Band>
driver.configure.multiEval.limit.seMask.obwLimit.channelBw.set(obw_limit = 1.0,
↳channelBw = repcap.ChannelBw.Default)
```

Defines an upper limit for the occupied bandwidth, depending on the channel bandwidth.

#### param obw\_limit

(float or boolean) numeric | ON | OFF Range: 0 MHz to 40 MHz, Unit: Hz ON | OFF  
enables or disables the limit check.

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.limit.seMask.obwLimit.channelBw.clone()
```

**6.1.4.4 ListPy****SCPI Commands :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:OSIndex
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:PLCMode
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:CMode
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:NCONnections
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST
```

**class ListPyCls**

ListPy commands group definition. 25 total commands, 3 Subgroups, 5 group commands

**get\_cmde()** → ParameterSetMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:CMode
value: enums.ParameterSetMode = driver.configure.multiEval.listPy.get_cmde()
```

No command help available

**return**

connector\_mode: No help available

**get\_nconnections()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:NCONnections
value: int = driver.configure.multiEval.listPy.get_nconnections()
```

No command help available

**return**

no\_of\_connections: No help available

**get\_os\_index()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:OSIndex
value: int or bool = driver.configure.multiEval.listPy.get_os_index()
```

Selects the number of the segment to be displayed in offline mode. The index refers to the range of measured segments, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Lrange.set. Setting a value also enables the offline mode.

**return**

offline\_seg\_index: (integer or boolean) numeric | OFF Range: 1 to number of measured segments OFF disables the offline mode.

**get\_plc\_mode()** → ParameterSetMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:PLCMode
value: enums.ParameterSetMode = driver.configure.multiEval.listPy.get_plc_mode()
```

Selects which physical cell ID setting is used for list mode measurements.

**return**

plc\_id\_mode: GLOBAL | LIST GLOBAL The global setting is used for all segments, see method RsCmwLteMeas.Configure.MultiEval.Cc.PlcId.set.  
LIST The cell ID is configured per segment, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.PlcId.set.

**get\_value()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST
value: bool = driver.configure.multiEval.listPy.get_value()
```

Enables or disables the list mode.

**return**

enable: OFF | ON OFF: Disable list mode. ON: Enable list mode.

**set\_cmode(connector\_mode: ParameterSetMode)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:CMODE
driver.configure.multiEval.listPy.set_cmode(connector_mode = enums.
↳ParameterSetMode.GLOBAL)
```

No command help available

**param connector\_mode**

No help available

**set\_nconnections(no\_of\_connections: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:NCONnections
driver.configure.multiEval.listPy.set_nconnections(no_of_connections = 1)
```

No command help available

**param no\_of\_connections**

No help available

**set\_os\_index(offline\_seg\_index: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:OSIndex
driver.configure.multiEval.listPy.set_os_index(offline_seg_index = 1)
```

Selects the number of the segment to be displayed in offline mode. The index refers to the range of measured segments, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Lrange.set. Setting a value also enables the offline mode.

**param offline\_seg\_index**

(integer or boolean) numeric | OFF Range: 1 to number of measured segments OFF disables the offline mode.

**set\_plc\_mode**(*plc\_id\_mode*: *ParameterSetMode*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:PLCMode
driver.configure.multiEval.listPy.set_plc_mode(plc_id_mode = enums.
↳ParameterSetMode.GLOBal)
```

Selects which physical cell ID setting is used for list mode measurements.

**param plc\_id\_mode**

GLOBAL | LIST GLOBAL The global setting is used for all segments, see method RsCmwLteMeas.Configure.MultiEval.Cc.PlcId.set.  
LIST The cell ID is configured per segment, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.PlcId.set.

**set\_value**(*enable*: *bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST
driver.configure.multiEval.listPy.set_value(enable = False)
```

Enables or disables the list mode.

**param enable**

OFF | ON OFF: Disable list mode. ON: Enable list mode.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.clone()
```

## Subgroups

### 6.1.4.4.1 Lrange

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:LRAnge
```

**class LrangeCls**

Lrange commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class LrangeStruct**

Response structure. Fields:

- Start\_Index: int: numeric First measured segment in the range of configured segments Range: 1 to 2000
- Nr\_Segments: int: numeric Number of measured segments Range: 1 to 1000

**get()** → LrangeStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:LRAnge
value: LrangeStruct = driver.configure.multiEval.listPy.lrange.get()
```

Select a range of measured segments. The segments must be configured using method RsCmwLteMeas.Configure.MultiEval.ListPy. Segment.Setup.set.

**return**

structure: for return value, see the help for LrangeStruct structure arguments.

**set**(start\_index: int, nr\_segments: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:LRAnge
driver.configure.multiEval.listPy.lrange.set(start_index = 1, nr_segments = 1)
```

Select a range of measured segments. The segments must be configured using method RsCmwLteMeas.Configure.MultiEval.ListPy. Segment.Setup.set.

**param start\_index**

numeric First measured segment in the range of configured segments Range: 1 to 2000

**param nr\_segments**

numeric Number of measured segments Range: 1 to 1000

#### 6.1.4.4.2 Segment<Segment>

##### RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.configure.multiEval.listPy.segment.repcap_segment_get()
driver.configure.multiEval.listPy.segment.repcap_segment_set(repcap.Segment.Nr1)
```

**class SegmentCls**

Segment commands group definition. 18 total commands, 15 Subgroups, 0 group commands Repeated Capability: Segment, default value after init: Segment.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.clone()
```

##### Subgroups

#### 6.1.4.4.2.1 Aclr

**SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ACLR
```

**class AclrCls**

Aclr commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class AclrStruct**

Response structure. Fields:

- Aclr\_Statistics: int: integer Statistical length in slots Range: 1 to 1000

- **Aclr\_Enable**: bool: OFF | ON Enable or disable the measurement of ACLR results. ON: ACLR results are measured according to the other enable flags in this command. ACLR results for which there is no explicit enable flag are also measured (e.g. power in assigned E-UTRA channel) . OFF: No ACLR results at all are measured. The other enable flags in this command are ignored.
- **Utra\_1\_Enable**: bool: OFF | ON Enable or disable evaluation of first adjacent UTRA channels.
- **Utra\_2\_Enable**: bool: OFF | ON Enable or disable evaluation of second adjacent UTRA channels.
- **Eutra\_Enable**: bool: OFF | ON Enable or disable evaluation of first adjacent E-UTRA channels.

**get**(segment=Segment.Default) → AclrStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ACLR
value: AclrStruct = driver.configure.multiEval.listPy.segment.aclr.get(segment,
↳ = repcap.Segment.Default)
```

Defines settings for ACLR measurements in list mode for segment <no>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for AclrStruct structure arguments.

**set**(aclr\_statistics: int, aclr\_enable: bool, utra\_1\_enable: bool, utra\_2\_enable: bool, eutra\_enable: bool, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ACLR
driver.configure.multiEval.listPy.segment.aclr.set(aclr_statistics = 1, aclr_
↳ enable = False, utra_1_enable = False, utra_2_enable = False, eutra_enable =
↳ False, segment = repcap.Segment.Default)
```

Defines settings for ACLR measurements in list mode for segment <no>.

**param aclr\_statistics**

integer Statistical length in slots Range: 1 to 1000

**param aclr\_enable**

OFF | ON Enable or disable the measurement of ACLR results. ON: ACLR results are measured according to the other enable flags in this command. ACLR results for which there is no explicit enable flag are also measured (e.g. power in assigned E-UTRA channel) . OFF: No ACLR results at all are measured. The other enable flags in this command are ignored.

**param utra\_1\_enable**

OFF | ON Enable or disable evaluation of first adjacent UTRA channels.

**param utra\_2\_enable**

OFF | ON Enable or disable evaluation of second adjacent UTRA channels.

**param eutra\_enable**

OFF | ON Enable or disable evaluation of first adjacent E-UTRA channels.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.2 CarrierAggregation

##### class CarrierAggregationCls

CarrierAggregation commands group definition. 3 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.carrierAggregation.clone()
```

##### Subgroups

#### 6.1.4.4.2.3 AcSpacing

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CAGGregation:ACSPacing
```

##### class AcSpacingCls

AcSpacing commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**(segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:CAGGregation:ACSPacing
driver.configure.multiEval.listPy.segment.carrierAggregation.acSpacing.
↪set(segment = repcap.Segment.Default)
```

Adjusts the component carrier frequencies in segment <no>, so that the carriers are aggregated contiguously.

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**set\_with\_opc**(segment=Segment.Default, opc\_timeout\_ms: int = -1) → None

#### 6.1.4.4.2.4 Mcarrier

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CAGGregation:MCArrier
```

##### class McarrierCls

Mcarrier commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get**(segment=Segment.Default) → MeasCarrier

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:CAGGregation:MCARrier
value: enums.MeasCarrier = driver.configure.multiEval.listPy.segment.
↳carrierAggregation.mcarrier.get(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

meas\_carrier: No help available

**set**(meas\_carrier: MeasCarrier, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:CAGGregation:MCARrier
driver.configure.multiEval.listPy.segment.carrierAggregation.mcarrier.set(meas_
↳carrier = enums.MeasCarrier.PCC, segment = repcap.Segment.Default)
```

No command help available

**param meas\_carrier**

No help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.carrierAggregation.mcarrier.clone()
```

## Subgroups

### 6.1.4.4.2.5 Enhanced

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:CAGGregation:MCARrier:ENHanced
```

#### class EnhancedCls

Enhanced commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → MeasCarrierEnhanced

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:CAGGregation:MCARrier:ENHanced
value: enums.MeasCarrierEnhanced = driver.configure.multiEval.listPy.segment.
↳carrierAggregation.mcarrier.enhanced.get(segment = repcap.Segment.Default)
```



Selects a component carrier for single-carrier measurements in segment <no>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

meas\_carrier: CC1 | CC2 | CC3 | CC4

**set**(meas\_carrier: MeasCarrierEnhanced, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:CAGGregation:MCARrier:ENHanced
driver.configure.multiEval.listPy.segment.carrierAggregation.mcarrier.enhanced.
↳set(meas_carrier = enums.MeasCarrierEnhanced.CC1, segment = repcap.Segment.
↳Default)
```

Selects a component carrier for single-carrier measurements in segment <no>.

**param meas\_carrier**

CC1 | CC2 | CC3 | CC4

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.6 Cc<CarrierComponent>

##### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.configure.multiEval.listPy.segment.cc.repcap_carrierComponent_get()
driver.configure.multiEval.listPy.segment.cc.repcap_carrierComponent_set(repcap.
↳CarrierComponent.Nr1)
```

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CC<c>
```

##### class CcCls

Cc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

##### class CcStruct

Response structure. Fields:

- Frequency: float: numeric Center frequency of the component carrier, used in the segment For the supported range, see ‘Frequency ranges’. Unit: Hz
- Ch\_Bandwidth: enums.ChannelBandwidth: B014 | B030 | B050 | B100 | B150 | B200 Channel bandwidth of the component carrier, used in the segment B014: 1.4 MHz B030: 3 MHz B050: 5 MHz B100: 10 MHz B150: 15 MHz B200: 20 MHz

**get**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → CcStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CC<c>
value: CcStruct = driver.configure.multiEval.listPy.segment.cc.get(segment =
↳ repcap.Segment.Default, carrierComponent = repcap.CarrierComponent.Default)
```

Defines carrier-specific analyzer settings for component carrier CC<c>, in segment <no>. This command is only relevant for carrier aggregation.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CcStruct structure arguments.

**set**(frequency: float, ch\_bandwidth: ChannelBandwidth, segment=Segment.Default, carrierComponent=CarrierComponent.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CC<c>
driver.configure.multiEval.listPy.segment.cc.set(frequency = 1.0, ch_bandwidth_
↳ = enums.ChannelBandwidth.B014, segment = repcap.Segment.Default,
↳ carrierComponent = repcap.CarrierComponent.Default)
```

Defines carrier-specific analyzer settings for component carrier CC<c>, in segment <no>. This command is only relevant for carrier aggregation.

**param frequency**

numeric Center frequency of the component carrier, used in the segment For the supported range, see ‘Frequency ranges’. Unit: Hz

**param ch\_bandwidth**

B014 | B030 | B050 | B100 | B150 | B200 Channel bandwidth of the component carrier, used in the segment B014: 1.4 MHz B030: 3 MHz B050: 5 MHz B100: 10 MHz B150: 15 MHz B200: 20 MHz

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.cc.clone()
```

#### 6.1.4.4.2.7 Cidx

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CIDX
```

##### class CidxCls

Cidx commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CIDX
value: int = driver.configure.multiEval.listPy.segment.cidx.get(segment = ↵
↵repcap.Segment.Default)
```

No command help available

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

##### return

connection\_index: No help available

**set**(connection\_index: int, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:CIDX
driver.configure.multiEval.listPy.segment.cidx.set(connection_index = 1, ↵
↵segment = repcap.Segment.Default)
```

No command help available

##### param connection\_index

No help available

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.8 Emtc

##### class EmtcCls

Emtc commands group definition. 1 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.emtc.clone()
```

## Subgroups

### 6.1.4.4.2.9 Nband

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:EMTC:NBAND
```

#### class NbandCls

Nband commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:EMTC:NBAND
value: int = driver.configure.multiEval.listPy.segment.emtc.nband.get(segment =
↳repcap.Segment.Default)
```

Selects the eMTC narrowband for segment <no>.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

number: numeric The maximum depends on the channel BW, see ‘RB allocation, narrowbands and widebands for eMTC’. Range: 0 to 15

**set**(number: int, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:EMTC:NBAND
driver.configure.multiEval.listPy.segment.emtc.nband.set(number = 1, segment =
↳repcap.Segment.Default)
```

Selects the eMTC narrowband for segment <no>.

#### param number

numeric The maximum depends on the channel BW, see ‘RB allocation, narrowbands and widebands for eMTC’. Range: 0 to 15

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

### 6.1.4.4.2.10 Modulation

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:MODulation
```

#### class ModulationCls

Modulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class ModulationStruct**

Structure for setting input parameters. Fields:

- **Mod\_Statistics**: int: integer Statistical length in slots. Range: 1 to 1000
- **Modenable**: bool: OFF | ON Enable or disable the measurement of modulation results. ON: Modulation results are measured according to the other enable flags in this command. Modulation results for which there is no explicit enable flag are also measured (e.g. I/Q offset, frequency error and timing error) . OFF: No modulation results at all are measured. The other enable flags in this command are ignored.
- **Evm\_Enable**: bool: OFF | ON Enable or disable measurement of EVM.
- **Mag\_Error\_Enable**: bool: OFF | ON Enable or disable measurement of magnitude error.
- **Phase\_Err\_Enable**: bool: OFF | ON Enable or disable measurement of phase error.
- **Ib\_Eenable**: bool: OFF | ON Enable or disable measurement of inband emissions.
- **Eq\_Sp\_Flat\_Enable**: bool: OFF | ON Enable or disable measurement of equalizer spectrum flatness results.
- **Mod\_Scheme**: enums.ModScheme: AUTO | QPSK | Q16 | Q64 | Q256 Modulation scheme used by the LTE uplink signal. AUTO: automatic detection QPSK: QPSK Q16: 16-QAM Q64: 64-QAM Q256: 256-QAM

**get**(segment=Segment.Default) → ModulationStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>
↳:MODulation
value: ModulationStruct = driver.configure.multiEval.listPy.segment.modulation.
↳get(segment = repcap.Segment.Default)
```

Defines settings for modulation measurements in list mode for segment <no>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for ModulationStruct structure arguments.

**set**(structure: ModulationStruct, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGMent<nr>
↳:MODulation
structure = driver.configure.multiEval.listPy.segment.modulation.
↳ModulationStruct()
structure.Mod_Statistics: int = 1
structure.Modenable: bool = False
structure.Evm_Enable: bool = False
structure.Mag_Error_Enable: bool = False
structure.Phase_Err_Enable: bool = False
structure.Ib_Eenable: bool = False
structure.Eq_Sp_Flat_Enable: bool = False
structure.Mod_Scheme: enums.ModScheme = enums.ModScheme.AUTO
driver.configure.multiEval.listPy.segment.modulation.set(structure, segment =
↳repcap.Segment.Default)
```

Defines settings for modulation measurements in list mode for segment <no>.

**param structure**

for set value, see the help for ModulationStruct structure arguments.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**6.1.4.4.2.11 PlcId****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:PLCid
```

**class PlcIdCls**

PlcId commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:PLCid
value: int = driver.configure.multiEval.listPy.segment.plcId.get(segment =
↳repcap.Segment.Default)
```

Specifies the physical cell ID for segment <no>. See also method RsCmwLteMeas.Configure.MultiEval.ListPy.plcMode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

phys\_layer\_cell\_id: integer Range: 0 to 503

**set**(phys\_layer\_cell\_id: int, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:PLCid
driver.configure.multiEval.listPy.segment.plcId.set(phys_layer_cell_id = 1,
↳segment = repcap.Segment.Default)
```

Specifies the physical cell ID for segment <no>. See also method RsCmwLteMeas.Configure.MultiEval.ListPy.plcMode.

**param phys\_layer\_cell\_id**

integer Range: 0 to 503

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.12 Pmonitor

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor
```

##### class PmonitorCls

Pmonitor commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:PMONitor
value: bool = driver.configure.multiEval.listPy.segment.pmonitor.get(segment =
↳repcap.Segment.Default)
```

Enables or disables the measurement of power monitor results (power of one carrier) for segment <no>.

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

enable: OFF | ON

**set**(enable: bool, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:PMONitor
driver.configure.multiEval.listPy.segment.pmonitor.set(enable = False, segment_
↳= repcap.Segment.Default)
```

Enables or disables the measurement of power monitor results (power of one carrier) for segment <no>.

##### param enable

OFF | ON

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### 6.1.4.4.2.13 Power

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer
```

##### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PowerStruct

Response structure. Fields:

- Power\_Statistics: int: integer Statistical length in subframes Range: 1 to 1000
- Power\_Enable: bool: OFF | ON Enables or disables the measurement of the total TX power.

**get**(segment=Segment.Default) → PowerStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer
value: PowerStruct = driver.configure.multiEval.listPy.segment.power.
↳ get(segment = repcap.Segment.Default)
```

Defines settings for the measurement of the total TX power of all carriers for segment <no>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for PowerStruct structure arguments.

**set**(power\_statistics: int, power\_enable: bool, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer
driver.configure.multiEval.listPy.segment.power.set(power_statistics = 1, power_
↳ enable = False, segment = repcap.Segment.Default)
```

Defines settings for the measurement of the total TX power of all carriers for segment <no>.

**param power\_statistics**

integer Statistical length in subframes Range: 1 to 1000

**param power\_enable**

OFF | ON Enables or disables the measurement of the total TX power.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.14 RbAllocation

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:RBAllocation
```

##### class RbAllocationCls

RbAllocation commands group definition. 2 total commands, 1 Subgroups, 1 group commands

##### class RbAllocationStruct

Response structure. Fields:

- Auto: bool: OFF | ON OFF: manual definition via NoRB and Offset ON: automatic detection of RB allocation
- No\_Rb: int: integer Number of allocated resource blocks in each measured slot Range: see table below
- Offset: int: integer Offset of first allocated resource block from edge of allocated UL transmission bandwidth Range: 0 to max(NoRB) - NoRB

**get**(segment=Segment.Default) → RbAllocationStruct



```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:RBAllocation
value: RbAllocationStruct = driver.configure.multiEval.listPy.segment.
↳rbAllocation.get(segment = repcap.Segment.Default)
```

Allows you to define the uplink resource block allocation manually for segment <no>. By default, the RB allocation is detected automatically.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for RbAllocationStruct structure arguments.

**set**(*auto*: bool, *no\_rb*: int, *offset*: int, *segment*=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:RBAllocation
driver.configure.multiEval.listPy.segment.rbAllocation.set(auto = False, no_rb_
↳= 1, offset = 1, segment = repcap.Segment.Default)
```

Allows you to define the uplink resource block allocation manually for segment <no>. By default, the RB allocation is detected automatically.

**param auto**

OFF | ON OFF: manual definition via NoRB and Offset ON: automatic detection of RB allocation

**param no\_rb**

integer Number of allocated resource blocks in each measured slot Range: see table below

**param offset**

integer Offset of first allocated resource block from edge of allocated UL transmission bandwidth Range: 0 to max(NoRB) - NoRB

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.rbAllocation.clone()
```

## Subgroups

### 6.1.4.4.2.15 Sidelink

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>:RBAllocation:SIDelink
```

#### class SidelinkCls

Sidelink commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SidelinkStruct

Response structure. Fields:

- Auto: bool: OFF | ON OFF: manual definition via the other settings ON: automatic detection of RB allocation
- No\_Rb\_Pssch: int: integer Number of allocated RBs for the PSSCH in each measured slot
- Offset\_Pssch: int: integer Offset of the first allocated PSSCH resource block
- Offset\_Pscch: int: integer Offset of the first allocated PSCCH resource block

**get**(segment=Segment.Default) → SidelinkStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↳:RBAllocation:SIDelink
value: SidelinkStruct = driver.configure.multiEval.listPy.segment.rbAllocation.
↳sidelink.get(segment = repcap.Segment.Default)
```

Allows you to define the sidelink resource block allocation manually for segment <no>. By default, the RB allocation is detected automatically. Most allowed input ranges depend on other settings, see ‘Sidelink resource block allocation’.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for SidelinkStruct structure arguments.

**set**(auto: bool, no\_rb\_pssch: int, offset\_pssch: int, offset\_pscch: int, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGMENT<nr>
↳:RBAllocation:SIDelink
driver.configure.multiEval.listPy.segment.rbAllocation.sidelink.set(auto =
↳False, no_rb_pssch = 1, offset_pssch = 1, offset_pscch = 1, segment = repcap.
↳Segment.Default)
```

Allows you to define the sidelink resource block allocation manually for segment <no>. By default, the RB allocation is detected automatically. Most allowed input ranges depend on other settings, see ‘Sidelink resource block allocation’.

**param auto**

OFF | ON OFF: manual definition via the other settings ON: automatic detection of RB allocation

**param no\_rb\_pssch**

integer Number of allocated RBs for the PSSCH in each measured slot

**param offset\_pssch**

integer Offset of the first allocated PSSCH resource block

**param offset\_pscch**

integer Offset of the first allocated PSCCH resource block

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.2.16 Scc<SecondaryCC>

##### RepCap Settings

```
# Range: CC1 .. CC7
rc = driver.configure.multiEval.listPy.segment.scc.repcap_secondaryCC_get()
driver.configure.multiEval.listPy.segment.scc.repcap_secondaryCC_set(repcap.SecondaryCC.
↪ CC1)
```

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SCC<c>
```

##### class SccCls

Scc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: SecondaryCC, default value after init: SecondaryCC.CC1

##### class SccStruct

Response structure. Fields:

- Frequency: float: No parameter help available
- Ch\_Bandwidth: enums.ChannelBandwidth: No parameter help available

**get**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → SccStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SCC<c>
value: SccStruct = driver.configure.multiEval.listPy.segment.scc.get(segment = ↵
↪ repcap.Segment.Default, secondaryCC = repcap.SecondaryCC.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface 'Scc')

**return**

structure: for return value, see the help for SccStruct structure arguments.

**set**(frequency: float, ch\_bandwidth: ChannelBandwidth, segment=Segment.Default, secondaryCC=SecondaryCC.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SCC<c>
driver.configure.multiEval.listPy.segment.scc.set(frequency = 1.0, ch_bandwidth_
↳= enums.ChannelBandwidth.B014, segment = repcap.Segment.Default, secondaryCC_
↳= repcap.SecondaryCC.Default)
```

No command help available

**param frequency**

No help available

**param ch\_bandwidth**

No help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface 'Scc')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.scc.clone()
```

### 6.1.4.4.2.17 SeMask

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask
```

#### class SeMaskCls

SeMask commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SeMaskStruct

Response structure. Fields:

- Sem\_Statistics: int: integer Statistical length in slots. Range: 1 to 1000
- Se\_Enable: bool: OFF | ON Enable or disable the measurement of spectrum emission results. ON: Spectrum emission results are measured according to the other enable flags in this command. Results for which there is no explicit enable flag are also measured. OFF: No spectrum emission results at all are measured. The other enable flags in this command are ignored.
- Obw\_Enable: bool: OFF | ON Enable or disable measurement of occupied bandwidth.

- Sem\_Enable: bool: OFF | ON Enable or disable measurement of spectrum emission trace and margin results.

**get**(segment=Segment.Default) → SeMaskStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask
value: SeMaskStruct = driver.configure.multiEval.listPy.segment.seMask.
↪get(segment = repcap.Segment.Default)
```

Defines settings for spectrum emission measurements in list mode for segment <no>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for SeMaskStruct structure arguments.

**set**(sem\_statistics: int, se\_enable: bool, obw\_enable: bool, sem\_enable: bool, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask
driver.configure.multiEval.listPy.segment.seMask.set(sem_statistics = 1, se_
↪enable = False, obw_enable = False, sem_enable = False, segment = repcap.
↪Segment.Default)
```

Defines settings for spectrum emission measurements in list mode for segment <no>.

**param sem\_statistics**

integer Statistical length in slots. Range: 1 to 1000

**param se\_enable**

OFF | ON Enable or disable the measurement of spectrum emission results. ON: Spectrum emission results are measured according to the other enable flags in this command. Results for which there is no explicit enable flag are also measured. OFF: No spectrum emission results at all are measured. The other enable flags in this command are ignored.

**param obw\_enable**

OFF | ON Enable or disable measurement of occupied bandwidth.

**param sem\_enable**

OFF | ON Enable or disable measurement of spectrum emission trace and margin results.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

## 6.1.4.4.2.18 Setup

## SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SETup
```

**class SetupCls**

Setup commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class SetupStruct**

Structure for setting input parameters. Contains optional setting parameters. Fields:

- Segment\_Length: int: integer Number of subframes in the segment Range: 1 to 2000
- Level: float: numeric Expected nominal power in the segment. The range can be calculated as follows:  
Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the data sheet. Unit: dBm
- Duplex\_Mode: enums.DuplexMode: FDD | TDD Duplex mode used in the segment
- Band: enums.Band: FDD UL: OB1 | ... | OB28 | OB30 | OB31 | OB65 | OB66 | OB68 | OB70 | ... | OB74 | OB85 | OB87 | OB88 TDD UL: OB33 | ... | OB45 | OB48 | OB50 | ... | OB53 | OB250 Sidelink: OB47 Operating band used in the segment
- Frequency: float: numeric Center frequency of CC1 used in the segment For the supported range, see 'Frequency ranges'. Unit: Hz
- Ch\_Bandwidth: enums.ChannelBandwidth: B014 | B030 | B050 | B100 | B150 | B200 Channel bandwidth of CC1 used in the segment B014: 1.4 MHz B030: 3 MHz B050: 5 MHz B100: 10 MHz B150: 15 MHz B200: 20 MHz
- Cyclic\_Prefix: enums.CyclicPrefix: NORMal | EXTended Type of cyclic prefix used in the segment
- Channel\_Type: enums.SegmentChannelTypeExtended: AUTO | PUSCh | PUCCh | PSSCh | PSCCh Channel type to be measured in the segment (AUTO for automatic detection) Uplink: AUTO, PUSCh, PUCCh Sidelink: PSSCh, PSCCh
- Retrigger\_Flag: enums.RetriggerFlag: OFF | ON | IFPower | IFPNarrow Specifies whether the measurement waits for a trigger event before measuring the segment, or not. The retrigger flag is ignored for trigger mode ONCE and evaluated for trigger mode SEGment, see [CMDLINKRESOLVED Trigger.MultiEval.ListPy#Mode CMDLINKRESOLVED]. OFF Measure the segment without retrigger. For the first segment, the value OFF is interpreted as ON. ON Wait for a trigger event from the trigger source configured via [CMDLINKRESOLVED Trigger.MultiEval#Source CMDLINKRESOLVED]. IFPower Wait for a trigger event from the trigger source 'IF Power'. The trigger evaluation bandwidth is 160 MHz. IFPNarrowband Wait for a trigger event from the trigger source 'IF Power'. The trigger evaluation bandwidth is configured via [CMDLINKRESOLVED Trigger.MultiEval.ListPy#Nbandwidth CMDLINKRESOLVED].
- Evaluat\_Offset: int: integer Number of subframes at the beginning of the segment that are not evaluated Range: 0 to 1000
- Network\_Sig\_Value: enums.NetworkSigValueNoCarrAggr: Optional setting parameter. NS01 | ... | NS288 Network signaled value to be used for the segment

**get**(segment=Segment.Default) → SetupStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SETup
value: SetupStruct = driver.configure.multiEval.listPy.segment.setup.
↳ get(segment = repcap.Segment.Default)
```

Defines the length and analyzer settings of segment <no>. This command must be sent for all segments to be measured (method RsCmwLteMeas.Configure.MultiEval.ListPy.Lrange.set). For uplink signals with TDD mode, see also method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Tdd.set. For carrier-specific settings for carrier aggregation, see CONFIGure:LTE:MEAS<i>:MEValuation:LIST:SEGment<no>:CC<c>.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for SetupStruct structure arguments.

**set**(structure: SetupStruct, segment=Segment.Default) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SETup
structure = driver.configure.multiEval.listPy.segment.setup.SetupStruct()
structure.Segment_Length: int = 1
structure.Level: float = 1.0
structure.Duplex_Mode: enums.DuplexMode = enums.DuplexMode.FDD
structure.Band: enums.Band = enums.Band.OB1
structure.Frequency: float = 1.0
structure.Ch_Bandwidth: enums.ChannelBandwidth = enums.ChannelBandwidth.B014
structure.Cyclic_Prefix: enums.CyclicPrefix = enums.CyclicPrefix.EXTended
structure.Channel_Type: enums.SegmentChannelTypeExtended = enums.
↳SegmentChannelTypeExtended.AUTO
structure.Retrigger_Flag: enums.RetriggerFlag = enums.RetriggerFlag.IFPNarrow
structure.Evaluate_Offset: int = 1
structure.Network_Sig_Value: enums.NetworkSigValueNoCarrAggr = enums.
↳NetworkSigValueNoCarrAggr.NS01
driver.configure.multiEval.listPy.segment.setup.set(structure, segment = repcap.
↳Segment.Default)
```

Defines the length and analyzer settings of segment <no>. This command must be sent for all segments to be measured (method RsCmwLteMeas.Configure.MultiEval.ListPy.Lrange.set). For uplink signals with TDD mode, see also method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Tdd.set. For carrier-specific settings for carrier aggregation, see CONFIGure:LTE:MEAS<i>:MEValuation:LIST:SEGment<no>:CC<c>.

**param structure**

for set value, see the help for SetupStruct structure arguments.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### 6.1.4.4.2.19 SingleCmw

##### class SingleCmwCls

SingleCmw commands group definition. 1 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.listPy.segment.singleCmw.clone()
```

#### Subgroups

#### 6.1.4.4.2.20 Connector

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:CMWS:CONNECTor
```

##### class ConnectorCls

Connector commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(segment=Segment.Default) → CmwsConnector

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:CMWS:CONNECTor
value: enums.CmwsConnector = driver.configure.multiEval.listPy.segment.
↳singleCmw.connector.get(segment = repcap.Segment.Default)
```

No command help available

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

cmws\_connector: No help available

**set**(cmws\_connector: CmwsConnector, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:CMWS:CONNECTor
driver.configure.multiEval.listPy.segment.singleCmw.connector.set(cmws_
↳connector = enums.CmwsConnector.R11, segment = repcap.Segment.Default)
```

No command help available

##### param cmws\_connector

No help available

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')



#### 6.1.4.4.2.21 Tdd

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:TDD
```

##### class TddCls

Tdd commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class TddStruct

Response structure. Fields:

- Uplink\_Downlink: int: integer UL-DL configuration, defining the combination of uplink, downlink and special subframes within a radio frame Range: 0 to 6
- Special\_Subframe: int: integer Special subframe configuration, defining the inner structure of special subframes Range: 0 to 8

**get**(segment=Segment.Default) → TddStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:TDD
value: TddStruct = driver.configure.multiEval.listPy.segment.tdd.get(segment = ↵
↵repcap.Segment.Default)
```

Defines segment settings only relevant for uplink measurements with the duplex mode TDD. For general segment configuration, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set.

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

##### return

structure: for return value, see the help for TddStruct structure arguments.

**set**(uplink\_downlink: int, special\_subframe: int, segment=Segment.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:TDD
driver.configure.multiEval.listPy.segment.tdd.set(uplink_downlink = 1, special_
↵subframe = 1, segment = repcap.Segment.Default)
```

Defines segment settings only relevant for uplink measurements with the duplex mode TDD. For general segment configuration, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set.

##### param uplink\_downlink

integer UL-DL configuration, defining the combination of uplink, downlink and special subframes within a radio frame Range: 0 to 6

##### param special\_subframe

integer Special subframe configuration, defining the inner structure of special subframes Range: 0 to 8

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### 6.1.4.4.3 SingleCmw

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:CMWS:CMODE
```

##### class SingleCmwCls

SingleCmw commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_cmode()** → ParameterSetMode

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:CMWS:CMODE
value: enums.ParameterSetMode = driver.configure.multiEval.listPy.singleCmw.get_
↪ cmode()
```

No command help available

```
return
connector_mode: No help available
```

**set\_cmode(connector\_mode: ParameterSetMode)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:LIST:CMWS:CMODE
driver.configure.multiEval.listPy.singleCmw.set_cmode(connector_mode = enums.
↪ ParameterSetMode.GLOBal)
```

No command help available

```
param connector_mode
No help available
```

#### 6.1.4.5 Modulation

##### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EQualizer
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:MSCHeme
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:LLOcation
```

##### class ModulationCls

Modulation commands group definition. 9 total commands, 3 Subgroups, 3 group commands

**get\_equalizer()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EQualizer
value: bool = driver.configure.multiEval.modulation.get_equalizer()
```

Enables or disables the post-FFT equalization step for the measurement of modulation results.

```
return
enable: OFF | ON
```

**get\_llocation()** → LocalOscLocation

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:LLOCation
value: enums.LocalOscLocation = driver.configure.multiEval.modulation.get_
↳llocation()
```

Specifies the UE transmitter architecture (local oscillator location) used for eMTC.

**return**  
value: CN | CCB CN: Center of narrowband/wideband CCB: Center of channel bandwidth

**get\_mscheme()** → ModScheme

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:MSCHeme
value: enums.ModScheme = driver.configure.multiEval.modulation.get_mscheme()
```

Selects the modulation scheme used by the measured signal.

**return**  
mod\_scheme: AUTO | QPSK | Q16 | Q64 | Q256 Auto-detection, QPSK, 16-QAM, 64-QAM, 256-QAM

**set\_equalizer(enable: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:EQualizer
driver.configure.multiEval.modulation.set_equalizer(enable = False)
```

Enables or disables the post-FFT equalization step for the measurement of modulation results.

**param enable**  
OFF | ON

**set\_llocation(value: LocalOscLocation)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:LLOCation
driver.configure.multiEval.modulation.set_llocation(value = enums.
↳LocalOscLocation.CCB)
```

Specifies the UE transmitter architecture (local oscillator location) used for eMTC.

**param value**  
CN | CCB CN: Center of narrowband/wideband CCB: Center of channel bandwidth

**set\_mscheme(mod\_scheme: ModScheme)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:MSCHeme
driver.configure.multiEval.modulation.set_mscheme(mod_scheme = enums.ModScheme.
↳AUTO)
```

Selects the modulation scheme used by the measured signal.

**param mod\_scheme**  
AUTO | QPSK | Q16 | Q64 | Q256 Auto-detection, QPSK, 16-QAM, 64-QAM, 256-QAM

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.modulation.clone()
```

## Subgroups

### 6.1.4.5.1 CarrierAggregation

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:CAGGregation:LLOCation
```

#### class CarrierAggregationCls

CarrierAggregation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_llocation()** → CarrAggrLocalOscLocation

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:MODulation:CAGGregation:LLOCation
value: enums.CarrAggrLocalOscLocation = driver.configure.multiEval.modulation.
↳carrierAggregation.get_llocation()
```

Specifies the UE transmitter architecture (local oscillator location) used for contiguous carrier aggregation.

#### return

value: CACB | CECC CACB: Center of aggregated channel bandwidth CECC: Center of each component carrier

**set\_llocation(value: CarrAggrLocalOscLocation)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:MODulation:CAGGregation:LLOCation
driver.configure.multiEval.modulation.carrierAggregation.set_llocation(value =
↳enums.CarrAggrLocalOscLocation.AUTO)
```

Specifies the UE transmitter architecture (local oscillator location) used for contiguous carrier aggregation.

#### param value

CACB | CECC CACB: Center of aggregated channel bandwidth CECC: Center of each component carrier

### 6.1.4.5.2 EePeriods

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EEPeriods:PUCCh
```

#### class EePeriodsCls

EePeriods commands group definition. 3 total commands, 1 Subgroups, 1 group commands

**get\_pucch()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEValuation:MODulation:EEPeriods:PUCCh
value: bool = driver.configure.multiEval.modulation.eePeriods.get_pucch()
```

Enables or disables EVM exclusion periods for slots with detected channel type ‘PUCCH’. If enabled, the first and the last SC-FDMA symbol of each slot is excluded from the calculation of EVM, magnitude error and phase error single value results. If the last symbol of a slot is already excluded because SRS signals are allowed, the second but last symbol is also excluded.

**return**  
pucch: OFF | ON

**set\_pucch(pucch: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEValuation:MODulation:EEPeriods:PUCCh
driver.configure.multiEval.modulation.eePeriods.set_pucch(pucch = False)
```

Enables or disables EVM exclusion periods for slots with detected channel type ‘PUCCH’. If enabled, the first and the last SC-FDMA symbol of each slot is excluded from the calculation of EVM, magnitude error and phase error single value results. If the last symbol of a slot is already excluded because SRS signals are allowed, the second but last symbol is also excluded.

**param pucch**  
OFF | ON

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.modulation.eePeriods.clone()
```

## Subgroups

### 6.1.4.5.2.1 Pusch

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:EEPeriods:PUSCh:LEADing
CONFIGure:LTE:MEASurement<Instance>:MEValuation:MODulation:EEPeriods:PUSCh:LAGging
```

#### class PuschCls

Pusch commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_lagging()** → LaggingExclPeriod

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEValuation:MODulation:EEPeriods:PUSCh:LAGging
value: enums.LaggingExclPeriod = driver.configure.multiEval.modulation.
↪eePeriods.pusch.get_lagging()
```

Specifies an EVM exclusion period at the end of each subframe (detected channel type ‘PUSCH’); if SRS signals are allowed, at the end of each shortened subframe. The specified period is excluded from the calculation of EVM, magnitude error and phase error results.

**return**

lagging: OFF | MS05 | MS25 OFF: no exclusion MS05: 5 s excluded MS25: 25 s excluded

**get\_leading()** → LeadingExclPeriod

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUSCh:LEADing
value: enums.LeadngExclPeriod = driver.configure.multiEval.modulation.
↳eePeriods.pusch.get_leading()
```

Specifies an EVM exclusion period at the beginning of a subframe (detected channel type ‘PUSCH’). The specified period is excluded from the calculation of EVM, magnitude error and phase error results.

**return**

leading: OFF | MS25 OFF: no exclusion MS25: 25 s excluded

**set\_lagging(lagging: LaggingExclPeriod)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUSCh:LAGGing
driver.configure.multiEval.modulation.eePeriods.pusch.set_lagging(lagging =
↳enums.LaggingExclPeriod.MS05)
```

Specifies an EVM exclusion period at the end of each subframe (detected channel type ‘PUSCH’); if SRS signals are allowed, at the end of each shortened subframe. The specified period is excluded from the calculation of EVM, magnitude error and phase error results.

**param lagging**

OFF | MS05 | MS25 OFF: no exclusion MS05: 5 s excluded MS25: 25 s excluded

**set\_leading(leading: LeadingExclPeriod)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↳:MEvaluation:MODulation:EEPeriods:PUSCh:LEADing
driver.configure.multiEval.modulation.eePeriods.pusch.set_leading(leading =
↳enums.LeadngExclPeriod.MS25)
```

Specifies an EVM exclusion period at the beginning of a subframe (detected channel type ‘PUSCH’). The specified period is excluded from the calculation of EVM, magnitude error and phase error results.

**param leading**

OFF | MS25 OFF: no exclusion MS25: 25 s excluded

### 6.1.4.5.3 EwLength

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EWLength
```

#### class EwLengthCls

EwLength commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class EwLengthStruct

Response structure. Fields:

- Length\_Cp\_Normal: List[int]: No parameter help available
- Length\_Cp\_Extended: List[int]: No parameter help available

**get()** → EwLengthStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EWLength
value: EwLengthStruct = driver.configure.multiEval.modulation.ewLength.get()
```

Specifies the EVM window length in samples for all channel bandwidths, depending on the cyclic prefix (CP) type.

#### return

structure: for return value, see the help for EwLengthStruct structure arguments.

**set(length\_cp\_normal: List[int], length\_cp\_extended: List[int])** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:MODulation:EWLength
driver.configure.multiEval.modulation.ewLength.set(length_cp_normal = [1, 2, 3],
↪ length_cp_extended = [1, 2, 3])
```

Specifies the EVM window length in samples for all channel bandwidths, depending on the cyclic prefix (CP) type.

#### param length\_cp\_normal

No help available

#### param length\_cp\_extended

No help available

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.modulation.ewLength.clone()
```

## Subgroups

### 6.1.4.5.3.1 ChannelBw<ChannelBw>

#### RepCap Settings

```
# Range: Bw14 .. Bw200
rc = driver.configure.multiEval.modulation.ewLength.channelBw.repcap_channelBw_get()
driver.configure.multiEval.modulation.ewLength.channelBw.repcap_channelBw_set(repcap.
↳ ChannelBw.Bw14)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:MODulation:EWLength:CBANdwidth<Band>
```

#### class ChannelBwCls

ChannelBw commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: ChannelBw, default value after init: ChannelBw.Bw14

#### class ChannelBwStruct

Response structure. Fields:

- Cyc\_Prefix\_Normal: int: integer Samples for normal CP Range: see below
- Cyc\_Prefix\_Extend: int: integer Samples for extended CP Range: see below

**get**(channelBw=ChannelBw.Default) → ChannelBwStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳ :MEvaluation:MODulation:EWLength:CBANdwidth<Band>
value: ChannelBwStruct = driver.configure.multiEval.modulation.ewLength.
↳ channelBw.get(channelBw = repcap.ChannelBw.Default)
```

Specifies the EVM window length in samples for a selected channel bandwidth, depending on the cyclic prefix (CP) type.

#### param channelBw

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

#### return

structure: for return value, see the help for ChannelBwStruct structure arguments.

**set**(cyc\_prefix\_normal: int, cyc\_prefix\_extend: int, channelBw=ChannelBw.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳ :MEvaluation:MODulation:EWLength:CBANdwidth<Band>
driver.configure.multiEval.modulation.ewLength.channelBw.set(cyc_prefix_normal_
↳ = 1, cyc_prefix_extend = 1, channelBw = repcap.ChannelBw.Default)
```

Specifies the EVM window length in samples for a selected channel bandwidth, depending on the cyclic prefix (CP) type.

#### param cyc\_prefix\_normal

integer Samples for normal CP Range: see below



**param cyc\_prefix\_extend**

integer Samples for extended CP Range: see below

**param channelBw**

optional repeated capability selector. Default value: Bw14 (settable in the interface 'ChannelBw')

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.modulation.ewLength.channelBw.clone()
```

**6.1.4.6 MsubFrames****SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MSUBframes
```

**class MsubFramesCls**

MsubFrames commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class MsubFramesStruct**

Response structure. Fields:

- Sub\_Frame\_Offset: int: decimal Start of the measured subframe range relative to the trigger event. Range: 0 to 9
- Sub\_Frame\_Count: int: decimal Length of the measured subframe range. Range: 1 to 320
- Meas\_Subframe: int: decimal Subframe containing the measured slots for modulation and spectrum results. Range: 0 to SubframeCount-1

**get()** → MsubFramesStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MSUBframes
value: MsubFramesStruct = driver.configure.multiEval.msubFrames.get()
```

Configures the scope of the measurement, i.e. which subframes are measured.

**return**

structure: for return value, see the help for MsubFramesStruct structure arguments.

**set(sub\_frame\_offset: int, sub\_frame\_count: int, meas\_subframe: int) → None**

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:MSUBframes
driver.configure.multiEval.msubFrames.set(sub_frame_offset = 1, sub_frame_count_
↪ = 1, meas_subframe = 1)
```

Configures the scope of the measurement, i.e. which subframes are measured.

**param sub\_frame\_offset**

decimal Start of the measured subframe range relative to the trigger event. Range: 0 to 9

**param sub\_frame\_count**

decimal Length of the measured subframe range. Range: 1 to 320

**param meas\_subframe**

decimal Subframe containing the measured slots for modulation and spectrum results.  
Range: 0 to SubframeCount-1

**6.1.4.7 NsValue****SCPI Commands :**

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:NSValue:CAGGregation
CONFigure:LTE:MEASurement<Instance>:MEvaluation:NSValue
```

**class NsValueCls**

NsValue commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_carrier\_aggregation()** → NetworkSigValue

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:NSValue:CAGGregation
value: enums.NetworkSigValue = driver.configure.multiEval.nsValue.get_carrier_
↪ aggregation()
```

Selects the ‘network signaled value’ for measurements with carrier aggregation. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:ASEMission:CAGGregation.

**return**

value: NS01 | NS02 | NS03 | NS04 | NS05 | NS06 | NS07 | NS08 | NS09 | NS10 | NS11 |  
NS12 | NS13 | NS14 | NS15 | NS16 | NS17 | NS18 | NS19 | NS20 | NS21 | NS22 | NS23  
| NS24 | NS25 | NS26 | NS27 | NS28 | NS29 | NS30 | NS31 | NS32 Value CA\_NS\_01  
to CA\_NS\_32

**get\_value()** → NetworkSigValueNoCarrAggr

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:NSValue
value: enums.NetworkSigValueNoCarrAggr = driver.configure.multiEval.nsValue.get_
↪ value()
```

Selects the ‘network signaled value’ for measurements without carrier aggregation. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>:CONNection:ASEMission.

**return**

value: NS01 | ... | NS288 Value NS\_01 to NS\_288

**set\_carrier\_aggregation(value: NetworkSigValue)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEvaluation:NSValue:CAGGregation
driver.configure.multiEval.nsValue.set_carrier_aggregation(value = enums.
↪ NetworkSigValue.NS01)
```

Selects the ‘network signaled value’ for measurements with carrier aggregation. For the combined signal path scenario, use CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:ASEMission:CAGGregation.

**param value**

NS01 | NS02 | NS03 | NS04 | NS05 | NS06 | NS07 | NS08 | NS09 | NS10 | NS11 | NS12  
| NS13 | NS14 | NS15 | NS16 | NS17 | NS18 | NS19 | NS20 | NS21 | NS22 | NS23 |  
NS24 | NS25 | NS26 | NS27 | NS28 | NS29 | NS30 | NS31 | NS32 Value CA\_NS\_01 to  
CA\_NS\_32

**set\_value**(value: NetworkSigValueNoCarrAggr) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:NSValue
driver.configure.multiEval.nsValue.set_value(value = enums.
↳ NetworkSigValueNoCarrAggr.NS01)
```

Selects the ‘network signaled value’ for measurements without carrier aggregation. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CONNection:ASEMission.

**param value**

NS01 | ... | NS288 Value NS\_01 to NS\_288

#### 6.1.4.8 Pcc

**SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation[:PCC]:PLCid
```

**class PccCls**

Pcc commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_plc\_id**() → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation[:PCC]:PLCid
value: int = driver.configure.multiEval.pcc.get_plc_id()
```

No command help available

**return**

phs\_layer\_cell\_id: No help available

**set\_plc\_id**(phs\_layer\_cell\_id: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation[:PCC]:PLCid
driver.configure.multiEval.pcc.set_plc_id(phs_layer_cell_id = 1)
```

No command help available

**param phs\_layer\_cell\_id**

No help available

#### 6.1.4.9 Podynamics

**SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:PDYnamics:TMAsk
```

**class PodynamicsCls**

Podynamics commands group definition. 3 total commands, 1 Subgroups, 1 group commands

**get\_tmask**() → TimeMask

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PDYnamics:TMAsk
value: enums.TimeMask = driver.configure.multiEval.podynamics.get_tmask()
```

Selects the time mask for power dynamics measurements.

```
return
    time_mask: GOO | PPSRs | SBLanking GOO: General ON/OFF time mask PPSRs:
    PUCCH/PUSCH transmission before and after an SRS SBLanking: SRS blanking time
    mask
```

**set\_tmask**(time\_mask: TimeMask) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:PDYNamics:TMAsk
driver.configure.multiEval.pdynamics.set_tmask(time_mask = enums.TimeMask.GOO)
```

Selects the time mask for power dynamics measurements.

```
param time_mask
    GOO | PPSRs | SBLanking GOO: General ON/OFF time mask PPSRs:
    PUCCH/PUSCH transmission before and after an SRS SBLanking: SRS blank-
    ing time mask
```

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.pdynamics.clone()
```

## Subgroups

### 6.1.4.9.1 AeOPower

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:PDYNamics:AEOPower:LEADing
CONFIGure:LTE:MEASurement<Instance>:MEValuation:PDYNamics:AEOPower:LAGGing
```

#### class AeOPowerCls

AeOPower commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_lagging**() → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEValuation:PDYNamics:AEOPower:LAGGing
value: int = driver.configure.multiEval.pdynamics.aeoPower.get_lagging()
```

Shifts the end of the evaluation period for OFF power measurements.

```
return
    lagging: integer Positive values reduce the evaluation period (ends earlier) . Negative
    values increase the evaluation period (ends later) . Range: -1000 Ts to 1000 Ts, Unit:
    Ts
```

**get\_leading**() → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEValuation:PDYNamics:AEOPower:LEADing
value: int = driver.configure.multiEval.pdynamics.aeoPower.get_leading()
```

Shifts the beginning of the evaluation period for OFF power measurements.

**return**

leading: integer Positive values reduce the evaluation period (starts later) . Negative values increase the evaluation period (starts earlier) . Range: -1000 Ts to 1000 Ts, Unit: Ts

**set\_lagging**(lagging: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEvaluation:PDYNamics:AEOPower:LAGging
driver.configure.multiEval.pdynamics.aeoPower.set_lagging(lagging = 1)
```

Shifts the end of the evaluation period for OFF power measurements.

**param lagging**

integer Positive values reduce the evaluation period (ends earlier) . Negative values increase the evaluation period (ends later) . Range: -1000 Ts to 1000 Ts, Unit: Ts

**set\_leading**(leading: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>
↪:MEvaluation:PDYNamics:AEOPower:LEADing
driver.configure.multiEval.pdynamics.aeoPower.set_leading(leading = 1)
```

Shifts the beginning of the evaluation period for OFF power measurements.

**param leading**

integer Positive values reduce the evaluation period (starts later) . Negative values increase the evaluation period (starts earlier) . Range: -1000 Ts to 1000 Ts, Unit: Ts

## 6.1.4.10 Power

### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:POWer:HDMode
```

#### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_hdmode**() → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:POWer:HDMode
value: bool = driver.configure.multiEval.power.get_hdmode()
```

Enables or disables the high dynamic mode for power dynamics measurements.

**return**

high\_dynamic\_mode: OFF | ON

**set\_hdmode**(high\_dynamic\_mode: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:POWer:HDMode
driver.configure.multiEval.power.set_hdmode(high_dynamic_mode = False)
```

Enables or disables the high dynamic mode for power dynamics measurements.

**param high\_dynamic\_mode**  
OFF | ON

#### 6.1.4.11 RbAllocation

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:AUTO
```

##### class RbAllocationCls

RbAllocation commands group definition. 10 total commands, 3 Subgroups, 1 group commands

**get\_auto()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:AUTO
value: bool = driver.configure.multiEval.rbAllocation.get_auto()
```

Enables or disables the automatic detection of the RB configuration.

**return**

auto: OFF | ON OFF: manual definition ON: automatic detection

**set\_auto(auto: bool)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:AUTO
driver.configure.multiEval.rbAllocation.set_auto(auto = False)
```

Enables or disables the automatic detection of the RB configuration.

**param auto**

OFF | ON OFF: manual definition ON: automatic detection

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.rbAllocation.clone()
```

#### Subgroups

##### 6.1.4.11.1 Mcluster

##### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:MCLuster
```

##### class MclusterCls

Mcluster commands group definition. 3 total commands, 2 Subgroups, 1 group commands

**get\_value()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:MCLuster
value: bool = driver.configure.multiEval.rbAllocation.mcluster.get_value()
```

**Specifies whether the UL signal uses multi-cluster allocation or not.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CONNection[:PCC]:MCLuster:UL
- CONFIGure:LTE:SIGN<i>:CONNection:SCC<c>:MCLuster:UL

**return**

enable: OFF | ON OFF: contiguous allocation, resource allocation type 0 ON: multi-cluster allocation, resource allocation type 1

**set\_value**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:MCLuster
driver.configure.multiEval.rbAllocation.mcluster.set_value(enable = False)
```

**Specifies whether the UL signal uses multi-cluster allocation or not.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CONNection[:PCC]:MCLuster:UL
- CONFIGure:LTE:SIGN<i>:CONNection:SCC<c>:MCLuster:UL

**param enable**

OFF | ON OFF: contiguous allocation, resource allocation type 0 ON: multi-cluster allocation, resource allocation type 1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.rbAllocation.mcluster.clone()
```

## Subgroups

### 6.1.4.11.1.1 Nrb<RBcount>

## RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.configure.multiEval.rbAllocation.mcluster.nrb.repcap_rBcount_get()
driver.configure.multiEval.rbAllocation.mcluster.nrb.repcap_rBcount_set(repcap.RBcount.
↪Nr1)
```

**SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:MCLuster:NRB<Number>
```

**class NrbCls**

Nrb commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: RBcount, default value after init: RBcount.Nr1

**get**(*rBcount*=*RBcount.Default*) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:RBALlocation:MCLuster:NRB<Number>
value: int = driver.configure.multiEval.rbAllocation.mcluster.nrb.get(rBcount =
↳repcap.RBcount.Default)
```

**Specifies the number of allocated RBs in the measured slot, for multi-cluster allocation.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:UDCHannels:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:UDCHannels:MCLuster:UL

**param rBcount**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Nrb')

**return**

no\_rb: numeric For the allowed input ranges, see 'Uplink resource block allocation'.

**set**(*no\_rb*: int, *rBcount*=*RBcount.Default*) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:RBALlocation:MCLuster:NRB<Number>
driver.configure.multiEval.rbAllocation.mcluster.nrb.set(no_rb = 1, rBcount =
↳repcap.RBcount.Default)
```

**Specifies the number of allocated RBs in the measured slot, for multi-cluster allocation.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:UDCHannels:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:UDCHannels:MCLuster:UL

**param no\_rb**

numeric For the allowed input ranges, see 'Uplink resource block allocation'.

**param rBcount**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Nrb')



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.rbAllocation.mcluster.nrb.clone()
```

### 6.1.4.11.1.2 Orb<RBoffset>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.configure.multiEval.rbAllocation.mcluster.orb.repcap_rBoffset_get()
driver.configure.multiEval.rbAllocation.mcluster.orb.repcap_rBoffset_set(repcap.RBoffset.
↳Nr1)
```

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:MCLuster:ORB<Number>
```

#### class OrbCls

Orb commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: RBoffset, default value after init: RBoffset.Nr1

**get**(rBoffset=RBoffset.Default) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:RBAllocation:MCLuster:ORB<Number>
value: int = driver.configure.multiEval.rbAllocation.mcluster.orb.get(rBoffset,
↳repcap.RBoffset.Default)
```

**Specifies the offset of the first allocated resource block, for multi-cluster allocation.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection[:PCC]:UDCHannels:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:RMC:MCLuster:UL
- CONFigure:LTE:SIGN<i>:CONNection:SCC<c>:UDCHannels:MCLuster:UL

#### param rBoffset

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Orb')

#### return

offset\_rb: numeric For the allowed input ranges, see 'Uplink resource block allocation'.

**set**(offset\_rb: int, rBoffset=RBoffset.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEValuation:RBAllocation:MCLuster:ORB<Number>
driver.configure.multiEval.rbAllocation.mcluster.orb.set(offset_rb = 1,
↳rBoffset = repcap.RBoffset.Default)
```

**Specifies the offset of the first allocated resource block, for multi-cluster allocation.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CONNection[:PCC]:RMC:MCLuster:UL
- CONFIGure:LTE:SIGN<i>:CONNection[:PCC]:UDCHannels:MCLuster:UL
- CONFIGure:LTE:SIGN<i>:CONNection:SCC<c>:RMC:MCLuster:UL
- CONFIGure:LTE:SIGN<i>:CONNection:SCC<c>:UDCHannels:MCLuster:UL

**param offset\_rb**

numeric For the allowed input ranges, see ‘Uplink resource block allocation’.

**param rBoffset**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Orb’)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.rbAllocation.mcluster.orb.clone()
```

### 6.1.4.11.2 Nrb

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSCCh
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSSCh
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB
```

#### class NrbCls

Nrb commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_pscch()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSCCh
value: int = driver.configure.multiEval.rbAllocation.nrb.get_pscch()
```

Specifies the number of allocated RBs for the PSCCH in the measured slot. For manual RB allocation definition, for sidelink signals.

**return**

no\_rb: numeric The value is fixed. Range: 2 to 2

**get\_pssch()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSSCh
value: int = driver.configure.multiEval.rbAllocation.nrb.get_pssch()
```

Specifies the number of allocated RBs for the PSSCH in the measured slot. For manual RB allocation definition, for sidelink signals.

**return**

no\_rb: numeric For the allowed input range, see ‘Sidelink resource block allocation’.

**get\_value()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB
value: int = driver.configure.multiEval.rbAllocation.nrb.get_value()
```

Specifies the number of allocated RBs in the measured slot. For manual RB allocation definition, for uplink signals without multi-cluster allocation.

**return**

no\_rb: numeric For the allowed input range, see ‘Uplink resource block allocation’.

**set\_pscch(no\_rb: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSCCh
driver.configure.multiEval.rbAllocation.nrb.set_pscch(no_rb = 1)
```

Specifies the number of allocated RBs for the PSCCH in the measured slot. For manual RB allocation definition, for sidelink signals.

**param no\_rb**

numeric The value is fixed. Range: 2 to 2

**set\_pssch(no\_rb: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB:PSSCh
driver.configure.multiEval.rbAllocation.nrb.set_pssch(no_rb = 1)
```

Specifies the number of allocated RBs for the PSSCH in the measured slot. For manual RB allocation definition, for sidelink signals.

**param no\_rb**

numeric For the allowed input range, see ‘Sidelink resource block allocation’.

**set\_value(no\_rb: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:NRB
driver.configure.multiEval.rbAllocation.nrb.set_value(no_rb = 1)
```

Specifies the number of allocated RBs in the measured slot. For manual RB allocation definition, for uplink signals without multi-cluster allocation.

**param no\_rb**

numeric For the allowed input range, see ‘Uplink resource block allocation’.

### 6.1.4.11.3 Orb

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:ORB:PSCCh
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:ORB:PSSCh
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:ORB
```

#### class OrbCls

Orb commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_pscch()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:ORB:PSCCh
value: int = driver.configure.multiEval.rbAllocation.orb.get_pscch()
```

Specifies the offset of the first allocated PSCCH resource block for manual RB allocation definition, for sidelink signals.

**return**

offset\_rb: numeric For the maximum number of RBs depending on the channel BW, see ‘Uplink resource block allocation’. Range: 0 to max no of RBs minus total allocated RBs

**get\_pssch()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:ORB:PSSCh
value: int = driver.configure.multiEval.rbAllocation.orb.get_pssch()
```

Specifies the offset of the first allocated PSSCH resource block for manual RB allocation definition, for sidelink signals.

**return**

offset\_rb: numeric The range depends on the OffsetRB for the PSCCH, the channel BW and the number of allocated PSSCH RBs, see ‘Sidelink resource block allocation’.

**get\_value()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:ORB
value: int = driver.configure.multiEval.rbAllocation.orb.get_value()
```

Specifies the offset of the first allocated resource block for manual RB allocation definition, for uplink signals without multi-cluster allocation.

**return**

offset\_rb: numeric For the maximum number of RBs depending on the channel BW, see ‘Uplink resource block allocation’. Range: 0 to maximum number of RBs minus 1

**set\_pscch(offset\_rb: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:ORB:PSCCh
driver.configure.multiEval.rbAllocation.orb.set_pscch(offset_rb = 1)
```

Specifies the offset of the first allocated PSCCH resource block for manual RB allocation definition, for sidelink signals.

**param offset\_rb**

numeric For the maximum number of RBs depending on the channel BW, see ‘Uplink resource block allocation’. Range: 0 to max no of RBs minus total allocated RBs

**set\_pssch(offset\_rb: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBALlocation:ORB:PSSCh
driver.configure.multiEval.rbAllocation.orb.set_pssch(offset_rb = 1)
```

Specifies the offset of the first allocated PSSCH resource block for manual RB allocation definition, for sidelink signals.

**param offset\_rb**

numeric The range depends on the OffsetRB for the PSCCH, the channel BW and the number of allocated PSSCH RBs, see ‘Sidelink resource block allocation’.

**set\_value**(offset\_rb: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RBAllocation:ORB
driver.configure.multiEval.rbAllocation.orb.set_value(offset_rb = 1)
```

Specifies the offset of the first allocated resource block for manual RB allocation definition, for uplink signals without multi-cluster allocation.

**param offset\_rb**

numeric For the maximum number of RBs depending on the channel BW, see ‘Uplink resource block allocation’. Range: 0 to maximum number of RBs minus 1

**6.1.4.12 Result****SCPI Commands :**

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult[:ALL]
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:MERRor
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PERRor
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:IEMissions
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:EVMC
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ESFlatness
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:TXM
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:IQ
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:SEMask
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ACLR
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:RBATable
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PMONitor
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PDYNamics
CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:BLER
```

**class ResultCls**

Result commands group definition. 16 total commands, 1 Subgroups, 14 group commands

**class AllStruct**

Structure for setting input parameters. Contains optional set arguments. Fields:

- Evm: bool: OFF | ON Error vector magnitude OFF: Do not evaluate results. ON: Evaluate results.
- Magnitude\_Error: bool: OFF | ON
- Phase\_Error: bool: OFF | ON
- Inband\_Emissions: bool: OFF | ON
- Evm\_Versus\_C: bool: OFF | ON EVM vs subcarrier
- Iq: bool: OFF | ON I/Q constellation diagram
- Equ\_Spec\_Flatness: bool: OFF | ON Equalizer spectrum flatness
- Tx\_Measurement: bool: OFF | ON TX measurement statistical overview
- Spec\_Em\_Mask: bool: OFF | ON Spectrum emission mask

- Aclr: bool: OFF | ON Adjacent channel leakage power ratio
- Rb\_Alloc\_Table: bool: Optional setting parameter. OFF | ON Resource block allocation table
- Power\_Monitor: bool: Optional setting parameter. OFF | ON
- Bler: bool: Optional setting parameter. OFF | ON Block error ratio
- Power\_Dynamics: bool: Optional setting parameter. OFF | ON

**get\_aclr()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ACLR
value: bool = driver.configure.multiEval.result.get_aclr()
```

#### Enables or disables the evaluation of results in the multi-evaluation measurement.

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

#### **return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_all()** → AllStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult[:ALL]
value: AllStruct = driver.configure.multiEval.result.get_all()
```

Enables or disables the evaluation of results in the multi-evaluation measurement. This command combines most other CONFIGure:LTE:MEAS<i>:MEValuation:RESult... commands.

#### **return**

structure: for return value, see the help for AllStruct structure arguments.

**get\_bler()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:BLER
value: bool = driver.configure.multiEval.result.get_bler()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_es\_flatness()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ESFlatness
value: bool = driver.configure.multiEval.result.get_es_flatness()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier

- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_evmc()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:EVMC
value: bool = driver.configure.multiEval.result.get_evmc()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_iemissions()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:IEMissions
value: bool = driver.configure.multiEval.result.get_iemissions()
```



**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_iq()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:IQ
value: bool = driver.configure.multiEval.result.get_iq()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio

- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_merror()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:MERRor
value: bool = driver.configure.multiEval.result.get_merror()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_pdynamics()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PDYNamics
value: bool = driver.configure.multiEval.result.get_pdynamics()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions

- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_perror()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PERRor
value: bool = driver.configure.multiEval.result.get_perror()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

`get_pmonitor()` → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PMONitor
value: bool = driver.configure.multiEval.result.get_pmonitor()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method `RsCmwLteMeas.Configure.MultiEval.Result.all`.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

`get_rba_table()` → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:RBATable
value: bool = driver.configure.multiEval.result.get_rba_table()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier

- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_se\_mask()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:SEMask
value: bool = driver.configure.multiEval.result.get_se_mask()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_txm()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:TXM
value: bool = driver.configure.multiEval.result.get_txm()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_aclr**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ACLR
driver.configure.multiEval.result.set_aclr(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio

- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method `RsCmwLteMeas.Configure.MultiEval.Result.all`.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_all**(*value: AllStruct*) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:RESult[:ALL]
structure = driver.configure.multiEval.result.AllStruct()
structure.Evm: bool = False
structure.Magnitude_Error: bool = False
structure.Phase_Error: bool = False
structure.Inband_Emissions: bool = False
structure.Evm_Versus_C: bool = False
structure.Iq: bool = False
structure.Equ_Spec_Flatness: bool = False
structure.Tx_Measurement: bool = False
structure.Spec_Em_Mask: bool = False
structure.Aclr: bool = False
structure.Rb_Alloc_Table: bool = False
structure.Power_Monitor: bool = False
structure.Bler: bool = False
structure.Power_Dynamics: bool = False
driver.configure.multiEval.result.set_all(value = structure)
```

Enables or disables the evaluation of results in the multi-evaluation measurement. This command combines most other `CONFigure:LTE:MEAS<i>:MEValuation:RESult...` commands.

**param value**

see the help for `AllStruct` structure arguments.

**set\_bler**(*enable: bool*) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:MEValuation:RESult:BLER
driver.configure.multiEval.result.set_bler(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error

- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_es\_flatness**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:ESFlatness
driver.configure.multiEval.result.set_es_flatness(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFlatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_evmc**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:EVMC
driver.configure.multiEval.result.set_evmc(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description



- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_iemissions**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:RESult:IEmissions
driver.configure.multiEval.result.set_iemissions(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_iq**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:IQ
driver.configure.multiEval.result.set_iq(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_merror**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:MERRor
driver.configure.multiEval.result.set_merror(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table

- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_podynamics**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PDYNamics
driver.configure.multiEval.result.set_podynamics(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_perror**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PERRor
driver.configure.multiEval.result.set_perror(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_pmonitor**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:PMONitor
driver.configure.multiEval.result.set_pmonitor(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier

- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_rba\_table**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:RBATable
driver.configure.multiEval.result.set_rba_table(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_se\_mask**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:SEMask
driver.configure.multiEval.result.set_se_mask(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_txm**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:TXM
driver.configure.multiEval.result.set_txm(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio

- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.result.clone()
```

## Subgroups

### 6.1.4.12.1 EvMagnitude

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:RESult:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get\_value()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:RESult:EVMagnitude
value: bool = driver.configure.multiEval.result.evMagnitude.get_value()
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor

- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_value**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:RESult:EVMagnitude
driver.configure.multiEval.result.evMagnitude.set_value(enable = False)
```

**Enables or disables the evaluation of results in the multi-evaluation measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- IEMissions / Inband emissions
- ESFLatness / Equalizer spectrum flatness
- SEMask / Spectrum emission mask
- RBATable / Resource block allocation table
- BLER / Block error ratio
- EVMC / EVM vs subcarrier
- PERRor / Phase error
- IQ / I/Q constellation diagram
- TXM / TX meas. statistical overview
- ACLR / Adj. channel leakage power ratio
- PMONitor / Power monitor
- PDYNamics / Power dynamics

For reset values, see method RsCmwLteMeas.Configure.MultiEval.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.result.evMagnitude.clone()
```



## Subgroups

### 6.1.4.12.1.1 EvmSymbol

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:MEvaluation:RESult:EVMagnitude:EVMSymbol
```

#### class EvmSymbolCls

EvmSymbol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class EvmSymbolStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: Do not measure the results. ON: Measure the results.
- Symbol: int: decimal SC-FDMA symbol to be evaluated Range: 0 to 6
- Low\_High: enums.LowHigh: LOW | HIGH Low or high EVM window position

**get()** → EvmSymbolStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:RESult:EVMagnitude:EVMSymbol
value: EvmSymbolStruct = driver.configure.multiEval.result.evMagnitude.
↳evmSymbol.get()
```

Enables or disables the measurement of EVM vs modulation symbol results and configures the scope of the measurement.

#### return

structure: for return value, see the help for EvmSymbolStruct structure arguments.

**set(enable: bool, symbol: int, low\_high: LowHigh)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>
↳:MEvaluation:RESult:EVMagnitude:EVMSymbol
driver.configure.multiEval.result.evMagnitude.evmSymbol.set(enable = False,
↳symbol = 1, low_high = enums.LowHigh.HIGH)
```

Enables or disables the measurement of EVM vs modulation symbol results and configures the scope of the measurement.

#### param enable

OFF | ON OFF: Do not measure the results. ON: Measure the results.

#### param symbol

decimal SC-FDMA symbol to be evaluated Range: 0 to 6

#### param low\_high

LOW | HIGH Low or high EVM window position

### 6.1.4.13 Scount

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:MODulation
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:POWer
```

#### class ScountCls

Scount commands group definition. 4 total commands, 1 Subgroups, 2 group commands

**get\_modulation()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:MODulation
value: int = driver.configure.multiEval.scount.get_modulation()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**  
statistic\_count: numeric Range: 1 slot to 1000 slots

**get\_power()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:POWer
value: int = driver.configure.multiEval.scount.get_power()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**  
statistic\_count: numeric Range: 1 subframe to 1000 subframes

**set\_modulation(statistic\_count: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:MODulation
driver.configure.multiEval.scount.set_modulation(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**  
numeric Range: 1 slot to 1000 slots

**set\_power(statistic\_count: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:POWer
driver.configure.multiEval.scount.set_power(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**  
numeric Range: 1 subframe to 1000 subframes

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.scount.clone()
```

## Subgroups

### 6.1.4.13.1 Spectrum

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
```

#### class SpectrumCls

Spectrum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_aclr()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
value: int = driver.configure.multiEval.scount.spectrum.get_aclr()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**return**

statistic\_count: numeric Range: 1 slot to 1000 slots

**get\_se\_mask()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
value: int = driver.configure.multiEval.scount.spectrum.get_se_mask()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**return**

statistic\_count: numeric Range: 1 slot to 1000 slots

**set\_aclr(statistic\_count: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:ACLR
driver.configure.multiEval.scount.spectrum.set_aclr(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**param statistic\_count**

numeric Range: 1 slot to 1000 slots

**set\_se\_mask**(*statistic\_count: int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SCount:SPECTrum:SEMask
driver.configure.multiEval.scount.spectrum.set_se_mask(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot. Separate statistic counts for ACLR and spectrum emission mask measurements are supported.

**param statistic\_count**  
numeric Range: 1 slot to 1000 slots

#### 6.1.4.14 Spectrum

##### **class SpectrumCls**

Spectrum commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.spectrum.clone()
```

##### Subgroups

###### 6.1.4.14.1 Aclr

##### **class AclrCls**

Aclr commands group definition. 1 total commands, 1 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.multiEval.spectrum.aclr.clone()
```

##### Subgroups

###### 6.1.4.14.1.1 Enable

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SPECTrum:ACLR:ENABLE
```

##### **class EnableCls**

Enable commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EnableStruct**

Response structure. Fields:

- Utra\_1: bool: OFF | ON
- Utra\_2: bool: OFF | ON
- Eutra: bool: OFF | ON

**get()** → EnableStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:ACLR:ENABLE
value: EnableStruct = driver.configure.multiEval.spectrum.aclr.enable.get()
```

Enables or disables the evaluation of the first adjacent UTRA channels, second adjacent UTRA channels and first adjacent E-UTRA channels.

**return**

structure: for return value, see the help for EnableStruct structure arguments.

**set(utra\_1: bool, utra\_2: bool, eutra: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:ACLR:ENABLE
driver.configure.multiEval.spectrum.aclr.enable.set(utra_1 = False, utra_2 =
↪False, eutra = False)
```

Enables or disables the evaluation of the first adjacent UTRA channels, second adjacent UTRA channels and first adjacent E-UTRA channels.

**param utra\_1**  
OFF | ON

**param utra\_2**  
OFF | ON

**param eutra**  
OFF | ON

**6.1.4.14.2 SeMask****SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:SEMask:MFILter
```

**class SeMaskCls**

SeMask commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_mfilter()** → MeasFilter

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:SEMask:MFILter
value: enums.MeasFilter = driver.configure.multiEval.spectrum.seMask.get_
↪mfilter()
```

Selects the resolution filter type for filter bandwidths of 50 kHz and greater.

**return**

meas\_filter: BANDpass | GAUSS

**set\_mfilter**(*meas\_filter*: *MeasFilter*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SPECtrum:SEMask:MFILter
driver.configure.multiEval.spectrum.seMask.set_mfilter(meas_filter = enums.
↳ MeasFilter.BANDpass)
```

Selects the resolution filter type for filter bandwidths of 50 kHz and greater.

**param meas\_filter**  
BANDpass | GAUSS

#### 6.1.4.15 Srs

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:SRS:ENABLE
```

##### class SrsCls

Srs commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_enable**() → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SRS:ENABLE
value: bool = driver.configure.multiEval.srs.get_enable()
```

Specifies whether a sounding reference signal is allowed (ON) or not (OFF) . For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL[:PCC]:SRS:ENABLE.

**return**  
enable: OFF | ON OFF: no SRS signal ON: SRS signal allowed in the last SC-FDMA symbol of each subframe

**set\_enable**(*enable*: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:SRS:ENABLE
driver.configure.multiEval.srs.set_enable(enable = False)
```

Specifies whether a sounding reference signal is allowed (ON) or not (OFF) . For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL[:PCC]:SRS:ENABLE.

**param enable**  
OFF | ON OFF: no SRS signal ON: SRS signal allowed in the last SC-FDMA symbol of each subframe

#### 6.1.4.16 Tmode

##### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:MEValuation:TMode:SCount
CONFIGure:LTE:MEASurement<Instance>:MEValuation:TMode:ENPower
CONFIGure:LTE:MEASurement<Instance>:MEValuation:TMode:RLEVel
```

**class TmodeCls**

Tmode commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**get\_envelope\_power()** → List[float]

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:TMODE:ENPower
value: List[float] = driver.configure.multiEval.tmode.get_envelope_power()
```

Defines the expected nominal power values for all entries of the 'TPC Mode' list. For definition of the corresponding subframe count values, see method RsCmwLteMeas.Configure.MultiEval.Tmode.scount.

**return**

exp\_nom\_pow: numeric Comma-separated list of 16 values, for list entry number 0 to 15 The range of the expected nominal power can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the data sheet. Unit: dBm

**get\_rlevel()** → List[float]

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:TMODE:RLEvel
value: List[float] = driver.configure.multiEval.tmode.get_rlevel()
```

Queries the reference level for all entries of the 'TPC Mode' list. The reference level is calculated from the expected nominal power of each entry and the user margin.

**return**

reference\_level: float Comma-separated list of 16 values, for list entry number 0 to 15 The range of the reference levels can be calculated as follows: Range (Reference Level) = Range (Input Power) + External Attenuation The input power range is stated in the data sheet. Unit: dBm

**get\_scount()** → List[int]

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:TMODE:SCount
value: List[int] = driver.configure.multiEval.tmode.get_scount()
```

Defines the subframe counts for all entries of the 'TPC Mode' list. For definition of the corresponding expected nominal power values, see method RsCmwLteMeas.Configure.MultiEval.Tmode.envelopePower.

**return**

sub\_frame\_count: decimal Comma-separated list of 16 values, for list entry number 0 to 15 Range: 1 to 320

**set\_envelope\_power(exp\_nom\_pow: List[float])** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEvaluation:TMODE:ENPower
driver.configure.multiEval.tmode.set_envelope_power(exp_nom_pow = [1.1, 2.2, 3.
↪3])
```

Defines the expected nominal power values for all entries of the 'TPC Mode' list. For definition of the corresponding subframe count values, see method RsCmwLteMeas.Configure.MultiEval.Tmode.scount.

**param exp\_nom\_pow**

numeric Comma-separated list of 16 values, for list entry number 0 to 15 The range of the expected nominal power can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the data sheet. Unit: dBm

**set\_scount**(sub\_frame\_count: List[int]) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:MEValuation:TMODe:SCount
driver.configure.multiEval.tmode.set_scount(sub_frame_count = [1, 2, 3])
```

Defines the subframe counts for all entries of the 'TPC Mode' list. For definition of the corresponding expected nominal power values, see method RsCmwLteMeas.Configure.MultiEval.Tmode.envelopePower.

**param sub\_frame\_count**

decimal Comma-separated list of 16 values, for list entry number 0 to 15 Range: 1 to 320

## 6.1.5 Network

### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:NETWork:RFPSHaring
CONFIGure:LTE:MEASurement<Instance>:NETWork:DMode
```

#### class NetworkCls

Network commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_dmode**() → DuplexMode

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:NETWork:DMode
value: enums.DuplexMode = driver.configure.network.get_dmode()
```

No command help available

**return**

mode: No help available

**get\_rfp\_sharing**() → Sharing

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:NETWork:RFPSHaring
value: enums.Sharing = driver.configure.network.get_rfp_sharing()
```

No command help available

**return**

sharing: No help available

**set\_dmode**(mode: DuplexMode) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:NETWork:DMode
driver.configure.network.set_dmode(mode = enums.DuplexMode.FDD)
```

No command help available

**param mode**

No help available

**set\_rfp\_sharing**(sharing: Sharing) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:NETWork:RFPSHaring
driver.configure.network.set_rfp_sharing(sharing = enums.Sharing.FSHared)
```



No command help available

**param sharing**

No help available

## 6.1.6 Pcc

**SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>[:PCC]:CBANdwidth
```

**class PccCls**

Pcc commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_channel\_bw()** → ChannelBandwidth

```
# SCPI: CONFigure:LTE:MEASurement<Instance>[:PCC]:CBANdwidth
value: enums.ChannelBandwidth = driver.configure.pcc.get_channel_bw()
```

No command help available

**return**

channel\_bw: No help available

**set\_channel\_bw(channel\_bw: ChannelBandwidth)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>[:PCC]:CBANdwidth
driver.configure.pcc.set_channel_bw(channel_bw = enums.ChannelBandwidth.B014)
```

No command help available

**param channel\_bw**

No help available

## 6.1.7 Prach

**SCPI Commands :**

```
CONFigure:LTE:MEASurement<Instance>:PRACH:TOUT
CONFigure:LTE:MEASurement<Instance>:PRACH:REPetition
CONFigure:LTE:MEASurement<Instance>:PRACH:SCONdition
CONFigure:LTE:MEASurement<Instance>:PRACH:MOEXception
CONFigure:LTE:MEASurement<Instance>:PRACH:PCINdex
CONFigure:LTE:MEASurement<Instance>:PRACH:SSYMBOL
CONFigure:LTE:MEASurement<Instance>:PRACH:NOPReambles
CONFigure:LTE:MEASurement<Instance>:PRACH:POPReambles
```

**class PrachCls**

Prach commands group definition. 34 total commands, 6 Subgroups, 8 group commands

**get\_mo\_exception()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:MOEXception
value: bool = driver.configure.prach.get_mo_exception()
```

Specifies whether measurement results that the R&S CMW identifies as faulty or inaccurate are rejected.

**return**

meas\_on\_exception: OFF | ON OFF: Faulty results are rejected. ON: Results are never rejected.

**get\_no\_preambles()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:NOPreambles
value: int = driver.configure.prach.get_no_preambles()
```

Specifies the number of preambles to be captured per measurement interval.

**return**

number\_preamble: numeric Range: 1 to 400

**get\_pc\_index()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PCIndex
value: int = driver.configure.prach.get_pc_index()
```

The PRACH configuration index identifies the PRACH configuration used by the UE (preamble format, which resources in the time domain are allowed for transmission of preambles etc.) .

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL:PRACH:PCIndex:FDD
- CONFIGure:LTE:SIGN<i>:CELL:PRACH:PCIndex:TDD

**return**

prach\_conf\_index: numeric Range: 0 to 63 for FDD / 57 for TDD

**get\_po\_preambles()** → PeriodPreamble

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:POPreambles
value: enums.PeriodPreamble = driver.configure.prach.get_po_preambles()
```

Specifies the periodicity of preambles to be captured for multi-preamble result views.

**return**

period\_preamble: MS05 | MS10 | MS20 MS05: 5 ms MS10: 10 ms MS20: 20 ms

**get\_repetition()** → Repeat

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:REPetition
value: enums.Repeat = driver.configure.prach.get_repetition()
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCOunt to determine the number of measurement intervals per single shot.

**return**

repetition: SINGleshot | CONTInuous SINGleshot: Single-shot measurement CONTInuous: Continuous measurement

**get\_scondition()** → StopCondition

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:SCONdition
value: enums.StopCondition = driver.configure.prach.get_scondition()
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**return**

stop\_condition: NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**get\_ssymbol()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:SSYmbol
value: int = driver.configure.prach.get_ssymbol()
```

Selects the OFDM symbol to be evaluated for single-symbol modulation result diagrams. The number of OFDM symbols in the preamble (<no of symbols>) depends on the preamble format, see Table ‘Preambles in the time domain’.

**return**

selected\_symbol: numeric Range: 0 to no of symbols -1

**get\_timeout()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:TOUT
value: float = driver.configure.prach.get_timeout()
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot) , the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**return**

timeout: numeric Unit: s

**set\_mo\_exception(meas\_on\_exception: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:MOEXception
driver.configure.prach.set_mo_exception(meas_on_exception = False)
```

Specifies whether measurement results that the R&S CMW identifies as faulty or inaccurate are rejected.

**param meas\_on\_exception**

OFF | ON OFF: Faulty results are rejected. ON: Results are never rejected.

**set\_no\_preambles(number\_preamble: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:NOPReambles
driver.configure.prach.set_no_preambles(number_preamble = 1)
```

Specifies the number of preambles to be captured per measurement interval.

**param number\_preamble**

numeric Range: 1 to 400

**set\_pc\_index(prach\_conf\_index: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PCIndex
driver.configure.prach.set_pc_index(prach_conf_index = 1)
```

The PRACH configuration index identifies the PRACH configuration used by the UE (preamble format, which resources in the time domain are allowed for transmission of preambles etc.) .

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:CELL:PRACH:PCIndex:FDD
- CONFIGure:LTE:SIGN<i>:CELL:PRACH:PCIndex:TDD

**param prach\_conf\_index**

numeric Range: 0 to 63 for FDD / 57 for TDD

**set\_po\_preambles**(*period\_preamble: PeriodPreamble*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:POPreambles
driver.configure.prach.set_po_preambles(period_preamble = enums.PeriodPreamble.
→MS05)
```

Specifies the periodicity of preambles to be captured for multi-preamble result views.

**param period\_preamble**

MS05 | MS10 | MS20 MS05: 5 ms MS10: 10 ms MS20: 20 ms

**set\_repetition**(*repetition: Repeat*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:REPetition
driver.configure.prach.set_repetition(repetition = enums.Repeat.CONTinuous)
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCOunt to determine the number of measurement intervals per single shot.

**param repetition**

SINGleshot | CONTinuous SINGleshot: Single-shot measurement CONTinuous:  
Continuous measurement

**set\_scondition**(*stop\_condition: StopCondition*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:SCONdition
driver.configure.prach.set_scondition(stop_condition = enums.StopCondition.NONE)
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**param stop\_condition**

NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail:  
Stop measurement on limit failure.

**set\_ssymbol**(*selected\_symbol: int*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:SSYMBOL
driver.configure.prach.set_ssymbol(selected_symbol = 1)
```

Selects the OFDM symbol to be evaluated for single-symbol modulation result diagrams. The number of OFDM symbols in the preamble (<no of symbols>) depends on the preamble format, see Table ‘Preambles in the time domain’.

**param selected\_symbol**

numeric Range: 0 to no of symbols -1

**set\_timeout**(*timeout: float*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:TOUT
driver.configure.prach.set_timeout(timeout = 1.0)
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**param timeout**

numeric Unit: s

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.prach.clone()
```

**Subgroups****6.1.7.1 Limit****SCPI Command :**

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:LIMit:FERRor
```

**class LimitCls**

Limit commands group definition. 5 total commands, 4 Subgroups, 1 group commands

**get\_freq\_error**() → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:LIMit:FERRor
value: float or bool = driver.configure.prach.limit.get_freq_error()
```

Defines an upper limit for the carrier frequency error.

**return**

frequency\_error: (float or boolean) numeric | ON | OFF Range: 0 ppm to 1000 ppm,

Unit: ppm ON | OFF enables or disables the limit check.

**set\_freq\_error**(*frequency\_error: float*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:LIMit:FERRor
driver.configure.prach.limit.set_freq_error(frequency_error = 1.0)
```

Defines an upper limit for the carrier frequency error.

**param frequency\_error**

(float or boolean) numeric | ON | OFF Range: 0 ppm to 1000 ppm, Unit: ppm ON | OFF enables or disables the limit check.

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.prach.limit.clone()
```

**Subgroups****6.1.7.1.1 EvMagnitude****SCPI Command :**

```
CONFigure:LTE:MEASurement<Instance>:PRCh:LIMit:EVMagnitude
```

**class EvMagnitudeCls**

EvMagnitude commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class EvMagnitudeStruct**

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get()** → EvMagnitudeStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:LIMit:EVMagnitude
value: EvMagnitudeStruct = driver.configure.prach.limit.evMagnitude.get()
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) .

**return**

structure: for return value, see the help for EvMagnitudeStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:LIMit:EVMagnitude
driver.configure.prach.limit.evMagnitude.set(rms = 1.0, peak = 1.0)
```

Defines upper limits for the RMS and peak values of the error vector magnitude (EVM) .

**param rms**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**param peak**

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

### 6.1.7.1.2 Merror

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:PRACH:LIMit:MERRor
```

#### class MerrorCls

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class MerrorStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

**get()** → MerrorStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:LIMit:MERRor
value: MerrorStruct = driver.configure.prach.limit.merror.get()
```

Defines upper limits for the RMS and peak values of the magnitude error.

#### return

structure: for return value, see the help for MerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:LIMit:MERRor
driver.configure.prach.limit.merror.set(rms = 1.0, peak = 1.0)
```

Defines upper limits for the RMS and peak values of the magnitude error.

#### param rms

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

#### param peak

(float or boolean) numeric | ON | OFF Range: 0 % to 100 %, Unit: % ON | OFF enables or disables the limit check.

### 6.1.7.1.3 Podynamics

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:PRACH:LIMit:PDYNamics
```

#### class PodynamicsCls

Dynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class PodynamicsStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check

- On\_Power\_Upper: float: numeric Upper limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm
- On\_Power\_Lower: float: numeric Lower limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm
- Off\_Power\_Upper: float: numeric Upper limit for the OFF power Range: -256 dBm to 256 dBm, Unit: dBm

**get()** → PodynamicsStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:LIMit:PDYNamics
value: PodynamicsStruct = driver.configure.prach.limit.pdynamics.get()
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement.

**return**

structure: for return value, see the help for PodynamicsStruct structure arguments.

**set**(enable: bool, on\_power\_upper: float, on\_power\_lower: float, off\_power\_upper: float) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRCh:LIMit:PDYNamics
driver.configure.prach.limit.pdynamics.set(enable = False, on_power_upper = 1.0,
↪ on_power_lower = 1.0, off_power_upper = 1.0)
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param on\_power\_upper**

numeric Upper limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm

**param on\_power\_lower**

numeric Lower limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm

**param off\_power\_upper**

numeric Upper limit for the OFF power Range: -256 dBm to 256 dBm, Unit: dBm

#### 6.1.7.1.4 Perror

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:PRCh:LIMit:PERRor
```

##### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class PerrorStruct

Response structure. Fields:

- Rms: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.
- Peak: float or bool: numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF enables or disables the limit check.



**get()** → PerrorStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:LIMit:PERRor
value: PerrorStruct = driver.configure.prach.limit.perror.get()
```

Defines symmetric limits for the RMS and peak values of the phase error. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

**return**

structure: for return value, see the help for PerrorStruct structure arguments.

**set(rms: float, peak: float)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:LIMit:PERRor
driver.configure.prach.limit.perror.set(rms = 1.0, peak = 1.0)
```

Defines symmetric limits for the RMS and peak values of the phase error. The limit check fails if the absolute value of the measured phase error exceeds the specified values.

**param rms**

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF  
enables or disables the limit check.

**param peak**

(float or boolean) numeric | ON | OFF Range: 0 deg to 180 deg, Unit: deg ON | OFF  
enables or disables the limit check.

### 6.1.7.2 Modulation

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:LRSindex
CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:ZCZConfig
CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:EWPosition
```

#### class ModulationCls

Modulation commands group definition. 7 total commands, 2 Subgroups, 3 group commands

**get\_ew\_position()** → LowHigh

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:EWPosition
value: enums.LowHigh = driver.configure.prach.modulation.get_ew_position()
```

Specifies the position of the EVM window used for calculation of the trace results.

**return**

evm\_window\_pos: LOW | HIGH

**get\_lrs\_index()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:LRSindex
value: int = driver.configure.prach.modulation.get_lrs_index()
```

Specifies the logical root sequence index to be used for generation of the preamble sequence. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:LRSindex.

**return**

log\_root\_seq\_index: numeric Range: 0 to 837 (for preamble format 4: 0 to 137)

**get\_zcz\_config()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:ZCZConfig
value: int = driver.configure.prach.modulation.get_zcz_config()
```

Specifies the zero correlation zone config, i.e. which NCS value of an NCS set is used for generation of the preamble sequence. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:ZCZConfig.

**return**

zero\_corr\_zone\_con: numeric Range: 0 to 15 (for preamble format 4: 0 to 6)

**set\_ew\_position**(evm\_window\_pos: *LowHigh*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:EWPosition
driver.configure.prach.modulation.set_ew_position(evm_window_pos = enums.
↳ LowHigh.HIGH)
```

Specifies the position of the EVM window used for calculation of the trace results.

**param evm\_window\_pos**

LOW | HIGH

**set\_lrs\_index**(log\_root\_seq\_index: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:LRSindex
driver.configure.prach.modulation.set_lrs_index(log_root_seq_index = 1)
```

Specifies the logical root sequence index to be used for generation of the preamble sequence. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:LRSindex.

**param log\_root\_seq\_index**

numeric Range: 0 to 837 (for preamble format 4: 0 to 137)

**set\_zcz\_config**(zero\_corr\_zone\_con: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:ZCZConfig
driver.configure.prach.modulation.set_zcz_config(zero_corr_zone_con = 1)
```

Specifies the zero correlation zone config, i.e. which NCS value of an NCS set is used for generation of the preamble sequence. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:ZCZConfig.

**param zero\_corr\_zone\_con**

numeric Range: 0 to 15 (for preamble format 4: 0 to 6)

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.prach.modulation.clone()
```

## Subgroups

### 6.1.7.2.1 EwLength

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:PRACH:MODulation:EWLength
```

#### class EwLengthCls

EwLength commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**get\_value()** → List[int]

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:MODulation:EWLength
value: List[int] = driver.configure.prach.modulation.ewLength.get_value()
```

Specifies the EVM window length in samples for all preamble formats.

**return**

evm\_window\_length: No help available

**set\_value(evm\_window\_length: List[int])** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:MODulation:EWLength
driver.configure.prach.modulation.ewLength.set_value(evm_window_length = [1, 2, ↵
↵3])
```

Specifies the EVM window length in samples for all preamble formats.

**param evm\_window\_length**

No help available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.prach.modulation.ewLength.clone()
```

## Subgroups

### 6.1.7.2.1.1 Pformat<PreambleFormat>

#### RepCap Settings

```
# Range: Fmt1 .. Fmt5
rc = driver.configure.prach.modulation.ewLength.pformat.repcap_preambleFormat_get()
driver.configure.prach.modulation.ewLength.pformat.repcap_preambleFormat_set(repcap.
↳PreambleFormat.Fmt1)
```

## SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:PRCh:MODulation:EWLength:PFORMAT<PreambleFormat>
```

### class PformatCls

Pformat commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: PreambleFormat, default value after init: PreambleFormat.Fmt1

**get**(preambleFormat=PreambleFormat.Default) → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:MODulation:EWLength:PFORMAT
↳<PreambleFormat>
value: int = driver.configure.prach.modulation.ewLength.pformat.
↳get(preambleFormat = repcap.PreambleFormat.Default)
```

No command help available

#### param preambleFormat

optional repeated capability selector. Default value: Fmt1 (settable in the interface 'Pformat')

#### return

evm\_window\_length: No help available

**set**(evm\_window\_length: int, preambleFormat=PreambleFormat.Default) → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:MODulation:EWLength:PFORMAT
↳<PreambleFormat>
driver.configure.prach.modulation.ewLength.pformat.set(evm_window_length = 1,
↳preambleFormat = repcap.PreambleFormat.Default)
```

No command help available

#### param evm\_window\_length

No help available

#### param preambleFormat

optional repeated capability selector. Default value: Fmt1 (settable in the interface 'Pformat')

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.prach.modulation.ewLength.pformat.clone()
```

### 6.1.7.2.2 Sindex

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX:AUTO
CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX
```

#### class SindexCls

Sindex commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_auto()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX:AUTO
value: bool = driver.configure.prach.modulation.sindex.get_auto()
```

Enables or disables automatic detection of the sequence index. To configure the index manually for disabled automatic detection, see method RsCmwLteMeas.Configure.Prach.Modulation.Sindex.value.

```
return
    seq_index_auto: OFF | ON
```

**get\_value()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX
value: int = driver.configure.prach.modulation.sindex.get_value()
```

Specifies the sequence index, i.e. which of the 64 preamble sequences of the cell is used by the UE. This setting is only relevant if automatic detection is disabled, see method RsCmwLteMeas.Configure.Prach.Modulation.Sindex.auto.

```
return
    sequence_index: numeric Range: 0 to 63
```

**set\_auto(seq\_index\_auto: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX:AUTO
driver.configure.prach.modulation.sindex.set_auto(seq_index_auto = False)
```

Enables or disables automatic detection of the sequence index. To configure the index manually for disabled automatic detection, see method RsCmwLteMeas.Configure.Prach.Modulation.Sindex.value.

```
param seq_index_auto
    OFF | ON
```

**set\_value(sequence\_index: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:MODulation:SINDEX
driver.configure.prach.modulation.sindex.set_value(sequence_index = 1)
```

Specifies the sequence index, i.e. which of the 64 preamble sequences of the cell is used by the UE. This setting is only relevant if automatic detection is disabled, see method RsCmwLteMeas.Configure.Prach.Modulation.Sindex.auto.

**param sequence\_index**  
numeric Range: 0 to 63

### 6.1.7.3 Pfoffset

#### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset:AUTO
CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset
```

#### class PfoffsetCls

Pfoffset commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_auto()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset:AUTO
value: bool = driver.configure.prach.pfoffset.get_auto()
```

Enables or disables automatic detection of the PRACH frequency offset. To configure the offset manually for disabled automatic detection, see method RsCmwLteMeas.Configure.Prach.Pfoffset.value.

**return**  
prach\_freq\_auto: OFF | ON

**get\_value()** → int

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset
value: int = driver.configure.prach.pfoffset.get_value()
```

Specifies the PRACH frequency offset. This setting is only relevant if automatic detection is disabled, see method RsCmwLteMeas.Configure.Prach.Pfoffset.auto. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:PFOfFset.

**return**  
prach\_freq\_offset: numeric Range: 0 to Total RB - 6 depending on channel bandwidth,  
see table below

**set\_auto(prach\_freq\_auto: bool)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset:AUTO
driver.configure.prach.pfoffset.set_auto(prach_freq_auto = False)
```

Enables or disables automatic detection of the PRACH frequency offset. To configure the offset manually for disabled automatic detection, see method RsCmwLteMeas.Configure.Prach.Pfoffset.value.

**param prach\_freq\_auto**  
OFF | ON

**set\_value(prach\_freq\_offset: int)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:PFOfFset
driver.configure.prach.pfoffset.set_value(prach_freq_offset = 1)
```

Specifies the PRACH frequency offset. This setting is only relevant if automatic detection is disabled, see method RsCmwLteMeas.Configure.Prach.PfOffset.auto. For the combined signal path scenario, use CONFIGure:LTE:SIGN<i>:CELL:PRACH:PFOffset.

**param prach\_freq\_offset**

numeric Range: 0 to Total RB - 6 depending on channel bandwidth, see table below

#### 6.1.7.4 Power

##### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:POWer:HDMode
```

##### class PowerCls

Power commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_hdmode()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:POWer:HDMode
value: bool = driver.configure.prach.power.get_hdmode()
```

Enables or disables the high dynamic mode for power dynamics measurements.

**return**  
high\_dynamic\_mode: OFF | ON

**set\_hdmode**(high\_dynamic\_mode: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:POWer:HDMode
driver.configure.prach.power.set_hdmode(high_dynamic_mode = False)
```

Enables or disables the high dynamic mode for power dynamics measurements.

**param high\_dynamic\_mode**  
OFF | ON

#### 6.1.7.5 Result

##### SCPI Commands :

```
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult[:ALL]
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVMagnitude
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVPreamble
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:MERRor
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PERRor
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:IQ
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PDYNamics
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PVPReamble
CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:TXM
```

##### class ResultCls

Result commands group definition. 9 total commands, 0 Subgroups, 9 group commands

**class AllStruct**

Structure for setting input parameters. Contains optional set arguments. Fields:

- Evm: bool: OFF | ON Error vector magnitude OFF: Do not evaluate results. ON: Evaluate results.
- Magnitude\_Error: bool: OFF | ON
- Phase\_Error: bool: OFF | ON
- Iq: bool: OFF | ON I/Q constellation diagram
- Power\_Dynamics: bool: OFF | ON
- Tx\_Measurement: bool: OFF | ON TX measurement statistical overview
- Evm\_Vs\_Preamble: bool: Optional setting parameter. OFF | ON
- Power\_Vs\_Preamble: bool: Optional setting parameter. OFF | ON

**get\_all()** → AllStruct

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult[:ALL]
value: AllStruct = driver.configure.prach.result.get_all()
```

Enables or disables the evaluation of results in the PRACH measurement. This command combines all other CONFIGure:LTE:MEAS<i>:PRACH:RESult... commands.

**return**

structure: for return value, see the help for AllStruct structure arguments.

**get\_ev\_magnitude()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVMagnitude
value: bool = driver.configure.prach.result.get_ev_magnitude()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNameics / Power dynamics
- TXM / TX meas. statistical overview
- EVPRreamble / EVM vs preamble
- PVPRreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_ev\_preamble()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVPRreamble
value: bool = driver.configure.prach.result.get_ev_preamble()
```



**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_iq()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:IQ
value: bool = driver.configure.prach.result.get_iq()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_merror()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:MERRor
value: bool = driver.configure.prach.result.get_merror()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error

- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPRreamble / EVM vs preamble
- PVPRreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_podynamics()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PDYNamics
value: bool = driver.configure.prach.result.get_podynamics()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPRreamble / EVM vs preamble
- PVPRreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_perror()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PERRor
value: bool = driver.configure.prach.result.get_perror()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics

- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_pv\_preamble()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:RESult:PVPreamble
value: bool = driver.configure.prach.result.get_pv_preamble()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**get\_txm()** → bool

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRACH:RESult:TXM
value: bool = driver.configure.prach.result.get_txm()
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**return**

enable: OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_all**(value: AllStruct) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult[:ALL]
structure = driver.configure.prach.result.AllStruct()
structure.Evm: bool = False
structure.Magnitude_Error: bool = False
structure.Phase_Error: bool = False
structure.Iq: bool = False
structure.Power_Dynamics: bool = False
structure.Tx_Measurement: bool = False
structure.Evm_Vs_Preamble: bool = False
structure.Power_Vs_Preamble: bool = False
driver.configure.prach.result.set_all(value = structure)
```

Enables or disables the evaluation of results in the PRACH measurement. This command combines all other CONFIGure:LTE:MEAS<i>:PRACH:RESult... commands.

**param value**

see the help for AllStruct structure arguments.

**set\_ev\_magnitude**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVMagnitude
driver.configure.prach.result.set_ev_magnitude(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPRreamble / EVM vs preamble
- PVPRreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_ev\_preamble**(enable: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:EVPRreamble
driver.configure.prach.result.set_ev_preamble(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_iq**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:IQ
driver.configure.prach.result.set_iq(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_merror**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:MERRor
driver.configure.prach.result.set_merror(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error

- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_podynamics**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PDYNamics
driver.configure.prach.result.set_podynamics(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_perror**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PERRor
driver.configure.prach.result.set_perror(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics

- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_pv\_preamble**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:PVPreamble
driver.configure.prach.result.set_pv_preamble(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

**set\_txm**(*enable: bool*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:PRACH:RESult:TXM
driver.configure.prach.result.set_txm(enable = False)
```

**Enables or disables the evaluation of results in the PRACH measurement.**

Table Header: Mnemonic / Description

- EVMagnitude / Error vector magnitude
- MERRor / Magnitude error
- PERRor / Phase error
- IQ / I/Q constellation diagram
- PDYNamics / Power dynamics
- TXM / TX meas. statistical overview
- EVPreamble / EVM vs preamble
- PVPreamble / Power vs preamble

For reset values, see method RsCmwLteMeas.Configure.Prach.Result.all.

**param enable**

OFF | ON OFF: Do not evaluate results. ON: Evaluate results.

### 6.1.7.6 Scount

#### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:MODulation
CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:PDYNamics
```

#### class ScountCls

Scount commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_modulation()** → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:MODulation
value: int = driver.configure.prach.scount.get_modulation()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: numeric Range: 1 to 1000

**get\_pdynamics()** → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:PDYNamics
value: int = driver.configure.prach.scount.get_pdynamics()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: numeric Range: 1 to 1000

**set\_modulation(statistic\_count: int)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:MODulation
driver.configure.prach.scount.set_modulation(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**

numeric Range: 1 to 1000

**set\_pdynamics(statistic\_count: int)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:PRCh:SCount:PDYNamics
driver.configure.prach.scount.set_pdynamics(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**

numeric Range: 1 to 1000



## 6.1.8 RfSettings

### SCPI Commands :

```
CONFigure:LTE:MEASurement<Instance>:RFSettings:EATTenuation
CONFigure:LTE:MEASurement<Instance>:RFSettings:UMARgin
CONFigure:LTE:MEASurement<Instance>:RFSettings:ENPower
CONFigure:LTE:MEASurement<Instance>:RFSettings:FOFFset
CONFigure:LTE:MEASurement<Instance>:RFSettings:MLOffset
```

#### class RfSettingsCls

RfSettings commands group definition. 7 total commands, 2 Subgroups, 5 group commands

**get\_eattenuation()** → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:RFSettings:EATTenuation
value: float = driver.configure.rfSettings.get_eattenuation()
```

**Defines an external attenuation (or gain, if the value is negative) , to be applied to the input connector.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:RFSettings[:PCC]:EATTenuation:INPut
- CONFigure:LTE:SIGN<i>:RFSettings:SCC<c>:EATTenuation:INPut

**return**

rf\_input\_ext\_att: numeric Range: -50 dB to 90 dB, Unit: dB

**get\_envelope\_power()** → float

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:RFSettings:ENPower
value: float = driver.configure.rfSettings.get_envelope_power()
```

**Sets the expected nominal power of the measured RF signal.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFigure:LTE:SIGN<i>:RFSettings[:PCC]:ENPMode
- CONFigure:LTE:SIGN<i>:RFSettings[:PCC]:ENPower
- CONFigure:LTE:SIGN<i>:RFSettings:SCC<c>:ENPMode
- CONFigure:LTE:SIGN<i>:RFSettings:SCC<c>:ENPower

**return**

exp\_nom\_pow: numeric The range of the expected nominal power can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin The input power range is stated in the data sheet. Unit: dBm

**get\_foffset()** → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:RFSettings:FOFFset
value: int = driver.configure.rfSettings.get_foffset()
```

Specifies a positive or negative frequency offset to be added to the carrier center frequency (method RsCmwLteMeas. Configure.RfSettings.Cc.Frequency.set) .

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:FOFFset:UL
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:FOFFset:UL
- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:FOFFset:UL:UCSPecific

**return**

offset: numeric Range: -100 kHz to 100 kHz, Unit: Hz

**get\_ml\_offset()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:MLOffset
value: float = driver.configure.rfSettings.get_ml_offset()
```

**Varies the input level of the mixer in the analyzer path.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:MLOffset
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:MLOffset

**return**

mix\_lev\_offset: numeric Range: -10 dB to 10 dB, Unit: dB

**get\_umargin()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:UMargin
value: float = driver.configure.rfSettings.get_umargin()
```

Sets the margin that the measurement adds to the expected nominal power to determine the reference power. The reference power minus the external input attenuation must be within the power range of the selected input connector. Refer to the data sheet.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:UMARgin
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:UMARgin

**return**

user\_margin: numeric Range: 0 dB to (55 dB + external attenuation - expected nominal power), Unit: dB

**set\_eattenuation(rf\_input\_ext\_att: float)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:EATtenuation
driver.configure.rfSettings.set_eattenuation(rf_input_ext_att = 1.0)
```

**Defines an external attenuation (or gain, if the value is negative), to be applied to the input connector.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:EATtenuation:INPut
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:EATtenuation:INPut

**param rf\_input\_ext\_att**

numeric Range: -50 dB to 90 dB, Unit: dB

**set\_envelope\_power**(*exp\_nom\_pow*: float) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:ENPower
driver.configure.rfSettings.set_envelope_power(exp_nom_pow = 1.0)
```

**Sets the expected nominal power of the measured RF signal.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:ENPMode
- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:ENPower
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:ENPMode
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:ENPower

**param exp\_nom\_pow**

numeric The range of the expected nominal power can be calculated as follows: Range (Expected Nominal Power) = Range (Input Power) + External Attenuation - User Margin  
The input power range is stated in the data sheet. Unit: dBm

**set\_foffset**(*offset*: int) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:FOFFset
driver.configure.rfSettings.set_foffset(offset = 1)
```

Specifies a positive or negative frequency offset to be added to the carrier center frequency (method RsCmwLteMeas. Configure.RfSettings.Cc.Frequency.set) .

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:FOFFset:UL
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:FOFFset:UL
- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:FOFFset:UL:UCSPecific

**param offset**

numeric Range: -100 kHz to 100 kHz, Unit: Hz

**set\_ml\_offset**(*mix\_lev\_offset*: float) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:MLOffset
driver.configure.rfSettings.set_ml_offset(mix_lev_offset = 1.0)
```

**Varies the input level of the mixer in the analyzer path.**

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:MLOffset
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:MLOffset

**param mix\_lev\_offset**

numeric Range: -10 dB to 10 dB, Unit: dB

**set\_umargin**(*user\_margin*: float) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:UMARgin
driver.configure.rfSettings.set_umargin(user_margin = 1.0)
```

Sets the margin that the measurement adds to the expected nominal power to determine the reference power. The reference power minus the external input attenuation must be within the power range of the selected input connector. Refer to the data sheet.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:UMARgin
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:UMARgin

**param user\_margin**

numeric Range: 0 dB to (55 dB + external attenuation - expected nominal power) ,  
Unit: dB

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.rfSettings.clone()
```

## Subgroups

### 6.1.8.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.configure.rfSettings.cc.repcap_carrierComponent_get()
driver.configure.rfSettings.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

**class CcCls**

Cc commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.rfSettings.cc.clone()
```

## Subgroups

### 6.1.8.1.1 Frequency

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:RFSettings:CC<Nr>:FREquency
```

**class FrequencyCls**

Frequency commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get**(*carrierComponent=CarrierComponent.Default*) → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:CC<Nr>:FREQuency
value: float = driver.configure.rfSettings.cc.frequency.get(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Selects the center frequency of component carrier CC<no>. Without carrier aggregation, you can omit <no>. Using the unit CH, the frequency can be set via the channel number. The allowed channel number range depends on the operating band, see ‘Frequency bands’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:CHANnel:UL
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:CHANnel:UL

For the supported frequency range, see ‘Frequency ranges’.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

analyzer\_freq: numeric Unit: Hz

**set**(*analyzer\_freq: float, carrierComponent=CarrierComponent.Default*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings:CC<Nr>:FREQuency
driver.configure.rfSettings.cc.frequency.set(analyzer_freq = 1.0,
↳carrierComponent = repcap.CarrierComponent.Default)
```

Selects the center frequency of component carrier CC<no>. Without carrier aggregation, you can omit <no>. Using the unit CH, the frequency can be set via the channel number. The allowed channel number range depends on the operating band, see ‘Frequency bands’.

INTRO\_CMD\_HELP: For the combined signal path scenario, use:

- CONFIGure:LTE:SIGN<i>:RFSettings[:PCC]:CHANnel:UL
- CONFIGure:LTE:SIGN<i>:RFSettings:SCC<c>:CHANnel:UL

For the supported frequency range, see ‘Frequency ranges’.

**param analyzer\_freq**

numeric Unit: Hz

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

### 6.1.8.2 Pcc

#### SCPI Command :

```
CONFIGure:LTE:MEASurement<Instance>:RFSettings[:PCC]:FREQuency
```

#### class PccCls

Pcc commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_frequency()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings[:PCC]:FREquency
value: float = driver.configure.rfSettings.pcc.get_frequency()
```

No command help available

**return**

analyzer\_freq: No help available

**set\_frequency(analyzer\_freq: float)** → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:RFSettings[:PCC]:FREquency
driver.configure.rfSettings.pcc.set_frequency(analyzer_freq = 1.0)
```

No command help available

**param analyzer\_freq**

No help available

## 6.1.9 Srs

**SCPI Commands :**

```
CONFIGure:LTE:MEASurement<Instance>:SRS:TOUT
CONFIGure:LTE:MEASurement<Instance>:SRS:REPetition
CONFIGure:LTE:MEASurement<Instance>:SRS:SCONdition
CONFIGure:LTE:MEASurement<Instance>:SRS:MOEXception
CONFIGure:LTE:MEASurement<Instance>:SRS:HDMode
```

**class SrsCls**

Srs commands group definition. 7 total commands, 2 Subgroups, 5 group commands

**get\_hdmode()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:HDMode
value: bool = driver.configure.srs.get_hdmode()
```

Enables or disables the high dynamic mode for power dynamics measurements.

**return**

high\_dynamic\_mode: OFF | ON

**get\_mo\_exception()** → bool

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:MOEXception
value: bool = driver.configure.srs.get_mo_exception()
```

Specifies whether measurement results that the R&S CMW identifies as faulty or inaccurate are rejected.

**return**

meas\_on\_exception: OFF | ON OFF: Faulty results are rejected. ON: Results are never rejected.

**get\_repetition()** → Repeat

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:REPetition
value: enums.Repeat = driver.configure.srs.get_repetition()
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure::...:MEAS<i>:...:SCOut to determine the number of measurement intervals per single shot.

**return**

repetition: SINGleshot | CONTInuous SINGleshot: Single-shot measurement CONTInuous: Continuous measurement

**get\_scondition()** → StopCondition

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:SCONdition
value: enums.StopCondition = driver.configure.srs.get_scondition()
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**return**

stop\_condition: NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail: Stop measurement on limit failure.

**get\_timeout()** → float

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:TOUT
value: float = driver.configure.srs.get_timeout()
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**return**

timeout: numeric Unit: s

**set\_hdmode**(high\_dynamic\_mode: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:HDMode
driver.configure.srs.set_hdmode(high_dynamic_mode = False)
```

Enables or disables the high dynamic mode for power dynamics measurements.

**param high\_dynamic\_mode**

OFF | ON

**set\_mo\_exception**(meas\_on\_exception: bool) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:MOEXception
driver.configure.srs.set_mo_exception(meas_on_exception = False)
```

Specifies whether measurement results that the R&S CMW identifies as faulty or inaccurate are rejected.

**param meas\_on\_exception**

OFF | ON OFF: Faulty results are rejected. ON: Results are never rejected.

**set\_repetition**(*repetition: Repeat*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:REPetition
driver.configure.srs.set_repetition(repetition = enums.Repeat.CONTinuous)
```

Specifies the repetition mode of the measurement. The repetition mode specifies whether the measurement is stopped after a single shot or repeated continuously. Use CONFIGure:::MEAS<i>:::SCount to determine the number of measurement intervals per single shot.

**param repetition**

SINGleshot | CONTinuous SINGleshot: Single-shot measurement CONTinuous:  
Continuous measurement

**set\_scondition**(*stop\_condition: StopCondition*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:SCONdition
driver.configure.srs.set_scondition(stop_condition = enums.StopCondition.NONE)
```

Qualifies whether the measurement is stopped after a failed limit check or continued. SLFail means that the measurement is stopped and reaches the RDY state when one of the results exceeds the limits.

**param stop\_condition**

NONE | SLFail NONE: Continue measurement irrespective of the limit check. SLFail:  
Stop measurement on limit failure.

**set\_timeout**(*timeout: float*) → None

```
# SCPI: CONFIGure:LTE:MEASurement<Instance>:SRS:TOUT
driver.configure.srs.set_timeout(timeout = 1.0)
```

Defines a timeout for the measurement. The timer is started when the measurement is initiated via a READ or INIT command. It is not started if the measurement is initiated manually. When the measurement has completed the first measurement cycle (first single shot), the statistical depth is reached and the timer is reset. If the first measurement cycle has not been completed when the timer expires, the measurement is stopped. The measurement state changes to RDY. The reliability indicator is set to 1, indicating that a measurement timeout occurred. Still running READ, FETCh or CALCulate commands are completed, returning the available results. At least for some results, there are no values at all or the statistical depth has not been reached. A timeout of 0 s corresponds to an infinite measurement timeout.

**param timeout**

numeric Unit: s

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.srs.clone()
```



## Subgroups

### 6.1.9.1 Limit

#### class LimitCls

Limit commands group definition. 1 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.configure.srs.limit.clone()
```

## Subgroups

### 6.1.9.1.1 Pdynamics

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:SRS:LIMit:PDYNamics
```

#### class PdynamicsCls

Pdynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class PdynamicsStruct

Response structure. Fields:

- Enable: bool: OFF | ON OFF: disables the limit check ON: enables the limit check
- On\_Power\_Upper: float: numeric Upper limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm
- On\_Power\_Lower: float: numeric Lower limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm
- Off\_Power\_Upper: float: numeric Upper limit for the OFF power Range: -256 dBm to 256 dBm, Unit: dBm

**get()** → PdynamicsStruct

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:SRS:LIMit:PDYNamics
value: PdynamicsStruct = driver.configure.srs.limit.pdynamics.get()
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement.

#### return

structure: for return value, see the help for PdynamicsStruct structure arguments.

**set(enable: bool, on\_power\_upper: float, on\_power\_lower: float, off\_power\_upper: float)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:SRS:LIMit:PDYNamics
driver.configure.srs.limit.pdynamics.set(enable = False, on_power_upper = 1.0,
on_power_lower = 1.0, off_power_upper = 1.0)
```

Defines limits for the ON power and OFF power determined with the power dynamics measurement.

**param enable**

OFF | ON OFF: disables the limit check ON: enables the limit check

**param on\_power\_upper**

numeric Upper limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm

**param on\_power\_lower**

numeric Lower limit for the ON power Range: -256 dBm to 256 dBm, Unit: dBm

**param off\_power\_upper**

numeric Upper limit for the OFF power Range: -256 dBm to 256 dBm, Unit: dBm

### 6.1.9.2 Scount

#### SCPI Command :

```
CONFigure:LTE:MEASurement<Instance>:SRS:SCount:PDYNamics
```

**class ScountCls**

Scount commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_pdynamics()** → int

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:SRS:SCount:PDYNamics
value: int = driver.configure.srs.scount.get_pdynamics()
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**return**

statistic\_count: numeric Number of measurement intervals Range: 1 to 1000

**set\_pdynamics(statistic\_count: int)** → None

```
# SCPI: CONFigure:LTE:MEASurement<Instance>:SRS:SCount:PDYNamics
driver.configure.srs.scount.set_pdynamics(statistic_count = 1)
```

Specifies the statistic count of the measurement. The statistic count is equal to the number of measurement intervals per single shot.

**param statistic\_count**

numeric Number of measurement intervals Range: 1 to 1000

## 6.2 MultiEval

#### SCPI Commands :

```
INITiate:LTE:MEASurement<Instance>:MEValuation
STOP:LTE:MEASurement<Instance>:MEValuation
ABORt:LTE:MEASurement<Instance>:MEValuation
```

**class MultiEvalCls**

MultiEval commands group definition. 546 total commands, 19 Subgroups, 3 group commands

**abort**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: ABORT:LTE:MEASurement<Instance>:MEvaluation
driver.multiEval.abort()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY' state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the 'OFF' state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**initiate**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: INITiate:LTE:MEASurement<Instance>:MEvaluation
driver.multiEval.initiate()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY' state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the 'OFF' state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**stop**() → None

```
# SCPI: STOP:LTE:MEASurement<Instance>:MEvaluation
driver.multiEval.stop()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY'

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```

↪ ' state. Measurement results are kept. The resources remain allocated to the
↪ measurement.
  - ABORT... halts the measurement immediately. The measurement enters the
↪ 'OFF' state. All measurement values are set to NAV. Allocated resources are
↪ released.

```

Use FETCh...STATe? to query the current measurement state.

**stop\_with\_opc**(opc\_timeout\_ms: int = -1) → None

```

# SCPI: STOP:LTE:MEASurement<Instance>:MEvaluation
driver.multiEval.stop_with_opc()

```

INTRO\_CMD\_HELP: Starts, stops, or aborts the measurement:

```

  - INITiate... starts or restarts the measurement. The measurement enters
↪ the 'RUN' state.
  - STOP... halts the measurement immediately. The measurement enters the 'RDY
↪ ' state. Measurement results are kept. The resources remain allocated to the
↪ measurement.
  - ABORT... halts the measurement immediately. The measurement enters the
↪ 'OFF' state. All measurement values are set to NAV. Allocated resources are
↪ released.

```

Use FETCh...STATe? to query the current measurement state.

Same as stop, but waits for the operation to complete before continuing further. Use the RsCmwLteMeas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

## Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.multiEval.clone()

```

## Subgroups

### 6.2.1 Aclr

**class AclrCls**

Aclr commands group definition. 8 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.aclr.clone()
```

## Subgroups

### 6.2.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:ACLR:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:ACLR:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:ACLR:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Utra\_2\_Neg: enums.ResultStatus2: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: enums.ResultStatus2: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: enums.ResultStatus2: float ACLR for the first E-UTRA channel with lower frequency Unit: dB
- Eutra: enums.ResultStatus2: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: enums.ResultStatus2: float ACLR for the first E-UTRA channel with higher frequency Unit: dB
- Utra\_1\_Pos: enums.ResultStatus2: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: enums.ResultStatus2: float ACLR for the second UTRA channel with higher frequency Unit: dB

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Utra\_2\_Neg: float: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: float: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: float: float ACLR for the first E-UTRA channel with lower frequency Unit: dB
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float ACLR for the first E-UTRA channel with higher frequency Unit: dB
- Utra\_1\_Pos: float: float ACLR for the first UTRA channel with higher frequency Unit: dB

- Utra\_2\_Pos: float: float ACLR for the second UTRA channel with higher frequency Unit: dB

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: CalculateStruct = driver.multiEval.aclr.average.calculate()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: ResultData = driver.multiEval.aclr.average.fetch()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:ACLR:AVERage
value: ResultData = driver.multiEval.aclr.average.read()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:ACLR:CURRENT
FETCH:LTE:MEASurement<Instance>:MEValuation:ACLR:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEValuation:ACLR:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’

- Utra\_2\_Neg: enums.ResultStatus2: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: enums.ResultStatus2: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: enums.ResultStatus2: float ACLR for the first E-UTRA channel with lower frequency Unit: dB
- Eutra: enums.ResultStatus2: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: enums.ResultStatus2: float ACLR for the first E-UTRA channel with higher frequency Unit: dB
- Utra\_1\_Pos: enums.ResultStatus2: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: enums.ResultStatus2: float ACLR for the second UTRA channel with higher frequency Unit: dB

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Utra\_2\_Neg: float: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: float: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: float: float ACLR for the first E-UTRA channel with lower frequency Unit: dB
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float ACLR for the first E-UTRA channel with higher frequency Unit: dB
- Utra\_1\_Pos: float: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: float: float ACLR for the second UTRA channel with higher frequency Unit: dB

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:ACLR:CURRent
value: CalculateStruct = driver.multiEval.aclr.current.calculate()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also 'View Spectrum ACLR'. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEValuation:ACLR:CURRent
value: ResultData = driver.multiEval.aclr.current.fetch()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also 'View Spectrum ACLR'. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:ACLR:CURRENT
value: ResultData = driver.multiEval.aclr.current.read()
```

Returns the relative ACLR values as displayed in the table below the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.1.3 Dallocation

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:ACLR:DALLocation
```

**class DallocationCls**

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:ACLR:DALLocation
value: FetchStruct = driver.multiEval.aclr.dallocation.fetch()
```

Returns the detected allocation for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

**return**

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.1.4 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:ACLR:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → UplinkChannelType

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:ACLR:DCHType
value: enums.UplinkChannelType = driver.multiEval.aclr.dchType.fetch()
```

Returns the uplink channel type for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    channel_type: PUSCh | PUCCh
```

### 6.2.2 Amarker<AbsMarker>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.amarker.repcap_absMarker_get()
driver.multiEval.amarker.repcap_absMarker_set(repcap.AbsMarker.Nr1)
```

#### class AmarkerCls

Amarker commands group definition. 6 total commands, 5 Subgroups, 0 group commands Repeated Capability: AbsMarker, default value after init: AbsMarker.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.amarker.clone()
```

#### Subgroups

### 6.2.2.1 EvMagnitude

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARKer<No>:EVMagnitude
```

**class EvMagnitudeCls**

EvMagnitude commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, absMarker=AbsMarker.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:EVMagnitude
value: float = driver.multiEval.amarker.evMagnitude.fetch(xvalue = 1, trace_
↪select = enums.TraceSelect.AVERage, absMarker = repcap.AbsMarker.Default)
```

Uses the markers 1 and 2 with absolute values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**

CURRent | AVERage | MAXimum

**param absMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

**return**

yvalue: float Absolute Y value of the marker position

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.amarker.evMagnitude.clone()
```

**Subgroups****6.2.2.1.1 Peak****SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:EVMagnitude:PEAK
```

**class PeakCls**

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, absMarker=AbsMarker.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:EVMagnitude:PEAK
value: float = driver.multiEval.amarker.evMagnitude.peak.fetch(xvalue = 1, ↪
↪trace_select = enums.TraceSelect.AVERage, absMarker = repcap.AbsMarker.
↪Default)
```

Uses the markers 1 and 2 with absolute values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**

CURRent | AVERAge | MAXimum

**param absMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

**return**

yvalue: float Absolute Y value of the marker position

### 6.2.2.2 Merror

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:MERRor
```

#### class MerrorCls

Merror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, absMarker=AbsMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:MERRor
value: float = driver.multiEval.amarker.merror.fetch(xvalue = 1, trace_select =
enums.TraceSelect.AVERAge, absMarker = repcap.AbsMarker.Default)
```

Uses the markers 1 and 2 with absolute values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**

CURRent | AVERAge | MAXimum

**param absMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

**return**

yvalue: float Absolute Y value of the marker position

### 6.2.2.3 Podynamics

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:PDYNamics
```

#### class PodynamicsCls

Podynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*xvalue*: float, *trace\_select*: TraceSelect, *absMarker*=AbsMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:PDYNamics
value: float = driver.multiEval.amarker.podynamics.fetch(xvalue = 1.0, trace_
↪select = enums.TraceSelect.AVERage, absMarker = repcap.AbsMarker.Default)
```

Uses the markers 1 and 2 with absolute values on the power dynamics trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(float or boolean) integer Absolute X value of the marker position Range: -1100 μs to 2500 μs, Unit: μs

#### param trace\_select

CURRent | AVERage | MAXimum

#### param absMarker

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

#### return

yvalue: float Absolute Y value of the marker position Unit: dBm

### 6.2.2.4 Perror

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:PERRor
```

#### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*xvalue*: int, *trace\_select*: TraceSelect, *absMarker*=AbsMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:AMARker<No>:PERRor
value: float = driver.multiEval.amarker.perror.fetch(xvalue = 1, trace_select =
↪enums.TraceSelect.AVERage, absMarker = repcap.AbsMarker.Default)
```

Uses the markers 1 and 2 with absolute values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**  
 CURRent | AVERage | MAXimum

**param absMarker**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

**return**  
 yvalue: float Absolute Y value of the marker position

### 6.2.2.5 Pmonitor

#### class PmonitorCls

Pmonitor commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.amarker.pmonitor.clone()
```

### Subgroups

#### 6.2.2.5.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.amarker.pmonitor.cc.repcap_carrierComponent_get()
driver.multiEval.amarker.pmonitor.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
↪Nr1)
```

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:AMARker<No>:PMONitor:CC<Nr>
```

#### class CcCls

Cc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

**fetch**(xvalue: int, absMarker=AbsMarker.Default, carrierComponent=CarrierComponent.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:AMARker<No>:PMONitor:CC<Nr>
value: float = driver.multiEval.amarker.pmonitor.cc.fetch(xvalue = 1, absMarker.
↪= repcap.AbsMarker.Default, carrierComponent = repcap.CarrierComponent.
↪Default)
```

Uses the markers 1 and 2 with absolute values on the power monitor trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position (subframe number) Range: 0 to 319

**param absMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Amarker')

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

yvalue: float Absolute Y value of the marker position Unit: dBm

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.amarker.pmonitor.cc.clone()
```

**6.2.3 Bler****SCPI Commands :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:BLER
READ:LTE:MEASurement<Instance>:MEvaluation:BLER
```

**class BlerCls**

Bler commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Ack: float: float Received acknowledgments (percentage of sent scheduled subframes) . Unit: %
- Nack: float: float Received negative acknowledgments (percentage of sent scheduled subframes) . Unit: %
- Bler: float: float Block error ratio (percentage of sent scheduled subframes for which no ACK has been received) . Unit: %
- Dtx: float: float Percentage of sent scheduled subframes for which no ACK and no NACK has been received. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:BLER
value: ResultData = driver.multiEval.bler.fetch()
```

Returns the block error ratio results determined from all captured subframes.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:BLER
value: ResultData = driver.multiEval.bler.read()
```

Returns the block error ratio results determined from all captured subframes.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.4 Dmarker<DeltaMarker>

### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.dmarker.repcap_deltaMarker_get()
driver.multiEval.dmarker.repcap_deltaMarker_set(repcap.DeltaMarker.Nr1)
```

#### class DmarkerCls

Dmarker commands group definition. 6 total commands, 5 Subgroups, 0 group commands Repeated Capability: DeltaMarker, default value after init: DeltaMarker.Nr1

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.dmarker.clone()
```

### Subgroups

#### 6.2.4.1 EvMagnitude

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:DMARker<No>:EVMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, deltaMarker=DeltaMarker.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:DMARker<No>:EVMagnitude
value: float = driver.multiEval.dmarker.evMagnitude.fetch(xvalue = 1, trace_
→select = enums.TraceSelect.AVERage, deltaMarker = repcap.DeltaMarker.Default)
```

Uses the markers 1 and 2 with relative values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer X value of the marker position relative to the X value of the reference marker There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: -13 to 13

**param trace\_select**

CURRent | AVERAge | MAXimum

**param deltaMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')

**return**

yvalue: float Y value of the marker position relative to the Y value of the reference marker

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.dmarker.evMagnitude.clone()
```

**Subgroups****6.2.4.1.1 Peak****SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:EVMagnitude:PEAK
```

**class PeakCls**

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, deltaMarker=DeltaMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:EVMagnitude:PEAK
value: float = driver.multiEval.dmarker.evMagnitude.peak.fetch(xvalue = 1,
↳ trace_select = enums.TraceSelect.AVERAge, deltaMarker = repcap.DeltaMarker.
↳ Default)
```

Uses the markers 1 and 2 with relative values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer X value of the marker position relative to the X value of the reference marker There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: -13 to 13

**param trace\_select**

CURRent | AVERAge | MAXimum

**param deltaMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')



**return**  
 yvalue: float Y value of the marker position relative to the Y value of the reference  
 marker

#### 6.2.4.2 Merror

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:MERROR
```

##### class MerrorCls

Merror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, deltaMarker=DeltaMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:MERROR
value: float = driver.multiEval.dmarker.merror.fetch(xvalue = 1, trace_select =
↳enums.TraceSelect.AVERage, deltaMarker = repcap.DeltaMarker.Default)
```

Uses the markers 1 and 2 with relative values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**  
 (integer or boolean) integer X value of the marker position relative to the X value of the reference marker There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: -13 to 13

**param trace\_select**  
 CURRent | AVERage | MAXimum

**param deltaMarker**  
 optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')

**return**  
 yvalue: float Y value of the marker position relative to the Y value of the reference  
 marker

#### 6.2.4.3 Podynamics

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PDYNamics
```

##### class PodynamicsCls

Podynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: float, trace\_select: TraceSelect, deltaMarker=DeltaMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PDYNamics
value: float = driver.multiEval.dmarker.podynamics.fetch(xvalue = 1.0, trace_
↳select = enums.TraceSelect.AVERage, deltaMarker = repcap.DeltaMarker.Default)
```

Uses the markers 1 and 2 with relative values on the power dynamics trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(float or boolean) integer X value of the marker position relative to the X value of the reference marker Range: -3600  $\mu$ s to 3600  $\mu$ s, Unit:  $\mu$ s

**param trace\_select**

CURRent | AVERAge | MAXimum

**param deltaMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')

**return**

yvalue: float Y value of the marker position relative to the Y value of the reference marker Unit: dB

#### 6.2.4.4 Perror

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PERRor
```

##### class PerrorCls

Error commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect, deltaMarker=DeltaMarker.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PERRor
value: float = driver.multiEval.dmarker.perror.fetch(xvalue = 1, trace_select =
enums.TraceSelect.AVERAge, deltaMarker = repcap.DeltaMarker.Default)
```

Uses the markers 1 and 2 with relative values on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer X value of the marker position relative to the X value of the reference marker There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: -13 to 13

**param trace\_select**

CURRent | AVERAge | MAXimum

**param deltaMarker**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')

**return**

yvalue: float Y value of the marker position relative to the Y value of the reference marker

### 6.2.4.5 Pmonitor

#### class PmonitorCls

Pmonitor commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.dmarker.pmonitor.clone()
```

#### Subgroups

##### 6.2.4.5.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.dmarker.pmonitor.cc.repcap_carrierComponent_get()
driver.multiEval.dmarker.pmonitor.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
↳Nr1)
```

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PMONitor:CC<Nr>
```

#### class CcCls

Cc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

**fetch**(xvalue: int, deltaMarker=DeltaMarker.Default, carrierComponent=CarrierComponent.Default) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:DMARKer<No>:PMONitor:CC<Nr>
value: float = driver.multiEval.dmarker.pmonitor.cc.fetch(xvalue = 1,
↳deltaMarker = repcap.DeltaMarker.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

Uses the markers 1 and 2 with relative values on the power monitor trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(integer or boolean) integer X value of the marker position relative to the X value of the reference marker (in subframes) Range: -319 to 319

#### param deltaMarker

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Dmarker')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

yvalue: float Y value of the marker position relative to the Y value of the reference  
marker Unit: dB

### Cloning the Group

```
# Create a clone of the original group, that exists independently  
group2 = driver.multiEval.dmarker.pmonitor.cc.clone()
```

## 6.2.5 EsFlatness

**class EsFlatnessCls**

EsFlatness commands group definition. 12 total commands, 4 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently  
group2 = driver.multiEval.esFlatness.clone()
```

## Subgroups

### 6.2.5.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:AVERage  
FETCh:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:AVERage  
CALCulate:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'

- **Out\_Of\_Tolerance**: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- **Ripple\_1**: float: float Max (range 1) - min (range 1) Unit: dB
- **Ripple\_2**: float: float Max (range 2) - min (range 2) Unit: dB
- **Max\_R\_1\_Min\_R\_2**: float: float Max (range 1) - min (range 2) Unit: dB
- **Max\_R\_2\_Min\_R\_1**: float: float Max (range 2) - min (range 1) Unit: dB
- **Min\_R\_1**: float: float Min (range 1) Unit: dB
- **Max\_R\_1**: float: float Max (range 1) Unit: dB
- **Min\_R\_2**: float: float Min (range 2) Unit: dB
- **Max\_R\_2**: float: float Max (range 2) Unit: dB

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:ESFlatness:AVERage
value: CalculateStruct = driver.multiEval.esFlatness.average.calculate()
```

Return current, average and extreme single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEValuation:ESFlatness:AVERage
value: ResultData = driver.multiEval.esFlatness.average.fetch()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:ESFlatness:AVERage
value: ResultData = driver.multiEval.esFlatness.average.read()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.5.2 Current

#### SCPI Commands :

```

READ:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRent
FETCh:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRent

```

#### class CurrentCls

Current commands group definition. 4 total commands, 1 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB

**calculate()** → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRent
value: CalculateStruct = driver.multiEval.esFlatness.current.calculate()

```

Return current, average and extreme single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRENT
value: ResultData = driver.multiEval.esFlatness.current.fetch()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also ‘Equalizer spectrum flatness limits’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRENT
value: ResultData = driver.multiEval.esFlatness.current.read()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also ‘Equalizer spectrum flatness limits’.

**return**

structure: for return value, see the help for ResultData structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.esFlatness.current.clone()
```

## Subgroups

### 6.2.5.2.1 ScIndex

**SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:CURRENT:SCINDEX
```

**class ScIndexCls**

ScIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Maximum\_1: int: decimal SC index of ‘Max (Range 1) ‘
- Minimum\_1: int: decimal SC index of ‘Min (Range 1) ‘
- Maximum\_2: int: decimal SC index of ‘Max (Range 2) ‘
- Minimum\_2: int: decimal SC index of ‘Min (Range 2) ‘

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:ESFlatness:CURRent:SCIndex
value: FetchStruct = driver.multiEval.esFlatness.current.scIndex.fetch()
```

Returns subcarrier indices of the equalizer spectrum flatness measurement. At these SC indices, the current minimum and maximum power of the equalizer coefficients have been detected within range 1 and range 2.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.5.3 Extreme

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
FETCh:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) .
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) .

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB



**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
value: CalculateStruct = driver.multiEval.esFlatness.extreme.calculate()
```

Return current, average and extreme single-value results of the equalizer spectrum flatness measurement. See also ‘Equalizer spectrum flatness limits’.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
value: ResultData = driver.multiEval.esFlatness.extreme.fetch()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also ‘Equalizer spectrum flatness limits’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:ESFlatness:EXTreme
value: ResultData = driver.multiEval.esFlatness.extreme.read()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also ‘Equalizer spectrum flatness limits’.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.5.4 StandardDev

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:ESFlatness:SDEviation
FETCH:LTE:MEASurement<Instance>:MEValuation:ESFlatness:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB

- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:SDEviation
value: ResultData = driver.multiEval.esFlatness.standardDev.fetch()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:ESFlatness:SDEviation
value: ResultData = driver.multiEval.esFlatness.standardDev.read()
```

Return current, average, extreme and standard deviation single-value results of the equalizer spectrum flatness measurement. See also 'Equalizer spectrum flatness limits'.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.6 EvMagnitude

**class EvMagnitudeCls**

EvMagnitude commands group definition. 12 total commands, 4 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.evMagnitude.clone()
```

### Subgroups

#### 6.2.6.1 Average

**SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:AVERage
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:AVERage
value: ResultData = driver.multiEval.evMagnitude.average.fetch()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also ‘View EVM’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:AVERage
value: ResultData = driver.multiEval.evMagnitude.average.read()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also ‘View EVM’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.6.2 Current****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:CURRENT
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:CURRENT
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:CURRENT
value: ResultData = driver.multiEval.evMagnitude.current.fetch()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:CURRENT
value: ResultData = driver.multiEval.evMagnitude.current.read()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.6.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:MAXimum
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:MAXimum
value: ResultData = driver.multiEval.evMagnitude.maximum.fetch()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:MAXimum
value: ResultData = driver.multiEval.evMagnitude.maximum.read()
```

Returns the values of the EVM RMS bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.6.4 Peak

##### class PeakCls

Peak commands group definition. 6 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.evMagnitude.peak.clone()
```

##### Subgroups

#### 6.2.6.4.1 Average

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:AVERage
value: ResultData = driver.multiEval.evMagnitude.peak.average.fetch()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:AVERage
value: ResultData = driver.multiEval.evMagnitude.peak.average.read()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.6.4.2 Current

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:CURRENT
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:CURRENT
value: ResultData = driver.multiEval.evMagnitude.peak.current.fetch()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:CURRENT
value: ResultData = driver.multiEval.evMagnitude.peak.current.read()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.6.4.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:MAXimum
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position Unit: %
- High: List[float]: float EVM value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:MAXimum
value: ResultData = driver.multiEval.evMagnitude.peak.maximum.fetch()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMagnitude:PEAK:MAXimum
value: ResultData = driver.multiEval.evMagnitude.peak.maximum.read()
```

Returns the values of the EVM peak bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View EVM'.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.7 Evmc

#### class EvmcCls

Evmc commands group definition. 8 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.evmc.clone()
```

## Subgroups

### 6.2.7.1 Peak

#### class PeakCls

Peak commands group definition. 8 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.evmc.peak.clone()
```

## Subgroups

### 6.2.7.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:AVERage
value: float = driver.multiEval.evmc.peak.average.fetch()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_cpeak_average: float Unit: %
```

**read()** → float

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:AVERage
value: float = driver.multiEval.evmc.peak.average.read()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.



Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    evm_cpeak_average: float Unit: %

```

### 6.2.7.1.2 Current

#### SCPI Commands :

```

READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:CURRENT
FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:CURRENT

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → float

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:CURRENT
value: float = driver.multiEval.evmc.peak.current.fetch()

```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    evm_cpeak_current: float Unit: %

```

**read()** → float

```

# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:CURRENT
value: float = driver.multiEval.evmc.peak.current.read()

```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    evm_cpeak_current: float Unit: %

```

### 6.2.7.1.3 Maximum

#### SCPI Commands :

```

READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:MAXimum
value: float = driver.multiEval.evmc.peak.maximum.fetch()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_cpeak_maximum: float Unit: %
```

**read()** → float

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:MAXimum
value: float = driver.multiEval.evmc.peak.maximum.read()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_cpeak_maximum: float Unit: %
```

#### 6.2.7.1.4 StandardDev

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:SDEViation
FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:SDEViation
value: float = driver.multiEval.evmc.peak.standardDev.fetch()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_cpeak_std_dev: float Unit: %
```

**read()** → float

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:EVMC:PEAK:SDEViation
value: float = driver.multiEval.evmc.peak.standardDev.read()
```

The CURRENT command returns the maximum value of the EVM vs subcarrier trace. The AVERage, MAXimum and SDEViation values are calculated from the CURRENT values. The peak results cannot be displayed at the GUI.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_cpeak_std_dev: float Unit: %
```

## 6.2.8 InbandEmission

### class InbandEmissionCls

InbandEmission commands group definition. 6 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.inbandEmission.clone()
```

#### Subgroups

##### 6.2.8.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.inbandEmission.cc.repcap_carrierComponent_get()
driver.multiEval.inbandEmission.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
    ↪Nr1)
```

### class CcCls

Cc commands group definition. 6 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.inbandEmission.cc.clone()
```

#### Subgroups

##### 6.2.8.1.1 Margin

### class MarginCls

Margin commands group definition. 6 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.inbandEmission.cc.margin.clone()
```

## Subgroups

### 6.2.8.1.1.1 Average

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Margin: float: float Unit: dB

**fetch**(*carrierComponent=CarrierComponent.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>
↳:MARGin:AVERage
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.average.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return the limit line margin results for the CC<no> diagram. The CURRENT margin indicates the minimum (vertical) distance between the inband emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEVIation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.8.1.1.2 Current

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>:MARGin:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Margin: float: float Unit: dB

**fetch**(carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:IEmission:CC<Nr>
↳:MARGin:CURRent
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.current.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return the limit line margin results for the CC<no> diagram. The CURRENT margin indicates the minimum (vertical) distance between the inband emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReame and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.inbandEmission.cc.margin.current.clone()
```

**Subgroups****6.2.8.1.1.3 RbIndex****SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:IEmission:CC<Nr>:MARGin:CURRent:RBIndex
```

**class RbIndexCls**

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Rb\_Index: int: decimal Resource block index

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:IEMission:CC<Nr>
↪:MARGin:CURRent:RBIndex
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.current.rbIndex.
↪fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return resource block indices for CC<no> inband emission margins. At these RB indices, the CURRent and EXTReMe margins have been detected (see method RsCmwLteMeas.MultiEval.InbandEmission.Cc.Margin.Current.fetch and ...:EXTReMe).

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.8.1.1.4 Extreme

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:IEMission:CC<Nr>:MARGin:EXTReMe
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 1 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Margin: float: float Unit: dB

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:IEMission:CC<Nr>
↪:MARGin:EXTReMe
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.extreme.
↪fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return the limit line margin results for the CC<no> diagram. The CURRent margin indicates the minimum (vertical) distance between the inband emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.inbandEmission.cc.margin.extreme.clone()
```

## Subgroups

### 6.2.8.1.1.5 RbIndex

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>:MARGin:EXTRemE:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Rb\_Index: int: decimal Resource block index

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>
↳:MARGin:EXTRemE:RBIndex
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.extreme.rbIndex.
↳fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return resource block indices for CC<no> inband emission margins. At these RB indices, the CURRENT and EXTRemE margins have been detected (see method RsCmwLte-Meas.MultiEval.InbandEmission.Cc.Margin.Current.fetch and ...:EXTRemE) .

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.8.1.1.6 StandardDev

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>:MARGin:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Margin: float: float Unit: dB

**fetch**(carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:IEMission:CC<Nr>
↪:MARGin:SDEViation
value: FetchStruct = driver.multiEval.inbandEmission.cc.margin.standardDev.
↪fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Return the limit line margin results for the CC<no> diagram. The CURRENT margin indicates the minimum (vertical) distance between the inband emissions limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReame and SDEViation values are calculated from the current margins. The margin results cannot be displayed at the GUI.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## 6.2.9 ListPy

**class ListPyCls**

ListPy commands group definition. 353 total commands, 9 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.clone()
```

### Subgroups

#### 6.2.9.1 Aclr

**class AclrCls**

Aclr commands group definition. 22 total commands, 4 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.clone()
```

## Subgroups

### 6.2.9.1.1 Dallocation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Nr\_Res\_Blocks: List[int]: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: List[int]: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:DALlocation
value: FetchStruct = driver.multiEval.listPy.aclr.dallocation.fetch()
```

Return the detected allocation for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ. The results are returned as pairs per segment: <Reliability>, {<NrResBlocks>, <OffsetResBlocks>}Seg 1, {<NrResBlocks>, <OffsetResBlocks>}Seg 2, ...

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.1.2 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[UplinkChannelType]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:DCHType
value: List[enums.UplinkChannelType] = driver.multiEval.listPy.aclr.dchType.
↪ fetch()
```

Return the uplink channel type for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    channel_type: PUSCh | PUCCh Comma-separated list of values, one per measured
    segment
```

### 6.2.9.1.3 Eutra

#### class EutraCls

Eutra commands group definition. 12 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.eutra.clone()
```

#### Subgroups

### 6.2.9.1.3.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:AVERage
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:AVERage
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.average.
↪ calculate()
```

Return the power in the allocated E-UTRA channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    eutra: float Comma-separated list of values, one per measured segment Unit: dBm
```

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:AVERage
value: List[float] = driver.multiEval.listPy.aclr.eutra.average.fetch()
```

Return the power in the allocated E-UTRA channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

eutra: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.1.3.2 Current

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:CURRent
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.current.
    ↪ calculate()
```

Return the power in the allocated E-UTRA channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

eutra: float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:EUTRa:CURRent
value: List[float] = driver.multiEval.listPy.aclr.eutra.current.fetch()
```

Return the power in the allocated E-UTRA channel for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

eutra: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.1.3.3 Negativ

#### class NegativCls

Negativ commands group definition. 4 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.eutra.negativ.clone()
```

#### Subgroups

### 6.2.9.1.3.4 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:NEGativ:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:NEGativ:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:ACLR:EUTRa:NEGativ:AVERage
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.negativ.
↳average.calculate()
```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

eutra\_negativ: float Comma-separated list of values, one per measured segment Unit: dB

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:ACLR:EUTRa:NEGativ:AVERage
value: List[float] = driver.multiEval.listPy.aclr.eutra.negativ.average.fetch()
```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

eutra\_negativ: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.1.3.5 Current

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:NEGativ:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:NEGativ:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:ACLR:EUTRa:NEGativ:CURRent
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.negative.
→ current.calculate()

```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 eutra\_negative: float Comma-separated list of values, one per measured segment Unit:  
 dB

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:ACLR:EUTRa:NEGativ:CURRent
value: List[float] = driver.multiEval.listPy.aclr.eutra.negative.current.fetch()

```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 eutra\_negative: float Comma-separated list of values, one per measured segment Unit:  
 dB

### 6.2.9.1.3.6 Positiv

#### class PositivCls

Positiv commands group definition. 4 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.eutra.positiv.clone()
```

## Subgroups

### 6.2.9.1.3.7 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:POSitiv:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:POSitiv:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:EUTRa:POSitiv:AVERage
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.positiv.
↪average.calculate()
```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

eutra\_positiv: float Comma-separated list of values, one per measured segment Unit: dB

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:ACLR:EUTRa:POSitiv:AVERage
value: List[float] = driver.multiEval.listPy.aclr.eutra.positiv.average.fetch()
```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

eutra\_positiv: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.1.3.8 Current

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:POSitiv:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:EUTRa:POSitiv:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[ResultStatus2]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:ACLR:EUTRa:POSitiv:CURRent
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.eutra.positiv.
→ current.calculate()

```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    eutra_positiv: float Comma-separated list of values, one per measured segment Unit:
    dB

```

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:ACLR:EUTRa:POSitiv:CURRent
value: List[float] = driver.multiEval.listPy.aclr.eutra.positiv.current.fetch()

```

Return the ACLR for the first adjacent E-UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    eutra_positiv: float Comma-separated list of values, one per measured segment Unit:
    dB

```

### 6.2.9.1.4 Utra<UtraAdjChannel>

#### RepCap Settings

```

# Range: Ch1 .. Ch2
rc = driver.multiEval.listPy.aclr.utra.repcap_utraAdjChannel_get()
driver.multiEval.listPy.aclr.utra.repcap_utraAdjChannel_set(repcap.UtraAdjChannel.Ch1)

```

#### class UtraCls

Utra commands group definition. 8 total commands, 2 Subgroups, 0 group commands Repeated Capability: UtraAdjChannel, default value after init: UtraAdjChannel.Ch1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.utra.clone()
```

## Subgroups

### 6.2.9.1.4.1 Negativ

#### class NegativCls

Negativ commands group definition. 4 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.utra.negativ.clone()
```

## Subgroups

### 6.2.9.1.4.2 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>:NEGativ:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>:NEGativ:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(utraAdjChannel=UtraAdjChannel.Default) → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>
↪:NEGativ:AVERage
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.utra.negativ.
↪average.calculate(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param utraAdjChannel

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

#### return

utra\_negativ: No help available



**fetch**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>
↳:NEGativ:AVERage
value: List[float] = driver.multiEval.listPy.aclr.utra.negative.average.
↳fetch(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**

utra\_negative: No help available

### 6.2.9.1.4.3 Current

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>:NEGativ:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>:NEGativ:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>
↳:NEGativ:CURRent
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.utra.negative.
↳current.calculate(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**

utra\_negative: No help available

**fetch**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>
↳:NEGativ:CURRent
value: List[float] = driver.multiEval.listPy.aclr.utra.negative.current.
↳fetch(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**

utra\_negativ: No help available

#### 6.2.9.1.4.4 Positiv

##### class PositivCls

Positiv commands group definition. 4 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.aclr.utra.positiv.clone()
```

##### Subgroups

#### 6.2.9.1.4.5 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>:POSitiv:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>:POSitiv:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(utraAdjChannel=UtraAdjChannel.Default) → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>
↪:POSitiv:AVERage
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.utra.positiv.
↪average.calculate(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**

optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**  
 utra\_positiv: No help available

**fetch**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>
↳:POSitiv:AVERage
value: List[float] = driver.multiEval.listPy.aclr.utra.positiv.average.
↳fetch(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**  
 optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**  
 utra\_positiv: No help available

#### 6.2.9.1.4.6 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>:POSitiv:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>:POSitiv:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[ResultStatus2]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ACLR:UTRA<nr>
↳:POSitiv:CURRent
value: List[enums.ResultStatus2] = driver.multiEval.listPy.aclr.utra.positiv.
↳current.calculate(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param utraAdjChannel**  
 optional repeated capability selector. Default value: Ch1 (settable in the interface 'Utra')

**return**  
 utra\_positiv: No help available

**fetch**(*utraAdjChannel*=*UtraAdjChannel.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ACLR:UTRA<nr>
↪:POSitiv:CURRent
value: List[float] = driver.multiEval.listPy.aclr.utra.positiv.current.
↪fetch(utraAdjChannel = repcap.UtraAdjChannel.Default)
```

Return the ACLR for the first or second adjacent UTRA channel above (POSitiv) or below (NEGativ) the carrier frequency for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
param utraAdjChannel
    optional repeated capability selector. Default value: Ch1 (settable in the interface
    'Utra')

return
    utra_positiv: No help available
```

### 6.2.9.2 EsFlatness

#### class EsFlatnessCls

EsFlatness commands group definition. 30 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.clone()
```

### Subgroups

#### 6.2.9.2.1 Difference<Difference>

#### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.difference.repcap_difference_get()
driver.multiEval.listPy.esFlatness.difference.repcap_difference_set(repcap.Difference.
↪Nr1)
```

#### class DifferenceCls

Difference commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: Difference, default value after init: Difference.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.difference.clone()
```

## Subgroups

### 6.2.9.2.1.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*difference=Difference.Default*) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:AVERage
value: List[float or bool] = driver.multiEval.listPy.esFlatness.difference.
↳average.calculate(difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

#### return

difference: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(*difference=Difference.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence
↳<nr>:AVERage
value: List[float] = driver.multiEval.listPy.esFlatness.difference.average.
↳fetch(difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.2.1.2 Current

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:DIFFerence<nr>:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:DIFFerence<nr>:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*difference=Difference.Default*) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEValuation:LIST:ESFlatness:DIFFerence<nr>:CURRent
value: List[float or bool] = driver.multiEval.listPy.esFlatness.difference.
↳current.calculate(difference = repcap.Difference.Default)

```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(*difference=Difference.Default*) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:DIFFerence
↳<nr>:CURRent
value: List[float] = driver.multiEval.listPy.esFlatness.difference.current.
↳fetch(difference = repcap.Difference.Default)

```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param difference**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

**return**

difference: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.2.1.3 Extreme

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*difference=Difference.Default*) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:ESFlatness:DIFFerence<nr>:EXTreme
value: List[float or bool] = driver.multiEval.listPy.esFlatness.difference.
→ extreme.calculate(difference = repcap.Difference.Default)

```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

#### return

difference: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(*difference=Difference.Default*) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence
→ <nr>:EXTreme
value: List[float] = driver.multiEval.listPy.esFlatness.difference.extreme.
→ fetch(difference = repcap.Difference.Default)

```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

#### return

difference: float Comma-separated list of values, one per measured segment Unit: dB

#### 6.2.9.2.1.4 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence<nr>:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*difference=Difference.Default*) → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:DIFFerence
→<nr>:SDEViation
value: List[float] = driver.multiEval.listPy.esFlatness.difference.standardDev.
→fetch(difference = repcap.Difference.Default)
```

Return equalizer spectrum flatness single value results (differences between ranges) for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param difference

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Difference')

##### return

difference: float Comma-separated list of values, one per measured segment Unit: dB

#### 6.2.9.2.2 Maxr<MaxRange>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.maxr.repcap_maxRange_get()
driver.multiEval.listPy.esFlatness.maxr.repcap_maxRange_set(repcap.MaxRange.Nr1)
```

##### class MaxrCls

Maxr commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: MaxRange, default value after init: MaxRange.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.maxr.clone()
```



## Subgroups

### 6.2.9.2.2.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(maxRange=MaxRange.Default) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>
→ :AVERage
value: List[float or bool] = driver.multiEval.listPy.esFlatness.maxr.average.
→ calculate(maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

##### return

maxr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(maxRange=MaxRange.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>
→ :AVERage
value: List[float] = driver.multiEval.listPy.esFlatness.maxr.average.
→ fetch(maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

##### return

maxr: float Comma-separated list of values, one per measured segment. Unit: dB

### 6.2.9.2.2.2 Current

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*maxRange=MaxRange.Default*) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>
→:CURRent
value: List[float or bool] = driver.multiEval.listPy.esFlatness.maxr.current.
→calculate(maxRange = repcap.MaxRange.Default)

```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

##### return

maxr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(*maxRange=MaxRange.Default*) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>
→:CURRent
value: List[float] = driver.multiEval.listPy.esFlatness.maxr.current.
→fetch(maxRange = repcap.MaxRange.Default)

```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

##### return

maxr: float Comma-separated list of values, one per measured segment. Unit: dB

### 6.2.9.2.2.3 Extreme

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:MAXR<nr>:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:MAXR<nr>:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(maxRange=MaxRange.Default) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:MAXR<nr>
→ :EXTreme
value: List[float or bool] = driver.multiEval.listPy.esFlatness.maxr.extreme.
→ calculate(maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

#### return

maxr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(maxRange=MaxRange.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:ESFlatness:MAXR<nr>
→ :EXTreme
value: List[float] = driver.multiEval.listPy.esFlatness.maxr.extreme.
→ fetch(maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

#### return

maxr: float Comma-separated list of values, one per measured segment. Unit: dB

#### 6.2.9.2.2.4 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(maxRange=MaxRange.Default) → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MAXR<nr>
→:SDEviation
value: List[float] = driver.multiEval.listPy.esFlatness.maxr.standardDev.
→fetch(maxRange = repcap.MaxRange.Default)
```

Return equalizer spectrum flatness single value results (maximum within a range) for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param maxRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maxr')

##### return

maxr: float Comma-separated list of values, one per measured segment. Unit: dB

#### 6.2.9.2.3 Minr<MinRange>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.minr.repcap_minRange_get()
driver.multiEval.listPy.esFlatness.minr.repcap_minRange_set(repcap.MinRange.Nr1)
```

##### class MinrCls

Minr commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: MinRange, default value after init: MinRange.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.minr.clone()
```

## Subgroups

### 6.2.9.2.3.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(minRange=MinRange.Default) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :AVERage
value: List[float or bool] = driver.multiEval.listPy.esFlatness.minr.average.
→ calculate(minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

#### return

minr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(minRange=MinRange.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :AVERage
value: List[float] = driver.multiEval.listPy.esFlatness.minr.average.
→ fetch(minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

#### return

minr: float Comma-separated list of values, one per measured segment. Unit: dB

### 6.2.9.2.3.2 Current

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(*minRange=MinRange.Default*) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :CURRent
value: List[float or bool] = driver.multiEval.listPy.esFlatness.minr.current.
→ calculate(minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

##### return

minr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(*minRange=MinRange.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :CURRent
value: List[float] = driver.multiEval.listPy.esFlatness.minr.current.
→ fetch(minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

##### return

minr: float Comma-separated list of values, one per measured segment. Unit: dB

### 6.2.9.2.3.3 Extreme

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(minRange=MinRange.Default) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :EXTreme
value: List[float or bool] = driver.multiEval.listPy.esFlatness.minr.extreme.
→ calculate(minRange = repcap.MinRange.Default)

```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

#### return

minr: (float or boolean items) float Comma-separated list of values, one per measured segment. Unit: dB

**fetch**(minRange=MinRange.Default) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→ :EXTreme
value: List[float] = driver.multiEval.listPy.esFlatness.minr.extreme.
→ fetch(minRange = repcap.MinRange.Default)

```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

#### return

minr: float Comma-separated list of values, one per measured segment. Unit: dB

#### 6.2.9.2.3.4 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(minRange=MinRange.Default) → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:MINR<nr>
→:SDEviation
value: List[float] = driver.multiEval.listPy.esFlatness.minr.standardDev.
→fetch(minRange = repcap.MinRange.Default)
```

Return equalizer spectrum flatness single value results (minimum within a range) for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param minRange

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minr')

##### return

minr: float Comma-separated list of values, one per measured segment. Unit: dB

#### 6.2.9.2.4 Ripple<Ripple>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.ripple.repcap_ripple_get()
driver.multiEval.listPy.esFlatness.ripple.repcap_ripple_set(repcap.Ripple.Nr1)
```

##### class RippleCls

Ripple commands group definition. 7 total commands, 4 Subgroups, 0 group commands Repeated Capability: Ripple, default value after init: Ripple.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.ripple.clone()
```



## Subgroups

### 6.2.9.2.4.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(ripple=Ripple.Default) → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple
→<nr>:AVERage
value: List[float or bool] = driver.multiEval.listPy.esFlatness.ripple.average.
→calculate(ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

##### return

ripple: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(ripple=Ripple.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>
→:AVERage
value: List[float] = driver.multiEval.listPy.esFlatness.ripple.average.
→fetch(ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

##### return

ripple: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.2.4.2 Current

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(ripple=*Ripple.Default*) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple
→<nr>:CURRent
value: List[float or bool] = driver.multiEval.listPy.esFlatness.ripple.current.
→calculate(ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

##### return

ripple: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(ripple=*Ripple.Default*) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>
→:CURRent
value: List[float] = driver.multiEval.listPy.esFlatness.ripple.current.
→fetch(ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

##### return

ripple: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.2.4.3 Extreme

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**(ripple=*Ripple.Default*) → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple
→<nr>:EXTreme
value: List[float or bool] = driver.multiEval.listPy.esFlatness.ripple.extreme.
→calculate(ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

#### return

ripple: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dB

**fetch**(ripple=*Ripple.Default*) → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>
→:EXTreme
value: List[float] = driver.multiEval.listPy.esFlatness.ripple.extreme.
→fetch(ripple = repcap.Ripple.Default)

```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

#### return

ripple: float Comma-separated list of values, one per measured segment Unit: dB

#### 6.2.9.2.4.4 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(ripple=Ripple.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:RIPple<nr>
→:SDEviation
value: List[float] = driver.multiEval.listPy.esFlatness.ripple.standardDev.
→fetch(ripple = repcap.Ripple.Default)
```

Return equalizer spectrum flatness single value results (ripple 1 or ripple 2) for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param ripple

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Ripple')

##### return

ripple: float Comma-separated list of values, one per measured segment Unit: dB

#### 6.2.9.2.5 ScIndex

##### class ScIndexCls

ScIndex commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.scIndex.clone()
```

##### Subgroups

#### 6.2.9.2.5.1 Maximum<MaxRange>

##### RepCap Settings

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.scIndex.maximum.repcap_maxRange_get()
driver.multiEval.listPy.esFlatness.scIndex.maximum.repcap_maxRange_set(repcap.MaxRange.
→Nr1)
```

**class MaximumCls**

Maximum commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: MaxRange, default value after init: MaxRange.Nr1

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.scIndex.maximum.clone()
```

**Subgroups****6.2.9.2.5.2 Current****SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:SCIndex:MAXimum<nr>:CURRent
```

**class CurrentCls**

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(maxRange=MaxRange.Default) → List[int]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:ESFlatness:SCIndex:MAXimum<nr>:CURRent
value: List[int] = driver.multiEval.listPy.esFlatness.scIndex.maximum.current.
↪fetch(maxRange = repcap.MaxRange.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for all measured list mode segments. At these SC indices, the current MINimum or MAXimum power of the equalizer coefficients has been detected within the selected range.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param maxRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Maximum')

**return**

maximum: No help available

**6.2.9.2.5.3 Minimum<MinRange>****RepCap Settings**

```
# Range: Nr1 .. Nr2
rc = driver.multiEval.listPy.esFlatness.scIndex.minimum.repcap_minRange_get()
driver.multiEval.listPy.esFlatness.scIndex.minimum.repcap_minRange_set(repcap.MinRange.
↪Nr1)
```

**class MinimumCls**

Minimum commands group definition. 1 total commands, 1 Subgroups, 0 group commands Repeated Capability: MinRange, default value after init: MinRange.Nr1

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.esFlatness.scIndex.minimum.clone()
```

**Subgroups****6.2.9.2.5.4 Current****SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:ESFlatness:SCIndex:MINimum<nr>:CURRent
```

**class CurrentCls**

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(minRange=MinRange.Default) → List[int]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:ESFlatness:SCIndex:MINimum<nr>:CURRent
value: List[int] = driver.multiEval.listPy.esFlatness.scIndex.minimum.current.
↪fetch(minRange = repcap.MinRange.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for all measured list mode segments. At these SC indices, the current MINimum or MAXimum power of the equalizer coefficients has been detected within the selected range.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param minRange**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Minimum')

**return**

minimum: No help available

**6.2.9.3 InbandEmission****class InbandEmissionCls**

InbandEmission commands group definition. 6 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.inbandEmission.clone()
```

## Subgroups

### 6.2.9.3.1 Margin

#### class MarginCls

Margin commands group definition. 6 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.inbandEmission.margin.clone()
```

## Subgroups

### 6.2.9.3.1.1 Average

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪ :MEvaluation:LIST:IEMission:MARGin:AVERage
value: List[float] = driver.multiEval.listPy.inbandEmission.margin.average.
↪ fetch()
```

Return the inband emission limit line margin results for all measured list mode segments. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

margin: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.3.1.2 Current

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGin:CURRent
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:IEMission:MARGin:CURRent
value: List[float] = driver.multiEval.listPy.inbandEmission.margin.current.
↪fetch()
```

Return the inband emission limit line margin results for all measured list mode segments. The CURRent margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
margin: float Comma-separated list of values, one per measured segment Unit: dB

### 6.2.9.3.1.3 Extreme

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGin:EXTReMe
```

#### class ExtremeCls

Extreme commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:IEMission:MARGin:EXTReMe
value: List[float] = driver.multiEval.listPy.inbandEmission.margin.extreme.
↪fetch()
```

Return the inband emission limit line margin results for all measured list mode segments. The CURRent margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEViation values are calculated from the current margins.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
margin: float Comma-separated list of values, one per measured segment Unit: dB



#### 6.2.9.3.1.4 RbIndex

##### class RbIndexCls

RbIndex commands group definition. 2 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.inbandEmission.margin.rbIndex.clone()
```

##### Subgroups

#### 6.2.9.3.1.5 Current

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGIN:RBIndex:CURRENT
```

##### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[int]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:IEMission:MARGIN:RBIndex:CURRENT
value: List[int] = driver.multiEval.listPy.inbandEmission.margin.rbIndex.
↳current.fetch()
```

Return resource block indices of the inband emission measurement for all measured list mode segments. At these RB indices, the CURRENT and EXTREME margins have been detected.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

rb\_index: decimal Comma-separated list of values, one per measured segment

#### 6.2.9.3.1.6 Extreme

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGIN:RBIndex:EXTREME
```

##### class ExtremeCls

Extreme commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[int]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:IEMission:MARGIN:RBIndex:EXTREME
value: List[int] = driver.multiEval.listPy.inbandEmission.margin.rbIndex.
↳extreme.fetch()
```

Return resource block indices of the inband emission measurement for all measured list mode segments. At these RB indices, the CURRENT and EXTREME margins have been detected.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    rb_index: decimal Comma-separated list of values, one per measured segment
```

#### 6.2.9.3.1.7 StandardDev

##### SCPI Command :

`FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:IEMission:MARGIN:SDEviation`

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:IEMission:MARGIN:SDEviation
value: List[float] = driver.multiEval.listPy.inbandEmission.margin.standardDev.
↪fetch()
```

Return the inband emission limit line margin results for all measured list mode segments. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERAGE, EXTREME and SDEViation values are calculated from the current margins.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    margin: float Comma-separated list of values, one per measured segment Unit: dB
```

#### 6.2.9.4 Modulation

##### class ModulationCls

Modulation commands group definition. 178 total commands, 13 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.clone()
```

## Subgroups

### 6.2.9.4.1 Dallocation

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:DALLocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Nr\_Res\_Blocks: List[int]: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: List[int]: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:DALLocation
value: FetchStruct = driver.multiEval.listPy.modulation.dallocation.fetch()
```

Return the detected allocation for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ. The results are returned as pairs per segment: <Reliability>, {<NrResBlocks>, <OffsetResBlocks>} Seg 1, {<NrResBlocks>, <OffsetResBlocks>} Seg 2, ...

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.4.2 DchType

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[UplinkChannelType]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:DCHType
value: List[enums.UplinkChannelType] = driver.multiEval.listPy.modulation.
↳ dchType.fetch()
```

Return the uplink channel type for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    channel_type: PUSCh | PUCCh Comma-separated list of values, one per measured
    segment
```

#### 6.2.9.4.3 Dmodulation

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:DMODulation
```

##### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[Modulation]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:DMODulation
value: List[enums.Modulation] = driver.multiEval.listPy.modulation.dmodulation.
    ↪ fetch()
```

Return the detected modulation scheme for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. If channel type PUCCH is detected, QPSK is returned as modulation type because the QPSK limits are applied in that case.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    modulation: QPSK | Q16 | Q64 | Q256 Comma-separated list of values, one per mea-
    sured segment QPSK, 16-QAM, 64-QAM, 256-QAM
```

#### 6.2.9.4.4 Evm

##### class EvmCls

Evm commands group definition. 42 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.clone()
```

##### Subgroups

#### 6.2.9.4.4.1 Dmrs

##### class DmrsCls

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.dmrs.clone()
```

## Subgroups

### 6.2.9.4.4.2 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.dmrs.high.clone()
```

## Subgroups

### 6.2.9.4.4.3 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.high.
↳average.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

evm\_dmrs\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.high.average.
↪fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_dmrs_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.4.4 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.high.
↪current.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_dmrs_high: (float or boolean items) float Comma-separated list of values, one
    per measured segment Unit: %
```

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:CURRent
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.high.current.
↪fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_dmrs\_high: float Comma-separated list of values, one per measured segment  
 Unit: %

#### 6.2.9.4.4.5 Extreme

##### SCPI Commands :

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:EXTReme  
 CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:EXTReme

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:EXTReme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.high.
↳extreme.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_dmrs\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:HIGh:EXTReme
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.high.extreme.
↳fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_dmrs\_high: float Comma-separated list of values, one per measured segment  
 Unit: %

#### 6.2.9.4.4.6 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:HIGH:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:DMRS:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.high.
↪standardDev.fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_dmrs_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.4.7 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.dmrs.low.clone()
```

##### Subgroups

#### 6.2.9.4.4.8 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands



**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.low.
↳average.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.low.average.
↳fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_dmrs\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.9 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.low.
↳current.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:CURRENT
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.low.current.
↳fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_dmrs\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.10 Extreme

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.dmrs.low.
↳extreme.calculate()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.low.extreme.
↳fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_dmrs_low: float Comma-separated list of values, one per measured segment Unit:
    %
```

#### 6.2.9.4.4.11 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:DMRS:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.evm.dmrs.low.
↳standardDev.fetch()
```

Return error vector magnitude DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_dmrs_low: float Comma-separated list of values, one per measured segment Unit:
    %
```

#### 6.2.9.4.4.12 Peak

##### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.peak.clone()
```

## Subgroups

### 6.2.9.4.4.13 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.peak.high.clone()
```

## Subgroups

### 6.2.9.4.4.14 Average

#### SCPI Commands :

```
FEtCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.high.
↳average.calculate()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FEtCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

evm\_peak\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FEtCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.high.average.
↳fetch()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FEtCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_high: float Comma-separated list of values, one per measured segment  
 Unit: %

#### 6.2.9.4.4.15 Current

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:CURRent

```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.high.
↳current.calculate()

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:CURRent
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.high.current.
↳fetch()

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_high: float Comma-separated list of values, one per measured segment  
 Unit: %

#### 6.2.9.4.4.16 Extreme

##### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:EXTReme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:EXTReme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:EXTReme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.high.
→ extreme.calculate()

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_peak\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:EXTReme
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.high.extreme.
→ fetch()

```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_peak\_high: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.17 StandardDev

##### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:SDEViation

```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:PEAK:HIGh:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.high.
↪standardDev.fetch()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_peak_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.4.18 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.peak.low.clone()
```

##### Subgroups

#### 6.2.9.4.4.19 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.low.
↪average.calculate()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.low.average.
↳fetch()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.20 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:CURREnt
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:CURREnt
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:CURREnt
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.low.
↳current.calculate()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:CURREnt
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.low.current.
↳fetch()
```



Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.21 Extreme

##### SCPI Commands :

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:EXTreme  
 CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:EXTreme

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.peak.low.
↳extreme.calculate()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.low.extreme.
↳fetch()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.22 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:EVM:PEAK:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.evm.peak.low.
→standardDev.fetch()
```

Return error vector magnitude peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_peak_low: float Comma-separated list of values, one per measured segment Unit:
    %
```

#### 6.2.9.4.4.23 Rms

##### class RmsCls

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.rms.clone()
```

##### Subgroups

#### 6.2.9.4.4.24 High

##### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.rms.high.clone()
```

## Subgroups

### 6.2.9.4.4.25 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.high.
↪average.calculate()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

evm\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.high.average.
↪fetch()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

evm\_rms\_high: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.26 Current

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:CURRent

```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.high.
↪current.calculate()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:CURRent
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.high.current.
↪fetch()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_rms\_high: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.27 Extreme

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGH:EXTreme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:RMS:HIGh:EXTReme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.high.
↳extreme.calculate()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:RMS:HIGh:EXTReme
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.high.extreme.
↳fetch()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

evm\_rms\_high: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.28 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:HIGh:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:RMS:HIGh:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.high.
↳standardDev.fetch()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    evm_rms_high: float Comma-separated list of values, one per measured segment Unit:
    %

```

#### 6.2.9.4.4.29 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.evm.rms.low.clone()

```

#### Subgroups

#### 6.2.9.4.4.30 Average

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:AVERage

```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.low.
↪average.calculate()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    evm_rms_low: (float or boolean items) float Comma-separated list of values, one per
    measured segment Unit: %

```

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.low.average.
↪fetch()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_rms_low: float Comma-separated list of values, one per measured segment Unit:
    %
```

#### 6.2.9.4.4.31 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:RMS:LOW:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.low.
↳current.calculate()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_rms_low: (float or boolean items) float Comma-separated list of values, one per
    measured segment Unit: %
```

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:EVM:RMS:LOW:CURRent
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.low.current.
↳fetch()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    evm_rms_low: float Comma-separated list of values, one per measured segment Unit:
    %
```

#### 6.2.9.4.4.32 Extreme

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:EXTreme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:EVM:RMS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.evm.rms.low.
→ extreme.calculate()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_rms\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:EVM:RMS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.low.extreme.
→ fetch()

```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

evm\_rms\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.4.33 StandardDev

##### SCPI Command :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:EVM:RMS:LOW:SDEviation

```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands



**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:EVM:RMS:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.evm.rms.low.standardDev.
↪fetch()
```

Return error vector magnitude RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 evm\_rms\_low: float Comma-separated list of values, one per measured segment Unit:  
 %

#### 6.2.9.4.5 FreqError

##### class FreqErrorCls

FreqError commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.freqError.clone()
```

##### Subgroups

#### 6.2.9.4.5.1 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:FERRor:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.freqError.
↪average.calculate()
```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

frequency\_error: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:FERRor:AVERage
value: List[float] = driver.multiEval.listPy.modulation.freqError.average.
↳fetch()
```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

frequency\_error: float Comma-separated list of values, one per measured segment  
Unit: Hz

#### 6.2.9.4.5.2 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:FERRor:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.freqError.
↳current.calculate()
```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

frequency\_error: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:FERRor:CURRent
value: List[float] = driver.multiEval.listPy.modulation.freqError.current.
↳fetch()
```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 frequency\_error: float Comma-separated list of values, one per measured segment  
 Unit: Hz

### 6.2.9.4.5.3 Extreme

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:EXTReme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:EXTReme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:FERRor:EXTReme
value: List[float or bool] = driver.multiEval.listPy.modulation.freqError.
↳extreme.calculate()

```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 frequency\_error: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:FERRor:EXTReme
value: List[float] = driver.multiEval.listPy.modulation.freqError.extreme.
↳fetch()

```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 frequency\_error: float Comma-separated list of values, one per measured segment  
 Unit: Hz

#### 6.2.9.4.5.4 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:FERRor:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:FERRor:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.freqError.standardDev.
→ fetch()
```

Return carrier frequency error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    frequency_error: float Comma-separated list of values, one per measured segment
    Unit: Hz
```

#### 6.2.9.4.6 IqOffset

##### class IqOffsetCls

IqOffset commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.iqOffset.clone()
```

##### Subgroups

#### 6.2.9.4.6.1 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOFFset:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOFFset:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.iqOffset.
↪average.calculate()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBc

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:AVERage
value: List[float] = driver.multiEval.listPy.modulation.iqOffset.average.fetch()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: float Comma-separated list of values, one per measured segment Unit: dBc

## 6.2.9.4.6.2 Current

### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOffset:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOffset:CURRent
```

### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.iqOffset.
↪current.calculate()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBc

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:CURRENT
value: List[float] = driver.multiEval.listPy.modulation.iqOffset.current.fetch()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: float Comma-separated list of values, one per measured segment Unit: dBc

### 6.2.9.4.6.3 Extreme

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOffset:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOffset:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.iqOffset.
↪extreme.calculate()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBc

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.iqOffset.extreme.fetch()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: float Comma-separated list of values, one per measured segment Unit: dBc

#### 6.2.9.4.6.4 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:IQOffset:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:IQOffset:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.iqOffset.standardDev.
↪fetch()
```

Return I/Q origin offset values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

iq\_offset: float Comma-separated list of values, one per measured segment Unit: dBc

#### 6.2.9.4.7 Merror

##### class MerrorCls

Merror commands group definition. 42 total commands, 3 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.clone()
```

##### Subgroups

#### 6.2.9.4.7.1 Dmrs

##### class DmrsCls

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.dmrs.clone()
```

## Subgroups

### 6.2.9.4.7.2 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.dmrs.high.clone()
```

## Subgroups

### 6.2.9.4.7.3 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.
↪high.average.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_err\_dmrs\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]



```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.high.
↳average.fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
mag_err_dmrs_high: float Comma-separated list of values, one per measured segment
Unit: %
```

#### 6.2.9.4.7.4 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:CURREnt
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:CURREnt
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:CURREnt
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.
↳high.current.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
mag_err_dmrs_high: (float or boolean items) float Comma-separated list of values,
one per measured segment Unit: %
```

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:CURREnt
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.high.
↳current.fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_dmrs_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.7.5 Extreme

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.
↳high.extreme.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_dmrs_high: (float or boolean items) float Comma-separated list of values,
    one per measured segment Unit: %
```

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.high.
↳extreme.fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_dmrs_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.7.6 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.high.
↳standardDev.fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
mag_err_dmrs_high: float Comma-separated list of values, one per measured segment
Unit: %
```

#### 6.2.9.4.7.7 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.dmrs.low.clone()
```

##### Subgroups

#### 6.2.9.4.7.8 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.low.
↳average.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_err\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.low.average.
↳fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_err\_dmrs\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.7.9 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:CURRENT
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.low.
↳current.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
mag\_err\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:CURRent
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.low.current.
↳fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
mag\_err\_dmrs\_low: float Comma-separated list of values, one per measured segment  
Unit: %

#### 6.2.9.4.7.10 Extreme

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.dmrs.low.
↳extreme.calculate()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
mag\_err\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.low.extreme.
↳fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_dmrs_low: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.7.11 StandardDev

##### SCPI Command :

`FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:SDEviation`

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:DMRS:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.merror.dmrs.low.
↳standardDev.fetch()
```

Return magnitude error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_dmrs_low: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.7.12 Peak

##### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.peak.clone()
```

## Subgroups

### 6.2.9.4.7.13 High

#### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.peak.high.clone()
```

## Subgroups

### 6.2.9.4.7.14 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.
↳high.average.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_err\_peak\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.high.
↳average.fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_peak_high: float Comma-separated list of values, one per measured segment
    Unit: %
```

#### 6.2.9.4.7.15 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.
↳high.current.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_peak_high: (float or boolean items) float Comma-separated list of values,
    one per measured segment Unit: %
```

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:CURRent
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.high.
↳current.fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_err_peak_high: float Comma-separated list of values, one per measured segment
    Unit: %
```



### 6.2.9.4.7.16 Extreme

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGh:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGh:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGh:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.
→high.extreme.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_err\_peak\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGh:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.high.
→extreme.fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_err\_peak\_high: float Comma-separated list of values, one per measured segment  
Unit: %

### 6.2.9.4.7.17 StandardDev

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGh:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:PEAK:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.high.
↪standardDev.fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
mag\_err\_peak\_high: float Comma-separated list of values, one per measured segment  
Unit: %

#### 6.2.9.4.7.18 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.peak.low.clone()
```

##### Subgroups

#### 6.2.9.4.7.19 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.low.
↪average.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_error\_peak\_low: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.low.average.
↳fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.7.20 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:CURRENT
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.low.
↳current.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_error\_peak\_low: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:CURRENT
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.low.current.
↳fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.7.21 Extreme

##### SCPI Commands :

**FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:EXTreme**  
**CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:EXTreme**

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.peak.low.
↳extreme.calculate()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.low.extreme.
↳fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.7.22 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:MERRor:PEAK:LOW:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.merror.peak.low.
→standardDev.fetch()
```

Return magnitude error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    mag_error_peak_low: float Comma-separated list of values, one per measured seg-
    ment Unit: %
```

#### 6.2.9.4.7.23 Rms

##### class RmsCls

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.rms.clone()
```

##### Subgroups

#### 6.2.9.4.7.24 High

##### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.rms.high.clone()
```

## Subgroups

### 6.2.9.4.7.25 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.high.
↪average.calculate()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.high.average.
↪fetch()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_high: float Comma-separated list of values, one per measured segment Unit: %

### 6.2.9.4.7.26 Current

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.high.
→current.calculate()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:CURRent
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.high.current.
→fetch()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_high: float Comma-separated list of values, one per measured seg-  
ment Unit: %

### 6.2.9.4.7.27 Extreme

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:EXTReme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGH:EXTReme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:HIGh:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.high.
↳extreme.calculate()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_error\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:HIGh:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.high.extreme.
↳fetch()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

mag\_error\_rms\_high: float Comma-separated list of values, one per measured segment Unit: %

#### 6.2.9.4.7.28 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:HIGh:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:HIGh:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.high.
↳standardDev.fetch()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.



```

return
    mag_error_rms_high: float Comma-separated list of values, one per measured segment Unit: %

```

#### 6.2.9.4.7.29 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.merror.rms.low.clone()

```

##### Subgroups

#### 6.2.9.4.7.30 Average

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:AVERage

```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.low.
↪average.calculate()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```

return
    mag_error_rms_low: (float or boolean items) float Comma-separated list of values,
    one per measured segment Unit: %

```

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.low.average.
↪fetch()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_rms\_low: float Comma-separated list of values, one per measured segment  
 Unit: %

#### 6.2.9.4.7.31 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.low.
↳current.calculate()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_rms\_low: (float or boolean items) float Comma-separated list of values,  
 one per measured segment Unit: %

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:CURRent
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.low.current.
↳fetch()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by **FETCH** commands. **CALCulate** commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**  
 mag\_error\_rms\_low: float Comma-separated list of values, one per measured segment  
 Unit: %

### 6.2.9.4.7.32 Extreme

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.merror.rms.low.
↳extreme.calculate()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_low: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: %

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.low.extreme.
↳fetch()

```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

mag\_error\_rms\_low: float Comma-separated list of values, one per measured segment  
Unit: %

### 6.2.9.4.7.33 StandardDev

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:MERRor:RMS:LOW:SDEviation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪ :MEvaluation:LIST:MODulation:MERRor:RMS:LOW:SDEVIation
value: List[float] = driver.multiEval.listPy.modulation.merror.rms.low.
↪ standardDev.fetch()
```

Return magnitude error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
mag\_error\_rms\_low: float Comma-separated list of values, one per measured segment  
Unit: %

#### 6.2.9.4.8 Perror

##### **class PerrorCls**

Perror commands group definition. 42 total commands, 3 Subgroups, 0 group commands

##### **Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.clone()
```

##### **Subgroups**

#### 6.2.9.4.8.1 Dmrs

##### **class DmrsCls**

Dmrs commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### **Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.dmrs.clone()
```

##### **Subgroups**

#### 6.2.9.4.8.2 High

##### **class HighCls**

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.dmrs.high.clone()
```

## Subgroups

### 6.2.9.4.8.3 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.
↳high.average.calculate()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ph\_error\_dmrs\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.high.
↳average.fetch()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ph\_error\_dmrs\_high: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.4 Current

##### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:CURRent

```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.
→ high.current.calculate()

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_dmrs\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: deg

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:CURRent
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.high.
→ current.fetch()

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_dmrs\_high: float Comma-separated list of values, one per measured segment  
Unit: deg

#### 6.2.9.4.8.5 Extreme

##### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:EXTReMe
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:EXTReMe

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.
↳high.extreme.calculate()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_dmrs\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.high.
↳extreme.fetch()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_dmrs\_high: float Comma-separated list of values, one per measured segment  
Unit: deg

#### 6.2.9.4.8.6 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.high.
↳standardDev.fetch()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_dmrs_high: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.7 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.dmrs.low.clone()
```

#### Subgroups

#### 6.2.9.4.8.8 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.low.
↪average.calculate()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_dmrs_low: (float or boolean items) float Comma-separated list of values, one
    per measured segment Unit: deg
```

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.low.average.
↪fetch()
```



Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_dmrs_low: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.9 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.low.
↳current.calculate()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_dmrs_low: (float or boolean items) float Comma-separated list of values, one
    per measured segment Unit: deg
```

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:CURRent
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.low.current.
↳fetch()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_dmrs_low: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.10 Extreme

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:EXTreme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↪ :MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.dmrs.low.
↪ extreme.calculate()

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_dmrs\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↪ :MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.low.extreme.
↪ fetch()

```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_dmrs\_low: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.11 StandardDev

##### SCPI Command :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:SDEviation

```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:DMRS:LOW:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.perror.dmrs.low.
↪standardDev.fetch()
```

Return phase error DMRS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 ph\_error\_dmrs\_low: float Comma-separated list of values, one per measured segment  
 Unit: deg

#### 6.2.9.4.8.12 Peak

##### class PeakCls

Peak commands group definition. 14 total commands, 2 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.peak.clone()
```

##### Subgroups

#### 6.2.9.4.8.13 High

##### class HighCls

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.peak.high.clone()
```

##### Subgroups

#### 6.2.9.4.8.14 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGh:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGh:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.
↪high.average.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.high.
↪average.fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_high: float Comma-separated list of values, one per measured segment Unit: deg

**6.2.9.4.8.15 Current****SCPI Commands :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.
↪high.current.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:CURRent
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.high.
↪current.fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_high: float Comma-separated list of values, one per measured segment  
Unit: deg

#### 6.2.9.4.8.16 Extreme

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.
↪high.extreme.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_high: (float or boolean items) float Comma-separated list of values,  
one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.high.
↪extreme.fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_peak_high: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.17 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:PEAK:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.high.
↪standardDev.fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_peak_high: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.18 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.peak.low.clone()
```

## Subgroups

### 6.2.9.4.8.19 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.low.
↳average.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ph\_error\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.low.average.
↳fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ph\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.20 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:CURRENT
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.low.
→ current.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:CURRENT
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.low.current.
→ fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

ph\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.21 Extreme

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:PEAK:LOW:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands



**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEValuation:LIST:MODulation:PERRor:PEAK:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.peak.low.
↳extreme.calculate()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEValuation:LIST:MODulation:PERRor:PEAK:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.low.extreme.
↳fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_peak\_low: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.22 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PERRor:PEAK:LOW:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEValuation:LIST:MODulation:PERRor:PEAK:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.perror.peak.low.
↳standardDev.fetch()
```

Return phase error peak values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_peak_low: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.23 Rms

##### **class RmsCls**

Rms commands group definition. 14 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.rms.clone()
```

#### Subgroups

#### 6.2.9.4.8.24 High

##### **class HighCls**

High commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.rms.high.clone()
```

#### Subgroups

#### 6.2.9.4.8.25 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:AVERage
```

##### **class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.high.
↪average.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.high.average.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_high: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.26 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.high.
↪current.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_high: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGh:CURRent
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.high.current.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_rms_high: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.27 Extreme

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGh:EXTReme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGh:EXTReme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGh:EXTReme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.high.
↪extreme.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_rms_high: (float or boolean items) float Comma-separated list of values, one
    per measured segment Unit: deg
```

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:HIGh:EXTReme
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.high.extreme.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_high: float Comma-separated list of values, one per measured segment  
Unit: deg

#### 6.2.9.4.8.28 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PERRor:RMS:HIGH:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.high.
↳standardDev.fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_high: float Comma-separated list of values, one per measured segment  
Unit: deg

#### 6.2.9.4.8.29 Low

##### class LowCls

Low commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.perror.rms.low.clone()
```

##### Subgroups

#### 6.2.9.4.8.30 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.low.
↪average.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:AVERage
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.low.average.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_low: float Comma-separated list of values, one per measured segment Unit: deg

**6.2.9.4.8.31 Current****SCPI Commands :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.low.
↪current.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:CURRent
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.low.current.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_low: float Comma-separated list of values, one per measured segment Unit: deg

#### 6.2.9.4.8.32 Extreme

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:EXTreme
```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.modulation.perror.rms.low.
↪extreme.calculate()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ph\_error\_rms\_low: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: deg

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:EXTreme
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.low.extreme.
↪fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_rms_low: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.8.33 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PERRor:RMS:LOW:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.perror.rms.low.
↪standardDev.fetch()
```

Return phase error RMS values for low and high EVM window position, for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    ph_error_rms_low: float Comma-separated list of values, one per measured segment
    Unit: deg
```

#### 6.2.9.4.9 Ppower

##### class PpowerCls

Ppower commands group definition. 9 total commands, 5 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.ppower.clone()
```

## Subgroups

### 6.2.9.4.9.1 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PPower:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.ppower.average.
↳calculate()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

peak\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PPower:AVERage
value: List[float] = driver.multiEval.listPy.modulation.ppower.average.fetch()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

peak\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.4.9.2 Current

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:CURRENT

```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PPower:CURRENT
value: List[float or bool] = driver.multiEval.listPy.modulation.ppower.current.
↪calculate()

```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

peak\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PPower:CURRENT
value: List[float] = driver.multiEval.listPy.modulation.ppower.current.fetch()

```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

peak\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.4.9.3 Maximum

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPower:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PPOWer:MAXimum
value: List[float or bool] = driver.multiEval.listPy.modulation.ppower.maximum.
↳calculate()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

peak\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PPOWer:MAXimum
value: List[float] = driver.multiEval.listPy.modulation.ppower.maximum.fetch()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

peak\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.9.4 Minimum

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPOWer:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPOWer:MINimum
```

##### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PPOWer:MINimum
value: List[float or bool] = driver.multiEval.listPy.modulation.ppower.minimum.
↳calculate()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

peak\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PPOwer:MINimum
value: List[float] = driver.multiEval.listPy.modulation.ppower.minimum.fetch()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

peak\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.9.5 StandardDev

**SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PPOwer:SDEviation
```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:PPOwer:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.ppower.standardDev.
↪fetch()
```

Return user equipment peak power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

peak\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.10 Psd

##### class PsdCls

Psd commands group definition. 9 total commands, 5 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.psd.clone()
```

##### Subgroups

#### 6.2.9.4.10.1 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PSD:AVERage
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PSD:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEValuation:LIST:MODulation:PSD:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.psd.average.
↳calculate()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

psd: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PSD:AVERage
value: List[float] = driver.multiEval.listPy.modulation.psd.average.fetch()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

psd: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.10.2 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
→:MEvaluation:LIST:MODulation:PSD:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.psd.current.
→calculate()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

psd: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:CURRent
value: List[float] = driver.multiEval.listPy.modulation.psd.current.fetch()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### return

psd: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.10.3 Maximum

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PSD:MAXimum
value: List[float or bool] = driver.multiEval.listPy.modulation.psd.maximum.
↳calculate()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
psd: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:MAXimum
value: List[float] = driver.multiEval.listPy.modulation.psd.maximum.fetch()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
psd: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.10.4 Minimum

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:PSD:MINimum
```

##### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:PSD:MINimum
value: List[float or bool] = driver.multiEval.listPy.modulation.psd.minimum.
↳calculate()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
psd: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PSD:MINimum
value: List[float] = driver.multiEval.listPy.modulation.psd.minimum.fetch()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

psd: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.10.5 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:PSD:SDEViation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEValuation:LIST:MODulation:PSD:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.psd.standardDev.fetch()
```

Return RB power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

psd: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.11 SchType

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:SCHType
```

##### class SchTypeCls

SchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[SidelinkChannelType]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:MODulation:SCHType
↪schType.fetch()
```



Returns the sidelink channel type evaluated for modulation results, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    channel_type: PSSCh | PSCCh Comma-separated list of values, one per measured
    segment
```

#### 6.2.9.4.12 Terror

##### class TerrorCls

Terror commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.terror.clone()
```

##### Subgroups

#### 6.2.9.4.12.1 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TERRor:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.terror.average.
↪calculate()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    timing_error: (float or boolean items) float Comma-separated list of values, one per
    measured segment Unit: Ts (basic LTE time unit)
```

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TERRor:AVERage
value: List[float] = driver.multiEval.listPy.modulation.terror.average.fetch()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 timing\_error: float Comma-separated list of values, one per measured segment Unit:  
 Ts (basic LTE time unit)

#### 6.2.9.4.12.2 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TERRor:CURRent
value: List[float or bool] = driver.multiEval.listPy.modulation.terror.current.
↪calculate()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 timing\_error: (float or boolean items) float Comma-separated list of values, one per  
 measured segment Unit: Ts (basic LTE time unit)

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TERRor:CURRent
value: List[float] = driver.multiEval.listPy.modulation.terror.current.fetch()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 timing\_error: float Comma-separated list of values, one per measured segment Unit:  
 Ts (basic LTE time unit)

### 6.2.9.4.12.3 Extreme

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:EXTRemE
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:EXTRemE
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:TERRor:EXTRemE
value: List[float or bool] = driver.multiEval.listPy.modulation.terror.extreme.
→ calculate()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

timing\_error: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Ts (basic LTE time unit)

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
→ :MEvaluation:LIST:MODulation:TERRor:EXTRemE
value: List[float] = driver.multiEval.listPy.modulation.terror.extreme.fetch()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

timing\_error: float Comma-separated list of values, one per measured segment Unit: Ts (basic LTE time unit)

### 6.2.9.4.12.4 StandardDev

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TERRor:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TERRor:SDEViation
value: List[float] = driver.multiEval.listPy.modulation.terror.standardDev.
↪fetch()
```

Return transmit time error values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

timing\_error: float Comma-separated list of values, one per measured segment Unit:  
Ts (basic LTE time unit)

### 6.2.9.4.13 Tpower

#### class TpowerCls

Tpower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.modulation.tpower.clone()
```

#### Subgroups

### 6.2.9.4.13.1 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOWER:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOWER:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TPOWER:AVERage
value: List[float or bool] = driver.multiEval.listPy.modulation.tpower.average.
↪calculate()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TPOwer:AVERage
value: List[float] = driver.multiEval.listPy.modulation.tpower.average.fetch()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.4.13.2 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:CURREnt
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:CURREnt
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TPOwer:CURREnt
value: List[float or bool] = driver.multiEval.listPy.modulation.tpower.current.
↪calculate()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:MODulation:TPOwer:CURREnt
value: List[float] = driver.multiEval.listPy.modulation.tpower.current.fetch()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.4.13.3 Maximum

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:TPOwer:MAXimum
value: List[float or bool] = driver.multiEval.listPy.modulation.tpower.maximum.
↳calculate()

```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```

# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:TPOwer:MAXimum
value: List[float] = driver.multiEval.listPy.modulation.tpower.maximum.fetch()

```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.4.13.4 Minimum

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOwer:MINimum

```

**class MinimumCls**

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:TPOWer:MINimum
value: List[float or bool] = driver.multiEval.listPy.modulation.tpower.minimum.
↳calculate()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:TPOWer:MINimum
value: List[float] = driver.multiEval.listPy.modulation.tpower.minimum.fetch()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

**6.2.9.4.13.5 StandardDev****SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:MODulation:TPOWer:SDEviation
```

**class StandardDevCls**

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:MODulation:TPOWer:SDEviation
value: List[float] = driver.multiEval.listPy.modulation.tpower.standardDev.
↳fetch()
```

Return user equipment power values for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.5 Pmonitor

#### **class PmonitorCls**

Pmonitor commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.pmonitor.clone()
```

### Subgroups

#### 6.2.9.5.1 Peak

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:PMONitor:PEAK
```

#### **class PeakCls**

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:PMONitor:PEAK
value: List[float] = driver.multiEval.listPy.pmonitor.peak.fetch()
```

Return the power monitor results for all measured segments in list mode. The commands return one power result per subframe for the measured carrier. The power values are RMS averaged over the subframe or represent the peak value within the subframe.

INTRO\_CMD\_HELP: Commands for querying the result list structure:

- method RsCmwLteMeas.MultiEval.ListPy.Segment.Pmonitor.Array.Start.fetch
- method RsCmwLteMeas.MultiEval.ListPy.Segment.Pmonitor.Array.Length.fetch

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
step\_peak\_power: float Comma-separated list of power values, one value per sub-frame, from first subframe of first measured segment to last subframe of last measured segment For an inactive segment only one INV is returned, independent of the number of configured subframes. Unit: dBm



### 6.2.9.5.2 Rms

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:PMONitor:RMS
```

#### class RmsCls

Rms commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:PMONitor:RMS
value: List[float] = driver.multiEval.listPy.pmonitor.rms.fetch()
```

Return the power monitor results for all measured segments in list mode. The commands return one power result per subframe for the measured carrier. The power values are RMS averaged over the subframe or represent the peak value within the subframe.

INTRO\_CMD\_HELP: Commands for querying the result list structure:

- method RsCmwLteMeas.MultiEval.ListPy.Segment.Pmonitor.Array.Start.fetch
- method RsCmwLteMeas.MultiEval.ListPy.Segment.Pmonitor.Array.Length.fetch

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

step\_rms\_power: float Comma-separated list of power values, one value per subframe, from first subframe of first measured segment to last subframe of last measured segment For an inactive segment only one INV is returned, independent of the number of configured subframes. Unit: dBm

### 6.2.9.6 Power

#### class PowerCls

Power commands group definition. 9 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.power.clone()
```

#### Subgroups

### 6.2.9.6.1 TxPower

#### class TxPowerCls

TxPower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.power.txPower.clone()
```

## Subgroups

### 6.2.9.6.1.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:AVERage
value: List[float or bool] = driver.multiEval.listPy.power.txPower.average.
↳calculate()
```

No command help available

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:AVERage
value: List[float] = driver.multiEval.listPy.power.txPower.average.fetch()
```

Return the total TX power of all component carriers, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.6.1.2 Current

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:POWer:TXPower:CURRENT
value: List[float or bool] = driver.multiEval.listPy.power.txPower.current.
↪calculate()
```

No command help available

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:CURRENT
value: List[float] = driver.multiEval.listPy.power.txPower.current.fetch()
```

Return the total TX power of all component carriers, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.6.1.3 Maximum

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:POWer:TXPower:MAXimum
value: List[float or bool] = driver.multiEval.listPy.power.txPower.maximum.
↪calculate()
```

No command help available

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MAXimum
value: List[float] = driver.multiEval.listPy.power.txPower.maximum.fetch()
```

Return the total TX power of all component carriers, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.6.1.4 Minimum

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum
```

##### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:MINimum
value: List[float or bool] = driver.multiEval.listPy.power.txPower.minimum.
↳calculate()
```

No command help available

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) No help available

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:MINimum
value: List[float] = driver.multiEval.listPy.power.txPower.minimum.fetch()
```

Return the total TX power of all component carriers, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.6.1.5 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:POWer:TXPower:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:POWer:TXPower:SDEviation
value: List[float] = driver.multiEval.listPy.power.txPower.standardDev.fetch()
```

Return the total TX power of all component carriers, for all measured list mode segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    tx_power: float Comma-separated list of values, one per measured segment Unit: dBm
```

### 6.2.9.7 Segment<Segment>

#### RepCap Settings

```
# Range: Nr1 .. Nr128
rc = driver.multiEval.listPy.segment.repcap_segment_get()
driver.multiEval.listPy.segment.repcap_segment_set(repcap.Segment.Nr1)
```

#### class SegmentCls

Segment commands group definition. 81 total commands, 7 Subgroups, 0 group commands Repeated Capability: Segment, default value after init: Segment.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.clone()
```

#### Subgroups

##### 6.2.9.7.1 Aclr

#### class AclrCls

Aclr commands group definition. 6 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.aclr.clone()
```

#### Subgroups

##### 6.2.9.7.1.1 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Utra\_2\_Neg: enums.ResultStatus2: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: enums.ResultStatus2: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: enums.ResultStatus2: float ACLR for the first E-UTRA channel below the carrier frequency Unit: dB
- Eutra: enums.ResultStatus2: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: enums.ResultStatus2: float ACLR for the first E-UTRA channel above the carrier frequency Unit: dB
- Utra\_1\_Pos: enums.ResultStatus2: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: enums.ResultStatus2: float ACLR for the second UTRA channel with higher frequency Unit: dB

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Utra\_2\_Neg: float: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: float: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: float: float ACLR for the first E-UTRA channel below the carrier frequency Unit: dB
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float ACLR for the first E-UTRA channel above the carrier frequency Unit: dB
- Utra\_1\_Pos: float: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: float: float ACLR for the second UTRA channel with higher frequency Unit: dB

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ACLR:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.aclr.average.
↪calculate(segment = repcap.Segment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :ACLR:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.aclr.average.fetch(segment_
↳ = repcap.Segment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## 6.2.9.7.1.2 Current

### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:CURRent
```

### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Utra\_2\_Neg: enums.ResultStatus2: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: enums.ResultStatus2: float ACLR for the first UTRA channel with lower frequency Unit: dB

- Eutra\_Negativ: enums.ResultStatus2: float ACLR for the first E-UTRA channel below the carrier frequency Unit: dB
- Eutra: enums.ResultStatus2: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: enums.ResultStatus2: float ACLR for the first E-UTRA channel above the carrier frequency Unit: dB
- Utra\_1\_Pos: enums.ResultStatus2: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: enums.ResultStatus2: float ACLR for the second UTRA channel with higher frequency Unit: dB

### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Utra\_2\_Neg: float: float ACLR for the second UTRA channel with lower frequency Unit: dB
- Utra\_1\_Neg: float: float ACLR for the first UTRA channel with lower frequency Unit: dB
- Eutra\_Negativ: float: float ACLR for the first E-UTRA channel below the carrier frequency Unit: dB
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float ACLR for the first E-UTRA channel above the carrier frequency Unit: dB
- Utra\_1\_Pos: float: float ACLR for the first UTRA channel with higher frequency Unit: dB
- Utra\_2\_Pos: float: float ACLR for the second UTRA channel with higher frequency Unit: dB

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ACLR:CURRENT
value: CalculateStruct = driver.multiEval.listPy.segment.aclr.current.
↪calculate(segment = repcap.Segment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ACLR:CURRENT
```

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```
value: FetchStruct = driver.multiEval.listPy.segment.aclr.current.fetch(segment,
↳ = repcap.Segment.Default)
```

Return ACLR single value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.9.7.1.3 Dallocation****SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:DALlocation
```

**class DallocationCls**

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :ACLR:DALlocation
value: FetchStruct = driver.multiEval.listPy.segment.aclr.dallocation.
↳ fetch(segment = repcap.Segment.Default)
```

Return the detected allocation for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.1.4 DchType

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ACLR:DCHType
```

##### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Channel\_Type: enums.UplinkChannelType: PUSCh | PUCCh

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ACLR:DCHType
value: FetchStruct = driver.multiEval.listPy.segment.aclr.dchType.fetch(segment_
↪= repcap.Segment.Default)
```

Return the uplink channel type for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.2 EsFlatness

##### class EsFlatnessCls

EsFlatness commands group definition. 8 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.esFlatness.clone()
```

## Subgroups

### 6.2.9.7.2.1 Average

#### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFLatness:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFLatness:AVERage

```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) . Unit: dB
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) . Unit: dB

#### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB

**calculate**(segment=Segment.Default) → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ESFLatness:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.esFlatness.average.
↪calculate(segment = repcap.Segment.Default)

```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:ESFlatness:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.esFlatness.average.
↳fetch(segment = repcap.Segment.Default)
```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## 6.2.9.7.2.2 Current

### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ESFlatness:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:ESFlatness:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 1 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) . Unit: dB
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) . Unit: dB

#### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: decimal Reliability indicator for the segment

- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:ESFlatness:CURRent
value: CalculateStruct = driver.multiEval.listPy.segment.esFlatness.current.
↳calculate(segment = repcap.Segment.Default)
```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:ESFlatness:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.esFlatness.current.
↳fetch(segment = repcap.Segment.Default)
```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.esFlatness.current.clone()
```

## Subgroups

### 6.2.9.7.2.3 ScIndex

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFlatness:CURRent:SCINdex
```

#### class ScIndexCls

ScIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Maximum\_1: int: decimal SC index of max (range 1)
- Minimum\_1: int: decimal SC index of min (range 1)
- Maximum\_2: int: decimal SC index of max (range 2)
- Minimum\_2: int: decimal SC index of min (range 2)

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:ESFlatness:CURRent:SCINdex
value: FetchStruct = driver.multiEval.listPy.segment.esFlatness.current.scIndex.
↳fetch(segment = repcap.Segment.Default)
```

Return subcarrier indices of the equalizer spectrum flatness measurement for segment <no> in list mode. At these SC indices, the current minimum and maximum power of the equalizer coefficients have been detected within range 1 and range 2.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.2.4 Extreme

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFLatness:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFLatness:EXTreme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float or bool: Limit check result for max (range 1) - min (range 1) .
- Ripple\_2: float or bool: Limit check result for max (range 2) - min (range 2) .
- Max\_R\_1\_Min\_R\_2: float or bool: Limit check result for max (range 1) - min (range 2) . Unit: dB
- Max\_R\_2\_Min\_R\_1: float or bool: Limit check result for max (range 2) - min (range 1) . Unit: dB

##### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB

**calculate**(segment=Segment.Default) → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:ESFLatness:EXTreme
value: CalculateStruct = driver.multiEval.listPy.segment.esFlatness.extreme.
↪calculate(segment = repcap.Segment.Default)

```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:ESFlatness:EXTreme
value: FetchStruct = driver.multiEval.listPy.segment.esFlatness.extreme.
↳fetch(segment = repcap.Segment.Default)
```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.2.5 StandardDev

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:ESFlatness:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Ripple\_1: float: float Max (range 1) - min (range 1) Unit: dB
- Ripple\_2: float: float Max (range 2) - min (range 2) Unit: dB
- Max\_R\_1\_Min\_R\_2: float: float Max (range 1) - min (range 2) Unit: dB
- Max\_R\_2\_Min\_R\_1: float: float Max (range 2) - min (range 1) Unit: dB
- Min\_R\_1: float: float Min (range 1) Unit: dB
- Max\_R\_1: float: float Max (range 1) Unit: dB
- Min\_R\_2: float: float Min (range 2) Unit: dB
- Max\_R\_2: float: float Max (range 2) Unit: dB



**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:ESFlatness:SDEviation
value: FetchStruct = driver.multiEval.listPy.segment.esFlatness.standardDev.
↳fetch(segment = repcap.Segment.Default)
```

Return equalizer spectrum flatness single value results for segment <no> in list mode.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3 InbandEmission

#### class InbandEmissionCls

InbandEmission commands group definition. 18 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.clone()
```

#### Subgroups

##### 6.2.9.7.3.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.listPy.segment.inbandEmission.cc.repcap_carrierComponent_get()
driver.multiEval.listPy.segment.inbandEmission.cc.repcap_carrierComponent_set(repcap.
↳CarrierComponent.Nr1)
```

#### class CcCls

Cc commands group definition. 6 total commands, 1 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.cc.clone()
```

## Subgroups

### 6.2.9.7.3.2 Margin

#### class MarginCls

Margin commands group definition. 6 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.cc.margin.clone()
```

## Subgroups

### 6.2.9.7.3.3 Average

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↳:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin: float: float Unit: dB

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:CC<c>:MARGin:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↳average.fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

Return the inband emission limit line margin results for component carrier CC<c>, segment <no> in list mode. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEVIation values are calculated from the current margins.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.3.4 Current

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↪:MARGin:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 1 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin: float: float Unit: dB

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:IEMission:CC<c>:MARGin:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↪current.fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↪CarrierComponent.Default)
```

Return the inband emission limit line margin results for component carrier CC<c>, segment <no> in list mode. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReMe and SDEVIation values are calculated from the current margins.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.cc.margin.current.clone()
```

**Subgroups****6.2.9.7.3.5 RbIndex****SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↳:MARGin:CURRent:RBIndex
```

**class RbIndexCls**

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Rb\_Index: int: decimal Resource block index of margin

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:CC<c>:MARGin:CURRent:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↳current.rbIndex.fetch(segment = repcap.Segment.Default, carrierComponent =
↳repcap.CarrierComponent.Default)
```

Return resource block indices of the component carrier CC<c> inband emission measurement for segment <no> in list mode. At these RB indices, the CURRent and EXTReMe margins have been detected.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.6 Extreme

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↳:MARGin:EXTReme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin: float: float Unit: dB

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:CC<c>:MARGin:EXTReme
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↳extreme.fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)

```

Return the inband emission limit line margin results for component carrier CC<c>, segment <no> in list mode. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERAGE, EXTREME and SDEViation values are calculated from the current margins.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.cc.margin.extreme.clone()

```

## Subgroups

### 6.2.9.7.3.7 RbIndex

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↳:MARGin:EXTReMe:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Rb\_Index: int: decimal Resource block index of margin

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:CC<c>:MARGin:EXTReMe:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↳extreme.rbIndex.fetch(segment = repcap.Segment.Default, carrierComponent =
↳repcap.CarrierComponent.Default)
```

Return resource block indices of the component carrier CC<c> inband emission measurement for segment <no> in list mode. At these RB indices, the CURRENT and EXTReMe margins have been detected.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.8 StandardDev

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:CC<c>
↳:MARGin:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin: float: float Unit: dB

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :IEMission:CC<c>:MARGin:SDEViation
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.cc.margin.
↳ standardDev.fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳ CarrierComponent.Default)
```

Return the inband emission limit line margin results for component carrier CC<c>, segment <no> in list mode. The CURRENT margins indicate the minimum (vertical) distance between the limit line and the current trace. A negative result indicates that the limit is exceeded. The AVERage, EXTReame and SDEViation values are calculated from the current margins.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.9.7.3.9 Margin****class MarginCls**

Margin commands group definition. 6 total commands, 4 Subgroups, 0 group commands

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.margin.clone()
```

## Subgroups

### 6.2.9.7.3.10 Average

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:IEMission:MARGin:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.
↪average.fetch(segment = repcap.Segment.Default)
```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.11 Current

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:MARGin:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available



- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳ :IEMission:MARGin:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.
↳ current.fetch(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.margin.current.clone()
```

## Subgroups

### 6.2.9.7.3.12 RbIndex

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳ :IEMission:MARGin:CURRent:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Rb\_Index: int: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳ :IEMission:MARGin:CURRent:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.
↳ current.rbIndex.fetch(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.13 Extreme

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:MARGin:EXTreme
```

**class ExtremeCls**

Extreme commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>  
↪:IEMission:MARGin:EXTreme  
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.  
↪extreme.fetch(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### Cloning the Group

```
# Create a clone of the original group, that exists independently  
group2 = driver.multiEval.listPy.segment.inbandEmission.margin.extreme.clone()
```

## Subgroups

### 6.2.9.7.3.14 RbIndex

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:MARGin:EXTReme:RBIndex

```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Rb\_Index: int: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:MARGin:EXTReme:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.
↳extreme.rbIndex.fetch(segment = repcap.Segment.Default)

```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.15 StandardDev

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:MARGin:SDEviation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available

- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:TEmission:MARGin:SDEviation
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.margin.
↪standardDev.fetch(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.3.16 Scc<SecondaryCC>

##### RepCap Settings

```
# Range: CC1 .. CC7
rc = driver.multiEval.listPy.segment.inbandEmission.scc.repcap_secondaryCC_get()
driver.multiEval.listPy.segment.inbandEmission.scc.repcap_secondaryCC_set(repcap.
↪SecondaryCC.CC1)
```

**class SccCls**

Scc commands group definition. 6 total commands, 1 Subgroups, 0 group commands Repeated Capability: SecondaryCC, default value after init: SecondaryCC.CC1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.scc.clone()
```

##### Subgroups

#### 6.2.9.7.3.17 Margin

**class MarginCls**

Margin commands group definition. 6 total commands, 4 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.scc.margin.clone()
```

## Subgroups

### 6.2.9.7.3.18 Average

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↳:MARGin:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:SCC<c>:MARGin:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↳average.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↳SecondaryCC.Default)
```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### param secondaryCC

optional repeated capability selector. Default value: CC1 (settable in the interface ‘ScC’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.19 Current

#### SCPI Command :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↳:MARGin:CURRent

```

#### class CurrentCls

Current commands group definition. 2 total commands, 1 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```

# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:SCC<c>:MARGin:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↳current.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↳SecondaryCC.Default)

```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### param secondaryCC

optional repeated capability selector. Default value: CC1 (settable in the interface ‘ScC’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

#### Cloning the Group

```

# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.scc.margin.current.clone()

```

## Subgroups

### 6.2.9.7.3.20 RbIndex

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↳:MARGin:CURRent:RBIndex
```

#### class RbIndexCls

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Rb\_Index: int: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:IEMission:SCC<c>:MARGin:CURRent:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↳current.rbIndex.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↳SecondaryCC.Default)
```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### param secondaryCC

optional repeated capability selector. Default value: CC1 (settable in the interface ‘ScC’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.21 Extreme

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↳:MARGin:EXTReme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:IEMission:SCC<c>:MARGin:EXTReme
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↪extreme.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↪SecondaryCC.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface 'Scc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.inbandEmission.scc.margin.extreme.clone()
```

**Subgroups****6.2.9.7.3.22 RbIndex****SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↪:MARGin:EXTReme:RBIndex
```

**class RbIndexCls**

RbIndex commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: No parameter help available



- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Rb\_Index: int: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:IEMission:SCC<c>:MARGin:EXTreme:RBIndex
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↪extreme.rbIndex.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↪SecondaryCC.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface ‘Scc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.3.23 StandardDev

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:IEMission:SCC<c>
↪:MARGin:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Margin: float: No parameter help available

**fetch**(segment=Segment.Default, secondaryCC=SecondaryCC.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:IEMission:SCC<c>:MARGin:SDEviation
value: FetchStruct = driver.multiEval.listPy.segment.inbandEmission.scc.margin.
↪standardDev.fetch(segment = repcap.Segment.Default, secondaryCC = repcap.
↪SecondaryCC.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param secondaryCC**

optional repeated capability selector. Default value: CC1 (settable in the interface ‘Scc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4 Modulation

**class ModulationCls**

Modulation commands group definition. 11 total commands, 8 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.modulation.clone()
```

#### Subgroups

##### 6.2.9.7.4.1 Average

##### SCPI Commands :

```
FEtCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %

- **Mag\_Error\_Rms\_High:** float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- **Mag\_Error\_Peak\_Low:** float or bool: float Magnitude error peak value, low EVM window position Unit: %
- **Mag\_Err\_Peak\_High:** float or bool: float Magnitude error peak value, high EVM window position Unit: %
- **Ph\_Error\_Rms\_Low:** float or bool: float Phase error RMS value, low EVM window position Unit: deg
- **Ph\_Error\_Rms\_High:** float or bool: float Phase error RMS value, high EVM window position Unit: deg
- **Ph\_Error\_Peak\_Low:** float or bool: float Phase error peak value, low EVM window position Unit: deg
- **Ph\_Error\_Peak\_High:** float or bool: float Phase error peak value, high EVM window position Unit: deg
- **Iq\_Offset:** float or bool: float I/Q origin offset Unit: dBc
- **Frequency\_Error:** float or bool: float Carrier frequency error Unit: Hz
- **Timing\_Error:** float or bool: float Time error Unit: Ts (basic LTE time unit)
- **Tx\_Power:** float or bool: float User equipment power Unit: dBm
- **Peak\_Power:** float or bool: float User equipment peak power Unit: dBm
- **Psd:** float or bool: No parameter help available
- **Evm\_Dmrs\_Low:** float or bool: float EVM DMRS value, low EVM window position Unit: %
- **Evm\_Dmrs\_High:** float or bool: float EVM DMRS value, high EVM window position Unit: %
- **Mag\_Err\_Dmrs\_Low:** float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- **Mag\_Err\_Dmrs\_High:** float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- **Ph\_Error\_Dmrs\_Low:** float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- **Ph\_Error\_Dmrs\_High:** float or bool: float Phase error DMRS value, high EVM window position Unit: deg

#### **class FetchStruct**

Response structure. Fields:

- **Reliability:** int: decimal 'Reliability indicator'
- **Seg\_Reliability:** int: decimal Reliability indicator for the segment
- **Statist\_Expired:** int: decimal Reached statistical length in slots
- **Out\_Of\_Tolerance:** int: decimal Percentage of measured subframes with failed limit check Unit: %
- **Evm\_Rms\_Low:** float: float EVM RMS value, low EVM window position Unit: %
- **Evm\_Rms\_High:** float: float EVM RMS value, high EVM window position Unit: %
- **Evm\_Peak\_Low:** float: float EVM peak value, low EVM window position Unit: %
- **Evm\_Peak\_High:** float: float EVM peak value, high EVM window position Unit: %
- **Mag\_Error\_Rms\_Low:** float: float Magnitude error RMS value, low EVM window position Unit: %

- `Mag_Error_Rms_High`: float: float Magnitude error RMS value, low EVM window position Unit: %
- `Mag_Error_Peak_Low`: float: float Magnitude error peak value, low EVM window position Unit: %
- `Mag_Err_Peak_High`: float: float Magnitude error peak value, high EVM window position Unit: %
- `Ph_Error_Rms_Low`: float: float Phase error RMS value, low EVM window position Unit: deg
- `Ph_Error_Rms_High`: float: float Phase error RMS value, high EVM window position Unit: deg
- `Ph_Error_Peak_Low`: float: float Phase error peak value, low EVM window position Unit: deg
- `Ph_Error_Peak_High`: float: float Phase error peak value, high EVM window position Unit: deg
- `Iq_Offset`: float: float I/Q origin offset Unit: dBc
- `Frequency_Error`: float: float Carrier frequency error Unit: Hz
- `Timing_Error`: float: float Time error Unit: Ts (basic LTE time unit)
- `Tx_Power`: float: float User equipment power Unit: dBm
- `Peak_Power`: float: float User equipment peak power Unit: dBm
- `Psd`: float: No parameter help available
- `Evm_Dmrs_Low`: float: float EVM DMRS value, low EVM window position Unit: %
- `Evm_Dmrs_High`: float: float EVM DMRS value, high EVM window position Unit: %
- `Mag_Err_Dmrs_Low`: float: float Magnitude error DMRS value, low EVM window position Unit: %
- `Mag_Err_Dmrs_High`: float: float Magnitude error DMRS value, high EVM window position Unit: %
- `Ph_Error_Dmrs_Low`: float: float Phase error DMRS value, low EVM window position Unit: deg
- `Ph_Error_Dmrs_High`: float: float Phase error DMRS value, high EVM window position Unit: deg

**calculate**(*segment=Segment.Default*) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :MODulation:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.modulation.average.
↳ calculate(segment = repcap.Segment.Default)
```

Returns modulation single-value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*segment=Segment.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :MODulation:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.modulation.average.
↳ fetch(segment = repcap.Segment.Default)
```

Returns modulation single-value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4.2 Current

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float or bool: float Phase error peak value, low EVM window position Unit: deg

- Ph\_Error\_Peak\_High: float or bool: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float or bool: float I/Q origin offset Unit: dBc
- Frequency\_Error: float or bool: float Carrier frequency error Unit: Hz
- Timing\_Error: float or bool: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float or bool: float User equipment power Unit: dBm
- Peak\_Power: float or bool: float User equipment peak power Unit: dBm
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float or bool: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float or bool: float Phase error DMRS value, high EVM window position Unit: deg

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float: float I/Q origin offset Unit: dBc
- Frequency\_Error: float: float Carrier frequency error Unit: Hz

- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power Unit: dBm
- Peak\_Power: float: float User equipment peak power Unit: dBm
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float: float Phase error DMRS value, high EVM window position Unit: deg

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:MODulation:CURRent
value: CalculateStruct = driver.multiEval.listPy.segment.modulation.current.
↪calculate(segment = repcap.Segment.Default)
```

Returns modulation single-value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:MODulation:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.modulation.current.
↪fetch(segment = repcap.Segment.Default)
```

Returns modulation single-value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.4.3 Dallocation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:MODulation:DALlocation
value: FetchStruct = driver.multiEval.listPy.segment.modulation.dallocation.
↳fetch(segment = reprcap.Segment.Default)
```

Return the detected allocation for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.4.4 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Channel\_Type: enums.UplinkChannelType: PUSCh | PUCCh



**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:MODulation:DCHType
value: FetchStruct = driver.multiEval.listPy.segment.modulation.dchType.
↪fetch(segment = repcap.Segment.Default)
```

Return the uplink channel type for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4.5 Dmodulation

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:MODulation:DMODulation
```

##### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Modulation: enums.Modulation: QPSK | Q16 | Q64 | Q256 QPSK, 16-QAM, 64-QAM, 256-QAM

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:MODulation:DMODulation
value: FetchStruct = driver.multiEval.listPy.segment.modulation.dmodulation.
↪fetch(segment = repcap.Segment.Default)
```

Return the detected modulation scheme for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. If channel type PUCCH is detected, QPSK is returned as modulation type because the QPSK limits are applied in that case.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4.6 Extreme

##### SCPI Commands :

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:EXTreme

```

##### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float or bool: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float or bool: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float or bool: float I/Q origin offset Unit: dBc
- Frequency\_Error: float or bool: float Carrier frequency error Unit: Hz
- Timing\_Error: float or bool: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power\_Minimum: float or bool: float Minimum user equipment power Unit: dBm
- Tx\_Power\_Maximum: float or bool: float Maximum user equipment power Unit: dBm
- Peak\_Power\_Min: float or bool: float Minimum user equipment peak power Unit: dBm
- Peak\_Power\_Max: float or bool: float Maximum user equipment peak power Unit: dBm

- Psd\_Minimum: float or bool: No parameter help available
- Psd\_Maximum: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float or bool: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float or bool: float Phase error DMRS value, high EVM window position Unit: deg

#### **class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float: float I/Q origin offset Unit: dBc
- Frequency\_Error: float: float Carrier frequency error Unit: Hz
- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power\_Minimum: float: float Minimum user equipment power Unit: dBm
- Tx\_Power\_Maximum: float: float Maximum user equipment power Unit: dBm
- Peak\_Power\_Min: float: float Minimum user equipment peak power Unit: dBm
- Peak\_Power\_Max: float: float Maximum user equipment peak power Unit: dBm
- Psd\_Minimum: float: No parameter help available

- Psd\_Maximum: float: No parameter help available
- Evm\_Dmrs\_Low: float: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float: float Phase error DMRS value, high EVM window position Unit: deg

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳ :MODulation:EXTReme
value: CalculateStruct = driver.multiEval.listPy.segment.modulation.extreme.
↳ calculate(segment = repcap.Segment.Default)
```

Return modulation single-value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳ :MODulation:EXTReme
value: FetchStruct = driver.multiEval.listPy.segment.modulation.extreme.
↳ fetch(segment = repcap.Segment.Default)
```

Return modulation single-value results for segment <no> in list mode. The values described below are returned by FETCH commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4.7 SchType

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:SchType
```

##### class SchTypeCls

SchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Channel\_Type: enums.SidelinkChannelType: PSSCh | PSCCh

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:MODulation:SchType
value: FetchStruct = driver.multiEval.listPy.segment.modulation.schType.
↳fetch(segment = reprcap.Segment.Default)
```

Returns the sidelink channel type evaluated for modulation results, for segment <no> in list mode.

##### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

##### return

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.4.8 StandardDev

##### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:MODulation:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %

- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float: float I/Q origin offset Unit: dBc
- Frequency\_Error: float: float Carrier frequency error Unit: Hz
- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power Unit: dBm
- Peak\_Power: float: float User equipment peak power Unit: dBm
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float: float Phase error DMRS value, high EVM window position Unit: deg

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳ :MODulation:SDEVIation
value: FetchStruct = driver.multiEval.listPy.segment.modulation.standardDev.
↳ fetch(segment = repcap.Segment.Default)
```

Returns modulation single-value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.5 Pmonitor

#### class PmonitorCls

Pmonitor commands group definition. 4 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.pmonitor.clone()
```

#### Subgroups

### 6.2.9.7.5.1 Array

#### class ArrayCls

Array commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.pmonitor.array.clone()
```

#### Subgroups

### 6.2.9.7.5.2 Length

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor:ARRay:LENGth
```

#### class LengthCls

Length commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(segment=Segment.Default) → int

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:PMONitor:ARRay:LENGth
value: int = driver.multiEval.listPy.segment.pmonitor.array.length.
↳fetch(segment = repcap.Segment.Default)
```

Returns the number of power monitor results for segment <no> contained in a result list for all measured segments. Such a result list is, for example, returned by the command method RsCmwLteMeas.MultiEval.ListPy.Pmonitor.Rms.fetch.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**  
length: decimal Number of power monitor results

### 6.2.9.7.5.3 Start

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor:ARRAY:START
```

#### class StartCls

Start commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(segment=Segment.Default) → int

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:PMONitor:ARRAY:START
value: int = driver.multiEval.listPy.segment.pmonitor.array.start.fetch(segment,
↳= repcap.Segment.Default)
```

Returns the offset of the first power monitor result for segment <no> within a result list for all measured segments. Such a result list is, for example, returned by the command method RsCmwLteMeas.MultiEval.ListPy.Pmonitor.Rms.fetch. A returned <Start> value n indicates that the result for the first subframe of the segment is the (n+1) th result in the power result list over all segments.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param segment**  
optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**  
start: decimal Offset of the first power monitor result

### 6.2.9.7.5.4 Peak

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:PMONitor:PEAK
```

#### class PeakCls

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Step\_Peak\_Power: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct



```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:PMONitor:PEAK
value: FetchStruct = driver.multiEval.listPy.segment.pmonitor.peak.
↳fetch(segment = repcap.Segment.Default)
```

Return the power monitor results for segment <no> in list mode. The commands return one power result for each subframe of the segment for the measured carrier. The power values are RMS averaged over the subframe or represent the peak value within the subframe.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.5.5 Rms

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:PMONitor:RMS
```

#### class RmsCls

Rms commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Step\_Rms\_Power: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:PMONitor:RMS
value: FetchStruct = driver.multiEval.listPy.segment.pmonitor.rms.fetch(segment_
↳= repcap.Segment.Default)
```

Return the power monitor results for segment <no> in list mode. The commands return one power result for each subframe of the segment for the measured carrier. The power values are RMS averaged over the subframe or represent the peak value within the subframe.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.6 Power

#### class PowerCls

Power commands group definition. 18 total commands, 6 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.power.clone()
```

### Subgroups

#### 6.2.9.7.6.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:AVERage
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float Total TX power of all component carriers Unit: dBm

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:POWer:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.power.average.
↳calculate(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:POWer:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.power.average.
↪fetch(segment = repcap.Segment.Default)
```

Return total TX power results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.6.2 Cc<CarrierComponent>

##### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.listPy.segment.power.cc.repcap_carrierComponent_get()
driver.multiEval.listPy.segment.power.cc.repcap_carrierComponent_set(repcap.
↪CarrierComponent.Nr1)
```

**class CcCls**

Cc commands group definition. 9 total commands, 5 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.power.cc.clone()
```

##### Subgroups

#### 6.2.9.7.6.3 Average

##### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:AVERage
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float TX power of the component carrier Unit: dBm

**calculate**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:POWer:CC<no>:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.power.cc.average.
↳calculate(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC
↳<no>:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.power.cc.average.
↳fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

Return TX power results for component carrier CC<no> and a single segment in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.9.7.6.4 Current****SCPI Commands :**

```

FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC<no>:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC<no>:CURRent

```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float TX power of the component carrier Unit: dBm

**calculate**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:POWer:CC<no>:CURRent
value: CalculateStruct = driver.multiEval.listPy.segment.power.cc.current.
↪calculate(segment = repcap.Segment.Default, carrierComponent = repcap.
↪CarrierComponent.Default)

```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(*segment=Segment.Default, carrierComponent=CarrierComponent.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC
↪<no>:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.power.cc.current.
↪fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↪CarrierComponent.Default)
```

Return TX power results for component carrier CC<no> and a single segment in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.6.5 Maximum

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Max: float or bool: No parameter help available

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power\_Max: float: No parameter help available

**calculate**(*segment=Segment.Default, carrierComponent=CarrierComponent.Default*) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:POWer:CC<no>:MAXimum
value: CalculateStruct = driver.multiEval.listPy.segment.power.cc.maximum.
↳calculate(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC
↳<no>:MAXimum
value: FetchStruct = driver.multiEval.listPy.segment.power.cc.maximum.
↳fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

Return TX power results for component carrier CC<no> and a single segment in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## 6.2.9.7.6.6 Minimum

### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:MINimum
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:CC<no>:MINimum
```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available

- Tx\_Power\_Min: float or bool: No parameter help available

### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power\_Min: float: No parameter help available

**calculate**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:POWer:CC<no>:MINimum
value: CalculateStruct = driver.multiEval.listPy.segment.power.cc.minimum.
↳calculate(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC
↳<no>:MINimum
value: FetchStruct = driver.multiEval.listPy.segment.power.cc.minimum.
↳fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↳CarrierComponent.Default)
```

Return TX power results for component carrier CC<no> and a single segment in list mode.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.9.7.6.7 StandardDev

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC<no>:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float TX power of the component carrier Unit: dBm

**fetch**(segment=Segment.Default, carrierComponent=CarrierComponent.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CC
↪<no>:SDEviation
value: FetchStruct = driver.multiEval.listPy.segment.power.cc.standardDev.
↪fetch(segment = repcap.Segment.Default, carrierComponent = repcap.
↪CarrierComponent.Default)
```

Return TX power results for component carrier CC<no> and a single segment in list mode.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.6.8 Current

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available

- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float Total TX power of all component carriers Unit: dBm

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:POWer:CURRent
value: CalculateStruct = driver.multiEval.listPy.segment.power.current.
↪calculate(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:POWer:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.power.current.
↪fetch(segment = repcap.Segment.Default)
```

Return total TX power results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.6.9 Maximum

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Max: float or bool: No parameter help available

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power\_Max: float: No parameter help available

**calculate**(segment=Segment.Default) → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:POWer:MAXimum
value: CalculateStruct = driver.multiEval.listPy.segment.power.maximum.
↪calculate(segment = repcap.Segment.Default)

```

No command help available

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:POWer:MAXimum
value: FetchStruct = driver.multiEval.listPy.segment.power.maximum.
↪fetch(segment = repcap.Segment.Default)

```

Return total TX power results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

**6.2.9.7.6.10 Minimum****SCPI Commands :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:POWer:MINimum
```

**class MinimumCls**

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: No parameter help available
- Seg\_Reliability: int: No parameter help available
- Statist\_Expired: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power\_Min: float or bool: No parameter help available

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power\_Min: float: No parameter help available

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:POWer:MINimum
value: CalculateStruct = driver.multiEval.listPy.segment.power.minimum.
↳calculate(segment = repcap.Segment.Default)
```

No command help available

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:POWer:MINimum
value: FetchStruct = driver.multiEval.listPy.segment.power.minimum.
↪fetch(segment = repcap.Segment.Default)
```

Return total TX power results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.6.11 StandardDev

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:POWer:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in subframes
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Tx\_Power: float: float Total TX power of all component carriers Unit: dBm

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:POWer:SDEViation
value: FetchStruct = driver.multiEval.listPy.segment.power.standardDev.
↪fetch(segment = repcap.Segment.Default)
```

Return total TX power results for segment <no> in list mode.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7 SeMask

#### class SeMaskCls

SeMask commands group definition. 16 total commands, 7 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.seMask.clone()
```

### Subgroups

#### 6.2.9.7.7.1 Average

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float or bool: float Occupied bandwidth Unit: Hz
- Tx\_Power: float or bool: float Total TX power in the slot Unit: dBm

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot Unit: dBm

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:AVERage
value: CalculateStruct = driver.multiEval.listPy.segment.seMask.average.
↳calculate(segment = repcap.Segment.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↳:SEMask:AVERage
value: FetchStruct = driver.multiEval.listPy.segment.seMask.average.
↳fetch(segment = repcap.Segment.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

## 6.2.9.7.7.2 Current

### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>:SEMask:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %

- Obw: float or bool: float Occupied bandwidth Unit: Hz
- Tx\_Power: float or bool: float Total TX power in the slot Unit: dBm

### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot Unit: dBm

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>
↪:SEMask:CURRent
value: CalculateStruct = driver.multiEval.listPy.segment.seMask.current.
↪calculate(segment = repcap.Segment.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGMent<nr>
↪:SEMask:CURRent
value: FetchStruct = driver.multiEval.listPy.segment.seMask.current.
↪fetch(segment = repcap.Segment.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.9.7.7.3 Dallocation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:DALlocation
value: FetchStruct = driver.multiEval.listPy.segment.seMask.dallocation.
↳fetch(segment = reprcap.Segment.Default)
```

Return the detected allocation for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.4 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Channel\_Type: enums.UplinkChannelType: PUSCh | PUCCh

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↪:SEMask:DCHType
value: FetchStruct = driver.multiEval.listPy.segment.seMask.dchType.
↪fetch(segment = repcap.Segment.Default)
```

Return the uplink channel type for segment <no> in list mode. The result is determined from the last measured slot of the statistical length. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.5 Extreme

#### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float or bool: float Occupied bandwidth Unit: Hz
- Tx\_Power\_Min: float or bool: float Minimum total TX power in the slot Unit: dBm
- Tx\_Power\_Max: float or bool: float Maximum total TX power in the slot Unit: dBm

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power\_Min: float: float Minimum total TX power in the slot Unit: dBm

- Tx\_Power\_Max: float: float Maximum total TX power in the slot Unit: dBm

**calculate**(segment=Segment.Default) → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:SEMask:EXTreme
value: CalculateStruct = driver.multiEval.listPy.segment.seMask.extreme.
↪calculate(segment = repcap.Segment.Default)
```

Return spectrum emission extreme results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:SEMask:EXTreme
value: FetchStruct = driver.multiEval.listPy.segment.seMask.extreme.
↪fetch(segment = repcap.Segment.Default)
```

Return spectrum emission extreme results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.7.7.6 Margin

##### class MarginCls

Margin commands group definition. 7 total commands, 4 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.seMask.margin.clone()
```

## Subgroups

### 6.2.9.7.7.7 All

#### SCPI Command :

`FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:MARGin:ALL`

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Curr\_Neg: List[float]: No parameter help available
- Margin\_Curr\_Pos: List[float]: No parameter help available
- Margin\_Avg\_Neg: List[float]: No parameter help available
- Margin\_Avg\_Pos: List[float]: No parameter help available
- Margin\_Min\_Neg: List[float]: No parameter help available
- Margin\_Min\_Pos: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:ALL
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.all.
↳fetch(segment = repcap.Segment.Default)
```

Return limit line margin values, i.e. vertical distances between the spectrum emission mask and a trace, for segment <no> in list mode.

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.8 Average

#### class AverageCls

Average commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.seMask.margin.average.clone()
```

#### Subgroups

### 6.2.9.7.7.9 Negativ

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:NEGativ
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.average.
↳negativ.fetch(segment = repcap.Segment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.10 Positiv

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Avg\_Pos\_X: List[float]: No parameter help available
- Margin\_Avg\_Pos\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:AVERage:POSitiv
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.average.
↳positiv.fetch(segment = repcap.Segment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.11 Current

#### class CurrentCls

Current commands group definition. 2 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.seMask.margin.current.clone()
```

## Subgroups

### 6.2.9.7.7.12 Negativ

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Curr\_Neg\_X: List[float]: No parameter help available
- Margin\_Curr\_Neg\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:NEGativ
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.current.
↳negativ.fetch(segment = repcap.Segment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.13 Positiv

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Curr\_Pos\_X: List[float]: No parameter help available
- Margin\_Curr\_Pos\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:CURRent:POSitiv
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.current.
↳positiv.fetch(segment = repcap.Segment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.14 Minimum

#### class MinimumCls

Minimum commands group definition. 2 total commands, 2 Subgroups, 0 group commands



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.segment.seMask.margin.minimum.clone()
```

## Subgroups

### 6.2.9.7.7.15 Negativ

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:NEGativ
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.minimum.
↳negativ.fetch(segment = repcap.Segment.Default)
```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRent, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.16 Positiv

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POSitiv

```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Margin\_Min\_Pos\_X: List[float]: No parameter help available
- Margin\_Min\_Pos\_Y: List[float]: No parameter help available

**fetch**(segment=Segment.Default) → FetchStruct

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>
↳:SEMask:MARGin:MINimum:POSitiv
value: FetchStruct = driver.multiEval.listPy.segment.seMask.margin.minimum.
↳positiv.fetch(segment = repcap.Segment.Default)

```

Return spectrum emission mask margin results for segment <no> in list mode. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. Returned sequence: <Reliability>, <SegReliability>, <Statist-Expired>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {... }area2, ..., {... }area12

#### param segment

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Segment')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.7.7.17 StandardDev

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEGment<nr>:SEMask:SDEVIation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'

- Seg\_Reliability: int: decimal Reliability indicator for the segment
- Statist\_Expired: int: decimal Reached statistical length in slots
- Out\_Of\_Tolerance: int: decimal Percentage of measured subframes with failed limit check Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot Unit: dBm

**fetch**(segment=Segment.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEGment<nr>
↪:SEMask:SDEviation
value: FetchStruct = driver.multiEval.listPy.segment.seMask.standardDev.
↪fetch(segment = repcap.Segment.Default)
```

Return spectrum emission single value results for segment <no> in list mode. The values described below are returned by FETCh commands. The first four values (reliability to out-of-tolerance result) are also returned by CALCulate commands. The remaining values returned by CALCulate commands are limit check results, one value for each result listed below.

**param segment**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Segment’)

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.8 SeMask

#### class SeMaskCls

SeMask commands group definition. 24 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.clone()
```

### Subgroups

#### 6.2.9.8.1 Dallocation

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’

- `Nr_Res_Blocks`: List[int]: decimal Number of allocated resource blocks
- `Offset_Res_Blocks`: List[int]: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:DAllocation
value: FetchStruct = driver.multiEval.listPy.seMask.dallocation.fetch()
```

Return the detected allocation for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ. The results are returned as pairs per segment: <Reliability>, {<NrResBlocks>, <OffsetResBlocks>}Seg 1, {<NrResBlocks>, <OffsetResBlocks>}Seg 2, ...

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.8.2 DchType

**SCPI Command :**

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:DCHType
```

**class DchTypeCls**

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[UplinkChannelType]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:DCHType
value: List[enums.UplinkChannelType] = driver.multiEval.listPy.seMask.dchType.
↪ fetch()
```

Return the uplink channel type for all measured list mode segments. The result is determined from the last measured slot of the statistical length of a segment. The individual measurements provide the same result when measuring the same slot. However different statistical lengths can be defined for the measurements so that the measured slots and returned results can differ.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**

channel\_type: PUSCh | PUCCh Comma-separated list of values, one per measured segment

### 6.2.9.8.3 Margin

#### class MarginCls

Margin commands group definition. 6 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.margin.clone()
```

#### Subgroups

### 6.2.9.8.3.1 Area<Area>

#### RepCap Settings

```
# Range: Nr1 .. Nr12
rc = driver.multiEval.listPy.seMask.margin.area.repcap_area_get()
driver.multiEval.listPy.seMask.margin.area.repcap_area_set(repcap.Area.Nr1)
```

#### class AreaCls

Area commands group definition. 6 total commands, 2 Subgroups, 0 group commands Repeated Capability:  
Area, default value after init: Area.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.margin.area.clone()
```

#### Subgroups

### 6.2.9.8.3.2 Negativ

#### class NegativCls

Negativ commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.margin.area.negativ.clone()
```

## Subgroups

### 6.2.9.8.3.3 Average

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:AVERage
```

#### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>
↳:NEGativ:AVERage
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.negative.average.
↳fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>} Seg 1, {<MarginPosX>, <MarginPosY>} Seg 2, ...

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.8.3.4 Current

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:CURREnt
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Curr\_Neg\_X: List[float]: No parameter help available
- Margin\_Curr\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:MARGin:AREA<nr>
↳:NEGativ:CURRent
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.negative.current.
↳fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}Seg 1, {<MarginPosX>, <MarginPosY>}Seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.8.3.5 Minimum

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:MARGin:AREA<nr>:NEGativ:MINimum
```

#### class MinimumCls

Minimum commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:MARGin:AREA<nr>
↳:NEGativ:MINimum
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.negative.minimum.
↳fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}Seg 1, {<MarginPosX>, <MarginPosY>}Seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.8.3.6 Positiv

##### class PositivCls

Positiv commands group definition. 3 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.margin.area.positiv.clone()
```

#### Subgroups

#### 6.2.9.8.3.7 Average

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:AVERage
```

##### class AverageCls

Average commands group definition. 1 total commands, 0 Subgroups, 1 group commands

##### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Avg\_Pos\_X: List[float]: float X position of margin for selected area Unit: Hz
- Margin\_Avg\_Pos\_Y: List[float]: float Y position of margin for selected area Unit: dB

**fetch**(area=Area.Default) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>
↳:POSitiv:AVERage
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.positiv.average.
↳fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}Seg 1, {<MarginPosX>, <MarginPosY>}Seg 2, ...

##### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

##### return

structure: for return value, see the help for FetchStruct structure arguments.



### 6.2.9.8.3.8 Current

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:CURRENT
```

#### class CurrentCls

Current commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Curr\_Pos\_X: List[float]: float X position of margin for selected area Unit: Hz
- Margin\_Curr\_Pos\_Y: List[float]: float Y position of margin for selected area Unit: dB

**fetch**(*area=Area.Default*) → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>
↪:POSitiv:CURRENT
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.positiv.current.
↪fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>} Seg 1, {<MarginPosX>, <MarginPosY>} Seg 2, ...

#### param area

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.9.8.3.9 Minimum

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>:POSitiv:MINimum
```

#### class MinimumCls

Minimum commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Margin\_Min\_Pos\_X: List[float]: float X position of margin for selected area Unit: Hz
- Margin\_Min\_Pos\_Y: List[float]: float Y position of margin for selected area Unit: dB

**fetch**(*area=Area.Default*) → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:MARGin:AREA<nr>
↳:POSitiv:MINimum
value: FetchStruct = driver.multiEval.listPy.seMask.margin.area.positiv.minimum.
↳fetch(area = repcap.Area.Default)
```

Return spectrum emission mask margin positions for all measured list mode segments. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) for NEGative and POSitive offset frequencies. The results are returned as pairs per segment: <Reliability>, {<MarginPosX>, <MarginPosY>}Seg 1, {<MarginPosX>, <MarginPosY>}Seg 2, ...

**param area**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Area')

**return**

structure: for return value, see the help for FetchStruct structure arguments.

#### 6.2.9.8.4 Obw

##### class ObwCls

Obw commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.obw.clone()
```

#### Subgroups

##### 6.2.9.8.4.1 Average

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate**() → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:AVERage
value: List[float or bool] = driver.multiEval.listPy.seMask.obw.average.
↳calculate()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

obw: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:OBW:AVERage
value: List[float] = driver.multiEval.listPy.seMask.obw.average.fetch()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

obw: float Comma-separated list of values, one per measured segment Unit: Hz

### 6.2.9.8.4.2 Current

#### SCPI Commands :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:OBW:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:OBW:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:OBW:CURRent
value: List[float or bool] = driver.multiEval.listPy.seMask.obw.current.
    ↪ calculate()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

obw: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:LIST:SEMask:OBW:CURRent
value: List[float] = driver.multiEval.listPy.seMask.obw.current.fetch()
```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

obw: float Comma-separated list of values, one per measured segment Unit: Hz

### 6.2.9.8.4.3 Extreme

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme

```

#### class ExtremeCls

Extreme commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
value: List[float or bool] = driver.multiEval.listPy.seMask.obw.extreme.
    ↪ calculate()

```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

obw: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: Hz

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:EXTreme
value: List[float] = driver.multiEval.listPy.seMask.obw.extreme.fetch()

```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

obw: float Comma-separated list of values, one per measured segment Unit: Hz

### 6.2.9.8.4.4 StandardDev

#### SCPI Command :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:SDEviation

```

#### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:OBW:SDEviation
value: List[float] = driver.multiEval.listPy.seMask.obw.standardDev.fetch()

```

Return the occupied bandwidth for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

obw: float Comma-separated list of values, one per measured segment Unit: Hz

#### 6.2.9.8.5 TxPower

##### class TxPowerCls

TxPower commands group definition. 9 total commands, 5 Subgroups, 0 group commands

##### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.listPy.seMask.txPower.clone()
```

##### Subgroups

#### 6.2.9.8.5.1 Average

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:AVERage
```

##### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:SEMask:TXPower:AVERage
value: List[float or bool] = driver.multiEval.listPy.seMask.txPower.average.
↪calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:AVERage
value: List[float] = driver.multiEval.listPy.seMask.txPower.average.fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.8.5.2 Current

##### SCPI Commands :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:CURRENT
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↳:MEvaluation:LIST:SEMask:TXPower:CURRENT
value: List[float or bool] = driver.multiEval.listPy.seMask.txPower.current.
↳calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:CURRENT
value: List[float] = driver.multiEval.listPy.seMask.txPower.current.fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.8.5.3 Maximum

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MAXimum

```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```

# SCPI: CALCulate:LTE:MEASurement<Instance>
→:MEvaluation:LIST:SEMask:TXPower:MAXimum
value: List[float or bool] = driver.multiEval.listPy.seMask.txPower.maximum.
→calculate()

```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```

# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MAXimum
value: List[float] = driver.multiEval.listPy.seMask.txPower.maximum.fetch()

```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCH commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

### 6.2.9.8.5.4 Minimum

#### SCPI Commands :

```

FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MINimum

```

#### class MinimumCls

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**calculate()** → List[float]

```
# SCPI: CALCulate:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:SEMask:TXPower:MINimum
value: List[float or bool] = driver.multiEval.listPy.seMask.txPower.minimum.
↪calculate()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: (float or boolean items) float Comma-separated list of values, one per measured segment Unit: dBm

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:MINimum
value: List[float] = driver.multiEval.listPy.seMask.txPower.minimum.fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm

#### 6.2.9.8.5.5 StandardDev

##### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:LIST:SEMask:TXPower:SDEviation
```

##### class StandardDevCls

StandardDev commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↪:MEvaluation:LIST:SEMask:TXPower:SDEviation
value: List[float] = driver.multiEval.listPy.seMask.txPower.standardDev.fetch()
```

Return the total TX power in the slot for all measured list mode segments. The values described below are returned by FETCh commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

tx\_power: float Comma-separated list of values, one per measured segment Unit: dBm



### 6.2.9.9 Sreliability

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SREliability
```

#### class SreliabilityCls

Sreliability commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → List[int]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:LIST:SREliability
value: List[int] = driver.multiEval.listPy.sreliability.fetch()
```

Returns the segment reliability for all measured list mode segments. A common reliability indicator of zero indicates that the results in all measured segments are valid. A non-zero value indicates that an error occurred in at least one of the measured segments. If you get a non-zero common reliability indicator, you can use this command to retrieve the individual reliability values of all measured segments for further analysis.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

seg\_reliability: decimal Comma-separated list of values, one per measured segment  
The meaning of the returned values is the same as for the common reliability indicator, see previous parameter.

### 6.2.10 Merror

#### class MerrorCls

Merror commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.merror.clone()
```

#### Subgroups

##### 6.2.10.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MERROR:AVERage
FETCH:LTE:MEASurement<Instance>:MEvaluation:MERROR:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float Magnitude error value for low EVM window position Unit: %
- High: List[float]: float Magnitude error value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MERRor:AVERage
value: ResultData = driver.multiEval.merror.average.fetch()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also ‘View Magnitude Error, Phase Error’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MERRor:AVERage
value: ResultData = driver.multiEval.merror.average.read()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also ‘View Magnitude Error, Phase Error’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.10.2 Current****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:MERRor:CURRent
FETCH:LTE:MEASurement<Instance>:MEvaluation:MERRor:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float Magnitude error value for low EVM window position Unit: %
- High: List[float]: float Magnitude error value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MERRor:CURRent
value: ResultData = driver.multiEval.merror.current.fetch()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MERRor:CURRent
value: ResultData = driver.multiEval.merror.current.read()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.10.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MERRor:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:MERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float Magnitude error value for low EVM window position Unit: %
- High: List[float]: float Magnitude error value for high EVM window position Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:MERRor:MAXimum
value: ResultData = driver.multiEval.merror.maximum.fetch()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MERRor:MAXimum
value: ResultData = driver.multiEval.merror.maximum.read()
```

Returns the values of the magnitude error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of magnitude error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.11 Modulation

### class ModulationCls

Modulation commands group definition. 15 total commands, 8 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.modulation.clone()
```

#### Subgroups

##### 6.2.11.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
```

### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %

- **Mag\_Err\_Peak\_High:** float or bool: float Magnitude error peak value, high EVM window position Unit: %
- **Ph\_Error\_Rms\_Low:** float or bool: float Phase error RMS value, low EVM window position Unit: deg
- **Ph\_Error\_Rms\_High:** float or bool: float Phase error RMS value, high EVM window position Unit: deg
- **Ph\_Error\_Peak\_Low:** float or bool: float Phase error peak value, low EVM window position Unit: deg
- **Ph\_Error\_Peak\_High:** float or bool: float Phase error peak value, high EVM window position Unit: deg
- **Iq\_Offset:** float or bool: float I/Q origin offset Unit: dBc
- **Frequency\_Error:** float or bool: float Carrier frequency error Unit: Hz
- **Timing\_Error:** float or bool: float Time error Unit: Ts (basic LTE time unit)
- **Tx\_Power:** float or bool: float User equipment power Unit: dBm
- **Peak\_Power:** float or bool: float User equipment peak power Unit: dBm
- **Psd:** float or bool: No parameter help available
- **Evm\_Dmrs\_Low:** float or bool: float EVM DMRS value, low EVM window position Unit: %
- **Evm\_Dmrs\_High:** float or bool: float EVM DMRS value, high EVM window position Unit: %
- **Mag\_Err\_Dmrs\_Low:** float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- **Mag\_Err\_Dmrs\_High:** float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- **Ph\_Error\_Dmrs\_Low:** float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- **Ph\_Error\_Dmrs\_High:** float or bool: float Phase error DMRS value, high EVM window position Unit: deg
- **Iq\_Gain\_Imbalance:** float or bool: float Gain imbalance Unit: dB
- **Iq\_Quadrature\_Err:** float or bool: float Quadrature error Unit: deg
- **Evm\_Srs:** float: float Error vector magnitude result for SRS signals Unit: %

#### **class ResultData**

Response structure. Fields:

- **Reliability:** int: decimal 'Reliability indicator'
- **Out\_Of\_Tolerance:** int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- **Evm\_Rms\_Low:** float: float EVM RMS value, low EVM window position Unit: %
- **Evm\_Rms\_High:** float: float EVM RMS value, high EVM window position Unit: %
- **Evm\_Peak\_Low:** float: float EVM peak value, low EVM window position Unit: %
- **Evm\_Peak\_High:** float: float EVM peak value, high EVM window position Unit: %
- **Mag\_Error\_Rms\_Low:** float: float Magnitude error RMS value, low EVM window position Unit: %
- **Mag\_Error\_Rms\_High:** float: float Magnitude error RMS value, low EVM window position Unit: %

- `Mag_Error_Peak_Low`: float: float Magnitude error peak value, low EVM window position Unit: %
- `Mag_Err_Peak_High`: float: float Magnitude error peak value, high EVM window position Unit: %
- `Ph_Error_Rms_Low`: float: float Phase error RMS value, low EVM window position Unit: deg
- `Ph_Error_Rms_High`: float: float Phase error RMS value, high EVM window position Unit: deg
- `Ph_Error_Peak_Low`: float: float Phase error peak value, low EVM window position Unit: deg
- `Ph_Error_Peak_High`: float: float Phase error peak value, high EVM window position Unit: deg
- `Iq_Offset`: float: float I/Q origin offset Unit: dBc
- `Frequency_Error`: float: float Carrier frequency error Unit: Hz
- `Timing_Error`: float: float Time error Unit: Ts (basic LTE time unit)
- `Tx_Power`: float: float User equipment power Unit: dBm
- `Peak_Power`: float: float User equipment peak power Unit: dBm
- `Psd`: float: No parameter help available
- `Evm_Dmrs_Low`: float: float EVM DMRS value, low EVM window position Unit: %
- `Evm_Dmrs_High`: float: float EVM DMRS value, high EVM window position Unit: %
- `Mag_Err_Dmrs_Low`: float: float Magnitude error DMRS value, low EVM window position Unit: %
- `Mag_Err_Dmrs_High`: float: float Magnitude error DMRS value, high EVM window position Unit: %
- `Ph_Error_Dmrs_Low`: float: float Phase error DMRS value, low EVM window position Unit: deg
- `Ph_Error_Dmrs_High`: float: float Phase error DMRS value, high EVM window position Unit: deg
- `Iq_Gain_Imbalance`: float: float Gain imbalance Unit: dB
- `Iq_Quadrature_Err`: float: float Quadrature error Unit: deg
- `Evm_Srs`: float: float Error vector magnitude result for SRS signals Unit: %

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
value: CalculateStruct = driver.multiEval.modulation.average.calculate()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
value: ResultData = driver.multiEval.modulation.average.fetch()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:AVERage
value: ResultData = driver.multiEval.modulation.average.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.11.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRent
FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float or bool: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float or bool: float Phase error peak value, high EVM window position Unit: deg

- Iq\_Offset: float or bool: float I/Q origin offset Unit: dBc
- Frequency\_Error: float or bool: float Carrier frequency error Unit: Hz
- Timing\_Error: float or bool: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float or bool: float User equipment power Unit: dBm
- Peak\_Power: float or bool: float User equipment peak power Unit: dBm
- Psd: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float or bool: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float or bool: float Phase error DMRS value, high EVM window position Unit: deg
- Iq\_Gain\_Imbalance: float or bool: float Gain imbalance Unit: dB
- Iq\_Quadrature\_Err: float or bool: float Quadrature error Unit: deg
- Evm\_Srs: float: float Error vector magnitude result for SRS signals Unit: %

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float: float I/Q origin offset Unit: dBc
- Frequency\_Error: float: float Carrier frequency error Unit: Hz



- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power Unit: dBm
- Peak\_Power: float: float User equipment peak power Unit: dBm
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float: float Phase error DMRS value, high EVM window position Unit: deg
- Iq\_Gain\_Imbalance: float: float Gain imbalance Unit: dB
- Iq\_Quadrature\_Err: float: float Quadrature error Unit: deg
- Evm\_Srs: float: float Error vector magnitude result for SRS signals Unit: %

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRENT
value: CalculateStruct = driver.multiEval.modulation.current.calculate()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRENT
value: ResultData = driver.multiEval.modulation.current.fetch()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:CURRENT
value: ResultData = driver.multiEval.modulation.current.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.11.3 Dallocation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DALlocation
value: FetchStruct = driver.multiEval.modulation.dallocation.fetch()
```

Returns the detected allocation for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.11.4 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → UplinkChannelType

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DCHType
value: enums.UplinkChannelType = driver.multiEval.modulation.dchType.fetch()
```

Returns the uplink channel type for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

channel\_type: PUSCh | PUCCh

### 6.2.11.5 Dmodulation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DMODulation
```

#### class DmodulationCls

Dmodulation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → Modulation

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:DMODulation
value: enums.Modulation = driver.multiEval.modulation.dmodulation.fetch()
```

Returns the detected modulation scheme in the measured slot. If channel type PUCCH is detected, QPSK is returned as modulation type because the QPSK limits are applied in that case.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

modulation: QPSK | Q16 | Q64 | Q256 QPSK, 16-QAM, 64-QAM, 256-QAM

### 6.2.11.6 Extreme

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position Unit: %

- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float or bool: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float or bool: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float or bool: float I/Q origin offset Unit: dBc
- Frequency\_Error: float or bool: float Carrier frequency error Unit: Hz
- Timing\_Error: float or bool: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power\_Minimum: float or bool: float Minimum user equipment power Unit: dBm
- Tx\_Power\_Maximum: float or bool: float Maximum user equipment power Unit: dBm
- Peak\_Power\_Min: float or bool: float Minimum user equipment peak power Unit: dBm
- Peak\_Power\_Max: float or bool: float Maximum user equipment peak power Unit: dBm
- Psd\_Minimum: float or bool: No parameter help available
- Psd\_Maximum: float or bool: No parameter help available
- Evm\_Dmrs\_Low: float or bool: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float or bool: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float or bool: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float or bool: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float or bool: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float or bool: float Phase error DMRS value, high EVM window position Unit: deg
- Iq\_Gain\_Imbalance: float or bool: float Gain imbalance Unit: dB
- Iq\_Quadrature\_Err: float or bool: float Quadrature error Unit: deg
- Evm\_Srs: float: float Error vector magnitude result for SRS signals Unit: %

**class ResultData**

Response structure. Fields:

- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %

- `Mag_Error_Peak_Low`: float: float Magnitude error peak value, low EVM window position Unit: %
- `Mag_Err_Peak_High`: float: float Magnitude error peak value, high EVM window position Unit: %
- `Ph_Error_Rms_Low`: float: float Phase error RMS value, low EVM window position Unit: deg
- `Ph_Error_Rms_High`: float: float Phase error RMS value, high EVM window position Unit: deg
- `Ph_Error_Peak_Low`: float: float Phase error peak value, low EVM window position Unit: deg
- `Ph_Error_Peak_High`: float: float Phase error peak value, high EVM window position Unit: deg
- `Iq_Offset`: float: float I/Q origin offset Unit: dBc
- `Frequency_Error`: float: float Carrier frequency error Unit: Hz
- `Timing_Error`: float: float Time error Unit: Ts (basic LTE time unit)
- `Tx_Power_Minimum`: float: float Minimum user equipment power Unit: dBm
- `Tx_Power_Maximum`: float: float Maximum user equipment power Unit: dBm
- `Peak_Power_Min`: float: float Minimum user equipment peak power Unit: dBm
- `Peak_Power_Max`: float: float Maximum user equipment peak power Unit: dBm
- `Psd_Minimum`: float: No parameter help available
- `Psd_Maximum`: float: No parameter help available
- `Evm_Dmrs_Low`: float: float EVM DMRS value, low EVM window position Unit: %
- `Evm_Dmrs_High`: float: float EVM DMRS value, high EVM window position Unit: %
- `Mag_Err_Dmrs_Low`: float: float Magnitude error DMRS value, low EVM window position Unit: %
- `Mag_Err_Dmrs_High`: float: float Magnitude error DMRS value, high EVM window position Unit: %
- `Ph_Error_Dmrs_Low`: float: float Phase error DMRS value, low EVM window position Unit: deg
- `Ph_Error_Dmrs_High`: float: float Phase error DMRS value, high EVM window position Unit: deg
- `Iq_Gain_Imbalance`: float: float Gain imbalance Unit: dB
- `Iq_Quadrature_Err`: float: float Quadrature error Unit: deg
- `Evm_Srs`: float: float Error vector magnitude result for SRS signals Unit: %

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
value: CalculateStruct = driver.multiEval.modulation.extreme.calculate()
```

Return the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
value: ResultData = driver.multiEval.modulation.extreme.fetch()
```

Return the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:EXTreme
value: ResultData = driver.multiEval.modulation.extreme.read()
```

Return the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.11.7 SchType

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:MODulation:SCHType
```

#### class SchTypeCls

SchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → SidelinkChannelType

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:MODulation:SCHType
value: enums.SidelinkChannelType = driver.multiEval.modulation.schType.fetch()
```

Returns the sidelink channel type evaluated for modulation results.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

channel\_type: PSSCh | PSCCh

### 6.2.11.8 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:SDEviation
FETCh:LTE:MEASurement<Instance>:MEvaluation:MODulation:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'

- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Iq\_Offset: float: float I/Q origin offset Unit: dBc
- Frequency\_Error: float: float Carrier frequency error Unit: Hz
- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power Unit: dBm
- Peak\_Power: float: float User equipment peak power Unit: dBm
- Psd: float: No parameter help available
- Evm\_Dmrs\_Low: float: float EVM DMRS value, low EVM window position Unit: %
- Evm\_Dmrs\_High: float: float EVM DMRS value, high EVM window position Unit: %
- Mag\_Err\_Dmrs\_Low: float: float Magnitude error DMRS value, low EVM window position Unit: %
- Mag\_Err\_Dmrs\_High: float: float Magnitude error DMRS value, high EVM window position Unit: %
- Ph\_Error\_Dmrs\_Low: float: float Phase error DMRS value, low EVM window position Unit: deg
- Ph\_Error\_Dmrs\_High: float: float Phase error DMRS value, high EVM window position Unit: deg
- Iq\_Gain\_Imbalance: float: float Gain imbalance Unit: dB
- Iq\_Quadrature\_Err: float: float Quadrature error Unit: deg
- Evm\_Srs: float: float Error vector magnitude result for SRS signals Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:MODulation:SDEviation
value: ResultData = driver.multiEval.modulation.standardDev.fetch()
```

No command help available

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:MODulation:SDEviation
value: ResultData = driver.multiEval.modulation.standardDev.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.12 Podynamics

**class PodynamicsCls**

Podynamics commands group definition. 14 total commands, 5 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.podynamics.clone()
```

### Subgroups

#### 6.2.12.1 Average

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available



**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYnamics:AVERage
value: CalculateStruct = driver.multiEval.pdynamics.average.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYnamics:AVERage
value: ResultData = driver.multiEval.pdynamics.average.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:AVERage
value: ResultData = driver.multiEval.pdynamics.average.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.12.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:CURRENT
FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:CURRENT
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:CURRENT
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available

- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:PDYNamics:CURRENT
value: CalculateStruct = driver.multiEval.pdynamics.current.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:PDYNamics:CURRENT
value: ResultData = driver.multiEval.pdynamics.current.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:PDYNamics:CURRENT
value: ResultData = driver.multiEval.pdynamics.current.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)

- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.12.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
value: CalculateStruct = driver.multiEval.pdynamics.maximum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
value: ResultData = driver.multiEval.pdynamics.maximum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MAXimum
value: ResultData = driver.multiEval.pdynamics.maximum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.12.4 Minimum

#### SCPI Commands :

```

READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MINimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MINimum

```

#### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float or bool: No parameter help available
- On\_Power\_Rms: float or bool: No parameter help available
- On\_Power\_Peak: float or bool: No parameter help available
- Off\_Power\_After: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**calculate()** → CalculateStruct

```

# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:MINimum
value: CalculateStruct = driver.multiEval.pdynamics.minimum.calculate()

```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
value: ResultData = driver.multiEval.pdynamics.minimum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:PDYNamics:MINimum
value: ResultData = driver.multiEval.pdynamics.minimum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.12.5 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:PDYNamics:SDEviation
FETCh:LTE:MEASurement<Instance>:MEValuation:PDYNamics:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Off\_Power\_Before: float: No parameter help available
- On\_Power\_Rms: float: No parameter help available
- On\_Power\_Peak: float: No parameter help available
- Off\_Power\_After: float: No parameter help available

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:SDEviation
value: ResultData = driver.multiEval.pdynamics.standardDev.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PDYNamics:SDEviation
value: ResultData = driver.multiEval.pdynamics.standardDev.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. A single result table row is returned, from left to right. The meaning of the values depends on the selected time mask, as follows:

Table Header: Time mask / Power1 / Power2 / Power3 / Power4

- General on / off / OFF power (before) / ON power RMS / ON power peak / OFF power (after)
- PUCCH / PUSCH / SRS / SRS ON / ON power RMS / ON power peak / ON power (after)
- SRS blanking / SRS OFF / ON power RMS / ON power peak / ON power (after)

The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.



## 6.2.13 Perror

### class PerrorCls

Perror commands group definition. 6 total commands, 3 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.perror.clone()
```

### Subgroups

#### 6.2.13.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PERror:AVERage
FETCH:LTE:MEASurement<Instance>:MEvaluation:PERror:AVERage
```

### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float Phase error value for low EVM window position Unit: deg
- High: List[float]: float Phase error value for high EVM window position Unit: deg

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:PERror:AVERage
value: ResultData = driver.multiEval.perror.average.fetch()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PERror:AVERage
value: ResultData = driver.multiEval.perror.average.read()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.13.2 Current****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:PERRor:CURRent
FETCh:LTE:MEASurement<Instance>:MEvaluation:PERRor:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float Phase error value for low EVM window position Unit: deg
- High: List[float]: float Phase error value for high EVM window position Unit: deg

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PERRor:CURRent
value: ResultData = driver.multiEval.perror.current.fetch()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PERRor:CURRent
value: ResultData = driver.multiEval.perror.current.read()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.13.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PERror:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PERror:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float Phase error value for low EVM window position Unit: deg
- High: List[float]: float Phase error value for high EVM window position Unit: deg

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PERror:MAXimum
value: ResultData = driver.multiEval.perror.maximum.fetch()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PERror:MAXimum
value: ResultData = driver.multiEval.perror.maximum.read()
```

Returns the values of the phase error bar graphs for the SC-FDMA symbols in the measured slot. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of phase error values per SC-FDMA symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1, ... See also 'View Magnitude Error, Phase Error'.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.14 Pmonitor

#### class PmonitorCls

Pmonitor commands group definition. 24 total commands, 6 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.pmonitor.clone()
```

## Subgroups

### 6.2.14.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:PMONitor:AVERage
FETCh:LTE:MEASurement<Instance>:MEValuation:PMONitor:AVERage
CALCulate:LTE:MEASurement<Instance>:MEValuation:PMONitor:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:PMONitor:AVERage
value: CalculateStruct = driver.multiEval.pmonitor.average.calculate()
```

No command help available

##### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:PMONitor:AVERage
value: ResultData = driver.multiEval.pmonitor.average.fetch()
```

Returns the total TX power of all carriers.

##### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:AVERage
value: ResultData = driver.multiEval.pmonitor.average.read()
```

Returns the total TX power of all carriers.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.14.2 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.pmonitor.cc.repcap_carrierComponent_get()
driver.multiEval.pmonitor.cc.repcap_carrierComponent_set(repcap.CarrierComponent.Nr1)
```

**class CcCls**

Cc commands group definition. 10 total commands, 5 Subgroups, 0 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.pmonitor.cc.clone()
```

#### Subgroups

##### 6.2.14.2.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch**(carrierComponent=CarrierComponent.Default) → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:PMONitor:CC<Nr>:AVERage
value: ResultData = driver.multiEval.pmonitor.cc.average.fetch(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(carrierComponent=CarrierComponent.Default) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:PMONitor:CC<Nr>:AVERage
value: ResultData = driver.multiEval.pmonitor.cc.average.read(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.14.2.2 Current

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:PMONitor:CC<Nr>:CURRent
FETCh:LTE:MEASurement<Instance>:MEValuation:PMONitor:CC<Nr>:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch**(carrierComponent=CarrierComponent.Default) → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:PMONitor:CC<Nr>:CURRent
value: ResultData = driver.multiEval.pmonitor.cc.current.fetch(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:CURRENT
value: ResultData = driver.multiEval.pmonitor.cc.current.read(carrierComponent_
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.14.2.3 Maximum****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MAXimum
FETCH:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MAXimum
value: ResultData = driver.multiEval.pmonitor.cc.maximum.fetch(carrierComponent_
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MAXimum
value: ResultData = driver.multiEval.pmonitor.cc.maximum.read(carrierComponent_
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**6.2.14.2.4 Minimum****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MINimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MINimum
```

**class MinimumCls**

Minimum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch**(carrierComponent=CarrierComponent.Default) → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MINimum
value: ResultData = driver.multiEval.pmonitor.cc.minimum.fetch(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(carrierComponent=CarrierComponent.Default) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:MINimum
value: ResultData = driver.multiEval.pmonitor.cc.minimum.read(carrierComponent,
↳= repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

**return**

structure: for return value, see the help for ResultData structure arguments.



### 6.2.14.2.5 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:SDEviation
FETCH:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch**(*carrierComponent=CarrierComponent.Default*) → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:SDEviation
value: ResultData = driver.multiEval.pmonitor.cc.standardDev.
↪ fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent=CarrierComponent.Default*) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CC<Nr>:SDEviation
value: ResultData = driver.multiEval.pmonitor.cc.standardDev.
↪ read(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the TX power of carrier CC<no>.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.14.3 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
value: CalculateStruct = driver.multiEval.pmonitor.current.calculate()
```

No command help available

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
value: ResultData = driver.multiEval.pmonitor.current.fetch()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:CURRent
value: ResultData = driver.multiEval.pmonitor.current.read()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

#### 6.2.14.4 Maximum

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
```

##### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
value: CalculateStruct = driver.multiEval.pmonitor.maximum.calculate()
```

No command help available

##### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
value: ResultData = driver.multiEval.pmonitor.maximum.fetch()
```

Returns the total TX power of all carriers.

##### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MAXimum
value: ResultData = driver.multiEval.pmonitor.maximum.read()
```

Returns the total TX power of all carriers.

##### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.14.5 Minimum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
```

#### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: No parameter help available
- Out\_Of\_Tolerance: int: No parameter help available
- Tx\_Power: float or bool: No parameter help available

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
value: CalculateStruct = driver.multiEval.pmonitor.minimum.calculate()
```

No command help available

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
value: ResultData = driver.multiEval.pmonitor.minimum.fetch()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:MINimum
value: ResultData = driver.multiEval.pmonitor.minimum.read()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.14.6 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:SDEViation
FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power measurements exceeding the specified power limits. Unit: %
- Tx\_Power: float: float Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:PMONitor:SDEViation
value: ResultData = driver.multiEval.pmonitor.standardDev.fetch()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:PMONitor:SDEViation
value: ResultData = driver.multiEval.pmonitor.standardDev.read()
```

Returns the total TX power of all carriers.

#### return

structure: for return value, see the help for ResultData structure arguments.

## 6.2.15 ReferenceMarker

#### class ReferenceMarkerCls

ReferenceMarker commands group definition. 6 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.referenceMarker.clone()
```

## Subgroups

### 6.2.15.1 EvMagnitude

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:EvMagnitude
```

#### class EvMagnitudeCls

EvMagnitude commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:EvMagnitude
value: float = driver.multiEval.referenceMarker.evMagnitude.fetch(xvalue = 1,
↪ trace_select = enums.TraceSelect.AVERage)
```

Uses the reference marker on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

#### param trace\_select

CURRent | AVERage | MAXimum

#### return

yvalue: float Absolute Y value of the marker position

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.referenceMarker.evMagnitude.clone()
```

## Subgroups

### 6.2.15.1.1 Peak

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:EvMagnitude:PEAK
```

#### class PeakCls

Peak commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:REFMarker:EVMagnitude:PEAK
value: float = driver.multiEval.referenceMarker.evMagnitude.peak.fetch(xvalue = 1,
↪ trace_select = enums.TraceSelect.AVERage)
```

Uses the reference marker on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**

CURRent | AVERage | MAXimum

**return**

yvalue: float Absolute Y value of the marker position

## 6.2.15.2 Merror

### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:REFMarker:MERRor
```

#### class MerrorCls

Merror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(xvalue: int, trace\_select: TraceSelect) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:REFMarker:MERRor
value: float = driver.multiEval.referenceMarker.merror.fetch(xvalue = 1, trace_
↪ select = enums.TraceSelect.AVERage)
```

Uses the reference marker on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param xvalue**

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

**param trace\_select**

CURRent | AVERage | MAXimum

**return**

yvalue: float Absolute Y value of the marker position

### 6.2.15.3 Podynamics

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PDYNamics
```

#### class PodynamicsCls

Pdynamics commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*xvalue: float, trace\_select: TraceSelect*) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PDYNamics
value: float = driver.multiEval.referenceMarker.pdynamics.fetch(xvalue = 1.0,
↪trace_select = enums.TraceSelect.AVERage)
```

Uses the reference marker on the power dynamics trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(float or boolean) integer Absolute X value of the marker position Range: -1100 μs to 2500 μs, Unit: μs

#### param trace\_select

CURRent | AVERage | MAXimum

#### return

yvalue: float Absolute Y value of the marker position Unit: dBm

### 6.2.15.4 Perror

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PERRor
```

#### class PerrorCls

Perror commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*xvalue: int, trace\_select: TraceSelect*) → float

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PERRor
value: float = driver.multiEval.referenceMarker.perror.fetch(xvalue = 1, trace_
↪select = enums.TraceSelect.AVERage)
```

Uses the reference marker on the bar graphs: EVM RMS, EVM peak, magnitude error and phase error vs SC-FDMA symbol.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(integer or boolean) integer Absolute X value of the marker position There are two X values per SC-FDMA symbol on the X axis (symbol 0 low, symbol 0 high, ..., symbol 6 low, symbol 6 high) . Range: 0 to 13

#### param trace\_select

CURRent | AVERage | MAXimum



**return**  
 yvalue: float Absolute Y value of the marker position

### 6.2.15.5 Pmonitor

#### class PmonitorCls

Pmonitor commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.referenceMarker.pmonitor.clone()
```

#### Subgroups

##### 6.2.15.5.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.referenceMarker.pmonitor.cc.repcap_carrierComponent_get()
driver.multiEval.referenceMarker.pmonitor.cc.repcap_carrierComponent_set(repcap.
↳CarrierComponent.Nr1)
```

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PMONitor:CC<Nr>
```

#### class CcCls

Cc commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

**fetch**(xvalue: int, carrierComponent=CarrierComponent.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:REFMarker:PMONitor:CC<Nr>
value: float = driver.multiEval.referenceMarker.pmonitor.cc.fetch(xvalue = 1,↳
↳carrierComponent = repcap.CarrierComponent.Default)
```

Uses the reference marker on the power monitor trace.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param xvalue

(integer or boolean) integer Absolute X value of the marker position (subframe number) Range: 0 to 319

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

yvalue: float Absolute Y value of the marker position Unit: dBm

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.referenceMarker.pmonitor.cc.clone()
```

## 6.2.16 SeMask

### class SeMaskCls

SeMask commands group definition. 20 total commands, 7 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.seMask.clone()
```

## Subgroups

### 6.2.16.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:AVERage
CALCulate:LTE:MEASurement<Instance>:MEvaluation:SEMask:AVERage
```

### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float or bool: float Occupied bandwidth Unit: Hz
- Tx\_Power: float or bool: float Total TX power in the slot over all component carriers Unit: dBm

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot over all component carriers Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEValuation:SEMask:AVERage
value: CalculateStruct = driver.multiEval.seMask.average.calculate()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:SEMask:AVERage
value: ResultData = driver.multiEval.seMask.average.fetch()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:SEMask:AVERage
value: ResultData = driver.multiEval.seMask.average.read()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.16.2 Current

### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:SEMask:CURRent
FETCh:LTE:MEASurement<Instance>:MEValuation:SEMask:CURRent
CALCulate:LTE:MEASurement<Instance>:MEValuation:SEMask:CURRent
```

### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float or bool: float Occupied bandwidth Unit: Hz

- Tx\_Power: float or bool: float Total TX power in the slot over all component carriers Unit: dBm

### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot over all component carriers Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:SEMask:CURRENT
value: CalculateStruct = driver.multiEval.seMask.current.calculate()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:CURRENT
value: ResultData = driver.multiEval.seMask.current.fetch()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:CURRENT
value: ResultData = driver.multiEval.seMask.current.read()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.2.16.3 Dallocation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:DALlocation
```

#### class DallocationCls

Dallocation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Nr\_Res\_Blocks: int: decimal Number of allocated resource blocks
- Offset\_Res\_Blocks: int: decimal Offset of the first allocated resource block from the edge of the allocated UL transmission bandwidth

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:DALlocation
value: FetchStruct = driver.multiEval.seMask.dallocation.fetch()
```

Returns the detected allocation for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.4 DchType

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:DCHType
```

#### class DchTypeCls

DchType commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → UplinkChannelType

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:DCHType
value: enums.UplinkChannelType = driver.multiEval.seMask.dchType.fetch()
```

Returns the uplink channel type for the measured slot. If the same slot is measured by the individual measurements, all commands yield the same result. If different statistic counts are defined for the modulation, ACLR and spectrum emission mask measurements, different slots can be measured and different results can be returned by the individual commands.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

channel\_type: PUSCh | PUCCh

### 6.2.16.5 Extreme

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
CALCulate:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
```

#### class ExtremeCls

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float or bool: float Occupied bandwidth Unit: Hz
- Tx\_Power\_Min: float or bool: float Minimum total TX power in the slot Unit: dBm
- Tx\_Power\_Max: float or bool: float Maximum total TX power in the slot Unit: dBm

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power\_Min: float: float Minimum total TX power in the slot Unit: dBm
- Tx\_Power\_Max: float: float Maximum total TX power in the slot Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
value: CalculateStruct = driver.multiEval.seMask.extreme.calculate()
```

Return the extreme single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
value: ResultData = driver.multiEval.seMask.extreme.fetch()
```

Return the extreme single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:EXTreme
value: ResultData = driver.multiEval.seMask.extreme.read()
```

Return the extreme single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.16.6 Margin

#### class MarginCls

Margin commands group definition. 7 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.seMask.margin.clone()
```

#### Subgroups

##### 6.2.16.6.1 All

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGIN:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Curr\_Neg: List[float]: No parameter help available
- Margin\_Curr\_Pos: List[float]: No parameter help available
- Margin\_Avg\_Neg: List[float]: No parameter help available
- Margin\_Avg\_Pos: List[float]: No parameter help available
- Margin\_Min\_Neg: List[float]: No parameter help available

- Margin\_Min\_Pos: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:ALL
value: FetchStruct = driver.multiEval.seMask.margin.all.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. Results are provided for the current, average and maximum traces. For each trace, 24 values related to the negative (Neg) and positive (Pos) offset frequencies of emission mask areas 1 to 12 are provided. For inactive areas, NCAP is returned.

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.2 Average

#### class AverageCls

Average commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.seMask.margin.average.clone()
```

#### Subgroups

### 6.2.16.6.2.1 Negativ

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:AVERage:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Avg\_Neg\_X: List[float]: No parameter help available
- Margin\_Avg\_Neg\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct



```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEValuation:SEMask:MARGin:AVERage:NEGativ
value: FetchStruct = driver.multiEval.seMask.margin.average.negative.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.2.2 Positiv

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:SEMask:MARGin:AVERage:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Avg\_Pos\_X: List[float]: No parameter help available
- Margin\_Avg\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>
↳:MEValuation:SEMask:MARGin:AVERage:POSitiv
value: FetchStruct = driver.multiEval.seMask.margin.average.positive.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.3 Current

#### class CurrentCls

Current commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.seMask.margin.current.clone()
```

#### Subgroups

### 6.2.16.6.3.1 Negativ

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRent:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Curr\_Neg\_X: List[float]: No parameter help available
- Margin\_Curr\_Neg\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGin:CURRent:NEGativ
value: FetchStruct = driver.multiEval.seMask.margin.current.negativ.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.3.2 Positiv

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:CURRent:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Curr\_Pos\_X: List[float]: No parameter help available
- Margin\_Curr\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGin:CURRent:POSitiv
value: FetchStruct = driver.multiEval.seMask.margin.current.positiv.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.4 Minimum

#### class MinimumCls

Minimum commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.seMask.margin.minimum.clone()
```

## Subgroups

### 6.2.16.6.4.1 Negativ

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:MINimum:NEGativ
```

#### class NegativCls

Negativ commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Min\_Neg\_X: List[float]: No parameter help available
- Margin\_Min\_Neg\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGin:MINimum:NEGativ
value: FetchStruct = driver.multiEval.seMask.margin.minimum.negativ.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERage and maximum traces (resulting in MINimum margins) . For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

#### return

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.6.4.2 Positiv

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:MARGin:MINimum:POSitiv
```

#### class PositivCls

Positiv commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'

- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Margin\_Min\_Pos\_X: List[float]: No parameter help available
- Margin\_Min\_Pos\_Y: List[float]: No parameter help available

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>
↪:MEvaluation:SEMask:MARGIN:MINimum:POSitiv
value: FetchStruct = driver.multiEval.seMask.margin.minimum.positiv.fetch()
```

Returns spectrum emission mask margin results. A negative margin indicates that the trace is located above the limit line, i.e. the limit is exceeded. The individual commands provide results for the CURRENT, AVERAGE and maximum traces (resulting in MINimum margins). For each trace, the X and Y values of the margins for emission mask areas 1 to 12 are provided for NEGative and POSitive offset frequencies. For inactive areas, NCAP is returned. Returned sequence: <Reliability>, <OutOfTolerance>, {<MarginX>, <MarginY>}area1, {...}area2, ..., {...}area12

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.16.7 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:SDEViation
FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:SDEViation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for spectrum emission measurements exceeding the specified spectrum emission mask limits. Unit: %
- Obw: float: float Occupied bandwidth Unit: Hz
- Tx\_Power: float: float Total TX power in the slot over all component carriers Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:SEMask:SDEViation
value: ResultData = driver.multiEval.seMask.standardDev.fetch()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:SEMask:SDEviation
value: ResultData = driver.multiEval.seMask.standardDev.read()
```

Return the current, average and standard deviation single-value results of the spectrum emission measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.17 State

**SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:STATe
```

**class StateCls**

State commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(*timeout: float = None, target\_main\_state: TargetMainState = None, target\_sync\_state: TargetSyncState = None*) → ResourceState

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:STATe
value: enums.ResourceState = driver.multiEval.state.fetch(timeout = 1.0, target_
↪main_state = enums.TargetMainState.OFF, target_sync_state = enums.
↪TargetSyncState.ADJusted)
```

Queries the main measurement state. Use FETCh:...:STATe:ALL? to query the measurement state including the substates. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**

No help available

**param target\_main\_state**

No help available

**param target\_sync\_state**

No help available

**return**

meas\_status: OFF | RUN | RDY OFF: measurement off, no resources allocated, no results RUN: measurement running, synchronization pending or adjusted, resources active or queued RDY: measurement terminated, valid results can be available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.state.clone()
```

## Subgroups

### 6.2.17.1 All

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:MEvaluation:STATe:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*timeout*: float = None, *target\_main\_state*: TargetMainState = None, *target\_sync\_state*: TargetSyncState = None) → List[ResourceState]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:STATe:ALL
value: List[enums.ResourceState] = driver.multiEval.state.all.fetch(timeout = 1.
↪0, target_main_state = enums.TargetMainState.OFF, target_sync_state = enums.
↪TargetSyncState.ADJusted)
```

Queries the main measurement state and the measurement substates. Both measurement substates are relevant for running measurements only. Use FETCH:...:STATe? to query the main measurement state only. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**

No help available

**param target\_main\_state**

No help available

**param target\_sync\_state**

No help available

**return**

state: No help available

### 6.2.18 Trace

#### class TraceCls

Trace commands group definition. 36 total commands, 10 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.clone()
```

## Subgroups

### 6.2.18.1 Aclr

#### class AclrCls

Aclr commands group definition. 4 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.aclr.clone()
```

## Subgroups

### 6.2.18.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:TRACe:ACLR:AVERage
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:ACLR:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Utra\_2\_Neg: float: float Power in the second UTRA channel with lower frequency Unit: dBm
- Utra\_1\_Neg: float: float Power in the first UTRA channel with lower frequency Unit: dBm
- Eutra\_Negativ: float: float Power in the first E-UTRA channel with lower frequency Unit: dBm
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float Power in the first E-UTRA channel with higher frequency Unit: dBm
- Utra\_1\_Pos: float: float Power in the first UTRA channel with higher frequency Unit: dBm
- Utra\_2\_Pos: float: float Power in the second UTRA channel with higher frequency Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:ACLR:AVERage
value: ResultData = driver.multiEval.trace.aclr.average.fetch()
```



Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ACLR:AVERage
value: ResultData = driver.multiEval.trace.aclr.average.read()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.2.18.1.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ACLR:CURRENT
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ACLR:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Utra\_2\_Neg: float: float Power in the second UTRA channel with lower frequency Unit: dBm
- Utra\_1\_Neg: float: float Power in the first UTRA channel with lower frequency Unit: dBm
- Eutra\_Negativ: float: float Power in the first E-UTRA channel with lower frequency Unit: dBm
- Eutra: float: float Power in the allocated E-UTRA channel Unit: dBm
- Eutra\_Positiv: float: float Power in the first E-UTRA channel with higher frequency Unit: dBm
- Utra\_1\_Pos: float: float Power in the first UTRA channel with higher frequency Unit: dBm
- Utra\_2\_Pos: float: float Power in the second UTRA channel with higher frequency Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ACLR:CURRENT
value: ResultData = driver.multiEval.trace.aclr.current.fetch()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ACLR:CURRent
value: ResultData = driver.multiEval.trace.aclr.current.read()
```

Returns the absolute powers as displayed in the ACLR diagram. The current and average values can be retrieved. See also ‘View Spectrum ACLR’.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.2.18.2 EsFlatness

### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness
```

#### class EsFlatnessCls

EsFlatness commands group definition. 4 total commands, 1 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness
value: List[float] = driver.multiEval.trace.esFlatness.fetch()
```

Returns the values of the equalizer spectrum flatness trace. See also ‘View Equalizer Spectrum Flatness’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float Comma-separated list of power values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: dB

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness
value: List[float] = driver.multiEval.trace.esFlatness.read()
```

Returns the values of the equalizer spectrum flatness trace. See also ‘View Equalizer Spectrum Flatness’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float Comma-separated list of power values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: dB

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.esFlatness.clone()
```

## Subgroups

### 6.2.18.2.1 Phase

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness:PHASe
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness:PHASe
```

#### class PhaseCls

Phase commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness:PHASe
value: List[float] = driver.multiEval.trace.esFlatness.phase.fetch()
```

Returns the phase values of the equalizer spectrum flatness trace. The GUI shows only the magnitude values.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

phase: float Comma-separated list of phase values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: deg

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:ESFlatness:PHASe
value: List[float] = driver.multiEval.trace.esFlatness.phase.read()
```

Returns the phase values of the equalizer spectrum flatness trace. The GUI shows only the magnitude values.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

phase: float Comma-separated list of phase values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: deg

### 6.2.18.3 Evmc

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:EVMC
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:EVMC
```

#### class EvmcCls

Evmc commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:EVMC
value: List[float] = driver.multiEval.trace.evmc.fetch()
```

Returns the values of the EVM vs subcarrier trace. See also ‘View EVM vs Subcarrier’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ratio: float Comma-separated list of EVM values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:EVMC
value: List[float] = driver.multiEval.trace.evmc.read()
```

Returns the values of the EVM vs subcarrier trace. See also ‘View EVM vs Subcarrier’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

ratio: float Comma-separated list of EVM values, one value per subcarrier For not allocated subcarriers, NCAP is returned. Unit: %

### 6.2.18.4 EvmSymbol

#### class EvmSymbolCls

EvmSymbol commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.evmSymbol.clone()
```

## Subgroups

### 6.2.18.4.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:AVERage
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:AVERage
value: List[float] = driver.multiEval.trace.evmSymbol.average.fetch()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:AVERage
value: List[float] = driver.multiEval.trace.evmSymbol.average.read()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

### 6.2.18.4.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:CURRent
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:CURRent
value: List[float] = driver.multiEval.trace.evmSymbol.current.fetch()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:CURRent
value: List[float] = driver.multiEval.trace.evmSymbol.current.read()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

### 6.2.18.4.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:MAXimum
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:MAXimum
value: List[float] = driver.multiEval.trace.evmSymbol.maximum.fetch()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:TRACe:EVMSymbol:MAXimum
value: List[float] = driver.multiEval.trace.evmSymbol.maximum.read()
```

Returns the values of the EVM vs modulation symbol trace. See also ‘View EVM’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

ratio: float Comma-separated list of EVM values, one value per modulation symbol  
Unit: %

### 6.2.18.5 Iemissions

#### class IemissionsCls

Iemissions commands group definition. 2 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.iemissions.clone()
```

#### Subgroups

##### 6.2.18.5.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.trace.iemissions.cc.repcap_carrierComponent_get()
driver.multiEval.trace.iemissions.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
↪Nr1)
```

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:IEmissions:CC<Nr>
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:IEmissions:CC<Nr>
```

#### class CcCls

Cc commands group definition. 2 total commands, 0 Subgroups, 2 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

**fetch**(carrierComponent=CarrierComponent.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:IEmissions:CC<Nr>
value: List[float] = driver.multiEval.trace.iemissions.cc.
↪fetch(carrierComponent = repcap.CarrierComponent.Default)
```

Returns the values of the inband emissions trace for carrier CC<no>. See also 'View Inband Emissions'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

#### return

power: float Comma-separated list of power values, one value per resource block Unit: dB

**read**(carrierComponent=CarrierComponent.Default) → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:IEmissions:CC<Nr>
value: List[float] = driver.multiEval.trace.iemissions.cc.read(carrierComponent.
↪= repcap.CarrierComponent.Default)
```

Returns the values of the inband emissions trace for carrier CC<no>. See also ‘View Inband Emissions’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

power: float Comma-separated list of power values, one value per resource block Unit: dB

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.iemissions.cc.clone()
```

### 6.2.18.6 Iq

**class IqCls**

Iq commands group definition. 2 total commands, 2 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.iq.clone()
```

## Subgroups

### 6.2.18.6.1 High

**SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:IQ:HIGH
```

**class HighCls**

High commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class FetchStruct**

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Iphase: List[float]: float Normalized I amplitude
- Qphase: List[float]: float Normalized Q amplitude

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:IQ:HIGH
value: FetchStruct = driver.multiEval.trace.iq.high.fetch()
```



Returns the results in the I/Q constellation diagram for low and high EVM window position. There is one pair of values per modulation symbol. The results are returned in the following order: <Reliability>, {<IPhase>, <QPhase>}symbol 1, ..., {<IPhase>, <QPhase>}symbol n See also ‘View I/Q Constellation’

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.18.6.2 Low

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:IQ:LOW
```

#### class LowCls

Low commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Iphase: List[float]: float Normalized I amplitude
- Qphase: List[float]: float Normalized Q amplitude

**fetch()** → FetchStruct

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:IQ:LOW
value: FetchStruct = driver.multiEval.trace.iq.low.fetch()
```

Returns the results in the I/Q constellation diagram for low and high EVM window position. There is one pair of values per modulation symbol. The results are returned in the following order: <Reliability>, {<IPhase>, <QPhase>}symbol 1, ..., {<IPhase>, <QPhase>}symbol n See also ‘View I/Q Constellation’

**return**

structure: for return value, see the help for FetchStruct structure arguments.

### 6.2.18.7 Podynamics

#### class PodynamicsCls

Podynamics commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.podynamics.clone()
```

## Subgroups

### 6.2.18.7.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
value: List[float] = driver.multiEval.trace.pdynamics.average.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s) . The diagram in the GUI shows only a subsection of this trace. Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:AVERage
value: List[float] = driver.multiEval.trace.pdynamics.average.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s) . The diagram in the GUI shows only a subsection of this trace. Unit: dBm

### 6.2.18.7.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:CURRent
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:CURRent
value: List[float] = driver.multiEval.trace.pdynamics.current.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s) . The diagram in the GUI shows only a subsection of this trace. Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:CURRent
value: List[float] = driver.multiEval.trace.pdynamics.current.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s) . The diagram in the GUI shows only a subsection of this trace. Unit: dBm

### 6.2.18.7.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:MAXimum
value: List[float] = driver.multiEval.trace.pdynamics.maximum.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s). The diagram in the GUI shows only a subsection of this trace. Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEValuation:TRACe:PDYNamics:MAXimum
value: List[float] = driver.multiEval.trace.pdynamics.maximum.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the measure subframe. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the ‘Measure Subframe’ (0  $\mu$ s). The diagram in the GUI shows only a subsection of this trace. Unit: dBm

## 6.2.18.8 Pmonitor

### class PmonitorCls

Pmonitor commands group definition. 2 total commands, 1 Subgroups, 0 group commands

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.pmonitor.clone()
```

## Subgroups

### 6.2.18.8.1 Cc<CarrierComponent>

#### RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.trace.pmonitor.cc.repcap_carrierComponent_get()
driver.multiEval.trace.pmonitor.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
↳Nr1)
```

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PMONitor:CC<Nr>
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PMONitor:CC<Nr>
```

#### class CcCls

Cc commands group definition. 2 total commands, 0 Subgroups, 2 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

**fetch**(carrierComponent=CarrierComponent.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:PMONitor:CC<Nr>
value: List[float] = driver.multiEval.trace.pmonitor.cc.fetch(carrierComponent.
↳repcap.CarrierComponent.Default)
```

Returns the power monitor results for all captured CC<no> subframes.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### return

power: float Comma-separated list of power values, one value per subframe Unit: dBm

**read**(carrierComponent=CarrierComponent.Default) → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:PMONitor:CC<Nr>
value: List[float] = driver.multiEval.trace.pmonitor.cc.read(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Returns the power monitor results for all captured CC<no> subframes.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

##### param carrierComponent

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Cc')

##### return

power: float Comma-separated list of power values, one value per subframe Unit: dBm

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.pmonitor.cc.clone()
```

### 6.2.18.9 RbaTable

#### class RbaTableCls

RbaTable commands group definition. 2 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.rbaTable.clone()
```

## Subgroups

### 6.2.18.9.1 Cc<CarrierComponent>

## RepCap Settings

```
# Range: Nr1 .. Nr4
rc = driver.multiEval.trace.rbaTable.cc.repcap_carrierComponent_get()
driver.multiEval.trace.rbaTable.cc.repcap_carrierComponent_set(repcap.CarrierComponent.
↪Nr1)
```

## SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:RBATable:CC<Nr>
FETCH:LTE:MEASurement<Instance>:MEvaluation:TRACe:RBATable:CC<Nr>
```

#### class CcCls

Cc commands group definition. 2 total commands, 0 Subgroups, 2 group commands Repeated Capability: CarrierComponent, default value after init: CarrierComponent.Nr1

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Channel\_Type: List[enums.RbTableChannelType]: PUSCh | PUCCh | NONE | DL | SSUB | PSSCh | PSCCh PUSCh / PUCCH: for UL slot with RB allocation PSSCh / PSCCh: for SL subframe with RB allocation NONE: UL slot or SL subframe contains no allocated RBs. DL: DL slot (only for TDD UL measurements) SSUB: part of special SF (only for TDD UL measurements)
- Offset\_Rb: List[int]: decimal Offset of first allocated RB for the given channel type
- No\_Rb: List[int]: decimal Number of allocated RBs for the given channel type

**fetch**(*carrierComponent*=*CarrierComponent.Default*) → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:MEvaluation:TRACe:RBATable:CC<Nr>
value: ResultData = driver.multiEval.trace.rbaTable.cc.fetch(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Returns the information of the CC<no> RB allocation table. See also ‘View RB Allocation Table’. For uplink measurements, there are three results per captured slot ( $n$  = number of captured subframes) : <Reliability>, {<ChannelType>, <OffsetRB>, <NoRB>}slot 1, ..., {...}slot ( $n*2$ ) For sidelink measurements, there are six results per captured subframe (SF), three for the PSCCH and three for the PSSCH: <Reliability>, {...}SF 1 (PSCCH), {...}SF 1 (PSSCH), ..., {...}SF  $n$  (PSCCH), {...}SF  $n$  (PSSCH)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(*carrierComponent*=*CarrierComponent.Default*) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:RBATable:CC<Nr>
value: ResultData = driver.multiEval.trace.rbaTable.cc.read(carrierComponent =
↳repcap.CarrierComponent.Default)
```

Returns the information of the CC<no> RB allocation table. See also ‘View RB Allocation Table’. For uplink measurements, there are three results per captured slot ( $n$  = number of captured subframes) : <Reliability>, {<ChannelType>, <OffsetRB>, <NoRB>}slot 1, ..., {...}slot ( $n*2$ ) For sidelink measurements, there are six results per captured subframe (SF), three for the PSCCH and three for the PSSCH: <Reliability>, {...}SF 1 (PSCCH), {...}SF 1 (PSSCH), ..., {...}SF  $n$  (PSCCH), {...}SF  $n$  (PSSCH)

**param carrierComponent**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Cc’)

**return**

structure: for return value, see the help for ResultData structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.rbaTable.cc.clone()
```

### 6.2.18.10 SeMask

#### class SeMaskCls

SeMask commands group definition. 6 total commands, 1 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.seMask.clone()
```

## Subgroups

### 6.2.18.10.1 Rbw<RBWkHz>

#### RepCap Settings

```
# Range: Rbw30 .. Rbw1000
rc = driver.multiEval.trace.seMask.rbw.repcap_rBWkHz_get()
driver.multiEval.trace.seMask.rbw.repcap_rBWkHz_set(repcap.RBWkHz.Rbw30)
```

#### class RbwCls

Rbw commands group definition. 6 total commands, 3 Subgroups, 0 group commands Repeated Capability: RBWkHz, default value after init: RBWkHz.Rbw30

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.multiEval.trace.seMask.rbw.clone()
```

## Subgroups

### 6.2.18.10.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:AVERage
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*rBWkHz=RBWkHz.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↪:AVERage
value: List[float] = driver.multiEval.trace.seMask.rbw.average.fetch(rBWkHz = ↪
↪repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also ‘View Spectrum Emission Mask’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.



**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

**read**(*rBWkHz*=*RBWkHz.Default*) → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:AVERage
value: List[float] = driver.multiEval.trace.seMask.rbw.average.read(rBWkHz =
↳repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'View Spectrum Emission Mask'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

## 6.2.18.10.1.2 Current

### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:CURRent
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:CURRent
```

**class CurrentCls**

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(*rBWkHz*=*RBWkHz.Default*) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳:CURRent
value: List[float] = driver.multiEval.trace.seMask.rbw.current.fetch(rBWkHz =
↳repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'View Spectrum Emission Mask'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

**read**(rBWkHz=RBWkHz.Default) → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:CURRent
value: List[float] = driver.multiEval.trace.seMask.rbw.current.read(rBWkHz =
↳repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'View Spectrum Emission Mask'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

**6.2.18.10.1.3 Maximum****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:MAXimum
FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:MAXimum
```

**class MaximumCls**

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch**(rBWkHz=RBWkHz.Default) → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>
↳:MAXimum
value: List[float] = driver.multiEval.trace.seMask.rbw.maximum.fetch(rBWkHz =
↳repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'View Spectrum Emission Mask'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

**read**(rBWkHz=RBWkHz.Default) → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:MEvaluation:TRACe:SEMask:RBW<kHz>:MAXimum
value: List[float] = driver.multiEval.trace.seMask.rbw.maximum.read(rBWkHz =
↳repcap.RBWkHz.Default)
```

Returns the values of the spectrum emission traces. Separate traces are available for the individual resolution bandwidths (<kHz>). The results of the current, average and maximum traces can be retrieved. See also 'View Spectrum Emission Mask'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param rBWkHz**

optional repeated capability selector. Default value: Rbw30 (settable in the interface 'Rbw')

**return**

power: float Comma-separated list of power results The value in the middle of the result array corresponds to the center frequency. The test point separation between two results depends on the resolution bandwidth, see table below. For RBW100 and greater, results are only available for frequencies with active limits using these RBWs. For other frequencies, INV is returned. Unit: dBm

## 6.2.19 VfThroughput

### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:MEvaluation:VFTHroughput
```

### class VfThroughputCls

VfThroughput commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**() → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:MEvaluation:VFTHroughput
value: float = driver.multiEval.vfThroughput.fetch()
```

Queries the 'View Filter Throughput'.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

vf\_throughput: float Unit: %

## 6.3 Prach

### SCPI Commands :

```
INITiate:LTE:MEASurement<Instance>:PRACH
STOP:LTE:MEASurement<Instance>:PRACH
ABORt:LTE:MEASurement<Instance>:PRACH
```

#### class PrachCls

Prach commands group definition. 80 total commands, 5 Subgroups, 3 group commands

**abort**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: ABORt:LTE:MEASurement<Instance>:PRACH
driver.prach.abort()

INTRO_CMD_HELP: Starts, stops, or aborts the measurement:

- INITiate... starts or restarts the measurement. The measurement enters
↳ the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY
↳ ' state. Measurement results are kept. The resources remain allocated to the
↳ measurement.
- ABORt... halts the measurement immediately. The measurement enters the
↳ 'OFF' state. All measurement values are set to NAV. Allocated resources are
↳ released.
```

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**initiate**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: INITiate:LTE:MEASurement<Instance>:PRACH
driver.prach.initiate()

INTRO_CMD_HELP: Starts, stops, or aborts the measurement:

- INITiate... starts or restarts the measurement. The measurement enters
↳ the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY
↳ ' state. Measurement results are kept. The resources remain allocated to the
↳ measurement.
- ABORt... halts the measurement immediately. The measurement enters the
↳ 'OFF' state. All measurement values are set to NAV. Allocated resources are
↳ released.
```

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**stop()** → None

```
# SCPI: STOP:LTE:MEASurement<Instance>:PRACH
driver.prach.stop()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY' state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the 'OFF' state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

**stop\_with\_opc**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: STOP:LTE:MEASurement<Instance>:PRACH
driver.prach.stop_with_opc()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY' state. Measurement results are kept. The resources remain allocated to the measurement.
- ABORT... halts the measurement immediately. The measurement enters the 'OFF' state. All measurement values are **set** to NAV. Allocated resources are released.

Use FETCh...STATe? to query the current measurement state.

Same as stop, but waits for the operation to complete before continuing further. Use the RsCmwLteMeas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.clone()
```

## Subgroups

### 6.3.1 EvmSymbol

#### class EvmSymbolCls

EvmSymbol commands group definition. 12 total commands, 4 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.evmSymbol.clone()
```

## Subgroups

### 6.3.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
value: ResultData = driver.prach.evmSymbol.average.fetch()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:AVERage
value: ResultData = driver.prach.evmSymbol.average.read()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.1.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:CURRENT
FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:CURRENT
value: ResultData = driver.prach.evmsymbol.current.fetch()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:CURRENT
value: ResultData = driver.prach.evmsymbol.current.read()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.1.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
FETCh:LTE:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
value: ResultData = driver.prach.evmsymbol.maximum.fetch()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:MAXimum
value: ResultData = driver.prach.evmsymbol.maximum.read()
```

Returns the values of the EVM RMS bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.



### 6.3.1.4 Peak

#### class PeakCls

Peak commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.evmSymbol.peak.clone()
```

#### Subgroups

##### 6.3.1.4.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
value: ResultData = driver.prach.evmSymbol.peak.average.fetch()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:AVERage
value: ResultData = driver.prach.evmSymbol.peak.average.read()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

<High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.3.1.4.2 Current

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMsymbol:PEAK:CURRent
FETCh:LTE:MEASurement<Instance>:PRACH:EVMsymbol:PEAK:CURRent
```

##### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:EVMsymbol:PEAK:CURRent
value: ResultData = driver.prach.evmSymbol.peak.current.fetch()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMsymbol:PEAK:CURRent
value: ResultData = driver.prach.evmSymbol.peak.current.read()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also ‘View EVM vs Symbol’.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.1.4.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:MAXimum
FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Low: List[float]: float EVM value for low EVM window position. Unit: %
- High: List[float]: float EVM value for high EVM window position. Unit: %

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:MAXimum
value: ResultData = driver.prach.evmsymbol.peak.maximum.fetch()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:EVMSymbol:PEAK:MAXimum
value: ResultData = driver.prach.evmsymbol.peak.maximum.read()
```

Returns the values of the EVM peak bar graphs for the OFDM symbols in the measured preamble. The results of the current, average and maximum bar graphs can be retrieved. There is one pair of EVM values per OFDM symbol, returned in the following order: <Reliability>, {<Low>, <High>}symbol 0, {<Low>, <High>}symbol 1 If the preamble contains only one symbol, NCAPs are returned for the remaining symbol. See also 'View EVM vs Symbol'.

#### return

structure: for return value, see the help for ResultData structure arguments.

## 6.3.2 Modulation

### class ModulationCls

Modulation commands group definition. 20 total commands, 9 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.clone()
```

### Subgroups

#### 6.3.2.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:MODulation:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:AVERage
CALCulate:LTE:MEASurement<Instance>:PRACH:MODulation:AVERage
```

### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position. Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position. Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position. Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position. Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position. Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position. Unit: %
- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position. Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position. Unit: deg

- **Ph\_Error\_Peak\_Low**: float or bool: float Phase error peak value, low EVM window position. Unit: deg
- **Ph\_Error\_Peak\_High**: float or bool: float Phase error peak value, high EVM window position. Unit: deg
- **Frequency\_Error**: float or bool: float Carrier frequency error. Unit: Hz
- **Timing\_Error**: float or bool: float Transmit time error. Unit: Ts (basic LTE time unit)
- **Tx\_Power**: float or bool: float User equipment power. Unit: dBm
- **Peak\_Power**: float or bool: float User equipment peak power. Unit: dBm

#### class ResultData

Response structure. Fields:

- **Reliability**: int: decimal 'Reliability indicator'
- **Out\_Of\_Tolerance**: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- **Evm\_Rms\_Low**: float: float EVM RMS value, low EVM window position. Unit: %
- **Evm\_Rms\_High**: float: float EVM RMS value, high EVM window position. Unit: %
- **Evm\_Peak\_Low**: float: float EVM peak value, low EVM window position. Unit: %
- **Evm\_Peak\_High**: float: float EVM peak value, high EVM window position. Unit: %
- **Mag\_Error\_Rms\_Low**: float: float Magnitude error RMS value, low EVM window position. Unit: %
- **Mag\_Error\_Rms\_High**: float: float Magnitude error RMS value, low EVM window position. Unit: %
- **Mag\_Error\_Peak\_Low**: float: float Magnitude error peak value, low EVM window position. Unit: %
- **Mag\_Err\_Peak\_High**: float: float Magnitude error peak value, high EVM window position. Unit: %
- **Ph\_Error\_Rms\_Low**: float: float Phase error RMS value, low EVM window position. Unit: deg
- **Ph\_Error\_Rms\_High**: float: float Phase error RMS value, high EVM window position. Unit: deg
- **Ph\_Error\_Peak\_Low**: float: float Phase error peak value, low EVM window position. Unit: deg
- **Ph\_Error\_Peak\_High**: float: float Phase error peak value, high EVM window position. Unit: deg
- **Frequency\_Error**: float: float Carrier frequency error. Unit: Hz
- **Timing\_Error**: float: float Transmit time error. Unit: Ts (basic LTE time unit)
- **Tx\_Power**: float: float User equipment power. Unit: dBm
- **Peak\_Power**: float: float User equipment peak power. Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRCh:MODulation:AVERage
value: CalculateStruct = driver.prach.modulation.average.calculate()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:MODulation:AVERage
value: ResultData = driver.prach.modulation.average.fetch()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRCh:MODulation:AVERage
value: ResultData = driver.prach.modulation.average.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.2.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRCh:MODulation:CURRent
FETCh:LTE:MEASurement<Instance>:PRCh:MODulation:CURRent
CALCulate:LTE:MEASurement<Instance>:PRCh:MODulation:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position. Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position. Unit: %
- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position. Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position. Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position. Unit: %

- **Mag\_Err\_Peak\_High:** float or bool: float Magnitude error peak value, high EVM window position. Unit: %
- **Ph\_Error\_Rms\_Low:** float or bool: float Phase error RMS value, low EVM window position. Unit: deg
- **Ph\_Error\_Rms\_High:** float or bool: float Phase error RMS value, high EVM window position. Unit: deg
- **Ph\_Error\_Peak\_Low:** float or bool: float Phase error peak value, low EVM window position. Unit: deg
- **Ph\_Error\_Peak\_High:** float or bool: float Phase error peak value, high EVM window position. Unit: deg
- **Frequency\_Error:** float or bool: float Carrier frequency error. Unit: Hz
- **Timing\_Error:** float or bool: float Transmit time error. Unit: Ts (basic LTE time unit)
- **Tx\_Power:** float or bool: float User equipment power. Unit: dBm
- **Peak\_Power:** float or bool: float User equipment peak power. Unit: dBm

#### **class ResultData**

Response structure. Fields:

- **Reliability:** int: decimal 'Reliability indicator'
- **Out\_Of\_Tolerance:** int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- **Evm\_Rms\_Low:** float: float EVM RMS value, low EVM window position. Unit: %
- **Evm\_Rms\_High:** float: float EVM RMS value, high EVM window position. Unit: %
- **Evm\_Peak\_Low:** float: float EVM peak value, low EVM window position. Unit: %
- **Evm\_Peak\_High:** float: float EVM peak value, high EVM window position. Unit: %
- **Mag\_Error\_Rms\_Low:** float: float Magnitude error RMS value, low EVM window position. Unit: %
- **Mag\_Error\_Rms\_High:** float: float Magnitude error RMS value, low EVM window position. Unit: %
- **Mag\_Error\_Peak\_Low:** float: float Magnitude error peak value, low EVM window position. Unit: %
- **Mag\_Err\_Peak\_High:** float: float Magnitude error peak value, high EVM window position. Unit: %
- **Ph\_Error\_Rms\_Low:** float: float Phase error RMS value, low EVM window position. Unit: deg
- **Ph\_Error\_Rms\_High:** float: float Phase error RMS value, high EVM window position. Unit: deg
- **Ph\_Error\_Peak\_Low:** float: float Phase error peak value, low EVM window position. Unit: deg
- **Ph\_Error\_Peak\_High:** float: float Phase error peak value, high EVM window position. Unit: deg
- **Frequency\_Error:** float: float Carrier frequency error. Unit: Hz
- **Timing\_Error:** float: float Transmit time error. Unit: Ts (basic LTE time unit)
- **Tx\_Power:** float: float User equipment power. Unit: dBm
- **Peak\_Power:** float: float User equipment peak power. Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:MODulation:CURRENT
value: CalculateStruct = driver.prach.modulation.current.calculate()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:CURRent
value: ResultData = driver.prach.modulation.current.fetch()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:MODulation:CURRent
value: ResultData = driver.prach.modulation.current.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.2.3 DpfOffset

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:DPFOffset
```

#### class DpfOffsetCls

DpfOffset commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:DPFOffset
value: int = driver.prach.modulation.dpfOffset.fetch()
```

Returns the automatically detected or manually configured PRACH frequency offset for single-preamble measurements.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

prach\_freq\_offset: decimal PRACH frequency offset



## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.dpfOffset.clone()
```

## Subgroups

### 6.3.2.3.1 Preamble<Preamble>

## RepCap Settings

```
# Range: Nr1 .. Nr400
rc = driver.prach.modulation.dpfOffset.preamble.repcap_preamble_get()
driver.prach.modulation.dpfOffset.preamble.repcap_preamble_set(repcap.Preamble.Nr1)
```

## SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:DPFoffset:PREamble<Number>
```

### class PreambleCls

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(preamble=Preamble.Default) → int

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:DPFoffset:PREamble
↳<Number>
value: int = driver.prach.modulation.dpfOffset.preamble.fetch(preamble = repcap.
↳Preamble.Default)
```

Returns the automatically detected or manually configured PRACH frequency offset for a selected preamble of multi-preamble measurements.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### param preamble

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

#### return

prach\_freq\_offset: decimal PRACH frequency offset

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.dpfOffset.preamble.clone()
```

### 6.3.2.4 DsIndex

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:DSIndex
```

#### class DsIndexCls

DsIndex commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:DSIndex
value: int = driver.prach.modulation.dsIndex.fetch()
```

Returns the automatically detected or manually configured sequence index for single-preamble measurements.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
sequence\_index: decimal Sequence index

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.dsIndex.clone()
```

## Subgroups

### 6.3.2.4.1 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr400
rc = driver.prach.modulation.dsIndex.preamble.repcap_preamble_get()
driver.prach.modulation.dsIndex.preamble.repcap_preamble_set(repcap.Preamble.Nr1)
```

**SCPI Command :**

```
FETCh:LTE:MEASurement<Instance>:PRCh:MODulation:DSINdex:PREamble<Number>
```

**class PreambleCls**

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(*preamble=Preamble.Default*) → int

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:MODulation:DSINdex:PREamble
↪<Number>
value: int = driver.prach.modulation.dsIndex.preamble.fetch(preamble = repcap.
↪Preamble.Default)
```

Returns the automatically detected or manually configured sequence index for a selected preamble of multi-preamble measurements.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

**return**

sequence\_index: decimal Sequence index

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.dsIndex.preamble.clone()
```

**6.3.2.5 Extreme****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:PRCh:MODulation:EXTreme
FETCh:LTE:MEASurement<Instance>:PRCh:MODulation:EXTreme
CALCulate:LTE:MEASurement<Instance>:PRCh:MODulation:EXTreme
```

**class ExtremeCls**

Extreme commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float or bool: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float or bool: float EVM RMS value, high EVM window position Unit: %

- Evm\_Peak\_Low: float or bool: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float or bool: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float or bool: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float or bool: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float or bool: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float or bool: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float or bool: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float or bool: float Phase error peak value, low EVM window position Unit: deg
- Ph\_Error\_Peak\_High: float or bool: float Phase error peak value, high EVM window position Unit: deg
- Frequency\_Error: float or bool: float Carrier frequency error Unit: Hz
- Timing\_Error: float or bool: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power\_Minimum: float or bool: float Minimum user equipment power Unit: dBm
- Tx\_Power\_Maximum: float or bool: float Maximum user equipment power Unit: dBm
- Peak\_Power\_Min: float or bool: float Minimum user equipment peak power Unit: dBm
- Peak\_Power\_Max: float or bool: float Maximum user equipment peak power Unit: dBm

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position Unit: deg

- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position Unit: deg
- Frequency\_Error: float: float Carrier frequency error Unit: Hz
- Timing\_Error: float: float Time error Unit: Ts (basic LTE time unit)
- Tx\_Power\_Minimum: float: float Minimum user equipment power Unit: dBm
- Tx\_Power\_Maximum: float: float Maximum user equipment power Unit: dBm
- Peak\_Power\_Min: float: float Minimum user equipment peak power Unit: dBm
- Peak\_Power\_Max: float: float Maximum user equipment peak power Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:MODulation:EXTreme
value: CalculateStruct = driver.prach.modulation.extreme.calculate()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:EXTreme
value: ResultData = driver.prach.modulation.extreme.fetch()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:MODulation:EXTreme
value: ResultData = driver.prach.modulation.extreme.read()
```

Returns the extreme single value results. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.2.6 Nsymbol

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:NSYMBOL
```

#### class NsymbolCls

Nsymbol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch()** → int

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:NSYMBOL
value: int = driver.prach.modulation.nsymbol.fetch()
```

Queries the number of active OFDM symbols (symbols with result bars) in the EVM vs symbol bar graph.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

```
return
    no_of_symbols: decimal
```

### 6.3.2.7 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr400
rc = driver.prach.modulation.preamble.repcap_preamble_get()
driver.prach.modulation.preamble.repcap_preamble_set(repcap.Preamble.Nr1)
```

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
```

#### class PreambleCls

Preamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Preamble\_Rel: int: decimal Reliability indicator for the preamble.
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position. Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position. Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position. Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position. Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position. Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position. Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position. Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position. Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position. Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position. Unit: deg

- Frequency\_Error: float: float Carrier frequency error. Unit: Hz
- Timing\_Error: float: float Transmit time error. Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power. Unit: dBm
- Peak\_Power: float: float User equipment peak power. Unit: dBm

**fetch**(preamble=Preamble.Default) → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
value: ResultData = driver.prach.modulation.preamble.fetch(preamble = repcap.
↳Preamble.Default)
```

Return the single value results of the ‘EVM vs Preamble’ and ‘Power vs Preamble’ views, for a selected preamble. See also ‘View EVM vs Preamble, Power vs Preamble’.

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Preamble’)

**return**

structure: for return value, see the help for ResultData structure arguments.

**read**(preamble=Preamble.Default) → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:MODulation:PREamble<Number>
value: ResultData = driver.prach.modulation.preamble.read(preamble = repcap.
↳Preamble.Default)
```

Return the single value results of the ‘EVM vs Preamble’ and ‘Power vs Preamble’ views, for a selected preamble. See also ‘View EVM vs Preamble, Power vs Preamble’.

**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface ‘Preamble’)

**return**

structure: for return value, see the help for ResultData structure arguments.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.preamble.clone()
```

### 6.3.2.8 Scorrrelation

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:SCORrelation
```

#### class ScorrrelationCls

Scorrrelation commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch()** → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:SCORrelation
value: float = driver.prach.modulation.scorrelation.fetch()
```

Returns the sequence correlation for single-preamble measurements. It indicates the correlation between the ideal preamble sequence determined from the parameter settings and the measured preamble sequence. A value of 1 corresponds to perfect correlation. A value much smaller than 1 indicates that the preamble sequence was not found.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
seq\_correlation: float Sequence correlation

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.scorrelation.clone()
```

## Subgroups

### 6.3.2.8.1 Preamble<Preamble>

#### RepCap Settings

```
# Range: Nr1 .. Nr400
rc = driver.prach.modulation.scorrelation.preamble.repcap_preamble_get()
driver.prach.modulation.scorrelation.preamble.repcap_preamble_set(repcap.Preamble.Nr1)
```

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:SCORrelation:PREamble<Number>
```

#### class PreambleCls

Preamble commands group definition. 1 total commands, 0 Subgroups, 1 group commands Repeated Capability: Preamble, default value after init: Preamble.Nr1

**fetch**(preamble=Preamble.Default) → float

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:MODulation:SCORrelation:PREamble
↪<Number>
value: float = driver.prach.modulation.scorrelation.preamble.fetch(preamble = ↪
↪repcap.Preamble.Default)
```

Returns the sequence correlation for a selected preamble of multi-preamble measurements. It indicates the correlation between the ideal preamble sequence determined from the parameter settings and the measured preamble sequence. A value of 1 corresponds to perfect correlation. A value much smaller than 1 indicates that the preamble sequence was not found.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.



**param preamble**

optional repeated capability selector. Default value: Nr1 (settable in the interface 'Preamble')

**return**

seq\_correlation: float Sequence correlation

**Cloning the Group**

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.modulation.scorrelation.preamble.clone()
```

**6.3.2.9 StandardDev****SCPI Commands :**

```
READ:LTE:MEASurement<Instance>:PRACH:MODulation:SDEviation
FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:SDEviation
```

**class StandardDevCls**

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for modulation measurements exceeding the specified modulation limits. Unit: %
- Evm\_Rms\_Low: float: float EVM RMS value, low EVM window position. Unit: %
- Evm\_Rms\_High: float: float EVM RMS value, high EVM window position. Unit: %
- Evm\_Peak\_Low: float: float EVM peak value, low EVM window position. Unit: %
- Evm\_Peak\_High: float: float EVM peak value, high EVM window position. Unit: %
- Mag\_Error\_Rms\_Low: float: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Rms\_High: float: float Magnitude error RMS value, low EVM window position. Unit: %
- Mag\_Error\_Peak\_Low: float: float Magnitude error peak value, low EVM window position. Unit: %
- Mag\_Err\_Peak\_High: float: float Magnitude error peak value, high EVM window position. Unit: %
- Ph\_Error\_Rms\_Low: float: float Phase error RMS value, low EVM window position. Unit: deg
- Ph\_Error\_Rms\_High: float: float Phase error RMS value, high EVM window position. Unit: deg
- Ph\_Error\_Peak\_Low: float: float Phase error peak value, low EVM window position. Unit: deg
- Ph\_Error\_Peak\_High: float: float Phase error peak value, high EVM window position. Unit: deg
- Frequency\_Error: float: float Carrier frequency error. Unit: Hz
- Timing\_Error: float: float Transmit time error. Unit: Ts (basic LTE time unit)
- Tx\_Power: float: float User equipment power. Unit: dBm
- Peak\_Power: float: float User equipment peak power. Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:MODulation:SDEviation
value: ResultData = driver.prach.modulation.standardDev.fetch()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:MODulation:SDEviation
value: ResultData = driver.prach.modulation.standardDev.read()
```

Return the current, average and standard deviation single-value results. The values described below are returned by FETCH and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.3 Podynamics

**class PodynamicsCls**

Podynamics commands group definition. 14 total commands, 5 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.podynamics.clone()
```

#### Subgroups

##### 6.3.3.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
FETCH:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
```

**class AverageCls**

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

**class CalculateStruct**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'

- **Out\_Of\_Tolerance**: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- **Off\_Power\_Before**: float or bool: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- **On\_Power\_Rms**: float or bool: float ON power mean value over preamble Unit: dBm
- **On\_Power\_Peak**: float or bool: float ON power peak value within preamble Unit: dBm
- **Off\_Power\_After**: float or bool: float OFF power mean value for subframe after preamble without transient period Unit: dBm

#### **class ResultData**

Response structure. Fields:

- **Reliability**: int: decimal ‘Reliability indicator’
- **Out\_Of\_Tolerance**: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- **Off\_Power\_Before**: float: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- **On\_Power\_Rms**: float: float ON power mean value over preamble Unit: dBm
- **On\_Power\_Peak**: float: float ON power peak value within preamble Unit: dBm
- **Off\_Power\_After**: float: float OFF power mean value for subframe after preamble without transient period Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
value: CalculateStruct = driver.prach.pdynamics.average.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### **return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
value: ResultData = driver.prach.pdynamics.average.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### **return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:AVERage
value: ResultData = driver.prach.pdynamics.average.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.3.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float or bool: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float or bool: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float or bool: float OFF power mean value for subframe after preamble without transient period Unit: dBm

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after preamble without transient period Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
value: CalculateStruct = driver.prach.pdynamics.current.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
value: ResultData = driver.prach.pdynamics.current.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:CURRent
value: ResultData = driver.prach.pdynamics.current.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.3.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float or bool: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float or bool: float ON power peak value within preamble Unit: dBm

- Off\_Power\_After: float or bool: float OFF power mean value for subframe after preamble without transient period Unit: dBm

### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after preamble without transient period Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
value: CalculateStruct = driver.prach.pdynamics.maximum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
value: ResultData = driver.prach.pdynamics.maximum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:MAXimum
value: ResultData = driver.prach.pdynamics.maximum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

### 6.3.3.4 Minimum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:MINimum
FETCh:LTE:MEASurement<Instance>:PRACH:PDYNamics:MINimum
CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:MINimum
```

#### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.  
Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float or bool: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float or bool: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float or bool: float OFF power mean value for subframe after preamble without transient period Unit: dBm

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.  
Unit: %
- Off\_Power\_Before: float: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after preamble without transient period Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:PRACH:PDYNamics:MINimum
value: CalculateStruct = driver.prach.pdynamics.minimum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:PDYNamics:MINimum
value: ResultData = driver.prach.pdynamics.minimum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. Calculate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRCh:PDYNamics:MINimum
value: ResultData = driver.prach.pdynamics.minimum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. Calculate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.3.3.5 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRCh:PDYNamics:SDEviation
FETCh:LTE:MEASurement<Instance>:PRCh:PDYNamics:SDEviation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for subframe before preamble without transient period Unit: dBm
- On\_Power\_Rms: float: float ON power mean value over preamble Unit: dBm
- On\_Power\_Peak: float: float ON power peak value within preamble Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after preamble without transient period Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:PDYNamics:SDEviation
value: ResultData = driver.prach.pdynamics.standardDev.fetch()
```



Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:PDYNamics:SDEviation
value: ResultData = driver.prach.pdynamics.standardDev.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.3.4 State

### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:PRACH:STATE
```

#### class StateCls

State commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(*timeout*: float = None, *target\_main\_state*: TargetMainState = None, *target\_sync\_state*: TargetSyncState = None) → ResourceState

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:STATE
value: enums.ResourceState = driver.prach.state.fetch(timeout = 1.0, target_
↪main_state = enums.TargetMainState.OFF, target_sync_state = enums.
↪TargetSyncState.ADJusted)
```

Queries the main measurement state. Use FETCh:...:STATE:ALL? to query the measurement state including the substates. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**

No help available

**param target\_main\_state**

No help available

**param target\_sync\_state**

No help available

**return**

meas\_status: OFF | RUN | RDY OFF: measurement off, no resources allocated, no results RUN: measurement running, synchronization pending or adjusted, resources active or queued RDY: measurement terminated, valid results can be available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.state.clone()
```

## Subgroups

### 6.3.4.1 All

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:PRACH:STATE:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*timeout: float = None, target\_main\_state: TargetMainState = None, target\_sync\_state: TargetSyncState = None*) → List[ResourceState]

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:STATE:ALL
value: List[enums.ResourceState] = driver.prach.state.all.fetch(timeout = 1.0,
↳ target_main_state = enums.TargetMainState.OFF, target_sync_state = enums.
↳ TargetSyncState.ADJusted)
```

Queries the main measurement state and the measurement substates. Both measurement substates are relevant for running measurements only. Use FETCH:...:STATE? to query the main measurement state only. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**

No help available

**param target\_main\_state**

No help available

**param target\_sync\_state**

No help available

**return**

state: No help available

## 6.3.5 Trace

#### class TraceCls

Trace commands group definition. 29 total commands, 7 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.trace.clone()
```

## Subgroups

### 6.3.5.1 Evm

**class EvmCls**

Evm commands group definition. 6 total commands, 3 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.trace.evm.clone()
```

## Subgroups

### 6.3.5.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
```

**class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
value: List[float] = driver.prach.trace.evm.average.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3:  
839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:AVERage
value: List[float] = driver.prach.trace.evm.average.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.1.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:CURRent
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:CURRent
value: List[float] = driver.prach.trace.evm.current.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:CURRent
value: List[float] = driver.prach.trace.evm.current.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.1.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:MAXimum
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:MAXimum
value: List[float] = driver.prach.trace.evm.maximum.fetch()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVM:MAXimum
value: List[float] = driver.prach.trace.evm.maximum.read()
```

Return the values of the EVM vs subcarrier traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.2 EvPreamble

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVPreable
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVPreable
```

#### class EvPreambleCls

EvPreamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:EVPreable
value: List[float] = driver.prach.trace.evPreamble.fetch()
```

Return the values of the EVM vs preamble traces. See also ‘View EVM vs Preamble, Power vs Preamble’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 results: float 32 EVM values, for preamble 1 to 32 (NCAP for not measured preambles)  
 Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:EVPreamble
value: List[float] = driver.prach.trace.evPreamble.read()
```

Return the values of the EVM vs preamble traces. See also ‘View EVM vs Preamble, Power vs Preamble’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 results: float 32 EVM values, for preamble 1 to 32 (NCAP for not measured preambles)  
 Unit: %

### 6.3.5.3 Iq

#### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:PRACH:TRACe:IQ
```

#### class IqCls

Iq commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class FetchStruct

Response structure. Fields:

- Reliability: int: decimal ‘Reliability indicator’
- Iphase: List[float]: float Normalized I amplitude
- Qphase: List[float]: float Normalized Q amplitude

**fetch()** → FetchStruct

```
# SCPI: FETCH:LTE:MEASurement<Instance>:PRACH:TRACe:IQ
value: FetchStruct = driver.prach.trace.iq.fetch()
```

Returns the results in the I/Q constellation diagram. There is one pair of values per modulation symbol. For preamble format 4, there are 139 symbols. For preamble format 0 to 3, there are 839 symbols. The results are returned in the following order: <Reliability>, {<Iphase>, <Qphase>}symbol 1, ..., {<Iphase>, <Qphase>}symbol n See also ‘View I/Q Constellation’.

**return**  
 structure: for return value, see the help for FetchStruct structure arguments.

### 6.3.5.4 Merror

#### class MerrorCls

Merror commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.trace.merror.clone()
```

#### Subgroups

##### 6.3.5.4.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
value: List[float] = driver.prach.trace.merror.average.fetch()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:AVERage
value: List[float] = driver.prach.trace.merror.average.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.4.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:CURRent
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:CURRent
value: List[float] = driver.prach.trace.merror.current.fetch()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:CURRent
value: List[float] = driver.prach.trace.merror.current.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.4.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:MAXimum
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:MAXimum
value: List[float] = driver.prach.trace.merror.maximum.fetch()
```



Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:MERRor:MAXimum
value: List[float] = driver.prach.trace.merror.maximum.read()
```

Return the values of the magnitude error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: %

### 6.3.5.5 Pdynamics

#### class PdynamicsCls

Pdynamics commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.trace.pdynamics.clone()
```

### Subgroups

#### 6.3.5.5.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:AVERage
value: List[float] = driver.prach.trace.pdynamics.average.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:AVERage
value: List[float] = driver.prach.trace.pdynamics.average.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

### 6.3.5.5.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:CURRENT
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:CURRENT
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:CURRENT
value: List[float] = driver.prach.trace.pdynamics.current.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:CURRENT
value: List[float] = driver.prach.trace.pdynamics.current.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

### 6.3.5.5.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
value: List[float] = driver.prach.trace.pdynamics.maximum.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PDYNamics:MAXimum
value: List[float] = driver.prach.trace.pdynamics.maximum.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. See also ‘View Power Dynamics’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the preamble. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the preamble (0  $\mu$ s) . Unit: dBm

### 6.3.5.6 Perror

#### class PerrorCls

Error commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.prach.trace.perror.clone()
```

#### Subgroups

##### 6.3.5.6.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
```

#### class AverageCls

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
value: List[float] = driver.prach.trace.perror.average.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PERRor:AVERage
value: List[float] = driver.prach.trace.perror.average.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

### 6.3.5.6.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
FETCh:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
value: List[float] = driver.prach.trace.perror.current.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:CURRent
value: List[float] = driver.prach.trace.perror.current.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

#### return

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

### 6.3.5.6.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
FETCh:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRCh:TRACe:PERRor:MAXimum
value: List[float] = driver.prach.trace.perror.maximum.fetch()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PERRor:MAXimum
value: List[float] = driver.prach.trace.perror.maximum.read()
```

Return the values of the phase error traces. Each value is averaged over the samples in one preamble subcarrier. The results of the current, average and maximum traces can be retrieved. See also ‘View EVM, Magnitude Error, Phase Error’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float The number of results depends on the preamble format. Format 0 to 3: 839 EVM values, format 4: 139 EVM values Unit: deg

### 6.3.5.7 PvPreamble

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:PRACH:TRACe:PVPreamble
FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PVPreamble
```

#### class PvPreambleCls

PvPreamble commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:PRACH:TRACe:PVPreamble
value: List[float] = driver.prach.trace.pvPreamble.fetch()
```

Return the values of the power vs preamble traces. See also ‘View EVM vs Preamble, Power vs Preamble’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

results: float 32 power values, for preamble 1 to 32 (NCAP for not measured preambles)  
Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:PRACH:TRACe:PVPreamble
value: List[float] = driver.prach.trace.pvPreamble.read()
```

Return the values of the power vs preamble traces. See also ‘View EVM vs Preamble, Power vs Preamble’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**  
 results: float 32 power values, for preamble 1 to 32 (NCAP for not measured preambles)  
 Unit: dBm

## 6.4 Route

### SCPI Command :

```
ROUTE:LTE:MEASurement<Instance>
```

#### class RouteCls

Route commands group definition. 5 total commands, 1 Subgroups, 1 group commands

#### class ValueStruct

Structure for reading output parameters. Fields:

- Scenario: enums.Scenario: SALone | CSPATH | MAPRotocol SALone: Standalone (non-signaling)  
CSPATH: Combined signal path MAPRotocol: Measure at protocol test
- Controller: str: string Controlling application for scenario CSPATH or MAPRotocol
- Rx\_Connector: enums.RxConnector: RF connector for the input path
- Rf\_Converter: enums.RxConverter: RX module for the input path

**get\_value()** → ValueStruct

```
# SCPI: ROUTE:LTE:MEASurement<Instance>
value: ValueStruct = driver.route.get_value()
```

Returns the configured routing settings. For possible connector and converter values, see ‘Values for RF path selection’.

**return**  
 structure: for return value, see the help for ValueStruct structure arguments.

### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.route.clone()
```

### Subgroups

#### 6.4.1 Scenario

### SCPI Command :

```
ROUTE:LTE:MEASurement<Instance>:SCENario
```

#### class ScenarioCls

Scenario commands group definition. 4 total commands, 3 Subgroups, 1 group commands

**get\_value()** → Scenario

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario
value: enums.Scenario = driver.route.scenario.get_value()
```

Returns the active scenario.

**return**

scenario: SALone | CSPath | MAPRotocol SALone: Standalone (non-signaling)  
CSPath: Combined signal path MAPRotocol: Measure at protocol test

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.route.scenario.clone()
```

## Subgroups

### 6.4.1.1 CombinedSignalPath

**SCPI Command :**

```
ROUTE:LTE:MEASurement<Instance>:SCENario:CSPath
```

**class CombinedSignalPathCls**

CombinedSignalPath commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**class GetStruct**

Response structure. Fields:

- Master: str: string Controlling application Example: 'LTE Sig1' or 'LTE Sig2'
- Carrier: str: string Uplink carrier or set of uplink carriers configured in the controlling application Examples: 'PCC', 'SCC2', 'Set A', 'Set B' If a set is selected, a query returns the carrier of the set that is used by the measurement to select the RF path.
- Set\_Py: str: string Measured set of uplink carriers Example: 'Set A', 'Set B' Only returned for intra-band contiguous UL CA.

**get()** → GetStruct

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario:CSPath
value: GetStruct = driver.route.scenario.combinedSignalPath.get()
```

Activates the combined signal path scenario and selects the controlling application and primary carrier. The selected application controls most signal routing settings, analyzer settings and some measurement control settings while the combined signal path scenario is active. The command usage depends on the carrier aggregation mode of the measured signal: no UL carrier aggregation, non-contiguous UL carrier aggregation or intraband contiguous UL carrier aggregation. The following table provides an overview.

Table Header: CA type / Setting command / Query returns

- No UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller> <Carrier> can be skipped and equals 'PCC'. / <Controller>, 'PCC'



- Non-contiguous UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller>, <Carrier> <Carrier>: measured carrier ('PCC', 'SCC2', ...) / <Controller>, <Carrier>
- Intraband contiguous UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller>, <Carrier> <Carrier>: set of carriers ('Set A', 'Set B', ...) / <Controller>, <Carrier>, <Set> <Carrier>: carrier selecting RF path ('PCC', 'SCC2', ...) <Set>: measured set of carriers ('Set A', 'Set B', ...)

**return**

structure: for return value, see the help for GetStruct structure arguments.

**set**(master: str, carrier: str = None) → None

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario:CSPath
driver.route.scenario.combinedSignalPath.set(master = 'abc', carrier = 'abc')
```

Activates the combined signal path scenario and selects the controlling application and primary carrier. The selected application controls most signal routing settings, analyzer settings and some measurement control settings while the combined signal path scenario is active. The command usage depends on the carrier aggregation mode of the measured signal: no UL carrier aggregation, non-contiguous UL carrier aggregation or intraband contiguous UL carrier aggregation. The following table provides an overview.

Table Header: CA type / Setting command / Query returns

- No UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller> <Carrier> can be skipped and equals 'PCC'. / <Controller>, 'PCC'
- Non-contiguous UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller>, <Carrier> <Carrier>: measured carrier ('PCC', 'SCC2', ...) / <Controller>, <Carrier>
- Intraband contiguous UL CA / ROUT:LTE:MEAS:SCEN:CSP <Controller>, <Carrier> <Carrier>: set of carriers ('Set A', 'Set B', ...) / <Controller>, <Carrier>, <Set> <Carrier>: carrier selecting RF path ('PCC', 'SCC2', ...) <Set>: measured set of carriers ('Set A', 'Set B', ...)

**param master**

No help available

**param carrier**

string Uplink carrier or set of uplink carriers configured in the controlling application  
Examples: 'PCC', 'SCC2', 'Set A', 'Set B' If a set is selected, a query returns the carrier of the set that is used by the measurement to select the RF path.

### 6.4.1.2 MaProtocol

#### SCPI Command :

```
ROUTe:LTE:MEASurement<Instance>:SCENario:MAProtocol
```

#### class MaProtocolCls

MaProtocol commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**set**(controler: str = None) → None

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario:MAProtocol
driver.route.scenario.maProtocol.set(controler = 'abc')
```

Activates the [Measure@ProtocolTest](#) scenario and optionally selects the controlling protocol test application. The signal routing and analyzer settings are ignored by the measurement application. Configure the corresponding settings within the protocol test application used in parallel.

**param controller**

string Protocol test application Example: 'Protocol Test1'

### 6.4.1.3 Salone

#### SCPI Command :

```
ROUTE:LTE:MEASurement<Instance>:SCENario:SALone
```

#### class SaloneCls

Salone commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class SaloneStruct

Response structure. Fields:

- Rx\_Connector: enums.RxConnector: RF connector for the input path
- Rf\_Converter: enums.RxConverter: RX module for the input path

**get()** → SaloneStruct

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario:SALone
value: SaloneStruct = driver.route.scenario.salone.get()
```

Activates the standalone scenario and selects the RF input path for the measured RF signal. For possible connector and converter values, see 'Values for RF path selection'.

**return**

structure: for return value, see the help for SaloneStruct structure arguments.

**set(rx\_connector: RxConnector, rf\_converter: RxConverter)** → None

```
# SCPI: ROUTe:LTE:MEASurement<Instance>:SCENario:SALone
driver.route.scenario.salone.set(rx_connector = enums.RxConnector.I11I, rf_
↪converter = enums.RxConverter.IRX1)
```

Activates the standalone scenario and selects the RF input path for the measured RF signal. For possible connector and converter values, see 'Values for RF path selection'.

**param rx\_connector**

RF connector for the input path

**param rf\_converter**

RX module for the input path

## 6.5 Sense

### class SenseCls

Sense commands group definition. 2 total commands, 2 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.clone()
```

### Subgroups

#### 6.5.1 CarrierAggregation

##### SCPI Command :

```
SENSe:LTE:MEASurement<Instance>:CAGGregation:FShWare
```

### class CarrierAggregationCls

CarrierAggregation commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_fshware()** → bool

```
# SCPI: SENSe:LTE:MEASurement<Instance>:CAGGregation:FShWare
value: bool = driver.sense.carrierAggregation.get_fshware()
```

This command is only relevant for combined signal path measurements in multi-CMW setups. It queries whether the measurement instance and the carrier to be measured are in the same CMW. If they are in different CMWs, the measurement fails. To correct the problem, use another measurement instance or select another carrier, so that both are in the same CMW.

##### return

value: OFF | ON OFF: Different CMWs - error ON: Same CMW - ok

#### 6.5.2 MultiEval

### class MultiEvalCls

MultiEval commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.multiEval.clone()
```

## Subgroups

### 6.5.2.1 Spectrum

#### class SpectrumCls

Spectrum commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.multiEval.spectrum.clone()
```

## Subgroups

### 6.5.2.1.1 SeMask

#### class SeMaskCls

SeMask commands group definition. 1 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.sense.multiEval.spectrum.seMask.clone()
```

## Subgroups

### 6.5.2.1.1.1 Rbw

#### SCPI Command :

```
SENSe:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:SEMask:RBW:USED
```

#### class RbwCls

Rbw commands group definition. 1 total commands, 0 Subgroups, 1 group commands

#### class UsedStruct

Structure for reading output parameters. Fields:

- Trace\_1: int: decimal RBW for trace 1 (smallest RBW) Unit: kHz
- Trace\_2: int: decimal RBW for trace 2 (intermediate RBW) Unit: kHz
- Trace\_3: int: decimal RBW for trace 3 (largest RBW) Unit: kHz

**get\_used()** → UsedStruct

```
# SCPI: SENSe:LTE:MEASurement<Instance>:MEvaluation:SPECTrum:SEMask:RBW:USED
value: UsedStruct = driver.sense.multiEval.spectrum.seMask.rbw.get_used()
```

Queries the resolution bandwidths (RBW) allowed for spectrum emission measurements. The RBWs depend on the channel bandwidth and on the network signaled value.

**return**

structure: for return value, see the help for UsedStruct structure arguments.

## 6.6 Srs

### SCPI Commands :

```
INITiate:LTE:MEASurement<Instance>:SRS
STOP:LTE:MEASurement<Instance>:SRS
ABORt:LTE:MEASurement<Instance>:SRS
```

#### class SrsCls

Srs commands group definition. 25 total commands, 3 Subgroups, 3 group commands

**abort**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: ABORt:LTE:MEASurement<Instance>:SRS
driver.srs.abort()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters **↳** the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY **↳** ' state. Measurement results are kept. The resources remain allocated to the **↳** measurement.
- ABORt... halts the measurement immediately. The measurement enters the **↳** 'OFF' state. All measurement values are **set** to NAV. Allocated resources are **↳** released.

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**initiate**(opc\_timeout\_ms: int = -1) → None

```
# SCPI: INITiate:LTE:MEASurement<Instance>:SRS
driver.srs.initiate()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters **↳** the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY **↳** ' state. Measurement results are kept. The resources remain allocated to the **↳** measurement.
- ABORt... halts the measurement immediately. The measurement enters the

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↪ 'OFF' state. All measurement values are **set** to NAV. Allocated resources are ↪  
 ↪ released.

Use FETCh...STATe? to query the current measurement state.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

**stop()** → None

```
# SCPI: STOP:LTE:MEASurement<Instance>:SRS
driver.srs.stop()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters ↪  
 ↪ the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY ↪  
 ↪' state. Measurement results are kept. The resources remain allocated to the ↪  
 ↪ measurement.
- ABORT... halts the measurement immediately. The measurement enters the ↪  
 ↪ 'OFF' state. All measurement values are **set** to NAV. Allocated resources are ↪  
 ↪ released.

Use FETCh...STATe? to query the current measurement state.

**stop\_with\_opc(opc\_timeout\_ms: int = -1)** → None

```
# SCPI: STOP:LTE:MEASurement<Instance>:SRS
driver.srs.stop_with_opc()
```

INTRO\_CMD\_HELP: Starts, stops, **or** aborts the measurement:

- INITiate... starts **or** restarts the measurement. The measurement enters ↪  
 ↪ the 'RUN' state.
- STOP... halts the measurement immediately. The measurement enters the 'RDY ↪  
 ↪' state. Measurement results are kept. The resources remain allocated to the ↪  
 ↪ measurement.
- ABORT... halts the measurement immediately. The measurement enters the ↪  
 ↪ 'OFF' state. All measurement values are **set** to NAV. Allocated resources are ↪  
 ↪ released.

Use FETCh...STATe? to query the current measurement state.

Same as stop, but waits for the operation to complete before continuing further. Use the RsCmwLte-Meas.utilities.opc\_timeout\_set() to set the timeout value.

**param opc\_timeout\_ms**

Maximum time to wait in milliseconds, valid only for this call.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.srs.clone()
```

## Subgroups

### 6.6.1 Podynamics

#### class PodynamicsCls

Podynamics commands group definition. 14 total commands, 5 Subgroups, 0 group commands

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.srs.podynamics.clone()
```

## Subgroups

### 6.6.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:PDYNamics:AVERage
FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:AVERage
CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:AVERage
```

#### class AverageCls

Average commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float or bool: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float or bool: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float or bool: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float or bool: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm

- Off\_Power\_After: float or bool: float OFF power mean value for subframe after SRS symbol Unit: dBm

### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after SRS symbol Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:SRS:PDYnamics:AVERage
value: CalculateStruct = driver.srs.pdynamics.average.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:PDYnamics:AVERage
value: ResultData = driver.srs.pdynamics.average.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:PDYnamics:AVERage
value: ResultData = driver.srs.pdynamics.average.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

#### return

structure: for return value, see the help for ResultData structure arguments.



### 6.6.1.2 Current

#### SCPI Commands :

```

READ:LTE:MEASurement<Instance>:SRS:PDYnAmics:CURRent
FETCh:LTE:MEASurement<Instance>:SRS:PDYnAmics:CURRent
CALCulate:LTE:MEASurement<Instance>:SRS:PDYnAmics:CURRent

```

#### class CurrentCls

Current commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.  
Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for time period before SRS symbol  
Unit: dBm
- On\_Power\_Rms\_1: float or bool: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float or bool: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float or bool: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float or bool: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float or bool: float OFF power mean value for subframe after SRS symbol Unit: dBm

#### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.  
Unit: %
- Off\_Power\_Before: float: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after SRS symbol Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:CURRent
value: CalculateStruct = driver.srs.pdynamics.current.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:CURRent
value: ResultData = driver.srs.pdynamics.current.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:PDYNamics:CURRent
value: ResultData = driver.srs.pdynamics.current.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.6.1.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

#### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits.  
Unit: %

- **Off\_Power\_Before:** float or bool: float OFF power mean value for time period before SRS symbol Unit: dBm
- **On\_Power\_Rms\_1:** float or bool: float ON power mean value over the first SRS symbol Unit: dBm
- **On\_Power\_Peak\_1:** float or bool: float ON power peak value for the first SRS symbol Unit: dBm
- **On\_Power\_Rms\_2:** float or bool: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- **On\_Power\_Peak\_2:** float or bool: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- **Off\_Power\_After:** float or bool: float OFF power mean value for subframe after SRS symbol Unit: dBm

#### **class ResultData**

Response structure. Fields:

- **Reliability:** int: decimal ‘Reliability indicator’
- **Out\_Of\_Tolerance:** int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- **Off\_Power\_Before:** float: float OFF power mean value for time period before SRS symbol Unit: dBm
- **On\_Power\_Rms\_1:** float: float ON power mean value over the first SRS symbol Unit: dBm
- **On\_Power\_Peak\_1:** float: float ON power peak value for the first SRS symbol Unit: dBm
- **On\_Power\_Rms\_2:** float: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- **On\_Power\_Peak\_2:** float: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- **Off\_Power\_After:** float: float OFF power mean value for subframe after SRS symbol Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
value: CalculateStruct = driver.srs.pdynamics.maximum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CAL- Culate commands return limit check results instead, one value for each result listed below.

#### **return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
value: ResultData = driver.srs.pdynamics.maximum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CAL- Culate commands return limit check results instead, one value for each result listed below.

#### **return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:PDYNamics:MAXimum
value: ResultData = driver.srs.pdynamics.maximum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CALCulate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

#### 6.6.1.4 Minimum

##### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
```

##### class MinimumCls

Minimum commands group definition. 3 total commands, 0 Subgroups, 3 group commands

##### class CalculateStruct

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float or bool: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float or bool: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float or bool: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float or bool: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float or bool: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float or bool: float OFF power mean value for subframe after SRS symbol Unit: dBm

##### class ResultData

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float: float ON power mean value over the first SRS symbol Unit: dBm

- On\_Power\_Peak\_1: float: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after SRS symbol Unit: dBm

**calculate()** → CalculateStruct

```
# SCPI: CALCulate:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
value: CalculateStruct = driver.srs.pdynamics.minimum.calculate()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CAL-  
Culate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for CalculateStruct structure arguments.

**fetch()** → ResultData

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
value: ResultData = driver.srs.pdynamics.minimum.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CAL-  
Culate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:PDYNamics:MINimum
value: ResultData = driver.srs.pdynamics.minimum.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. CAL-  
Culate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

### 6.6.1.5 StandardDev

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:PDYNamics:SDEVIation
FETCh:LTE:MEASurement<Instance>:SRS:PDYNamics:SDEVIation
```

#### class StandardDevCls

StandardDev commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**class ResultData**

Response structure. Fields:

- Reliability: int: decimal 'Reliability indicator'
- Out\_Of\_Tolerance: int: decimal Out of tolerance result, i.e. percentage of measurement intervals of the statistic count for power dynamics measurements exceeding the specified power dynamics limits. Unit: %
- Off\_Power\_Before: float: float OFF power mean value for time period before SRS symbol Unit: dBm
- On\_Power\_Rms\_1: float: float ON power mean value over the first SRS symbol Unit: dBm
- On\_Power\_Peak\_1: float: float ON power peak value for the first SRS symbol Unit: dBm
- On\_Power\_Rms\_2: float: float ON power mean value over the second SRS symbol (NCAP returned for FDD) Unit: dBm
- On\_Power\_Peak\_2: float: float ON power peak value for the second SRS symbol (NCAP returned for FDD) Unit: dBm
- Off\_Power\_After: float: float OFF power mean value for subframe after SRS symbol Unit: dBm

**fetch()** → ResultData

```
# SCPI: FETCH:LTE:MEASurement<Instance>:SRS:PDYNamics:SDEVIation
value: ResultData = driver.srs.pdynamics.standardDev.fetch()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. Calculate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

**read()** → ResultData

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:PDYNamics:SDEVIation
value: ResultData = driver.srs.pdynamics.standardDev.read()
```

Return the current, average, minimum, maximum and standard deviation single-value results of the power dynamics measurement. The values described below are returned by FETCh and READ commands. Calculate commands return limit check results instead, one value for each result listed below.

**return**

structure: for return value, see the help for ResultData structure arguments.

## 6.6.2 State

### SCPI Command :

```
FETCH:LTE:MEASurement<Instance>:SRS:STATe
```

**class StateCls**

State commands group definition. 2 total commands, 1 Subgroups, 1 group commands

**fetch**(*timeout*: float = None, *target\_main\_state*: TargetMainState = None, *target\_sync\_state*: TargetSyncState = None) → ResourceState

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:STATe
value: enums.ResourceState = driver.srs.state.fetch(timeout = 1.0, target_main_
↪state = enums.TargetMainState.OFF, target_sync_state = enums.TargetSyncState.
↪ADJusted)
```

Queries the main measurement state. Use FETCh:...:STATe:ALL? to query the measurement state including the substates. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**

No help available

**param target\_main\_state**

No help available

**param target\_sync\_state**

No help available

**return**

meas\_status: OFF | RUN | RDY OFF: measurement off, no resources allocated, no results RUN: measurement running, synchronization pending or adjusted, resources active or queued RDY: measurement terminated, valid results can be available

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.srs.state.clone()
```

## Subgroups

### 6.6.2.1 All

#### SCPI Command :

```
FETCh:LTE:MEASurement<Instance>:SRS:STATe:ALL
```

#### class AllCls

All commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**fetch**(*timeout*: float = None, *target\_main\_state*: TargetMainState = None, *target\_sync\_state*: TargetSyncState = None) → List[ResourceState]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:STATe:ALL
value: List[enums.ResourceState] = driver.srs.state.all.fetch(timeout = 1.0, ↪
↪target_main_state = enums.TargetMainState.OFF, target_sync_state = enums.
↪TargetSyncState.ADJusted)
```

Queries the main measurement state and the measurement substates. Both measurement substates are relevant for running measurements only. Use FETCh:...:STATe? to query the main measurement state only. Use INITiate..., STOP..., ABORT... to change the measurement state.

**param timeout**  
No help available

**param target\_main\_state**  
No help available

**param target\_sync\_state**  
No help available

**return**  
state: No help available

### 6.6.3 Trace

#### **class TraceCls**

Trace commands group definition. 6 total commands, 1 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.srs.trace.clone()
```

#### Subgroups

##### 6.6.3.1 Pdynamics

#### **class PdynamicsCls**

Pdynamics commands group definition. 6 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.srs.trace.pdynamics.clone()
```

#### Subgroups

##### 6.6.3.1.1 Average

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:AVERage
FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:AVERage
```

#### **class AverageCls**

Average commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]



```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:AVERage
value: List[float] = driver.srs.trace.pdynamics.average.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:AVERage
value: List[float] = driver.srs.trace.pdynamics.average.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

### 6.6.3.1.2 Current

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:CURREnt
FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:CURREnt
```

#### class CurrentCls

Current commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:CURREnt
value: List[float] = driver.srs.trace.pdynamics.current.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start

of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:CURRent
value: List[float] = driver.srs.trace.pdynamics.current.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

### 6.6.3.1.3 Maximum

#### SCPI Commands :

```
READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:MAXimum
FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:MAXimum
```

#### class MaximumCls

Maximum commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**fetch()** → List[float]

```
# SCPI: FETCh:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:MAXimum
value: List[float] = driver.srs.trace.pdynamics.maximum.fetch()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use RsCmwLteMeas.reliability.last\_value to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

**read()** → List[float]

```
# SCPI: READ:LTE:MEASurement<Instance>:SRS:TRACe:PDYNamics:MAXimum
value: List[float] = driver.srs.trace.pdynamics.maximum.read()
```

Return the values of the power dynamics traces. Each value is sampled with 48 Ts, corresponding to 1.5625  $\mu$ s. The results of the current, average and maximum traces can be retrieved. Note that the GUI shows only the beginning of the trace returned via remote command. The last 800  $\mu$ s cannot be displayed at the GUI. See also ‘Measurement results’.

Use `RsCmwLteMeas.reliability.last_value` to read the updated reliability indicator.

**return**

power: float 2048 power values, from -1100  $\mu$ s to +2098.4375  $\mu$ s relative to the start of the SRS symbol. The values have a spacing of 1.5625  $\mu$ s. The 705th value is at the start of the SRS symbol (0  $\mu$ s) . Unit: dBm

## 6.7 Trigger

### class TriggerCls

Trigger commands group definition. 23 total commands, 3 Subgroups, 0 group commands

#### Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.clone()
```

#### Subgroups

### 6.7.1 MultiEval

#### SCPI Commands :

```
TRIGger:LTE:MEASurement<Instance>:MEvaluation:SOURce
TRIGger:LTE:MEASurement<Instance>:MEvaluation:THReshold
TRIGger:LTE:MEASurement<Instance>:MEvaluation:SLOPe
TRIGger:LTE:MEASurement<Instance>:MEvaluation:DELay
TRIGger:LTE:MEASurement<Instance>:MEvaluation:TOUT
TRIGger:LTE:MEASurement<Instance>:MEvaluation:MGAP
TRIGger:LTE:MEASurement<Instance>:MEvaluation:SMODE
TRIGger:LTE:MEASurement<Instance>:MEvaluation:AMODE
```

### class MultiEvalCls

MultiEval commands group definition. 11 total commands, 2 Subgroups, 8 group commands

`get_amode()` → `MevAcquisitionMode`

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:AMODE
value: enums.MevAcquisitionMode = driver.trigger.multiEval.get_amode()
```

Selects whether the measurement synchronizes to a slot boundary or to a subframe boundary. The parameter is relevant for 'Free Run (Fast Sync) ' and for list mode measurements with 'Synchronization Mode' = 'Enhanced'.

**return**

acquisition\_mode: `SLOT` | `SUBFrame`

`get_delay()` → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:DELay
value: float = driver.trigger.multiEval.get_delay()
```

Defines a time delaying the start of the measurement relative to the trigger event. This setting has no influence on free run measurements.

**return**

delay: numeric Range: -250E-6 s to 250E-6 s, Unit: s

**get\_mgap()** → int

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:MGAP
value: int = driver.trigger.multiEval.get_mgap()
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**return**

min\_trig\_gap: integer Range: 0 slots to 20 slots, Unit: slots

**get\_slope()** → SignalSlope

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SLOPe
value: enums.SignalSlope = driver.trigger.multiEval.get_slope()
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**return**

slope: REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge

**get\_smode()** → SyncMode

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SMODE
value: enums.SyncMode = driver.trigger.multiEval.get_smode()
```

Selects the size of the search window for synchronization - normal or enhanced.

**return**

sync\_mode: NORMal | ENHanced

**get\_source()** → str

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SOURce
value: str = driver.trigger.multiEval.get_source()
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

**return**

source: string 'Free Run (Fast Sync)' 'Free run with synchronization' 'Free Run (No Sync)' 'Free run without synchronization' 'IF Power' Power trigger (received RF power)

**get\_threshold()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:THReshold
value: float or bool = driver.trigger.multiEval.get_threshold()
```

Defines the trigger threshold for power trigger sources.

**return**

trig\_threshold: (float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale, i.e. relative to reference level minus external attenuation)

**get\_timeout()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:TOUT
value: float or bool = driver.trigger.multiEval.get_timeout()
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on 'Free Run' measurements.

**return**

trigger\_timeout: (float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s, Unit: s ON | OFF enables or disables the timeout.

**set\_amode(acquisition\_mode: MevAcquisitionMode)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:AMODE
driver.trigger.multiEval.set_amode(acquisition_mode = enums.MevAcquisitionMode.
↳ SLOT)
```

Selects whether the measurement synchronizes to a slot boundary or to a subframe boundary. The parameter is relevant for 'Free Run (Fast Sync)' and for list mode measurements with 'Synchronization Mode' = 'Enhanced'.

**param acquisition\_mode**

SLOT | SUBFrame

**set\_delay(delay: float)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:DElay
driver.trigger.multiEval.set_delay(delay = 1.0)
```

Defines a time delaying the start of the measurement relative to the trigger event. This setting has no influence on free run measurements.

**param delay**

numeric Range: -250E-6 s to 250E-6 s, Unit: s

**set\_mgap(min\_trig\_gap: int)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:MGAP
driver.trigger.multiEval.set_mgap(min_trig_gap = 1)
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**param min\_trig\_gap**

integer Range: 0 slots to 20 slots, Unit: slots

**set\_slope(slope: SignalSlope)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SLOPe
driver.trigger.multiEval.set_slope(slope = enums.SignalSlope.FEDGe)
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**param slope**

REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge

**set\_smode**(*sync\_mode: SyncMode*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SMODE
driver.trigger.multiEval.set_smode(sync_mode = enums.SyncMode.ENHanced)
```

Selects the size of the search window for synchronization - normal or enhanced.

**param sync\_mode**

NORMal | ENHanced

**set\_source**(*source: str*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:SOURce
driver.trigger.multiEval.set_source(source = 'abc')
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

**param source**

string ‘Free Run (Fast Sync) ‘ Free run with synchronization ‘Free Run (No Sync) ‘  
Free run without synchronization ‘IF Power’ Power trigger (received RF power)

**set\_threshold**(*trig\_threshold: float*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:THReshold
driver.trigger.multiEval.set_threshold(trig_threshold = 1.0)
```

Defines the trigger threshold for power trigger sources.

**param trig\_threshold**

(float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale, i.e. relative to reference level minus external attenuation)

**set\_timeout**(*trigger\_timeout: float*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:TOUT
driver.trigger.multiEval.set_timeout(trigger_timeout = 1.0)
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on ‘Free Run’ measurements.

**param trigger\_timeout**

(float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s, Unit: s ON | OFF  
enables or disables the timeout.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.multiEval.clone()
```

## Subgroups

### 6.7.1.1 Catalog

#### SCPI Command :

```
TRIGger:LTE:MEASurement<Instance>:MEvaluation:CATalog:SOURce
```

#### class CatalogCls

Catalog commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_source()** → List[str]

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:CATalog:SOURce
value: List[str] = driver.trigger.multiEval.catalog.get_source()
```

Lists all trigger source values that can be set using method RsCmwLteMeas.Trigger.MultiEval.source.

#### return

source\_list: string Comma-separated list of all supported values. Each value is represented as a string.

### 6.7.1.2 ListPy

#### SCPI Commands :

```
TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:MODE
TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:NBANDwidth
```

#### class ListPyCls

ListPy commands group definition. 2 total commands, 0 Subgroups, 2 group commands

**get\_mode()** → ListMode

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:MODE
value: enums.ListMode = driver.trigger.multiEval.listPy.get_mode()
```

Specifies the trigger mode for list mode measurements. For configuration of retrigger flags, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set. For configuration of the global trigger source, see method RsCmwLteMeas.Trigger.MultiEval.source.

#### return

mode: ONCE | SEGMENT ONCE A trigger event is only required to start the measurement. The entire range of segments to be measured is captured without additional trigger event. The global trigger source is used. SEGMENT The retrigger flag of each segment is evaluated. It defines whether a trigger event is required and which trigger source is used.

**get\_nbandwidth()** → Nbandwidth

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:NBAndwidth
value: enums.Nbandwidth = driver.trigger.multiEval.listPy.get_nbandwidth()
```

Selects the trigger evaluation bandwidth for the retrigger source IFPNarrowband. Select the retrigger source via method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set.

**return**

bandwidth: M010 | M020 | M040 | M080 Evaluation bandwidth 10 MHz to 80 MHz

**set\_mode(mode: ListMode)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:MODE
driver.trigger.multiEval.listPy.set_mode(mode = enums.ListMode.ONCE)
```

Specifies the trigger mode for list mode measurements. For configuration of retrigger flags, see method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set. For configuration of the global trigger source, see method RsCmwLteMeas.Trigger.MultiEval.source.

**param mode**

ONCE | SEGment ONCE A trigger event is only required to start the measurement. The entire range of segments to be measured is captured without additional trigger event. The global trigger source is used. SEGment The retrigger flag of each segment is evaluated. It defines whether a trigger event is required and which trigger source is used.

**set\_nbandwidth(bandwidth: Nbandwidth)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:MEvaluation:LIST:NBAndwidth
driver.trigger.multiEval.listPy.set_nbandwidth(bandwidth = enums.Nbandwidth.
↳ M010)
```

Selects the trigger evaluation bandwidth for the retrigger source IFPNarrowband. Select the retrigger source via method RsCmwLteMeas.Configure.MultiEval.ListPy.Segment.Setup.set.

**param bandwidth**

M010 | M020 | M040 | M080 Evaluation bandwidth 10 MHz to 80 MHz

## 6.7.2 Prach

**SCPI Commands :**

```
TRIGger:LTE:MEASurement<Instance>:PRACH:SOURce
TRIGger:LTE:MEASurement<Instance>:PRACH:THReshold
TRIGger:LTE:MEASurement<Instance>:PRACH:SLOPe
TRIGger:LTE:MEASurement<Instance>:PRACH:TOUT
TRIGger:LTE:MEASurement<Instance>:PRACH:MGAP
```

**class PrachCls**

Prach commands group definition. 6 total commands, 1 Subgroups, 5 group commands

**get\_mgap()** → float



```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:MGAP
value: float = driver.trigger.prach.get_mgap()
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

```
return
    min_trig_gap: float Range: 0 s to 1E-3 s, Unit: s
```

**get\_slope()** → SignalSlope

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:SLOPe
value: enums.SignalSlope = driver.trigger.prach.get_slope()
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

```
return
    slope: REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge
```

**get\_source()** → str

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:SOURce
value: str = driver.trigger.prach.get_source()
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

```
return
    source: string 'IF Power': Power trigger (received RF power)
```

**get\_threshold()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:THReshold
value: float or bool = driver.trigger.prach.get_threshold()
```

Defines the trigger threshold for power trigger sources.

```
return
    trig_threshold: (float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale,
    i.e. relative to reference level minus external attenuation)
```

**get\_timeout()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:TOUT
value: float or bool = driver.trigger.prach.get_timeout()
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on 'Free Run' measurements.

```
return
    trigger_timeout: (float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s,
    Unit: s ON | OFF enables or disables the timeout.
```

**set\_mgap**(*min\_trig\_gap*: float) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:MGAP
driver.trigger.prach.set_mgap(min_trig_gap = 1.0)
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**param min\_trig\_gap**  
float Range: 0 s to 1E-3 s, Unit: s

**set\_slope**(*slope*: SignalSlope) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:SLOPe
driver.trigger.prach.set_slope(slope = enums.SignalSlope.FEDGE)
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**param slope**  
REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge

**set\_source**(*source*: str) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:SOURce
driver.trigger.prach.set_source(source = 'abc')
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

**param source**  
string 'IF Power': Power trigger (received RF power)

**set\_threshold**(*trig\_threshold*: float) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:THReshold
driver.trigger.prach.set_threshold(trig_threshold = 1.0)
```

Defines the trigger threshold for power trigger sources.

**param trig\_threshold**  
(float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale, i.e. relative to reference level minus external attenuation)

**set\_timeout**(*trigger\_timeout*: float) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:TOUT
driver.trigger.prach.set_timeout(trigger_timeout = 1.0)
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on 'Free Run' measurements.

**param trigger\_timeout**  
(float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s, Unit: s ON | OFF enables or disables the timeout.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.prach.clone()
```

## Subgroups

### 6.7.2.1 Catalog

#### SCPI Command :

```
TRIGger:LTE:MEASurement<Instance>:PRACH:CATalog:SOURce
```

#### class CatalogCls

Catalog commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_source()** → List[str]

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:PRACH:CATalog:SOURce
value: List[str] = driver.trigger.prach.catalog.get_source()
```

Lists all trigger source values that can be set using method RsCmwLteMeas.Trigger.Prach.source.

#### return

source\_list: string Comma-separated list of all supported values. Each value is represented as a string.

### 6.7.3 Srs

#### SCPI Commands :

```
TRIGger:LTE:MEASurement<Instance>:SRS:SOURce
TRIGger:LTE:MEASurement<Instance>:SRS:THReshold
TRIGger:LTE:MEASurement<Instance>:SRS:SLOPe
TRIGger:LTE:MEASurement<Instance>:SRS:TOUT
TRIGger:LTE:MEASurement<Instance>:SRS:MGAP
```

#### class SrsCls

Srs commands group definition. 6 total commands, 1 Subgroups, 5 group commands

**get\_mgap()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:MGAP
value: float = driver.trigger.srs.get_mgap()
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

#### return

min\_trig\_gap: float Range: 0 s to 1E-3 s, Unit: s

**get\_slope()** → SignalSlope

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:SLOPe
value: enums.SignalSlope = driver.trigger.srs.get_slope()
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**return**  
slope: REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge

**get\_source()** → str

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:SOURce
value: str = driver.trigger.srs.get_source()
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

**return**  
source: string 'IF Power': Power trigger (received RF power)

**get\_threshold()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:THReshold
value: float or bool = driver.trigger.srs.get_threshold()
```

Defines the trigger threshold for power trigger sources.

**return**  
trig\_threshold: (float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale, i.e. relative to reference level minus external attenuation)

**get\_timeout()** → float

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:TOUT
value: float or bool = driver.trigger.srs.get_timeout()
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on 'Free Run' measurements.

**return**  
trigger\_timeout: (float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s, Unit: s ON | OFF enables or disables the timeout.

**set\_mgap(min\_trig\_gap: float)** → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:MGAP
driver.trigger.srs.set_mgap(min_trig_gap = 1.0)
```

Sets a minimum time during which the IF signal must be below the trigger threshold before the trigger is armed so that an IF power trigger event can be generated.

**param min\_trig\_gap**  
float Range: 0 s to 1E-3 s, Unit: s

**set\_slope**(*slope: SignalSlope*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:SLOPe
driver.trigger.srs.set_slope(slope = enums.SignalSlope.FEDGE)
```

Qualifies whether the trigger event is generated at the rising or at the falling edge of the trigger pulse (valid for external and power trigger sources) .

**param slope**

REDGe | FEDGe REDGe: Rising edge FEDGe: Falling edge

**set\_source**(*source: str*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:SOURce
driver.trigger.srs.set_source(source = 'abc')
```

Selects the source of the trigger events. Some values are always available. They are listed below. Depending on the installed options, additional values are available. You can query a list of all supported values via TRIGger:... :CATalog:SOURce?.

**param source**

string 'IF Power': Power trigger (received RF power)

**set\_threshold**(*trig\_threshold: float*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:THReshold
driver.trigger.srs.set_threshold(trig_threshold = 1.0)
```

Defines the trigger threshold for power trigger sources.

**param trig\_threshold**

(float or boolean) numeric Range: -50 dB to 0 dB, Unit: dB (full scale, i.e. relative to reference level minus external attenuation)

**set\_timeout**(*trigger\_timeout: float*) → None

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:TOUT
driver.trigger.srs.set_timeout(trigger_timeout = 1.0)
```

Selects the maximum time that the measurement waits for a trigger event before it stops in remote control mode or indicates a trigger timeout in manual operation mode. This setting has no influence on 'Free Run' measurements.

**param trigger\_timeout**

(float or boolean) numeric | ON | OFF Range: 0.01 s to 167772.15 s, Unit: s ON | OFF enables or disables the timeout.

## Cloning the Group

```
# Create a clone of the original group, that exists independently
group2 = driver.trigger.srs.clone()
```

## Subgroups

### 6.7.3.1 Catalog

#### SCPI Command :

`TRIGger:LTE:MEASurement<Instance>:SRS:CATalog:SOURce`

#### class CatalogCls

Catalog commands group definition. 1 total commands, 0 Subgroups, 1 group commands

**get\_source()** → List[str]

```
# SCPI: TRIGger:LTE:MEASurement<Instance>:SRS:CATalog:SOURce
value: List[str] = driver.trigger.srs.catalog.get_source()
```

Lists all trigger source values that can be set using method RsCmwLteMeas.Trigger.Srs.source.

**return**

source\_list: string Comma-separated list of all supported values. Each value is represented as a string.

## RSCMWLTEMEAS UTILITIES

### class Utilities

Common utility class. Utility functions common for all types of drivers.

Access snippet: `utils = RsCmwLteMeas.utilities`

**property logger:** *ScpiLogger*

Scpi Logger interface, see [here](#)

Access snippet: `logger = RsCmwLteMeas.utilities.logger`

**property driver\_version:** `str`

Returns the instrument driver version.

**property idn\_string:** `str`

Returns instrument's identification string - the response on the SCPI command `*IDN?`

**property manufacturer:** `str`

Returns manufacturer of the instrument.

**property full\_instrument\_model\_name:** `str`

Returns the current instrument's full name e.g. 'FSW26'.

**property instrument\_model\_name:** `str`

Returns the current instrument's family name e.g. 'FSW'.

**property supported\_models:** `List[str]`

Returns a list of the instrument models supported by this instrument driver.

**property instrument\_firmware\_version:** `str`

Returns instrument's firmware version.

**property instrument\_serial\_number:** `str`

Returns instrument's serial\_number.

**query\_opc**(*timeout: int = 0*) → `int`

SCPI command: `*OPC?` Queries the instrument's OPC bit and hence it waits until the instrument reports operation complete. If you define `timeout > 0`, the VISA timeout is set to that value just for this method call.

**property instrument\_status\_checking:** `bool`

Sets / returns Instrument Status Checking. When True (default is True), all the driver methods and properties are sending "SYSTem:ERRor?" at the end to immediately react on error that might have occurred. We recommend to keep the state checking ON all the time. Switch it OFF only in rare cases when you require maximum speed. The default state after initializing the session is ON.

**property encoding: str**

Returns string<=>bytes encoding of the session.

**property opc\_query\_after\_write: bool**

Sets / returns Instrument \*OPC? query sending after each command write. When True, (default is False) the driver sends \*OPC? every time a write command is performed. Use this if you want to make sure your sequence is performed command-after-command.

**property bin\_float\_numbers\_format: BinFloatFormat**

Sets / returns format of float numbers when transferred as binary data.

**property bin\_int\_numbers\_format: BinIntFormat**

Sets / returns format of integer numbers when transferred as binary data.

**clear\_status()** → None

Clears instrument's status system, the session's I/O buffers and the instrument's error queue.

**query\_all\_errors()** → List[str]

Queries and clears all the errors from the instrument's error queue. The method returns list of strings as error messages. If no error is detected, the return value is None. The process is: querying 'SYS-Tem:ERRor?' in a loop until the error queue is empty. If you want to include the error codes, call the query\_all\_errors\_with\_codes()

**query\_all\_errors\_with\_codes()** → List[Tuple[int, str]]

Queries and clears all the errors from the instrument's error queue. The method returns list of tuples (code: int, message: str). If no error is detected, the return value is None. The process is: querying 'SYS-Tem:ERRor?' in a loop until the error queue is empty.

**property instrument\_options: List[str]**

Returns all the instrument options. The options are sorted in the ascending order starting with K-options and continuing with B-options.

**reset()** → None

SCPI command: \*RST Sends \*RST command + calls the clear\_status().

**default\_instrument\_setup()** → None

Custom steps performed at the init and at the reset().

**self\_test(timeout: int = None)** → Tuple[int, str]

SCPI command: \*TST? Performs instrument's self-test. Returns tuple (code:int, message: str). Code 0 means the self-test passed. You can define the custom timeout in milliseconds. If you do not define it, the default selftest timeout is used (usually 60 secs).

**is\_connection\_active()** → bool

Returns true, if the VISA connection is active and the communication with the instrument still works.

**reconnect(force\_close: bool = False)** → bool

If the connection is not active, the method tries to reconnect to the device. If the connection is active, and force\_close is False, the method does nothing. If the connection is active, and force\_close is True, the method closes, and opens the session again. Returns True, if the reconnection has been performed.

**property resource\_name: int**

Returns the resource name used in the constructor

**property opc\_timeout: int**

Sets / returns timeout in milliseconds for all the operations that use OPC synchronization.



**property visa\_timeout: int**

Sets / returns visa IO timeout in milliseconds.

**property data\_chunk\_size: int**

Sets / returns the maximum size of one block transferred during write/read operations

**property visa\_manufacturer: int**

Returns the manufacturer of the current VISA session.

**process\_all\_commands()** → None

SCPI command: \*WAI Stops further commands processing until all commands sent before \*WAI have been executed.

**write\_str(cmd: str)** → None

Writes the command to the instrument.

**write(cmd: str)** → None

This method is an alias to the write\_str(). Writes the command to the instrument as string.

**write\_int(cmd: str, param: int)** → None

Writes the command to the instrument followed by the integer parameter: e.g.: cmd = 'SELECT:INPUT' param = '2', result command = 'SELECT:INPUT 2'

**write\_int\_with\_opc(cmd: str, param: int, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the integer parameter: e.g.: cmd = 'SELECT:INPUT' param = '2', result command = 'SELECT:INPUT 2' If you do not provide timeout, the method uses current opc\_timeout.

**write\_float(cmd: str, param: float)** → None

Writes the command to the instrument followed by the boolean parameter: e.g.: cmd = 'CENTER:FREQ' param = '10E6', result command = 'CENTER:FREQ 10E6'

**write\_float\_with\_opc(cmd: str, param: float, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the boolean parameter: e.g.: cmd = 'CENTER:FREQ' param = '10E6', result command = 'CENTER:FREQ 10E6' If you do not provide timeout, the method uses current opc\_timeout.

**write\_bool(cmd: str, param: bool)** → None

Writes the command to the instrument followed by the boolean parameter: e.g.: cmd = 'OUTPUT' param = 'True', result command = 'OUTPUT ON'

**write\_bool\_with\_opc(cmd: str, param: bool, timeout: int = None)** → None

Writes the command with OPC to the instrument followed by the boolean parameter: e.g.: cmd = 'OUTPUT' param = 'True', result command = 'OUTPUT ON' If you do not provide timeout, the method uses current opc\_timeout.

**query\_str(query: str)** → str

Sends the query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit.

**query(query: str)** → str

This method is an alias to the query\_str(). Sends the query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit.

**query\_bool(query: str)** → bool

Sends the query to the instrument and returns the response as boolean.

**query\_int**(*query: str*) → int

Sends the query to the instrument and returns the response as integer.

**query\_float**(*query: str*) → float

Sends the query to the instrument and returns the response as float.

**write\_str\_with\_opc**(*cmd: str, timeout: int = None*) → None

Writes the opc-synced command to the instrument. If you do not provide timeout, the method uses current `opc_timeout`.

**write\_with\_opc**(*cmd: str, timeout: int = None*) → None

This method is an alias to the `write_str_with_opc()`. Writes the opc-synced command to the instrument. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_str\_with\_opc**(*query: str, timeout: int = None*) → str

Sends the opc-synced query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_with\_opc**(*query: str, timeout: int = None*) → str

This method is an alias to the `query_str_with_opc()`. Sends the opc-synced query to the instrument and returns the response as string. The response is trimmed of any trailing LF characters and has no length limit. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bool\_with\_opc**(*query: str, timeout: int = None*) → bool

Sends the opc-synced query to the instrument and returns the response as boolean. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_int\_with\_opc**(*query: str, timeout: int = None*) → int

Sends the opc-synced query to the instrument and returns the response as integer. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_float\_with\_opc**(*query: str, timeout: int = None*) → float

Sends the opc-synced query to the instrument and returns the response as float. If you do not provide timeout, the method uses current `opc_timeout`.

**write\_bin\_block**(*cmd: str, payload: bytes*) → None

Writes all the payload as binary data block to the instrument. The binary data header is added at the beginning of the transmission automatically, do not include it in the payload!!!

**query\_bin\_block**(*query: str*) → bytes

Queries binary data block to bytes. Throws an exception if the returned data was not a binary data. Returns `data:bytes`

**query\_bin\_block\_with\_opc**(*query: str, timeout: int = None*) → bytes

Sends a OPC-synced query and returns binary data block to bytes. If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bin\_or\_ascii\_float\_list**(*query: str*) → List[float]

Queries a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property `BinFloatFormat`, usually float 32-bit (FORM REAL,32).

**query\_bin\_or\_ascii\_float\_list\_with\_opc**(*query: str, timeout: int = None*) → List[float]

Sends a OPC-synced query and reads a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property `BinFloatFormat`, usually float 32-bit (FORM REAL,32). If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bin\_or\_ascii\_int\_list**(*query: str*) → List[int]

Queries a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property BinFloatFormat, usually float 32-bit (FORM REAL,32).

**query\_bin\_or\_ascii\_int\_list\_with\_opc**(*query: str, timeout: int = None*) → List[int]

Sends a OPC-synced query and reads a list of floating-point numbers that can be returned in ASCII format or in binary format. - For ASCII format, the list numbers are decoded as comma-separated values. - For Binary Format, the numbers are decoded based on the property BinFloatFormat, usually float 32-bit (FORM REAL,32). If you do not provide timeout, the method uses current `opc_timeout`.

**query\_bin\_block\_to\_file**(*query: str, file\_path: str, append: bool = False*) → None

Queries binary data block to the provided file. If `append` is `False`, any existing file content is discarded. If `append` is `True`, the new content is added to the end of the existing file, or if the file does not exist, it is created. Throws an exception if the returned data was not a binary data. Example for transferring a file from Instrument -> PC: `query = f"MMEM:DATA? '{INSTR_FILE_PATH}'"`. Alternatively, use the dedicated methods for this purpose:

- `send_file_from_pc_to_instrument()`
- `read_file_from_instrument_to_pc()`

**query\_bin\_block\_to\_file\_with\_opc**(*query: str, file\_path: str, append: bool = False, timeout: int = None*) → None

Sends a OPC-synced query and writes the returned data to the provided file. If `append` is `False`, any existing file content is discarded. If `append` is `True`, the new content is added to the end of the existing file, or if the file does not exist, it is created. Throws an exception if the returned data was not a binary data.

**write\_bin\_block\_from\_file**(*cmd: str, file\_path: str*) → None

Writes data from the file as binary data block to the instrument using the provided command. Example for transferring a file from PC -> Instrument: `cmd = f"MMEM:DATA '{INSTR_FILE_PATH}',"`. Alternatively, use the dedicated methods for this purpose:

- `send_file_from_pc_to_instrument()`
- `read_file_from_instrument_to_pc()`

**send\_file\_from\_pc\_to\_instrument**(*source\_pc\_file: str, target\_instr\_file: str*) → None

SCPI Command: `MMEM:DATA`

Sends file from PC to the instrument

**read\_file\_from\_instrument\_to\_pc**(*source\_instr\_file: str, target\_pc\_file: str, append\_to\_pc\_file: bool = False*) → None

SCPI Command: `MMEM:DATA?`

Reads file from instrument to the PC.

Set the `append_to_pc_file` to `True` if you want to append the read content to the end of the existing PC file

**get\_last\_sent\_cmd**() → str

Returns the last commands sent to the instrument. Only works in simulation mode

**go\_to\_local**() → None

Puts the instrument into local state.

**go\_to\_remote**() → None

Puts the instrument into remote state.

**get\_lock()** → RLock

Returns the thread lock for the current session.

**By default:**

- If you create standard new RsCmwLteMeas instance with new VISA session, the session gets a new thread lock. You can assign it to other RsCmwLteMeas sessions in order to share one physical instrument with a multi-thread access.
- If you create new RsCmwLteMeas from an existing session, the thread lock is shared automatically making both instances multi-thread safe.

You can always assign new thread lock by calling `driver.utilities.assign_lock()`

**assign\_lock(lock: RLock)** → None

Assigns the provided thread lock.

**clear\_lock()**

Clears the existing thread lock, making the current session thread-independent from others that might share the current thread lock.

**sync\_from(source: Utilities)** → None

Synchronises these Utils with the source.

## RSCMWLTEMEAS LOGGER

Check the usage in the Getting Started chapter [here](#).

### **class ScpiLogger**

Base class for SCPI logging

#### **mode**

Sets the logging ON or OFF. Additionally, you can set the logging ON only for errors. Possible values:

- `LoggingMode.Off` - logging is switched OFF
- `LoggingMode.On` - logging is switched ON
- `LoggingMode.Errors` - logging is switched ON, but only for error entries
- `LoggingMode.Default` - sets the logging to default - the value you have set with `logger.default_mode`

#### **default\_mode**

Sets / returns the default logging mode. You can recall the default mode by calling the `logger.mode = LoggingMode.Default`.

#### **Data Type**

`LoggingMode`

#### **device\_name: str**

Use this property to change the resource name in the log from the default Resource Name (e.g. `TCPIP::192.168.2.101::INSTR`) to another name e.g. `'MySigGen1'`.

#### **set\_logging\_target(target, console\_log: bool = None, udp\_log: bool = None) → None**

Sets logging target - the target must implement `write()` and `flush()`. You can optionally set the console and UDP logging ON or OFF. This method switches the logging target global OFF.

#### **get\_logging\_target()**

Based on the `global_mode`, it returns the logging target: either the local or the global one.

#### **set\_logging\_target\_global(console\_log: bool = None, udp\_log: bool = None) → None**

Sets logging target to global. The global target must be defined. You can optionally set the console and UDP logging ON or OFF.

#### **log\_to\_console**

Returns logging to console status.

#### **log\_to\_udp**

Returns logging to UDP status.

#### **log\_to\_console\_and\_udp**

Returns true, if both logging to UDP and console in are True.

**info\_raw**(log\_entry: str, add\_new\_line: bool = True) → None

Method for logging the raw string without any formatting.

**info**(start\_time: datetime, end\_time: datetime, log\_string\_info: str, log\_string: str) → None

Method for logging one info entry. For binary log\_string, use the info\_bin()

**error**(start\_time: datetime, end\_time: datetime, log\_string\_info: str, log\_string: str) → None

Method for logging one error entry.

**set\_relative\_timestamp**(timestamp: datetime) → None

If set, the further timestamps will be relative to the entered time.

**set\_relative\_timestamp\_now**() → None

Sets the relative timestamp to the current time.

**get\_relative\_timestamp**() → datetime

Based on the global\_mode, it returns the relative timestamp: either the local or the global one.

**clear\_relative\_timestamp**() → None

Clears the reference time, and the further logging continues with absolute times.

**flush**() → None

Flush all the entries.

**log\_status\_check\_ok**

Sets / returns the current status of status checking OK. If True (default), the log contains logging of the status checking 'Status check: OK'. If False, the 'Status check: OK' is skipped - the log is more compact. Errors will still be logged.

**clear\_cached\_entries**() → None

Clears potential cached log entries. Cached log entries are generated when the Logging is ON, but no target has been defined yet.

**set\_format\_string**(value: str, line\_divider: str = '\n') → None

Sets new format string and line divider. If you just want to set the line divider, set the format string value=None. The original format string is: PAD\_LEFT12(%START\_TIME%) PAD\_LEFT25(%DEVICE\_NAME%) PAD\_LEFT12(%DURATION%) %LOG\_STRING\_INFO% %LOG\_STRING%

**restore\_format\_string**() → None

Restores the original format string and the line divider to LF

**abbreviated\_max\_len\_ascii: int**

Defines the maximum length of one ASCII log entry. Default value is 200 characters.

**abbreviated\_max\_len\_bin: int**

Defines the maximum length of one Binary log entry. Default value is 2048 bytes.

**abbreviated\_max\_len\_list: int**

Defines the maximum length of one list entry. Default value is 100 elements.

**bin\_line\_block\_size: int**

Defines number of bytes to display in one line. Default value is 16 bytes.

**udp\_port**

Returns udp logging port.

**target\_auto\_flushing**

Returns status of the auto-flushing for the logging target.

## RSCMWLTEMEAS EVENTS

Check the usage in the Getting Started chapter [here](#).

### **class Events**

Common Events class. Event-related methods and properties. Here you can set all the event handlers.

**property before\_query\_handler: Callable**

Returns the handler of before\_query events.

#### **Returns**

current before\_query\_handler

**property before\_write\_handler: Callable**

Returns the handler of before\_write events.

#### **Returns**

current before\_write\_handler

**property io\_events\_include\_data: bool**

Returns the current state of the io\_events\_include\_data See the setter for more details.

**property on\_read\_handler: Callable**

Returns the handler of on\_read events.

#### **Returns**

current on\_read\_handler

**property on\_write\_handler: Callable**

Returns the handler of on\_write events.

#### **Returns**

current on\_write\_handler

**sync\_from**(source: Events) → None

Synchronises these Events with the source.





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TEN

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