
15 Specific AT commands

15.1 Cell environment description +CCED

15.1.1 Description :

This command can be used by the application to retrieve the cell parameters of the main cell and of up to six neighbour cells.

Two ways may exist for the external application to know these cell parameters : on request of the application, or automatically by the module every 5 seconds.

The automatic mode is not supported during communication or registration.

15.1.2 Syntax :

Command syntax: AT+CCED=<mode>[, <requested dump>]

15.1.3 Defined values :

- <mode>**
- 0** : One shot requested
 - 1** : Automatic shots requested
 - 2** : Stop automatic shots
- <requested dump>**
- 1** : Main Cell :
 - if the Cell Identity is available**
MCC, MNC, LAC, CI, BSIC, BCCH Freq (absolute), RxLev, RxLev Full, RxLev Sub, RxQual, RxQual Full, RxQual Sub, Idle TS
 - if the Cell Identity is not available**
MCC, MNC, LAC, BSIC, BCCH Freq (absolute), RxLev, RxLev Full, RxLev Sub, RxQual, RxQual Full, RxQual Sub, Idle TS
 - 2** : Neighbour1 to Neighbour6 :
 - if the Cell Identity is available**
MCC, MNC, LAC, CI, BSIC, BCCH Freq (absolute), RxLev
 - if the Cell Identity is not available**

MCC, MNC, LAC,, BSIC, BCCH Freq
(absolute), RxLev

4 : Timing Advance

Combination (addition of the values) of the requested dumped are supported.

Notice that in idle mode, only RxLev measures (on the main cell and on the neighbour cells) are done. The value of these RxLev is set in the RxLev Full field for the main cell.

The response will be :

+CCED :<value>, ... , <value>
OK

Where <value> is the ASCII string of the values (in decimal except LAC and CI values are in hexadecimal) of the parameters. If a field can not be measured – or has no sense – the parameter is not filled (two consecutive commas are then found).

If the <requested dump> parameter is absent, this of the last +CCED command (or 15 by default) will be taken.

Values of MCC/MNC are set to 0 in case of “No service”

15.2 Automatic RxLev indication +CCED

15.2.1 Description :

The CCED command has been extended to indicate the *received signal strength indication* (rssi) of the main cell. The principle of the command does not change :

15.2.2 Syntax :

Command Syntax: AT+CCED=<mode>[, <requested dump>]

15.2.3 Defined values :

<mode>	0 : One shot requested 1 : Automatic shots requested 2 : Stop automatic shots
<requested dump>	8 : Main cell RSSI indications (RxLev) from 0 to 31