

Star Tune up procedure

Tune up procedure shall be over the power range or at specific operating power levels.

1. It must provide an operational voltage (3.7V DC) to turn on the device and on one certain channel in service mode by means of company proprietary software.
2. Base station simulator (CMW500) measures the device specific RF characteristics.
3. The maximum gains of each individual device are adjusted until the target value met.

Tune-up Power		
Mode	Frequency Bands	Tune-up Power
LTE Band	LTE Band 2 QPSK	23.0dBm $\pm$ 1.0
	LTE Band 2 16QAM	22.0dBm $\pm$ 1.0
	LTE Band 4 QPSK	23.0dBm $\pm$ 1.0
	LTE Band 4 16QAM	21.0dBm $\pm$ 1.0
	LTE Band 5QPSK	23.0dBm $\pm$ 1.0
	LTE Band 5 16QAM	22.0dBm $\pm$ 1.0
	LTE Band 12 QPSK	23.0dBm $\pm$ 1.0
	LTE Band 12 16QAM	22.0dBm $\pm$ 1.0
	LTE Band 13 QPSK	24.0dBm $\pm$ 1.0
	LTE Band 13 16QAM	23.0dBm $\pm$ 1.0

Then these appropriate gain settings are stored in each device individually.

The user has no possibility to change these settings later on, and during manufacturing each device will be individual calibrated. The measurement is done in fully calibrated setup, which is based on a CMW500 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).