

## 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 (12V DC) to turn on the device and on one certain channel in service mode by means of company proprietary software.
2. Base station simulator (CMU 500) measures the Mobile phone 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 2	23dBm $\pm$ 1dB
LTE	BAND 4	25dBm $\pm$ 1dB
LTE	BAND 5	25dBm $\pm$ 1dB
LTE	BAND 12	24dBm $\pm$ 1dB
LTE	BAND 13	26dBm $\pm$ 1dB
LTE	BAND 66	24dBm $\pm$ 1dB
LTE	BAND 71	26dBm $\pm$ 1dB

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 CMU 500 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).