

# 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 (4.2 ~ 5.7V 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 4G Router, Model: 4G Router 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
FDD-LTE	Band 2	21.5dBm $\pm$ 2dB
FDD-LTE	Band 4	22.0dBm $\pm$ 2dB
FDD-LTE	Band 5	21.5dBm $\pm$ 2dB
FDD-LTE	Band 13	22.0dBm $\pm$ 2dB
FDD-LTE	Band 17	22.0dBm $\pm$ 2dB
FDD-LTE	Band 25	22.0dBm $\pm$ 2dB

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).