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 (3.8 ~ 4.2V DC) to turn on the device and on one certain channel in service mode by means of company proprietary software.
2. The Base station simulator measures the WLAN device specific RF characteristics.
3. The maximum gains of each individual device are adjusted until the target value met.

Mode	Burst Average power	
GSM (GMSK, 1 Tx slot)	31	+1/-2 dB
GPRS/EDGE (GMSK, 1 Tx slot)	31	+1/-2 dB
GPRS/EDGE (GMSK, 2 Tx slots)	29	+1/-2 dB
EDGE (8PSK, 1 Tx slot)	Only support DOWNLINK	+/-2 dB
EDGE (8PSK, 2 Tx slots)	Only support DOWNLINK	+/-2 dB

Mode	Burst Average power	
DCS (GMSK, 1 Tx slot)	29	+1/-2 dB
GPRS/EDGE (GMSK, 1 Tx slot)	29	+1/-2 dB
GPRS/EDGE (GMSK, 2 Tx slots)	27	+1/-2 dB
EDGE (8PSK, 1 Tx slot)	Only support DOWNLINK	+/-2 dB
EDGE (8PSK, 2 Tx slots)	Only support DOWNLINK	+/-2 dB

Mode	WCDMA Band V	WCDMA Band II
RMC 12.2K	22.5-24.5	22.5-24.5
HSDPA Subtest-1	22-24	22-24
HSDPA Subtest-2	21.5-23.5	21.5-23.5
HSDPA Subtest-3	21-23	21-23
HSDPA Subtest-4	20-22	20-22
HSUPA Subtest-1	20-22	20-22
HSUPA Subtest-2	19-21	19-21

HSUPA Subtest-3	**19.5-21.5**	**19.5-21.5**
HSUPA Subtest-4	**19-21**	**19-21**
HSUPA Subtest-5	**20.7-22.7**	**20.7-22.7**

BT: 2402MHz-2480MHz=6～7dBm

WIFI 802.11b 15dBm

802.11g 14dBm

802.11n 20 13.5dBm

802.11n 40 12dBm

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