FCC ID: 2AHZ5-KKSER

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 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 Mobile phone device specific RF characteristics.
3. The maximum gains of each individual device are adjusted until the target value met.

Tune - up Power		
BDR, EDR	1-DH1	1.0 dBm±1.0
	2-DH1	4.0 dBm±1.0
	3-DH1	4.0 dBm±1.0
BLE	GFSK	2.0 dBm±1.0
WIFI 2.4G	b	11.5 dBm±1.0
	g	10.0 dBm±1.0
	n20	8.5 dBm±1.0
	n40	8.5 dBm±1.0
	ax20	9.5 dBm±1.0
	ax40	8.5 dBm±1.0
WIFI 5.1G	a	10.0 dBm±1.0
	n20	9.5 dBm±1.0
	n40	8.0 dBm±1.0
	ac20	9.5 dBm±1.0
	ac40	8.0 dBm±1.0
	ac80	6.5 dBm±1.0
	ax20	10.0 dBm±1.0
	ax40	8.5 dBm±1.0
	ax80	6.5 dBm±1.0
WIFI 5.8G	a	9.5 dBm±1.0
	n20	8.5 dBm±1.0
	n40	7.5 dBm±1.0
	ac20	8.5 dBm±1.0
	ac40	7.5 dBm±1.0
	ac80	6.5 dBm±1.0
	ax20	8.5 dBm±1.0
	ax40	7.5 dBm±1.0
	ax80	7.0 dBm±1.0

Tune - up Power		
Mode	**GSM 850**	**GSM 1900**
GSM	32.0 dBm±1.0	29.0 dBm±1.0
GPRS Slot -1	31.5 dBm±1.0	29.0 dBm±1.0
GPRS Slot -2	31.0 dBm±1.0	28.5 dBm±1.0
GPRS Slot -3	29.0 dBm±1.0	26.5 dBm±1.0
GPRS Slot -4	28.0 dBm±1.0	25.5 dBm±1.0
EGPRS Slot -1	26.0 dBm±1.0	24.0 dBm±1.0
EGPRS Slot -2	24.5 dBm±1.0	23.0 dBm±1.0
EGPRS Slot -3	22.5 dBm±1.0	21.0 dBm±1.0
EGPRS Slot -4	21.0 dBm±1.0	19.5 dBm±1.0

Tune - up Power			
Mode	**WCDMA Band II**	**WCDMA Band IV**	**WCDMA Band V**
RMC	20.0 dBm±1.0	20.5 dBm±1.0	22.5 dBm±1.0
HSDPA	18.5 dBm±1.0	19.5 dBm±1.0	21.5 dBm±1.0
HSUPA	18.5 dBm±1.0	19.5 dBm±1.0	21.0 dBm±1.0

Tune - up Power		
Mode	**QPSK**	**16QAM**
LTE Band2	19.5 dBm±1.0	19.0 dBm±1.0
LTE Band4	20.0 dBm±1.0	19.5 dBm±1.0
LTE Band5	22.5 dBm±1.0	21.5 dBm±1.0
LTE Band7	20.0 dBm±1.0	19.0 dBm±1.0
LTE Band12	22.0 dBm±1.0	21.5 dBm±1.0
LTE Band17	22.0 dBm±1.0	21.5 dBm±1.0
LTE Band66	20.5 dBm±1.0	19.5 dBm±1.0

Tune - up Power		
Mode	**QPSK**	**16QAM**
NR N5	23.5 dBm±1.0	22.5 dBm±1.0
NR N41	25.0 dBm±1.0	24.5 dBm±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).