

## FCC ID:2BAK2-F110L

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		
Mode	Modulation	Power
BDR, EDR	GFSK	0.5 dBm±1.0
	$\pi/4$ DQPSK	2.0 dBm±1.0
	8DPSK	2.0 dBm±1.0
BLE	GFSK 1Mbps	2.5 dBm±1.0
	GFSK 2Mbps	2.0 dBm±1.0
NFC	ASK	-41.5 dBm±1.0
WIFI 2.4G	b	12.0 dBm±1.0
	g	10.5 dBm±1.0
	n20	8.5 dBm±1.0
	n40	8.0 dBm±1.0
WIFI 5.1G	a	11.0 dBm±1.0
	n20	9.5 dBm±1.0
	n40	8.5 dBm±1.0
	ac20	10.0 dBm±1.0
	ac40	8.5 dBm±1.0
	ac80	6.0 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	8.0 dBm±1.0
	ac80	5.5 dBm±1.0

Tune-up Power		
Mode	GSM 850	GSM 1900
GSM	32.5 dBm±1.0	31.0 dBm±1.0
GPRS slots-1	32.5 dBm±1.0	31.0 dBm±1.0
GPRS slots-2	31.0 dBm±1.0	28.5 dBm±1.0
GPRS slots-3	29.0 dBm±1.0	27.5 dBm±1.0
GPRS slots-4	27.5 dBm±1.0	25.5 dBm±1.0
EGPRS slots-1	26.5 dBm±1.0	27.0 dBm±1.0
EGPRS slots-2	25.5 dBm±1.0	26.0 dBm±1.0
EGPRS slots-3	23.0 dBm±1.0	24.0 dBm±1.0
EGPRS slots-4	20.5 dBm±1.0	22.0 dBm±1.0

Tune-up Power			
Mode	WCDMA Band II	WCDMA Band IV	WCDMA Band V
RMC	24.0 dBm±1.0	24.5 dBm±1.0	23.0 dBm±1.0
HSDPA	23.5 dBm±1.0	23.0 dBm±1.0	22.5 dBm±1.0
HSUPA	23.5 dBm±1.0	23.0 dBm±1.0	22.5 dBm±1.0

Tune-up Power		
Mode	QPSK	16QAM
<b>LTE Band 2</b>	25.5 dBm±1.0	25.5 dBm±1.0
<b>LTE Band 4</b>	25.0 dBm±1.0	25.0 dBm±1.0
<b>LTE Band 5</b>	23.5 dBm±1.0	24.0 dBm±1.0
<b>LTE Band 7</b>	25.0 dBm±1.0	25.5 dBm±1.0
<b>LTE Band 12</b>	24.5 dBm±1.0	24.5 dBm±1.0
<b>LTE Band 17</b>	24.5 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).