

# 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 (3.45~4.2V DC) to turn on the phone and on one certain channel in service mode by means of company proprietary software.
2. Base station simulator (Rohde& Schwarz CMW500 ) measures the WCDMA ,LTE phone specific RF characteristics.
3. The maximum gain of each individual phone are adjusted until the target value met.

Band	Tune-up power tolerance(dBm)
GSM 850	PCL = 5, PWR =32.5+-1.5
GPRS 850	PCL = 5, PWR =32.5+-1.5(1 slots)
	PCL = 5, PWR =30.5+-1.5(2 slots)
	PCL = 5, PWR =28.5+-1.5(3 slots)
	PCL = 5, PWR =26.5+-1.5 (4 slots)
GSM1900	PCL = 0, PWR =29.5+-1
GPRS 1900	PCL=0,PWR= 29.5+-1(1 slots)
	PCL=0,PWR= 28+-1(2 slots)
	PCL=0,PWR= 26+-1(3 slots)
	PCL=0,PWR= 24+-1(4 slots)
WCDMA 850	Max output power =23+-1.5
WCDMA 1900	Max output power =23+-1
WCDMA 1900 (Low Power)	Max output power =21+-1
LTE BAND7	Max output power =23+-1
LTE BAND7 (Low Power)	Max output power =20+-1
802.11b	Max output power =20 +-1
802.11b(Low Power)	Max output power =18 +-1
802.11g	Max output power =20 +-1
802.11g(Low Power)	Max output power =19+-1
Bluetooth	Max output power =5+-1

Then this appropriate gain settings are stored in each phone individually. The user has no possibility to change these settings later on, and during manufacturing each phone will be individual calibrated. The measurement is done in fully calibrated setup, which is based on a Rohde& Schwarz CMW500 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on

three channels (low, middle and high).