

Tune-Up Procedure and Power Tune-Up – Power Limiting

1. It must provide an operational voltage (3.5~4.2V 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 CMU200 or Agilent 8960) measures the GSM phone specific RF characteristics.
3. The maximum gain of each individual phone is adjusted until the target value met.

For GSM Ber < 2% at static condition

GSM 850 RX sensitivity < -106dBm

PCS1900 RX sensitivity < -105dBm

For GPRS Bler <10% at static condition

Type of channel	GSM850 GPRS	PCS1900 GPRS
CS1	-107	-106
CS2	-107	-106
CS3	-107	-106
CS4	-104	-103

Tune Up Procedure

1. GSM RX Gain Calibration
 - a. Put DUT in test mode
 - b. Put DUT in BCH mode
 - c. Put DUT in selected channel band
 - d. Total gain chain calibration at center ARFCN
 - e. Frequency Ripple calibration
 - f. Complete RX_AGK Gain table

2. GSM TX Power Calibration

- a. Put DUT in test mode
- b. Put DUT in BCH mode
- c. Put DUT in selected channel band
- d. Calibrate Rampscale value at center ARFCN
- e. Frequency Ripple calibration
- f. Complete TX_APC table

3. AFC calibration

- a. Put DUT in test mode
- b. Put DUT in selected channel band
- c. Calibrate AFC at center ARFCN
- d. Complete AFC result table

4. GPRS TX Power Calibration

- a. Put DUT in test mode
- b. Put DUT in BCH mode
- c. Put DUT in selected channel band
- d. Calibrate inter slot Ramp value at center ARFCN
- e. Calibrate TX rollback value at center ARFCN
- f. Complete GPRS TX Power table

Maximum Target Output Power

Max Target Power(dBm)			
Mode/Band	Channel		
	Low	Middle	High
GSM 850	28.4	28.4	28.4
PCS 1900	29.7	29.7	29.7
Bluetooth	1.9	1.9	1.9
BLE	1.9	1.9	1.9