

## Tune up procedure

1. It must provide an operational voltage (3.64~4.2V DC) to turn on the module 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 module specific RF characteristics.
3. The maximum gain of each individual phone are adjusted until the target value met.

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|------------------------|--|
| For GSM 850 band :     | PCL = 5, PWR = $32 \pm 1.5$ dBm        |
| For GPRS 850:          | Class 8 , PCL=3, PWR= $32 \pm 1.5$ dBm |
|                        | Class 10, PCL=3, PWR= $29 \pm 1.5$ dBm |
|                        | Class 12, PCL=3, PWR= $26 \pm 1.5$ dBm |
| For PCS 1900 band :    | PCL = 0, PWR = $29 \pm 1.5$ dBm        |
| For GPRS 1900:         | Class 8, PCL=3, PWR= $29 \pm 1.5$ dBm  |
|                        | Class 10, PCL=3, PWR= $27 \pm 1.5$ dBm |
|                        | Class 12, PCL=3, PWR= $24 \pm 1.5$ dBm |
| For WCDMA FDD BAND II: | MAXIMUM PWR = $24 + 1/-3.5$ dBm        |
| For WCDMA FDD BAND V:  | MAXIMUM PWR = $24 + 1/-3.5$ dBm        |
| WLAN Output Power      | 802.11b: typical 18dBm +/- 2dBm        |
|                        | 802.11g: typical 15dBm +/- 2dBm        |
| Bluetooth Transmitter  | 2 dBm $\pm$ 2 dBm                      |
|                        | Qualified for Class 2 operation        |

Then this appropriate gain settings are stored in each module 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 CMU200 or Agilent 8960 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).