Tune up Procedure

Function Block memory
U301 IC Memory MCP 1Gbit NAND+256Mbit DDR H9DA1GH25HAMMR-4EM

Function Block Audio
U1101   IC, Audio AW8010CSR

Function Block FM BLUETOOTH
U101 MT6276

Function Block RF Parts
U2304   MT6162，IC-RF TRANSEIVER, MTK Platform GSM Qual Band WCDMA Tri Band
U2206   BST3402，Power AMPLIFIER module for WCDMA,1900MHz
U2207   BST3408，Power AMPLIFIER module for WCDMA,900MHz

Function Block LCD
U581   AW9384DNR，LCD BACKLIGHT DRIVER,5 PARALLEL LEDS

Function Block CRYSTAL
X101   SSP-T7-F，32.768KHZ,12.5PF,+/-20ppm, 1.4*1.4*5.0mm
U2306   7M26000028，Oscillator,VCTCXO,26 MHZ

Tune-Up Procedure and Power Tune-Up – Power Limiting
1. It must provide an operational voltage (3.55~4.2V 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 WCDMA phone specific RF characteristics.
3. The maximum gain of each individual phone is adjusted until the target value met.

For WCDMA Band II   Max power =23.0 ± 0.5dBm

WCDMA Band II RX sensitivity < -106dBm

Then these 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 Agilent 8960 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).

Tune Up Procedure

1. 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_AGC Gain table

2. 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

For Bluetooth

PWR=3dBm±1dBm