

TUNE-UP PROCEDURE

2.1033 (c)(9) Tune-Up Procedure and Power Tune-Up – Power Limiting

1. It must provide an operational voltage to turn on the GXW Wireless Camera and on one certain channel in service mode by means of company proprietary software.
2. Base station simulator (Agilent 8960) measures the GXW Wireless Camera specific RF characteristics.
2. The maximum gain of each individual phone is adjusted until the target value met.

For UMTS Band II Class 3
MAX PWR = 24 dBm

RX sensitivity < -102Bm

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 sample will be individual calibrated. The measurement is done in fully calibrated setup, which is based on a 8960 base station simulator. Furthermore, the highest power level is verified afterwards in a call measurement on three channels (low, middle and high).

Manufacturing tolerance

UMTS

WCDMA Band II			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	24.0	24.0	24.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSDPA(sub-test 1)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	24.0	24.0	24.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSDPA(sub-test 2)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	23.0	23.0	23.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSDPA(sub-test 3)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSDPA(sub-test 4)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	24.0	24.0	24.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSUA(sub-test 1)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	24.0	24.0	24.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSUA(sub-test 2)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	22.0	22.0	22.0
Tolerance ±(dB)	1.0	1.0	1.0
WCDMA Band II HSUA(sub-test 3)			

Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	23.0	23.0	23.0
Tolerance \pm (dB)	1.0	1.0	1.0
WCDMA Band II HSUA(sub-test 4)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	22.0	22.0	22.0
Tolerance \pm (dB)	1.0	1.0	1.0
WCDMA Band II HSUA(sub-test 5)			
Channel	Channel 9262	Channel 9400	Channel 9538
Target (dBm)	24.0	24.0	24.0
Tolerance \pm (dB)	1.0	1.0	1.0

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