



Report No.: RZA2009-1166-1



Part 22

TEST REPORT

| | |
|---------------------|-------------------|
| Product Name | CDMA Mobile phone |
| FCC ID | QMNRN-583 |
| Model | RM-583 |
| Applicant | Nokia Inc. |

TA Technology (Shanghai) Co., Ltd.



GENERAL SUMMARY

| | | | |
|------------------------------|--|-------------------|----------------|
| Product Name | CDMA Mobile phone | | |
| FCC ID | QMNRN-583 | Report No. | RZA2009-1166-1 |
| Client | Nokia Inc. | | |
| Manufacturer | BYD Precision Manufacture Company Limited. | | |
| Reference Standard(s) | <p>FCC Part 2 Frequency allocations and radio treaty matters; general rules and regulation. (V10.1.06)</p> <p>FCC Part 22 Public Mobile Services. (V10.1.06)</p> <p>ANSI/TIA-603-C Land mobile FM or PM Communications Equipment Measurements and Performance Standards.(2004)</p> | | |
| Conclusion | <p>This portable wireless equipment has been measured in all cases requested by the relevant standards. Test results in Chapter 2 of this test report are below limits specified in the relevant standards.</p> <p>General Judgment: Pass</p> <p style="text-align: center;">(Stamp)</p> <p style="text-align: center;">Date of issue: September 8th, 2009</p> | | |
| Comment | The test result only responds to the measured sample. | | |

Approved by 杨伟中

Yang Weizhong

Revised by 徐凯

Xu kai

Performed by 刘伟

Liu Wei

TABLE OF CONTENT

| | |
|---|----|
| 1. General Information | 4 |
| 1.1. NOTES OF THE TEST REPORT | 4 |
| 1.2. TESTING LABORATORY | 4 |
| 1.3. APPLICANT INFORMATION | 5 |
| 1.4. MANUFACTURER INFORMATION..... | 5 |
| 1.5. INFORMATION OF EUT..... | 6 |
| 1.6. TEST DATE | 7 |
| 1.7. TEST REPORT REVISION..... | 7 |
| 2. Test Information..... | 8 |
| 2.1. SUMMARY OF TEST RESULTS | 8 |
| 2.2. RF POWER OUTPUT..... | 9 |
| 2.3. EFFECTIVE RADIATED POWER..... | 11 |
| 2.4. OCCUPIED BANDWIDTH | 14 |
| 2.5. BAND EDGE COMPLIANCE..... | 18 |
| 2.6. FREQUENCY STABILITY..... | 21 |
| 2.7. SPURIOUS EMISSIONS AT ANTENNA TERMINALS..... | 24 |
| 2.8. RADIATES SPURIOUS EMISSION | 29 |
| 3. Main Test Instruments | 37 |
| ANNEX A: EUT Test Setup..... | 38 |

1. General Information

1.1. Notes of the test report

TA Technology (Shanghai) Co., Ltd. guarantees the reliability of the data presented in this test report, which is the results of measurements and tests performed for the items under test on the date and under the conditions stated in this test report and is based on the knowledge and technical facilities available at **TA Technology (Shanghai) Co., Ltd.** at the time of execution of the test.

TA Technology (Shanghai) Co., Ltd. is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the items under test and the results of the test. This report only refers to the item that has undergone the test.

This report standalone dose not constitute or imply by its own an approval of the product by the certification Bodies or competent Authorities. This report cannot be used partially or in full for publicity and/or promotional purposes without previous written approval of **TA Technology (Shanghai) Co., Ltd.** and the Accreditation Bodies, if it applies.

1.2. Testing laboratory

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City: Shanghai
Post code: 201210
Country: P. R. China
Contact: Yang Weizhong
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: yangweizhong@ta-shanghai.com

1.3. Applicant Information

Company: Nokia Inc.
Address: 12278 Scripps Summit Drive 92131
City: San Diego, CA
Postal Code: 92131
Country: USA
Telephone: +1 858 831 5000
Fax: +1 858 831 6500

1.4. Manufacturer Information

Company: BYD Precision Manufacture Company Limited.
Address: No.1, kechuang Dong 5 jie, Tongzhou District
City: Beijing
Postal Code: 101111
Country: China
Telephone: +86 10 58018888 ext.71763
Fax: +86 10 58018888 ext.73000

1.5. Information of EUT

General information

| | | | |
|----------------------------------|------------------------------|----------------|----------------|
| Device type: | Portable device | | |
| Name of EUT: | CDMA Mobile phone | | |
| Device operating configurations: | | | |
| ESN: | A00000017A5276 | | |
| Operating mode(s): | CDMA Cellular: (tested) | | |
| Test modulation: | QPSK | | |
| Emission Designator | 1M25F9W | | |
| E.R.P | 22.75 dBm | | |
| Antenna type: | internal antenna | | |
| Power supply: | Battery or Charger | | |
| Rated Power Supply Voltage: | 3.7V | | |
| Extreme Voltage: | Minimum: 3.4V Maximum: 4.2V | | |
| Extreme Temperature: | Lowest: -30°C Highest: +50°C | | |
| Operating frequency range(s) | Band | Tx (MHz) | Rx (MHz) |
| | CDMA Cellular | 824.7 ~ 848.31 | 869.7 ~ 893.31 |
| Hardware version: | 3500 | | |
| Software version: | BJ_2000B02_R800 | | |

Auxiliary equipment details**AE1: Battery**

Model: BL-4C
 Manufacture: Nokia Inc.
 IMEI or SN: 0670389462040Q154D21817422

AE2: Travel Adaptor

Model: AC-6U
 Manufacture: Nokia Inc.
 IMEI or SN: 40904991139614028790675591

AE3:USB Cable

Model: CA-101
 IMEI or SN: 07306359124T1210504

AE4: Headset

Model: WH-101 HS-105
 Manufacture: 06942879184E2602758

Equipment Under Test (EUT) is CDMA Digital Mobile phone with internal antenna. It consists of mobile phone, battery and adaptor and the detail about these is in chapter 1.5 in this report. The EUT supports CDMA Cellular.

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

1.6. Test Date

The test is performed from September 6, 2009 to September 9, 2009.

1.7. Test report revision

| Date | Report No | Revision | Description |
|----------------|----------------|----------|---|
| Sept. 10 ,2009 | RZA2009-1166 | 0 | First Revision |
| Sept. 11 ,2009 | RZA2009-1166-1 | 1 | 1. Re-test E.R.P in semi-anechoic chamber and put E.R.P in page 6. 2. Change the manufacturer for BYD. |

2. Test Information

2.1. Summary of test results

| Number | Test Case | Clause in FCC rules | Verdict |
|--------|---|---------------------|---------|
| 1 | RF power output | 2.1046 | PASS |
| 2 | Effective Radiated power | 22.913(a)(2) | PASS |
| 3 | Occupied Bandwidth | 2.1049 | PASS |
| 4 | Band Edge Compliance | 22.917 | PASS |
| 5 | Frequency Stability | 2.1055 / 22.355 | PASS |
| 6 | Spurious Emissions at Antenna Terminals | 2.1051 / 22.917(a) | PASS |
| 7 | Radiates Spurious Emission | 2.1053 / 22.917 (a) | PASS |

2.2. RF Power Output

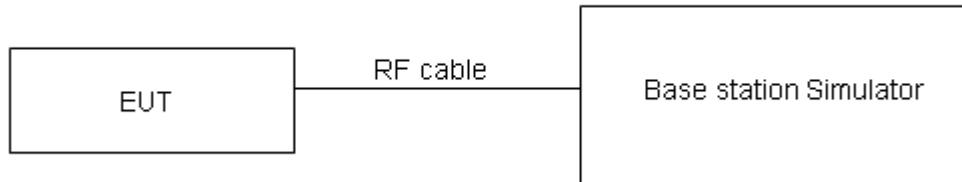
Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Methods of Measurement

During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation. These measurements have been tested at following channels: 1013, 384, 777 for CDMA Cellular

Test Setup



The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.

Limits

No specific RF power output requirements in part 2.1046.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$. $U = 0.4$ dB.

TA Technology (Shanghai) Co., Ltd.**Test Report**

Registration Num:428261

Report No.: RZA2009-1166

Page 10 of 38

Test Results

CDMA Cellular RC1

| Channel | Frequency (MHz) | Test Mode | RF Output Power (dBm) |
|---------|-----------------|-----------|-----------------------|
| 1013 | 824.7 | SO2 | 24.25 |
| | | SO55 | 24.20 |
| 384 | 836.52 | SO2 | 24.16 |
| | | SO55 | 24.18 |
| 777 | 848.31 | SO2 | 24.41 |
| | | SO55 | 24.45 |

CDMA Cellular RC3

| Channel | Frequency (MHz) | Test Mode | RF Output Power (dBm) |
|---------|-----------------|-----------|-----------------------|
| 1013 | 824.7 | SO2 | 24.30 |
| | | SO55 | 24.32 |
| 384 | 836.52 | SO2 | 24.23 |
| | | SO55 | 24.25 |
| 777 | 848.31 | SO2 | 24.55 |
| | | SO55 | 24.55 |

2.3. Effective Radiated power

Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Methods of Measurement

Test procedure:

The measurement was done according to TIA/EIA 603C.

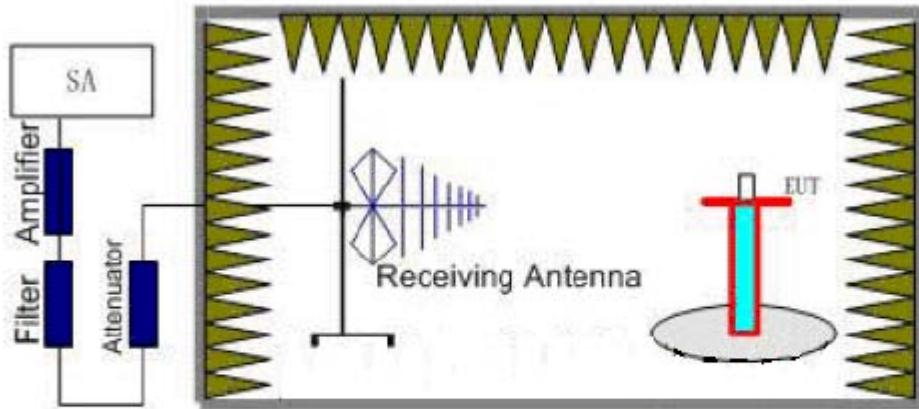
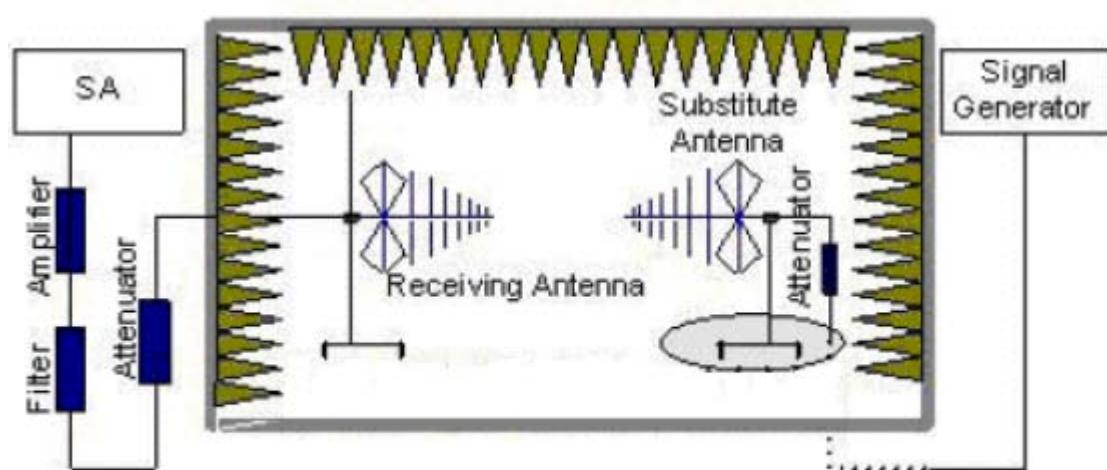
Step 1:

The measurement is carried out in the semi-anechoic chamber. EUT was placed on a 0.8 meters high non-conductive table at a 3 meters test distance from the test receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT. A radio link shall be established between EUT and Tester. The output power of the cell signal of the tester will be decreased until the output power of the EUT reach a maximum value. A peak detector is used while RBW and VBW are both set to 3MHz. During the measurement, the highest emission was recorded from analyzer power level(LVL) from the 360 degrees rotation of the turntable and the test antenna moved up and down over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.

Step 2:

A dipole antenna shall be substituted in place of the EUT. The antenna will be driven by a signal generator with a known power S.G. applied through a Tx cable. Then the maximum Analyzer reading is recorded while the antenna was moving up and down. The E.R.P. /E.I.R.P. of the EUT can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.

The correction factor (in dB)=S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading - 2.15. Then the EUT's E.R.P. was calculated with the correction factor, E.R.P. = LVL + Correction factor. The measurement will be conducted at three channels No.1013, No.384 and No.777 (Bottom, middle and top channels of CDMA 1X band) in RC3/SO55 test mode.

Test Setup**Step 1****Step 2****Limits**

Rule Part 22.913(a) specifies that "Mobile/portable stations are limited to 7 watts ERP".

| | |
|---------------------|------------------------|
| CDMA Cellular (ERP) | ≤ 7 W (38.45 dBm) |
|---------------------|------------------------|

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$. $U = 1.19$ dB

Test Results

CDMA Cellular –RC3/SO55

| Channel | Frequency (MHz) | LVL (EUT) | S.G | Gain (dBi) | Gain (dBd) | Cable Loss | LVL (dbm) | Correction Factor (dBm) | ERP (dBm) |
|---------|-----------------|-----------|-----|------------|------------|------------|-----------|-------------------------|-----------|
| 1013 | 824.7 | -7.39 | -20 | -0.93 | -3.08 | 0.5 | -53.32 | 29.74 | 22.35 |
| 384 | 836.52 | -6.81 | -20 | -0.94 | -3.09 | 0.5 | -53.15 | 29.56 | 22.75 |
| 777 | 848.31 | -7.85 | -20 | -0.96 | -3.11 | 0.5 | -53.69 | 30.08 | 22.23 |

2.4. Occupied Bandwidth

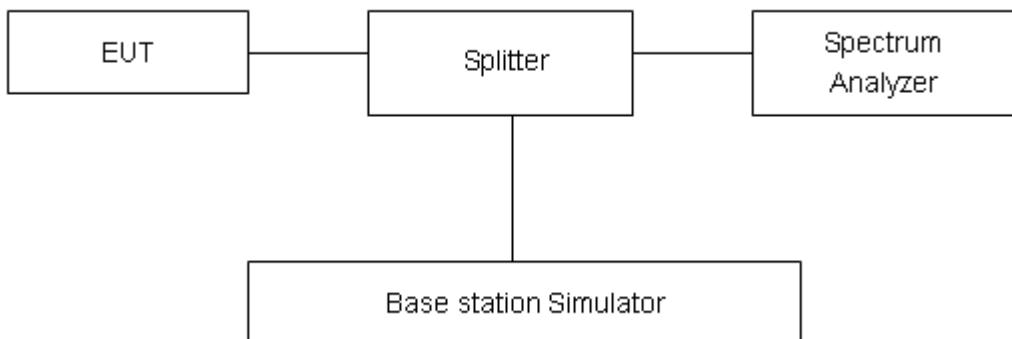
Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer. RBW is set to 30 kHz on spectrum analyzer. 99% power and -26dBC occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages. The measurement will be conducted at three channels No.1013, No.384 and No.777 (Bottom, middle and top channels of CDMA Cellular band) in RC3/SO55.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

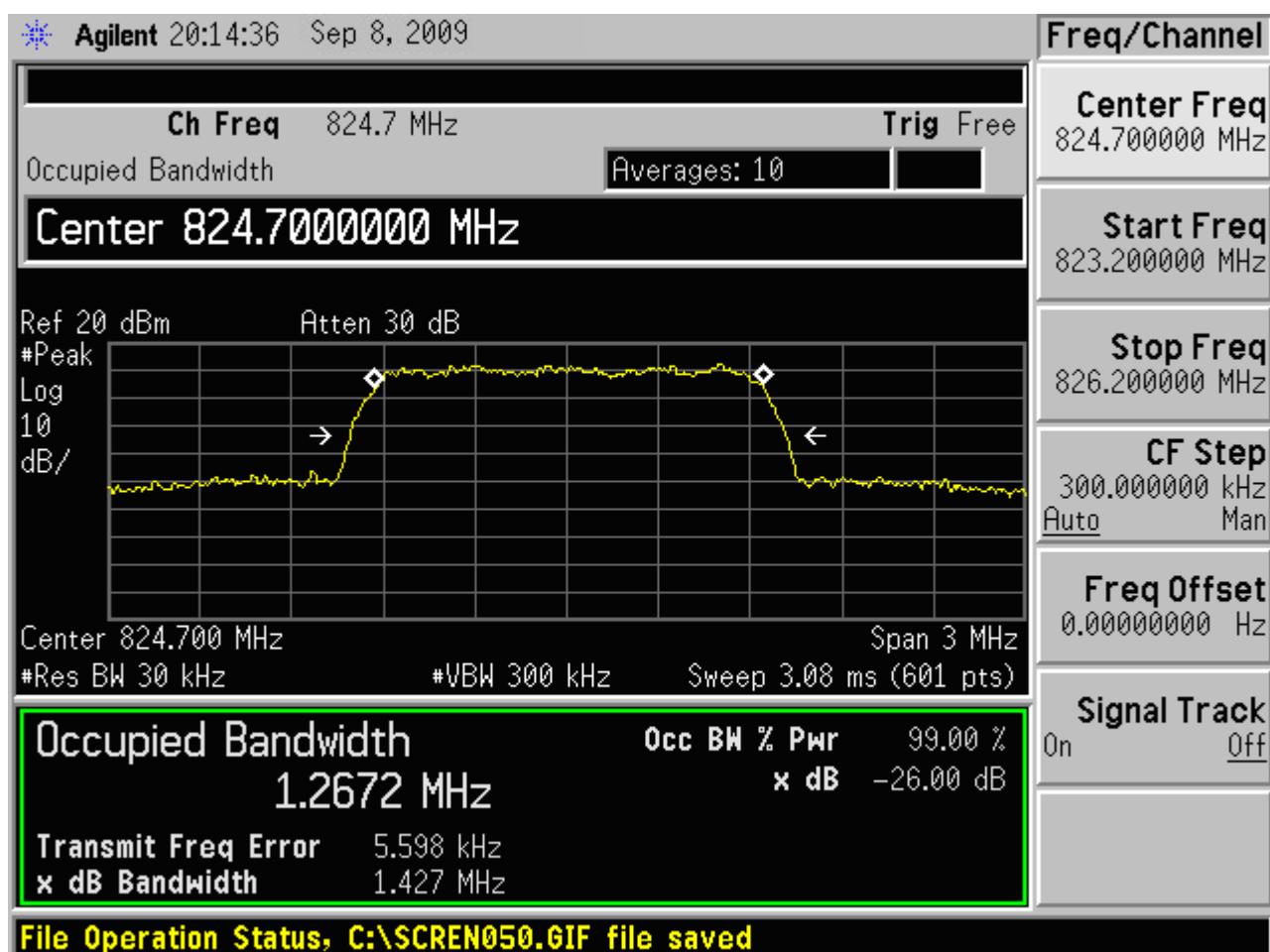
Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$. $U = 624\text{Hz}$.

Test Result

CDMA Cellular

| Channel | Frequency (MHz) | 99% Power Bandwidth (MHz) | -26dBc Bandwidth(MHz) |
|---------|-----------------|---------------------------|-----------------------|
| 1013 | 824.7 | 1.2672 | 1.427 |
| 384 | 836.52 | 1.2686 | 1.431 |
| 777 | 848.31 | 1.2742 | 1.431 |



CDMA Cellular CH1013 Occupied Bandwidth

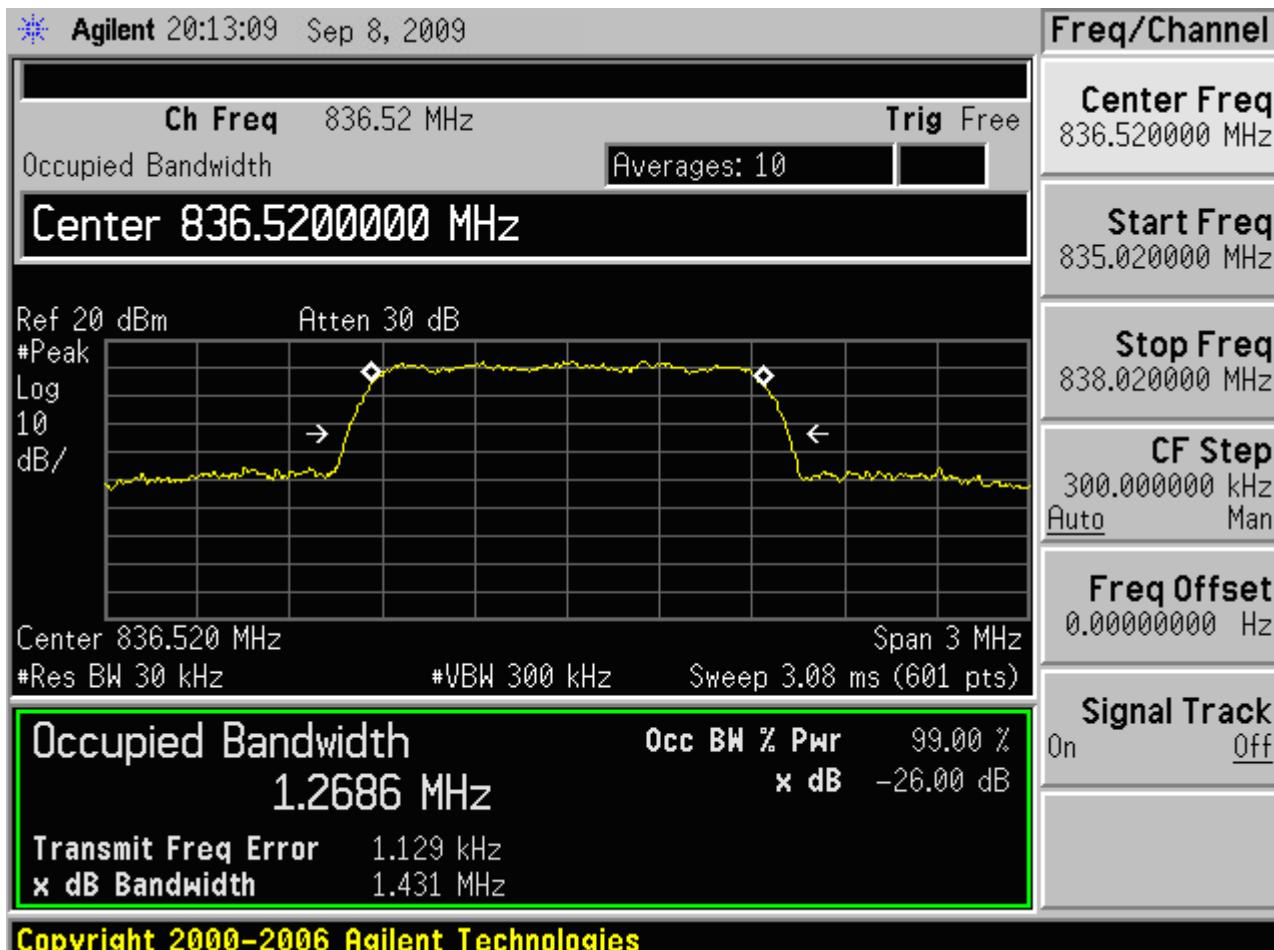
TA Technology (Shanghai) Co., Ltd.

Test Report

Registration Num:428261

Report No.: RZA2009-1166

Page 16 of 38



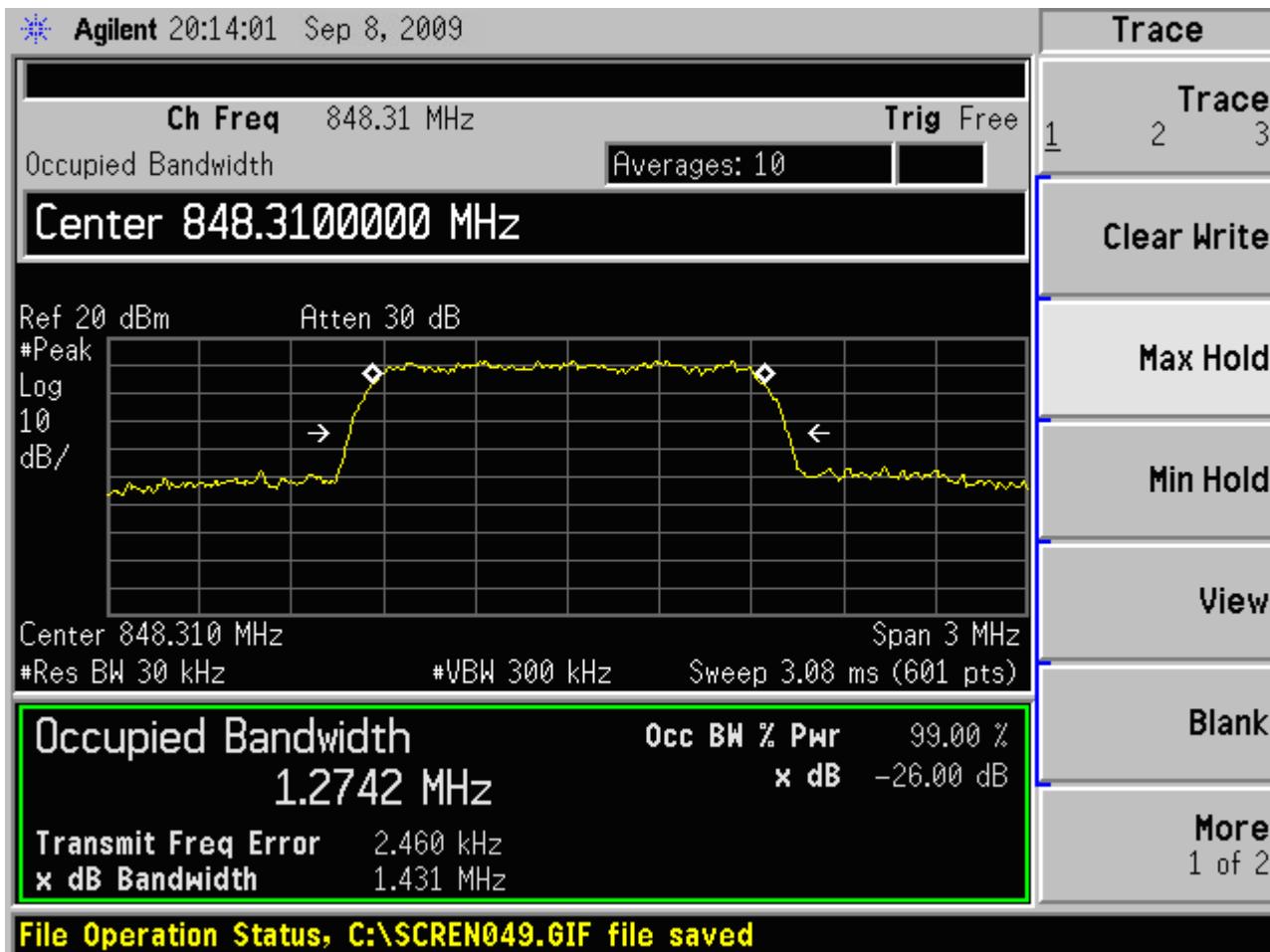
TA Technology (Shanghai) Co., Ltd.

Test Report

Registration Num:428261

Report No.: RZA2009-1166

Page 17 of 38



CDMA Cellular CH777 Occupied Bandwidth

2.5. Band Edge Compliance

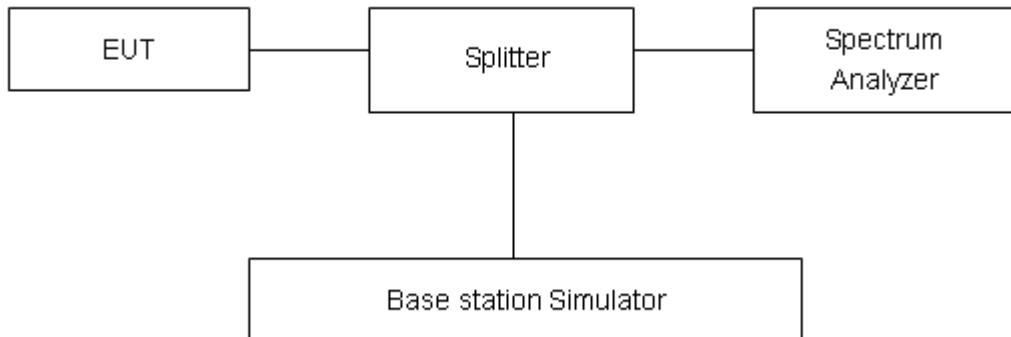
Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The band edge of the lowest and highest channels were measured. The peak detector is used and RBW is set to 30kHz on spectrum analyzer. Spectrum analyzer plots are included on the following pages. The measurement will be conducted at two channels No.1013 and No.777 (Bottom, middle and top channels of CDMA Cellular band) in RC3/SO55.

Test Setup



Limits

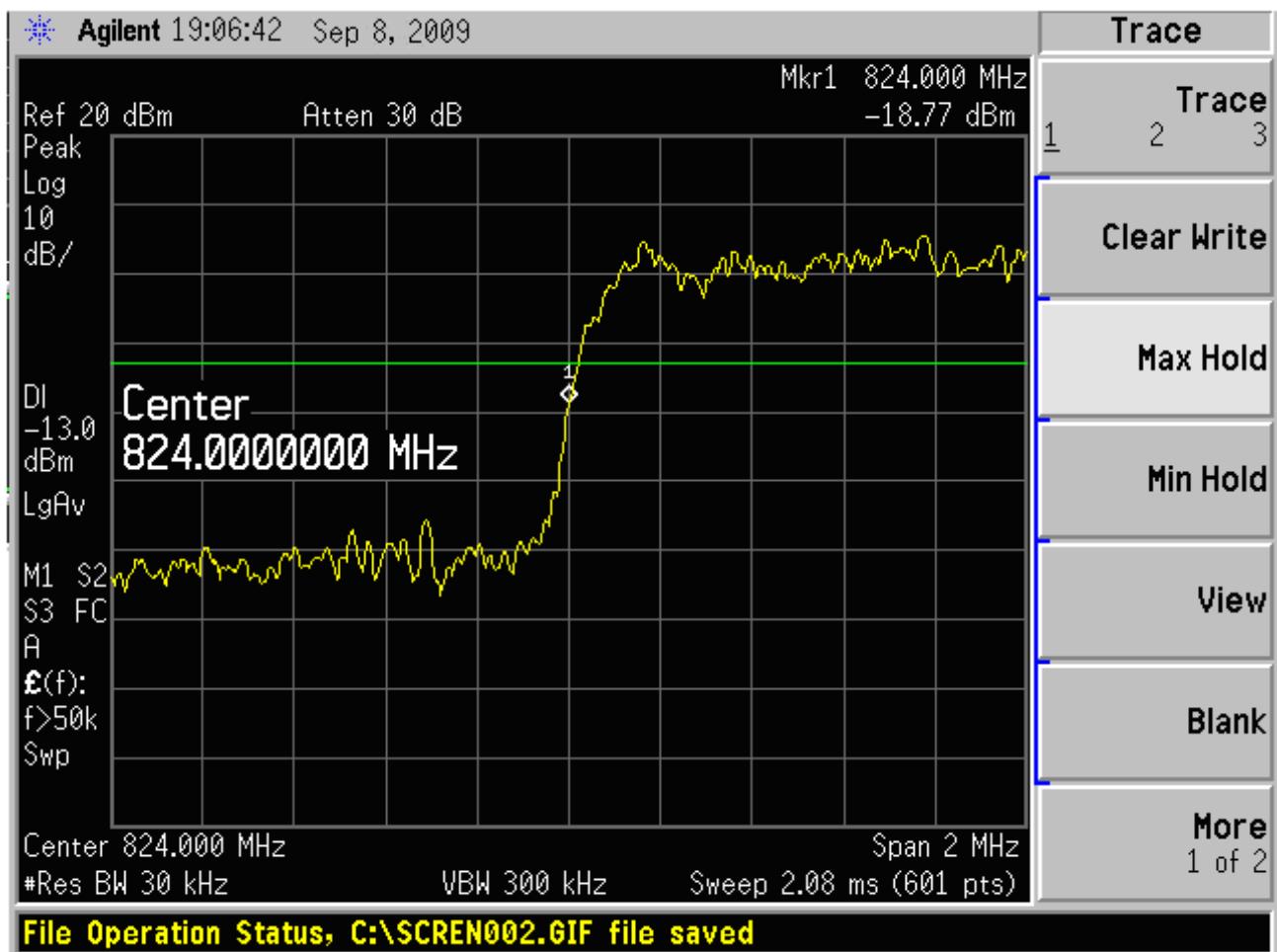
Rule Part 22.917(a) specifies that "The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB."

| | |
|-------|---------|
| Limit | -13 dBm |
|-------|---------|

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$. $U=0.684\text{dB}$.

Test Result



CDMA Cellular 1013 Channel

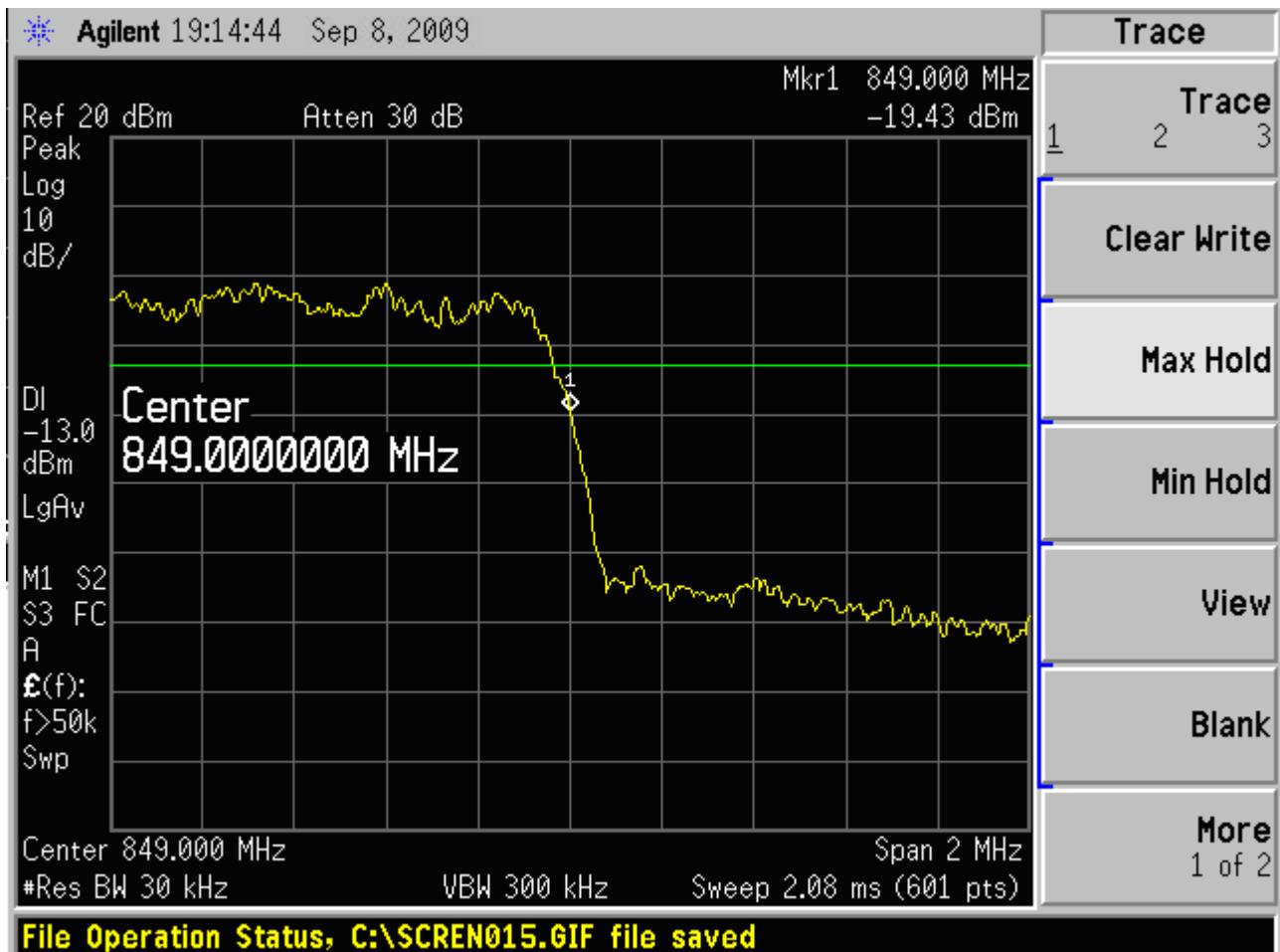
TA Technology (Shanghai) Co., Ltd.

Test Report

Registration Num:428261

Report No.: RZA2009-1166

Page 20 of 38



CDMA Cellular 777 Channel

2.6. Frequency Stability

Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Method of Measurement

1. Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30 to +50°C in 10°C step size,

(1) With all power removed, the temperature was decreased to -30°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a "call mode". These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

2. Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

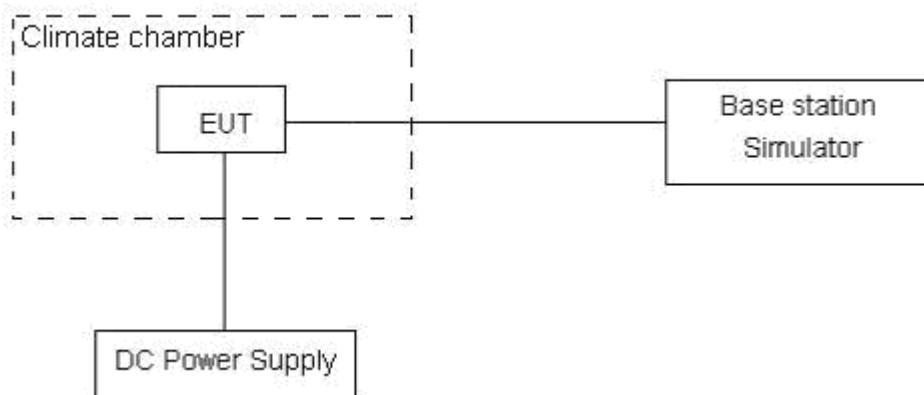
(1) Vary primary supply voltage from 85 to 115 percent of the nominal value for other than hand carried battery equipment.

(2) For hand carried, battery powered equipment, reduce primary supply voltage to the battery-operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.4 V and 4.2 V, with a nominal voltage of 3.7V.

The measurement will be conducted at three channels No.1013, No.384 and No.777 (Bottom, middle and top channels of CDMA Cellular band) in RC3/SO55.

Test setup



Limits

The frequency stability of the carrier shall be accurate to within 2.5 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 22.355 &24.235 Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

| | |
|--------|-----------|
| Limits | ≤ 2.5 ppm |
|--------|-----------|

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3$. $U = 0.01\text{ppm}$.

Test Result

| Temperature (° C) | Test Results (ppm) / 3.7 V Power supply | | |
|----------------------|---|-------------|-------------|
| | Channel 1013 | Channel 384 | Channel 777 |
| -30 | -0.005 | 0.006 | -0.007 |
| -20 | 0.002 | 0.003 | 0.004 |
| -10 | 0.006 | -0.007 | -0.004 |
| 0 | 0.003 | 0.004 | 0.006 |
| 10 | -0.006 | 0.007 | 0.003 |
| 20 | 0.002 | -0.003 | 0.006 |
| 30 | 0.006 | 0.007 | -0.007 |
| 40 | 0.003 | 0.004 | 0.004 |
| 50 | 0.007 | -0.007 | -0.007 |

TA Technology (Shanghai) Co., Ltd.**Test Report****Registration Num:428261**

Report No.: RZA2009-1166

Page 23 of 38

| Voltage (V) | Test Results(ppm) / 20° C | | |
|----------------|---------------------------|-------------|-------------|
| | Channel 1013 | Channel 384 | Channel 777 |
| 4.2 | -0.003 | -0.002 | 0.002 |
| 3.4 | 0.005 | -0.005 | -0.004 |

2.7. Spurious Emissions at Antenna Terminals

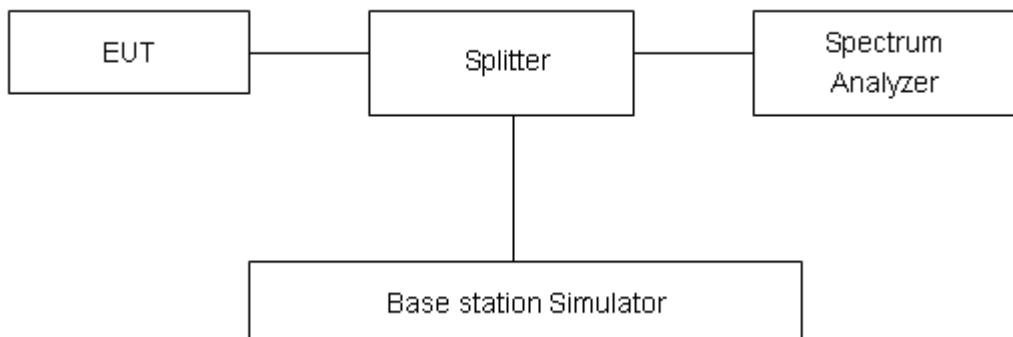
Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used and RBW is set to 1MHz on spectrum analyzer. The measurement will be conducted at three channels No.1013, No.384 and No.777 (Bottom, middle and top channels of CDMA Cellular band) in RC3/SO55.

Test setup



Limits

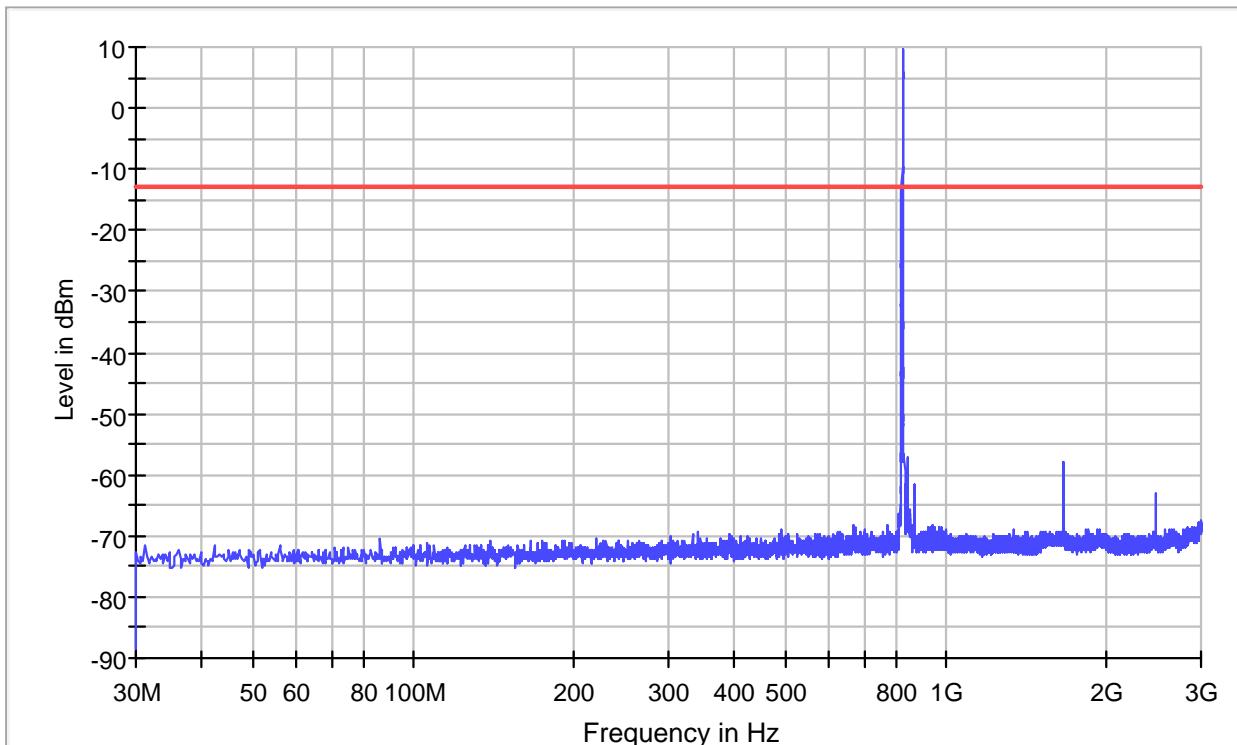
Rule Part 22.917(a) specifies that "The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB."

| | |
|-------|---------|
| Limit | -13 dBm |
|-------|---------|

Measurement Uncertainty

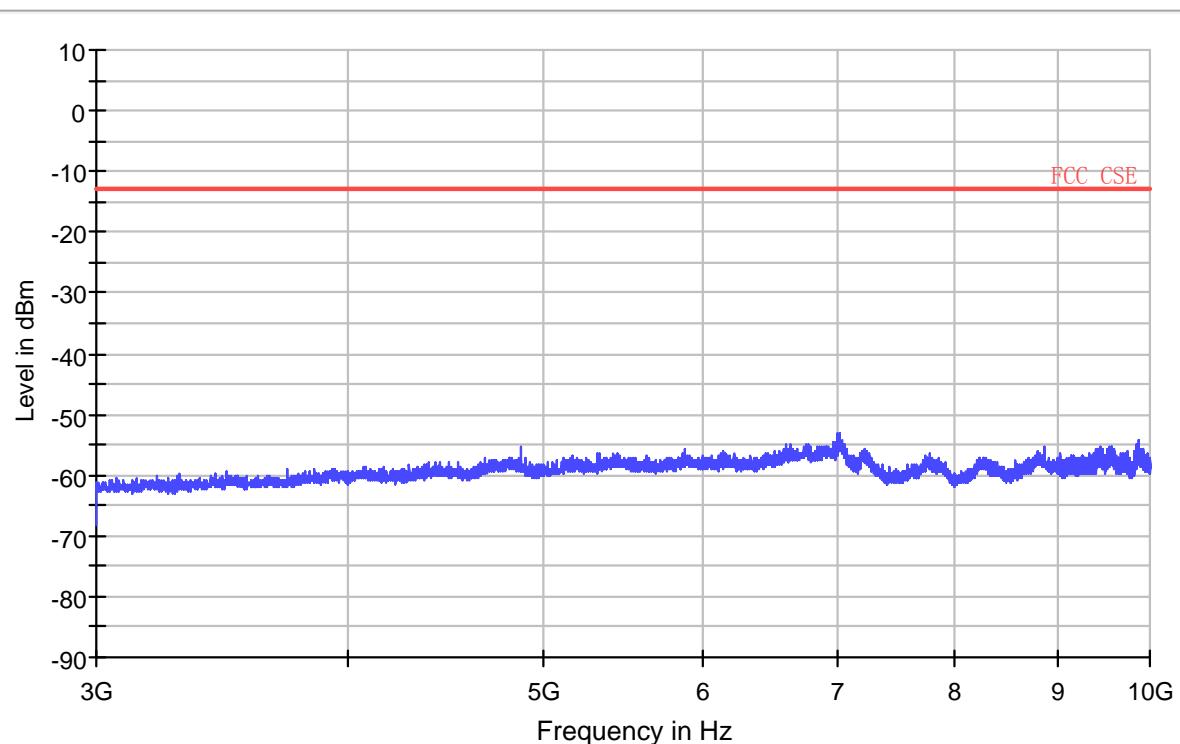
The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

| Frequency | Uncertainty |
|---------------|-------------|
| 100kHz-2GHz | 0.684 dB |
| 2GHz-12.75GHz | 1.407 dB |

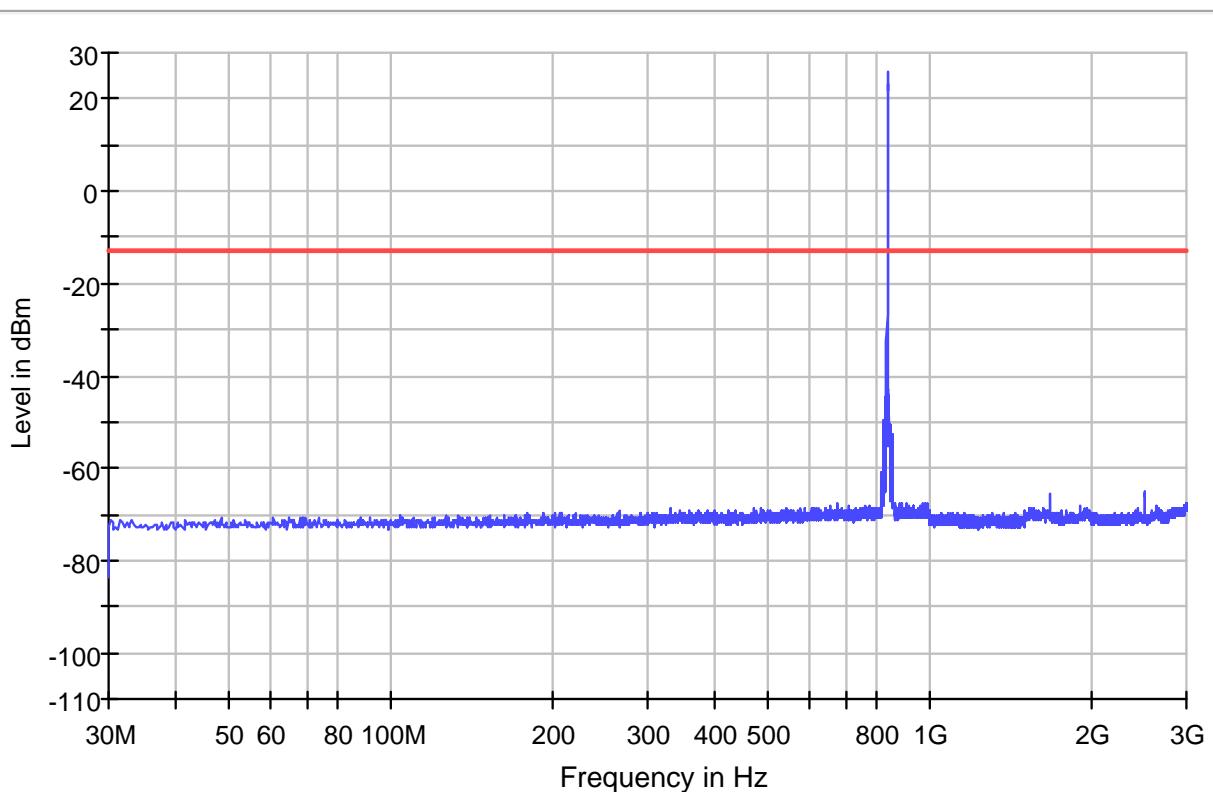
Test Result

Note: The signal beyond the limit is carrier.

CDMA Cellular Channel 1013 30MHz ~3 GHz

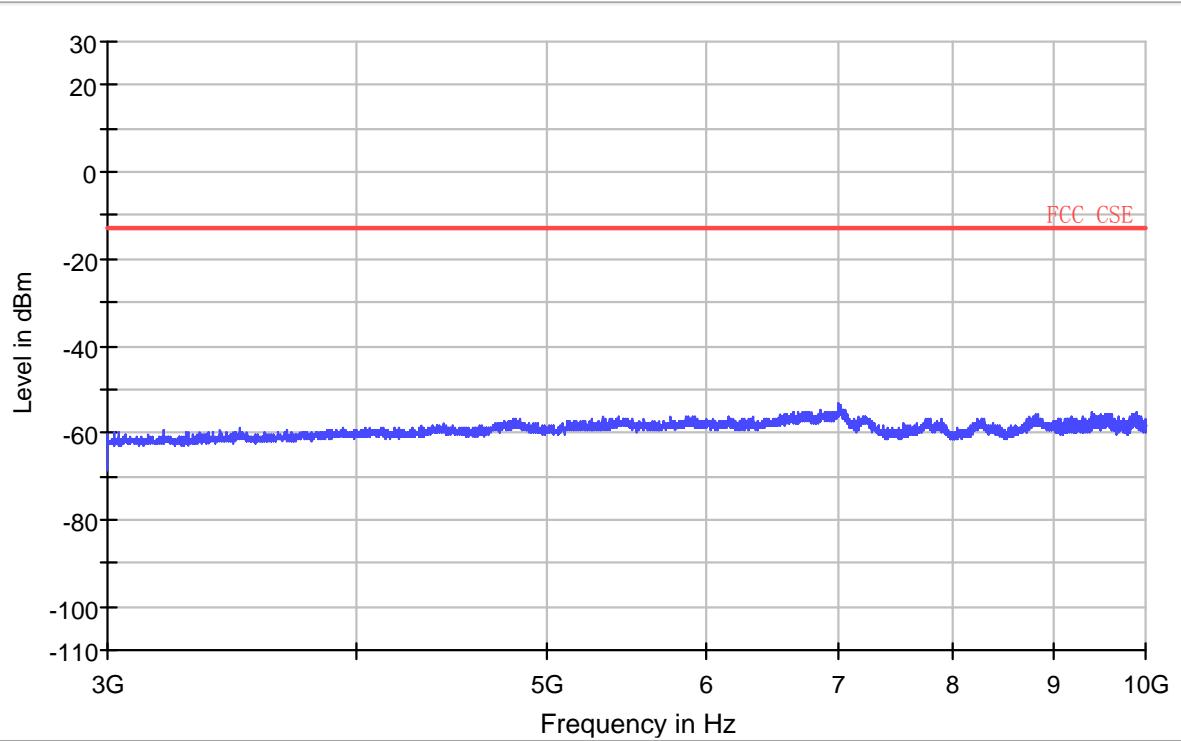


CDMA Cellular Channel 1013 3 GHz ~10 GHz

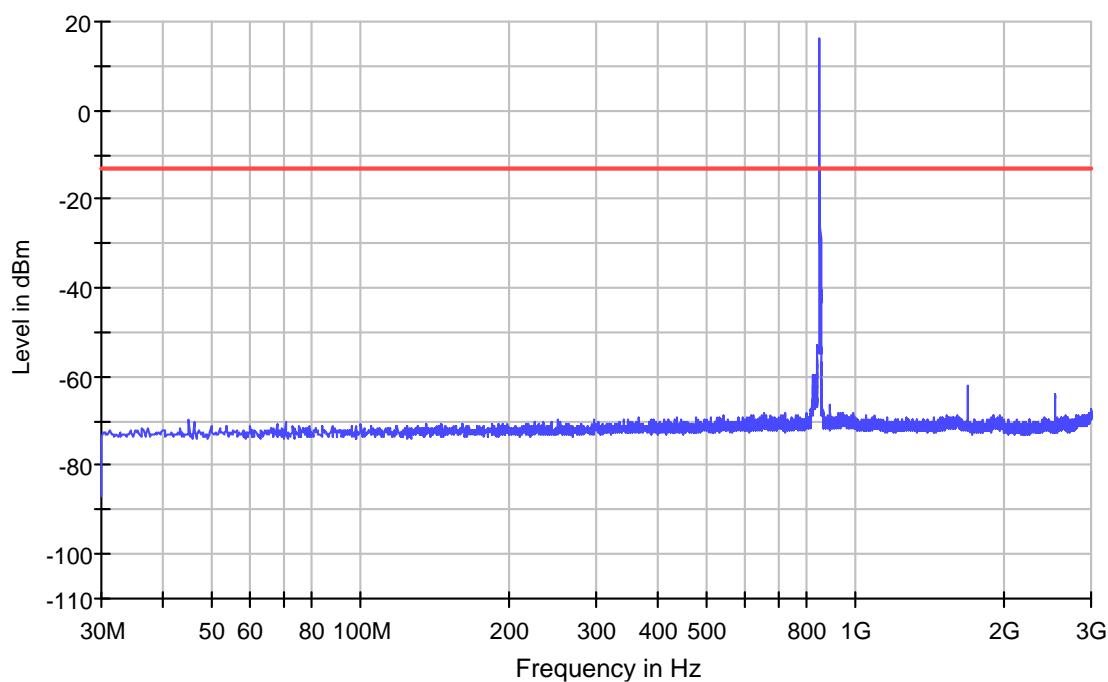


Note: The signal beyond the limit is carrier.

CDMA Cellular Channel 384 30MHz ~3 GHz



CDMA Cellular Channel 384 3GHz ~10 GHz



Note: The signal beyond the limit is carrier.

CDMA Cellular Channel 777 30MHz ~3 GHz

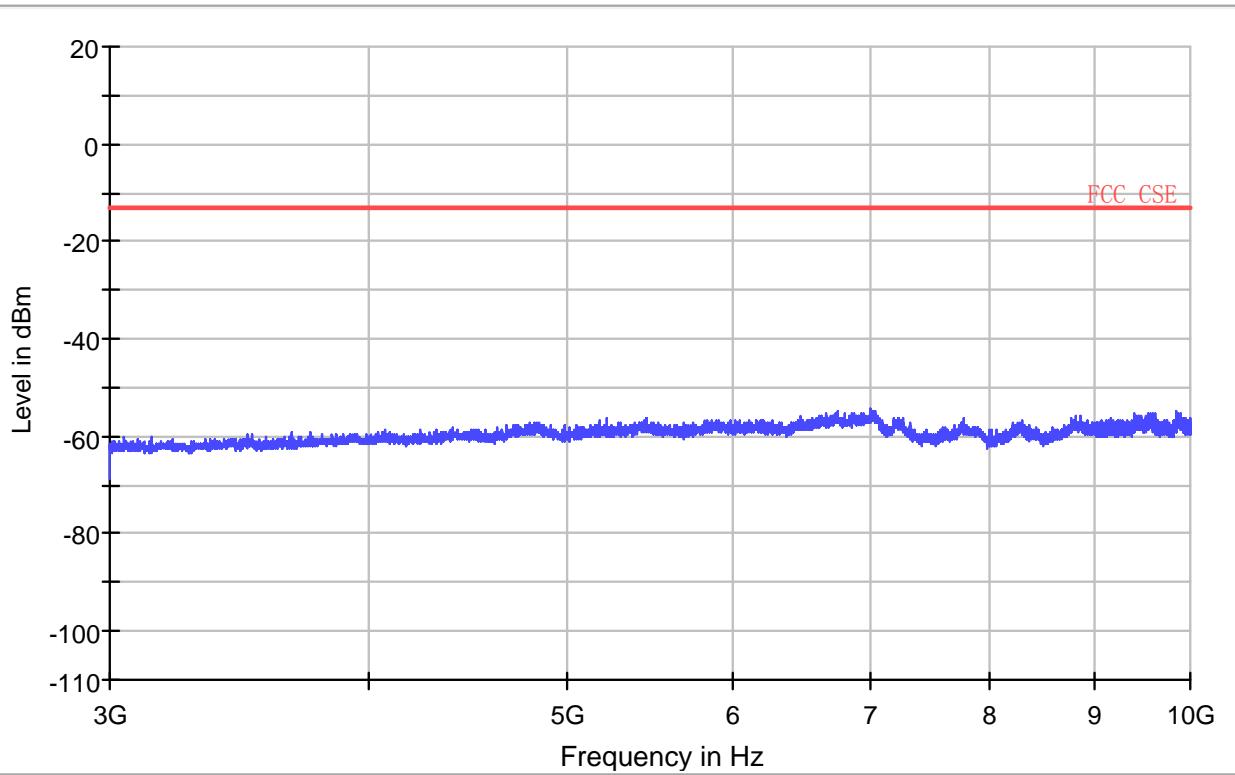
TA Technology (Shanghai) Co., Ltd.

Test Report

Registration Num:428261

Report No.: RZA2009-1166

Page 28 of 38



CDMA Cellular Channel 777 3 GHz ~10 GHz

| Harmonic | TX ch.1013 Frequency (MHz) | Level (dBm) | TX ch.384 Frequency (MHz) | Level (dBm) | TX ch.777 Frequency (MHz) | Level (dBm) |
|----------|----------------------------|-------------|---------------------------|-------------|---------------------------|-------------|
| 2 | 1649.4 | -57.84 | 1673.04 | -65.395 | 1696.62 | -61.86 |
| 3 | 2474.1 | -63.132 | 2509.56 | -64.949 | 2544.93 | -63.88 |
| 4 | 3298.8 | Nf | 3346.08 | Nf | 3393.24 | Nf |
| 5 | 4123.5 | Nf | 4182.6 | Nf | 4241.55 | Nf |
| 6 | 4948.2 | -55.22 | 5019.12 | Nf | 5089.86 | Nf |
| 7 | 5772.9 | Nf | 5855.64 | Nf | 5938.17 | Nf |
| 8 | 6597.6 | Nf | 6692.16 | Nf | 6786.48 | Nf |
| 9 | 7422.3 | Nf | 7528.68 | Nf | 7634.79 | Nf |
| 10 | 8247 | Nf | 8365.2 | Nf | 8483.1 | Nf |

Nf: noise floor

2.8. Radiates Spurious Emission

Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 24°C | 50% | 101.5kPa |

Method of Measurement

The measurements procedures in TIA -603C are used.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment. The measurement will be conducted at three channels No.1013, No.384 and No.777 (Bottom, middle and top channels of CDMA 1X band) in RC3/SO55.

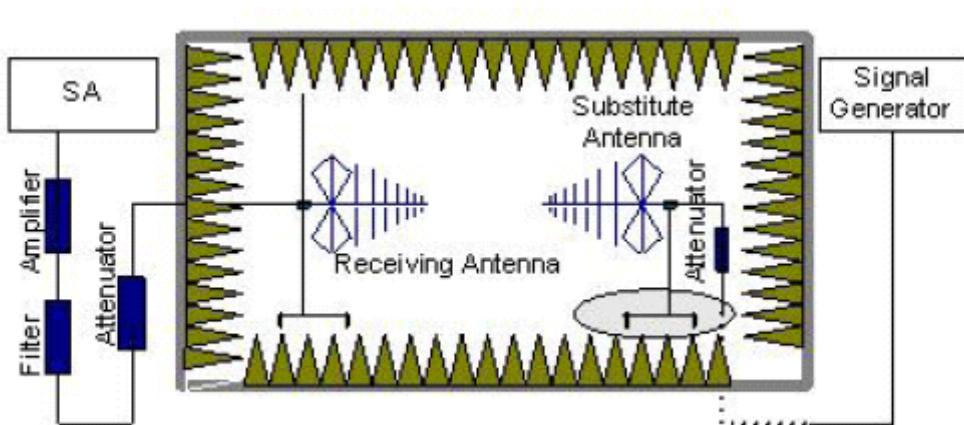
The data of cable loss and antenna Gain has been calibrated in full testing frequency range before the testing.

The procedure of Radiates Spurious Emission is as follows:

1. Pre-calibration

In a fully anechoic chamber, A log-periodic antenna or double-ridged waveguide horn antenna shall be substituted at a 3 meter test distance from the receive antenna. An RF signal source is connected to the dipole with a Tx cable that has been constructed to not interfere with radiation pattern of the antenna. A known (measured) power (P_{in}) is applied to input of dipole, and the power received (P_r) is recorded from the spectrum analyzer.

“Reference Path loss” is established as $P_{in} - P_r - \text{Tx cable loss} + \text{Substitution antenna gain}$.



2. EUT Test

EUT was placed on a 1.5 meter high non – conductive table at a 3 meter test distance from the receive antenna. The height of receiving antenna is 1.5 m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the table and adjusting the receiving antenna polarization. The measurement is carried out using a spectrum analyzer .The radiated emission measurements of all non-harmonic and harmonic of the transmit frequency from 30MHz to the 10th harmonic were measured with peak detector and 1MHz bandwidth. A notch filter is

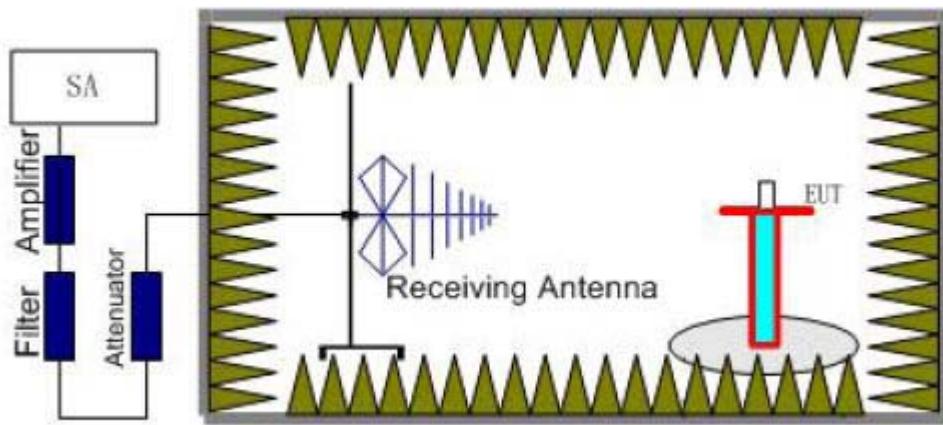
necessary in the band near to the carrier frequency. A high pass filter is needed to avoid the distortion of the testing equipment in the band above the carrier frequency. If the harmonic could not be detected above the noise floor, the ambient level was recorded.

The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.

Calculation procedure:

$RSE = Rx \text{ (dBm)} + \text{Reference Path loss}$

Rx: reading of the receiver



Limits

Rule Part 22.917(a) specifies that "The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB."

| | |
|-------|---------|
| Limit | -13 dBm |
|-------|---------|

Measurement Uncertainty

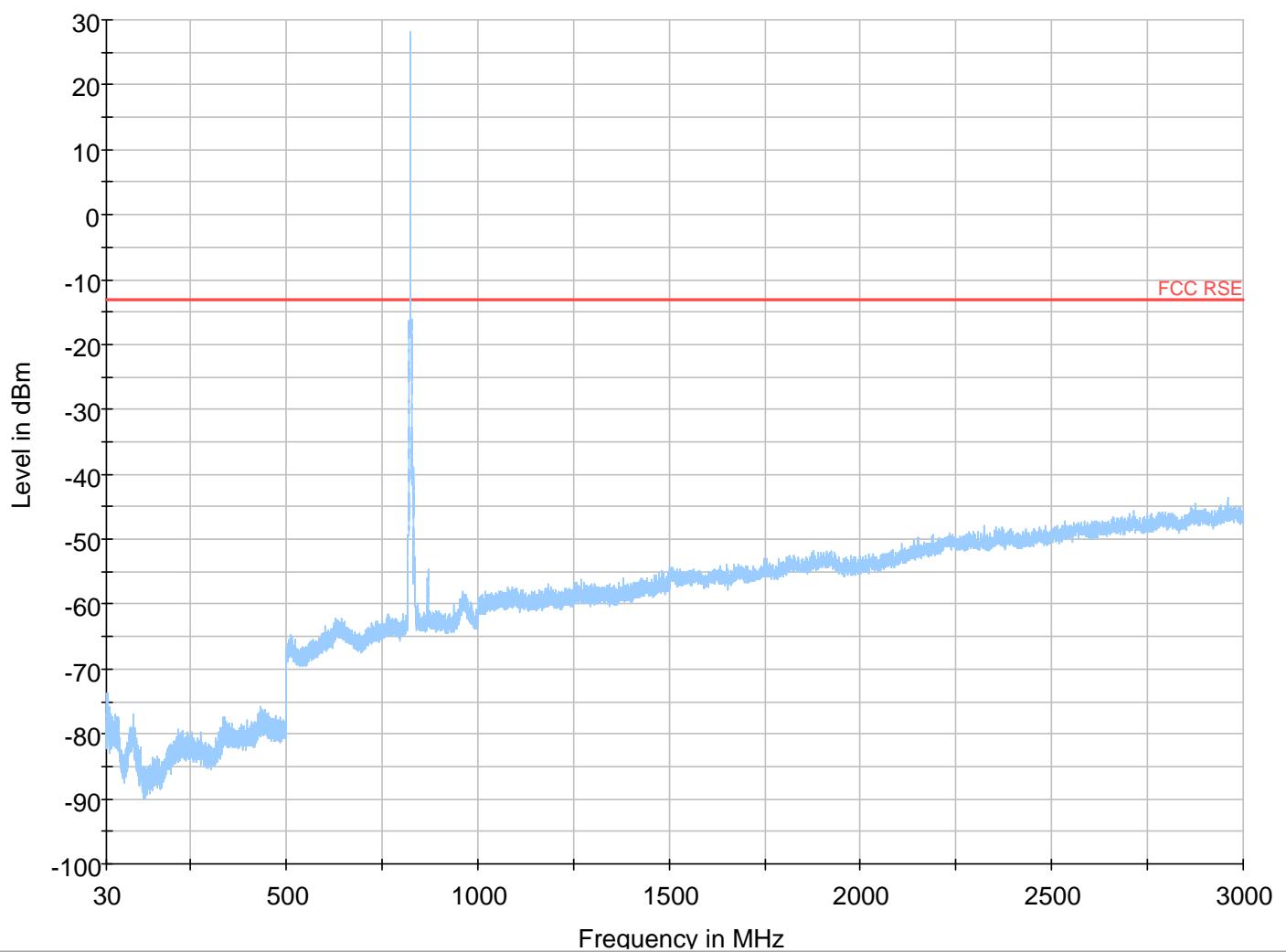
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$. $U=3.16$ dB.

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 31 of 38

Test Result



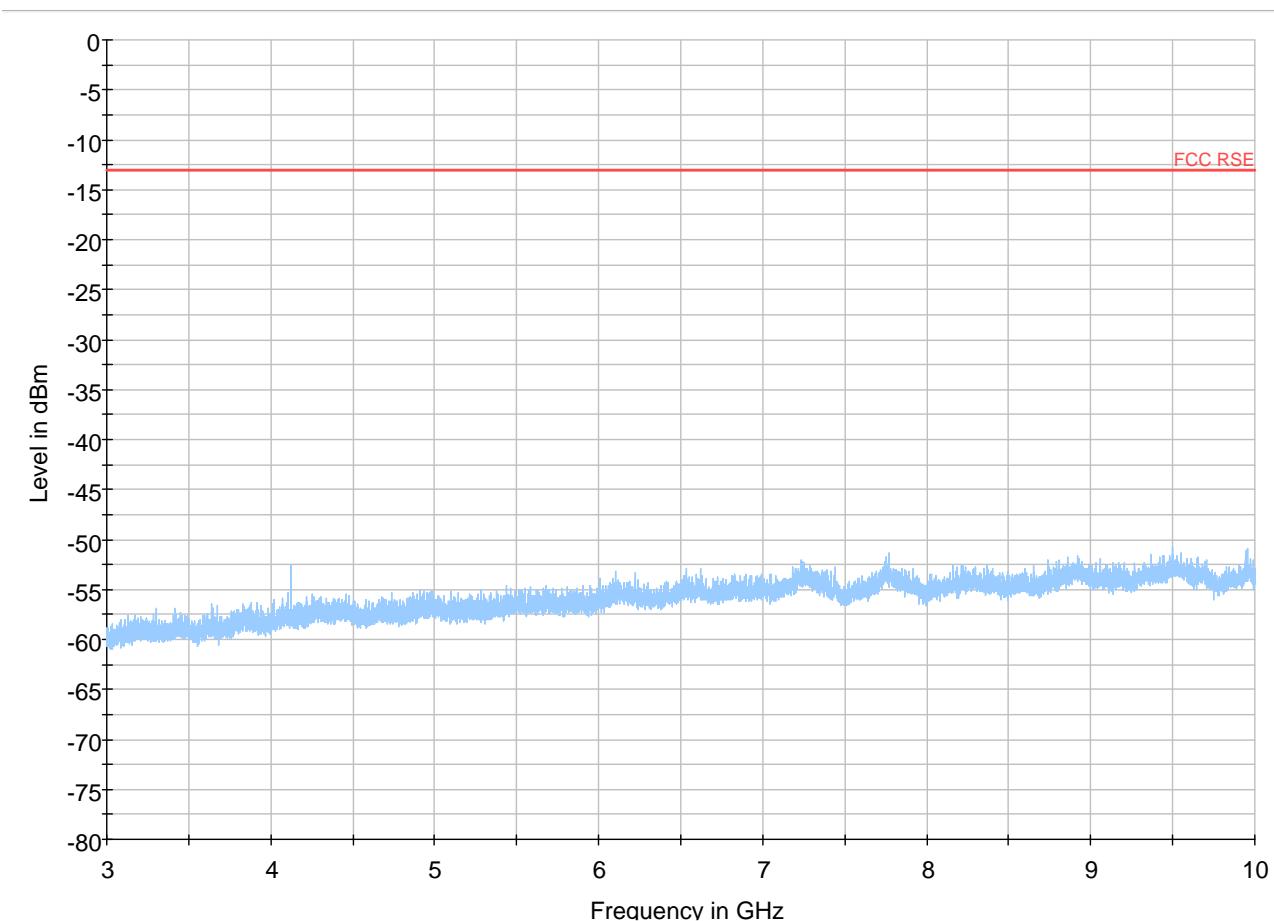
Note: The signal beyond the limit is carrier.

CDMA Cellular 1013 Channel 30MHz~3GHz

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 32 of 38



CDMA Cellular 1013 Channel 3GHz ~10GHz

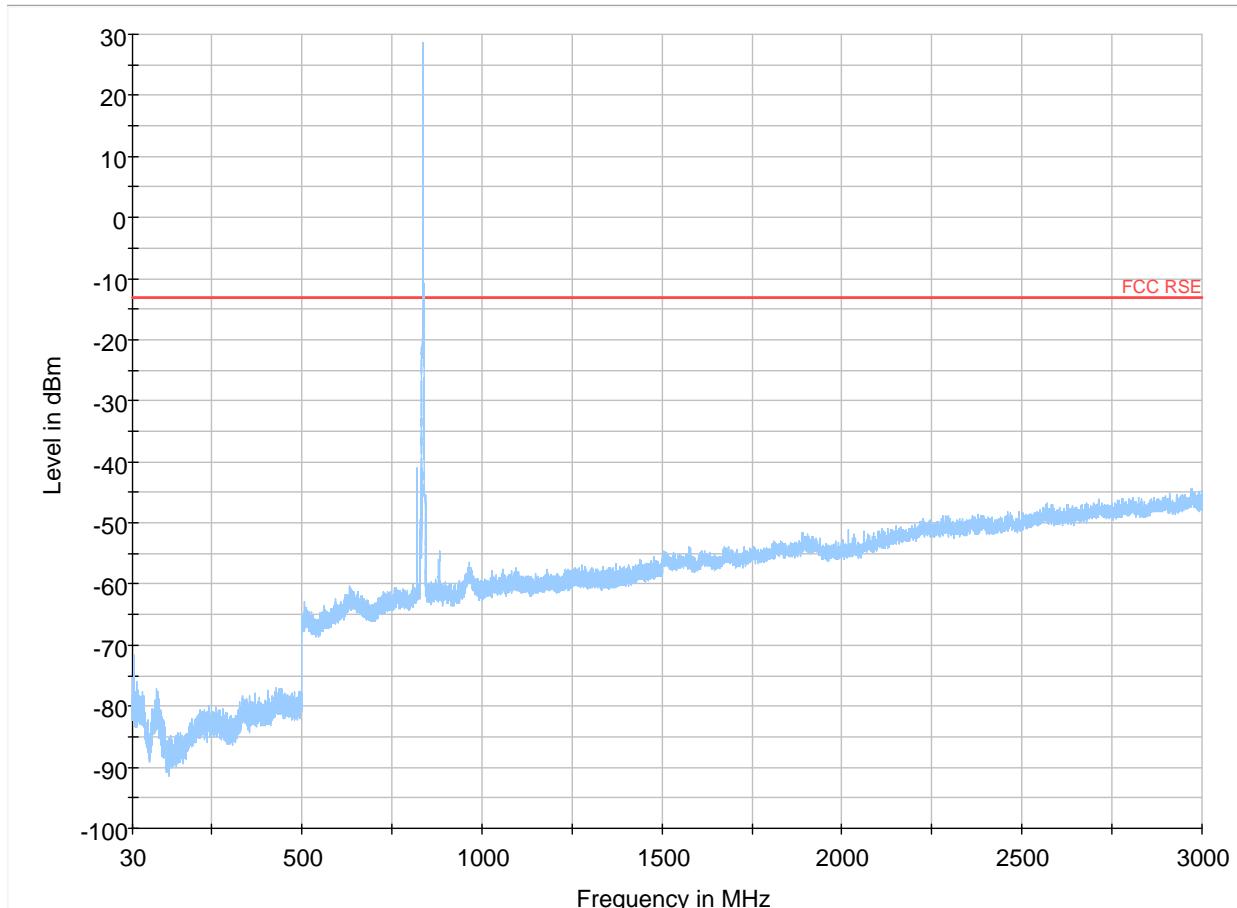
| Harmonic | TX ch.1013 Frequency (MHz) | Level (dBm) | Limit (dBm) |
|----------|----------------------------|-------------|-------------|
| 2 | 1649.4 | Nf | -13 |
| 3 | 2474.1 | Nf | -13 |
| 4 | 3298.8 | Nf | -13 |
| 5 | 4123.5 | 52.65 | -13 |
| 6 | 4948.2 | Nf | -13 |
| 7 | 5772.9 | Nf | -13 |
| 8 | 6597.6 | Nf | -13 |
| 9 | 7422.3 | Nf | -13 |
| 10 | 8247 | Nf | -13 |

Nf: noise floor

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 33 of 38



Note: The signal beyond the limit is carrier.

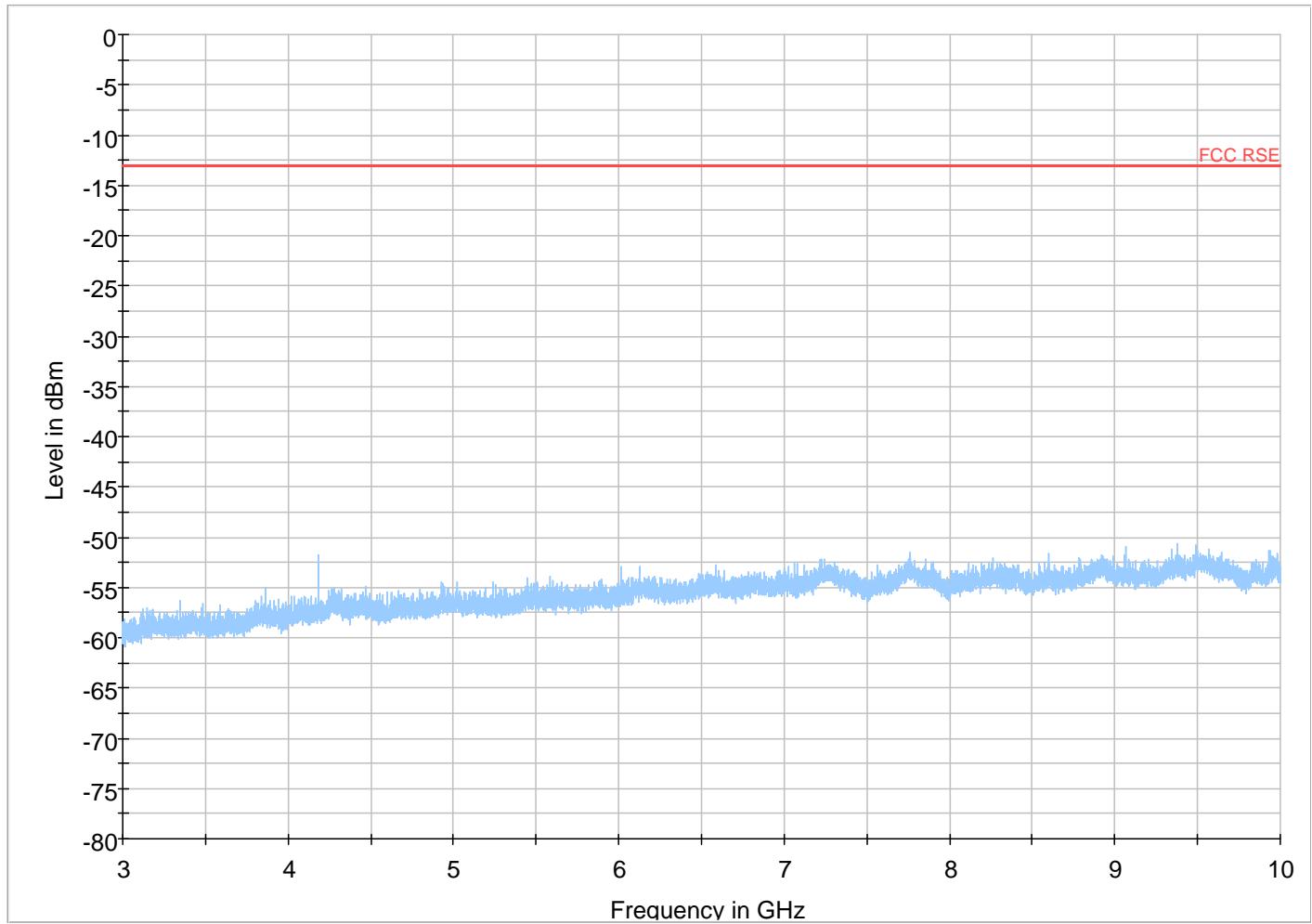
CDMA Cellular 384 Channel 30MHz~3GHz

TA Technology (Shanghai) Co., Ltd.**Test Report**

Registration Num:428261

Report No.: RZA2009-1166

Page 34 of 38



CDMA Cellular 384 Channel 3GHz ~10GHz

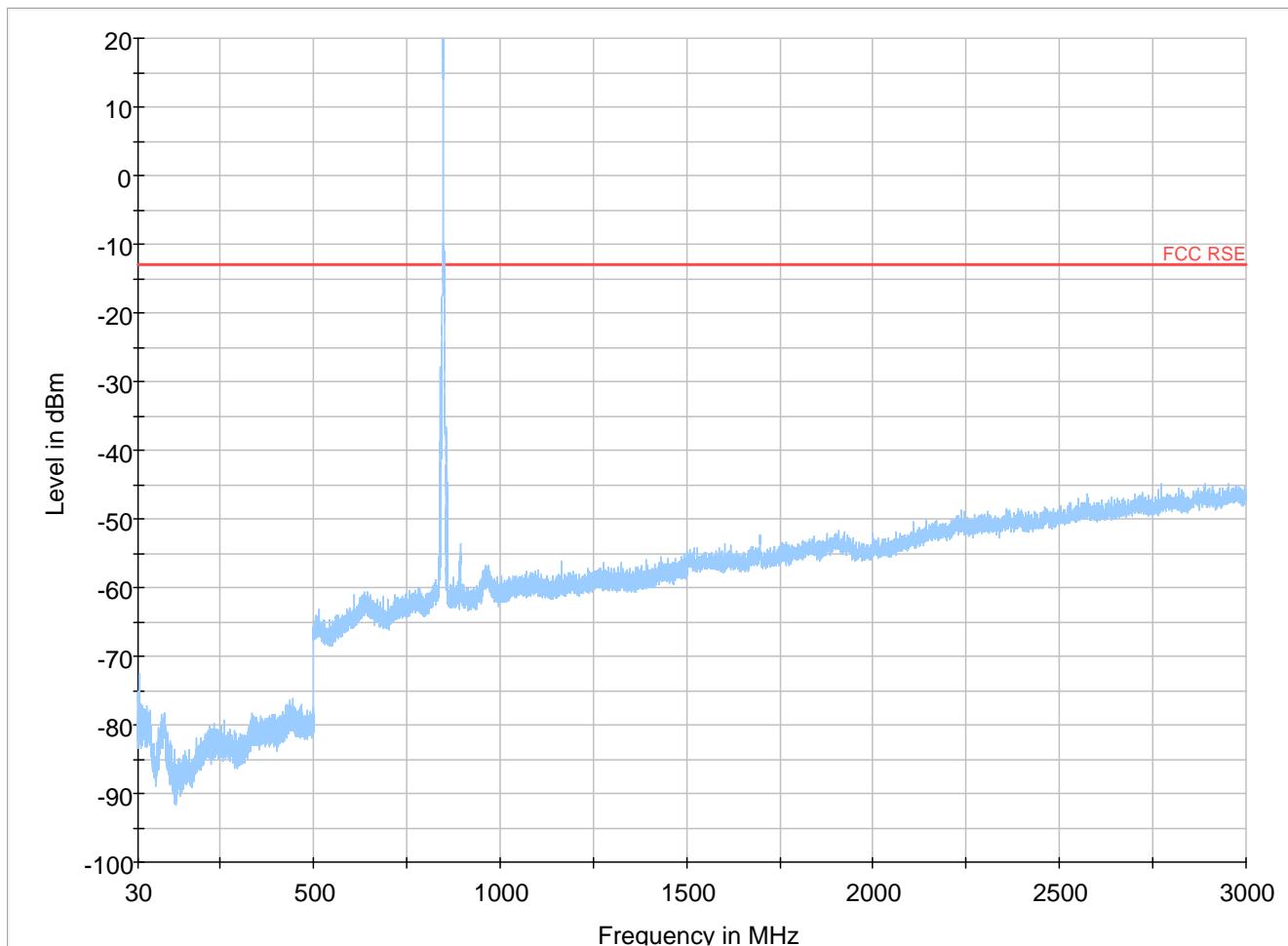
| Harmonic | TX ch.384 Frequency (MHz) | Level (dBm) | Limit (dBm) |
|----------|------------------------------|----------------|----------------|
| 2 | 1673.04 | Nf | -13 |
| 3 | 2509.56 | Nf | -13 |
| 4 | 3346.08 | Nf | -13 |
| 5 | 4182.6 | -51.77 | -13 |
| 6 | 5019.12 | Nf | -13 |
| 7 | 5855.64 | Nf | -13 |
| 8 | 6692.16 | Nf | -13 |
| 9 | 7528.68 | Nf | -13 |
| 10 | 8365.2 | Nf | -13 |

Nf: noise floor

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 35 of 38



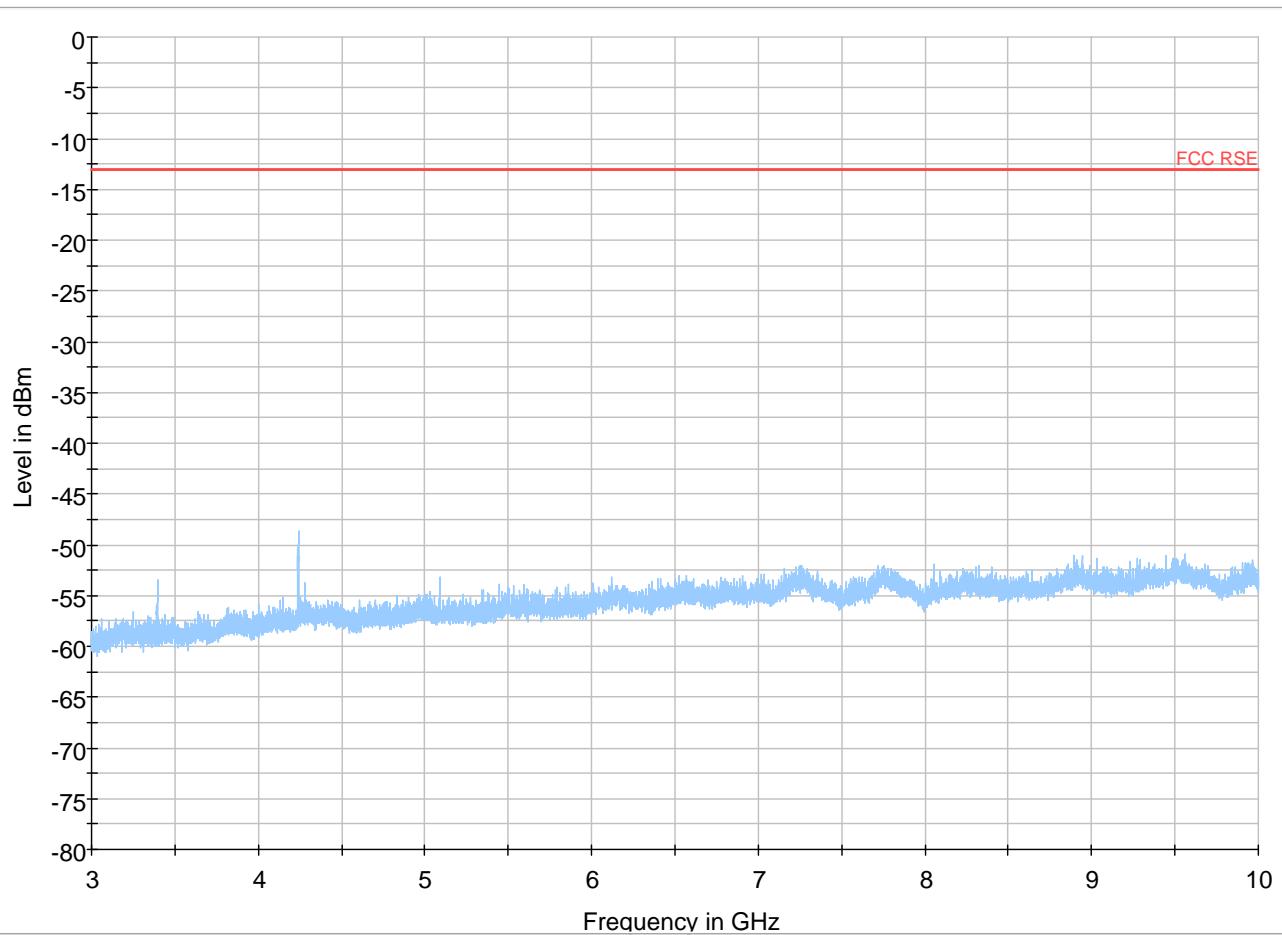
Note: The signal beyond the limit is carrier.

CDMA Cellular 777 Channel 30MHz~3GHz

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 36 of 38



Note: The signal beyond the limit is carrier.

CDMA Cellular 777 Channel 3GHz ~10GHz

| Harmonic | TX ch.777 Frequency (MHz) | Level (dBm) | Limit (dBm) |
|----------|---------------------------|-------------|-------------|
| 2 | 1696.62 | Nf | -13 |
| 3 | 2544.93 | Nf | -13 |
| 4 | 3393.24 | -53.442 | -13 |
| 5 | 4241.55 | -48.995 | -13 |
| 6 | 5089.86 | -53.23 | -13 |
| 7 | 5938.17 | Nf | -13 |
| 8 | 6786.48 | Nf | -13 |
| 9 | 7634.79 | Nf | -13 |
| 10 | 8483.1 | Nf | -13 |

Nf: noise floor

3. Main Test Instruments

| No. | Name | Type | Manufacturer | Serial Number | Calibration Date | Valid Period |
|-----|----------------------------|--------------|--------------|---------------|------------------|--------------|
| 01 | Base Station Simulator | CMU200 | R&S | 118133 | 2009-06-02 | One year |
| 02 | Base Station Simulator | E5515C | Agilent | GB46490218 | 2008-09-14 | One year |
| 03 | Signal Analyzer | FSV | R&S | 100815 | 2009-06-29 | One year |
| 04 | Signal generator | SMR27 | R&S | 1606.6000.02 | 2009-06-29 | One year |
| 05 | Spectrum Analyzer | E4445A | Agilent | MY46181166 | 2009-06-08 | One year |
| 06 | EMI Test Receiver | ESCI | R&S | 100948 | 2009-07-02 | One year |
| 07 | Trilog Antenna | VULB 9163 | SCHWARZB ECK | 9163-391 | 2009-05-14 | One year |
| 08 | Horn Antenna | HF907 | R&S | 100126 | 2009-05-20 | One year |
| 09 | Quad-Ridge Horn Antenna | 3164-03 | ETS-Lindgren | 1064 | 2009-05-20 | One year |
| 10 | Power Splitter | 11667A | Agilent | 52960 | NA | NA |
| 11 | DC Power Supply | GPS-3030D | GM | E877677 | NA | NA |
| 12 | Climatic Chamber | ESS-SDH401 | YIN HE | 2006001 | 2009-02-23 | One year |
| 13 | Semi-Anechoic Chamber | 9.6*6.7*6.6m | ETS-Lindgren | NA | NA | NA |
| 14 | OTA Fully-Anechoic Chamber | 7.4*3.6*3.6m | ETS-Lindgren | 3658 | NA | NA |
| 15 | EMI test software | ES-K1 | R&S | NA | NA | NA |
| 16 | OTA test software | EMQuest | ETS-Lindgren | NA | NA | NA |

*****END OF REPORT BODY*****

TA Technology (Shanghai) Co., Ltd.
Test Report
Registration Num:428261

Report No.: RZA2009-1166

Page 38 of 38

ANNEX A: EUT Test Setup