



# FCC RF Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : CDMA/LTE Multi-mode Digital Mobile Phone  
**BRAND NAME** : ZTE  
**MODEL NAME** : ZTE N9520  
**FCC ID** : SRQ-ZTEN9520  
**STANDARD** : FCC 47 CFR Part 2, and 90(S)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 14, 2013 and completely tested on Oct. 22, 2013. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-C-2004 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Manager

Approved by: Jones Tsai / Manager

**SPORTON INTERNATIONAL (KUNSHAN) INC.**  
**No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.**



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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	§2.1046	Conducted Output Power	N/A , Reporting only	PASS	-
3.2	§90.635(b)	Effective Radiated Power	< 100 Watts (50dBm)	PASS	-
3.3	§2.1049 §90.209	Bandwidth limitations	N/A, Reporting only	PASS	-
3.4	§2.1051 §90.691	Emission masks – In-band emissions	< 50+10log <sub>10</sub> (P[Watts])	PASS	-
3.5	§2.1051 §90.691	Emission masks – Out of band emissions	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
3.6	§2.1053 §90.691	Field Strength of Spurious Radiation	< 43+10log <sub>10</sub> (P[Watts])	PASS	Under limit 37.15 dB at 2462.000 MHz
3.7	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	< 2.5 ppm	PASS	-



# 1 General Description

## 1.1 Applicant

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.2 Manufacturer

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.3 Feature of Equipment Under Test

Product Feature	
Equipment	CDMA/LTE Multi-mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N9520
FCC ID	SRQ-ZTEN9520
EUT supports Radios application	CDMA/EV-DO/LTE/ WLAN 2.4GHz 802.11bgn / Bluetooth v3.0 + EDR / Bluetooth v4.0
HW Version	cyyB
SW Version	N9520V1.0.0B02
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Product Specification subjective to this standard	
Tx Frequency	CDMA2000 BC10 : 817.9 MHz ~ 823.1 MHz
Rx Frequency	CDMA2000 BC10 : 862.9 MHz ~ 868.1 MHz
Maximum Output Power to Antenna	CDMA2000 BC10 : 24.46 dBm
Antenna Type	PIFA Antenna
Type of Modulation	CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK



### 1.4 Maximum ERP Power, Frequency Tolerance, and Emission Designator

FCC Rule	System	Type of Modulation	Maximum ERP (W)	Frequency Tolerance (% , Hz, ppm)	Emission Designator
Part 90S	CDMA2000 BC10 1xRTT	QPSK	0.11	0.05 ppm	1M28F9W

### 1.5 Testing Site

<b>Test Site</b>	SPORTON INTERNATIONAL (KUNSHAN) INC.		
<b>Test Site Location</b>	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC Registration No.</b>
	TH01-KS	OTA01-KS	149928

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.		
<b>Test Site Location</b>	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755- 3320-2398		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC Registration No.</b>
	03CH01-SZ		831040

## 1.6 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ Preliminary Guidance for Receiving Applications for Certification of 3G Device. May 9, 2006.
- ♦ FCC 47 CFR Part 2, 90
- ♦ ANSI / TIA / EIA-603-C-2004

### Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

## 1.7 Ancillary Equipment List

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
3.	System Simulator	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m

## 2 Test Configuration of Equipment Under Test

### 2.1 Test Mode

During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Frequency range investigated for radiated emission is 30 MHz to 9000 MHz for CDMA2000 BC10.

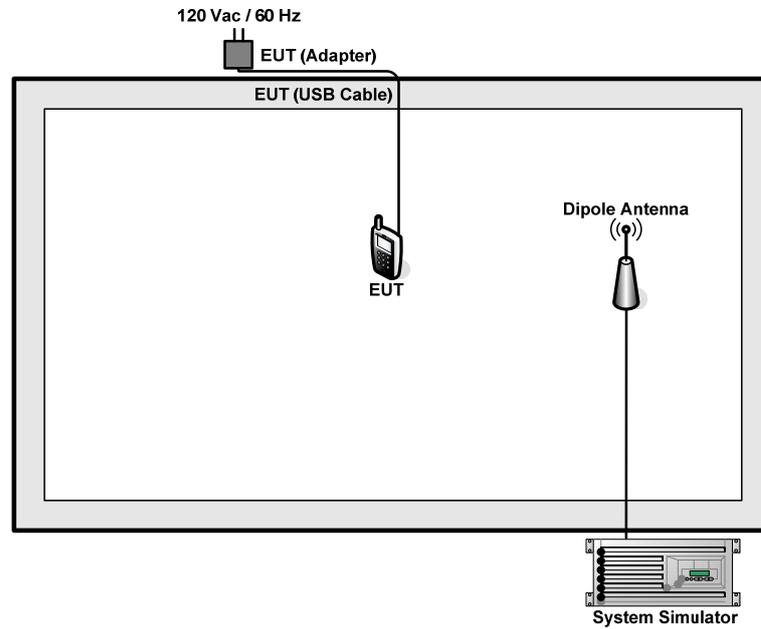
Test Modes		
Band	Radiated TCs	Conducted TCs
CDMA2000 BC10	■ 1xRTT Link	■ 1xRTT Link

**Note:** The maximum RF output power levels are 1xRTT RC1+SO55 mode for CDMA2000 BC10 on QPSK Link; only these modes were used for all tests.

The conducted power table is as follows:

Conducted Power (*Unit: dBm)			
Band	CDMA2000 BC10		
Channel	476	580	684
Frequency	817.90	820.50	823.10
1xRTT RC1+SO55	24.46	24.39	24.28
1xRTT RC3+SO55	24.43	24.37	24.27
1xRTT RC3 SO32(+ F-SCH)	24.42	24.33	24.20
1xRTT RC3 SO32 (+SCH)	24.42	24.31	24.19
1xEVDO RTAP 153.6K	24.45	24.36	24.24
1xEVDO RETAP 4096Bits	24.36	24.30	24.22

## 2.2 Connection Diagram of Test System



### 3 Test Result

#### 3.1 Conducted Output Power Measurement

##### 3.1.1 Description of the Conducted Output Power Measurement

A base station simulator was used to establish communication with the EUT. Its parameters were set to transmit the maximum power on the EUT. The measured power in the radio frequency on the transmitter output terminals shall be reported.

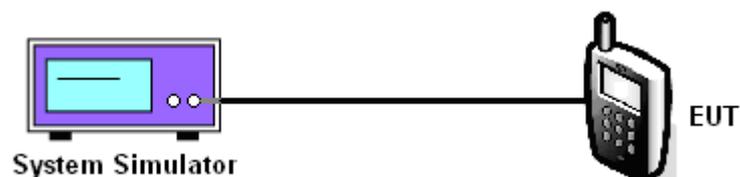
##### 3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

##### 3.1.3 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.

##### 3.1.4 Test Setup





3.1.5 Test Result of Conducted Output Power

CDMA2000 BC10			
Test Mode	CDMA 2000 1xRTT		
Test Status	RC1+S055		
Channel	476 (Low)	580 (Mid)	684 (High)
Frequency (MHz)	817.90	820.50	823.10
Conducted Power (dBm)	24.46	24.39	24.28
Conducted Power (Watts)	0.28	0.27	0.27

Note: maximum average power for CDMA2000.

## 3.2 Effective Radiated Power Measurement

### 3.2.1 Description of the ERP Measurement

The ERP is measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The ERP of mobile transmitters must not exceed 100 Watts according to FCC Part 90.635.

### 3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

### 3.2.3 Test Procedures

1. The EUT was placed on a turntable with 1.0 meter height in a fully anechoic chamber.
2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiated power.
4. The height of the receiving antenna is adjusted to look for the maximum ERP.
5. Taking the record of maximum ERP.
6. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
7. The conducted power at the terminal of the dipole antenna is measured.
8. Repeat step 3 to step 5 to get the maximum ERP of the substitution antenna.
9.  $ERP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$

$P_s$  (dBm) : Input power to substitution antenna.

$G_s$  (dBi or dBd) : Substitution antenna Gain.

$E_t = R_t + AF$

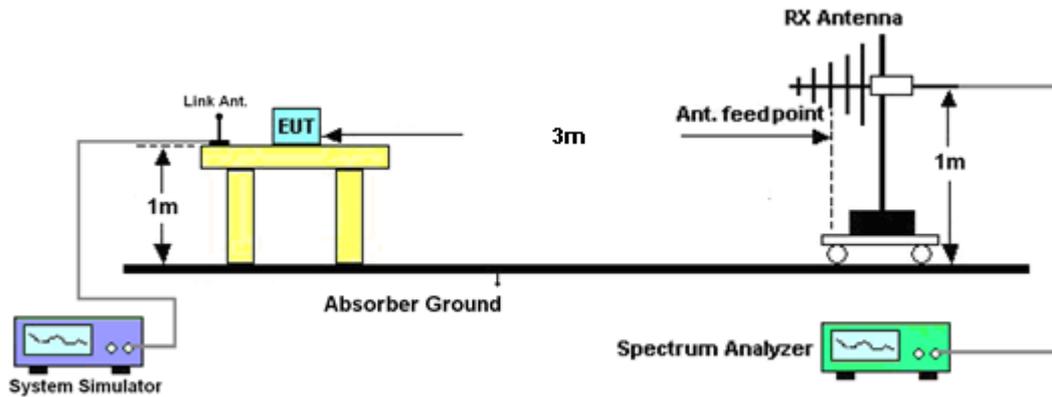
$E_s = R_s + AF$

AF (dB/m) : Receive antenna factor

$R_t$  : The highest received signal in spectrum analyzer for EUT.

$R_s$  : The highest received signal in spectrum analyzer for substitution antenna.

### 3.2.4 Test Setup



### 3.2.5 Test Result of ERP

CDMA2000 BC10 1xRTT_RC1+SO55 Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
817.90	-26.46	-48.12	0.00	-1.08	20.58	0.11
820.50	-26.87	-48.28	0.00	-0.93	20.48	0.11
823.10	-27.68	-48.35	0.00	-0.76	19.91	0.10
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
817.90	-32.30	-47.97	0.00	-1.08	14.59	0.03
820.50	-32.62	-48.01	0.00	-0.93	14.46	0.03
823.10	-33.42	-48.05	0.00	-0.76	13.87	0.02

### 3.3 Occupied Bandwidth and 26dB Bandwidth Measurement

#### 3.3.1 Description of Occupied Bandwidth and 26dB Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. This bandwidth measurement is reporting only according to FCC waiver document as shown as annex A.

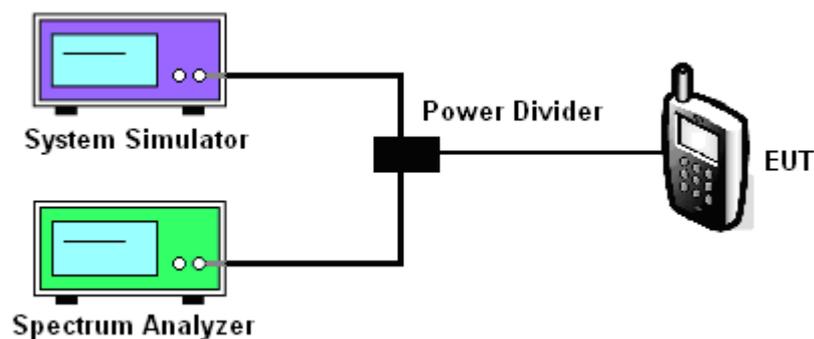
#### 3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.3.3 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers were measured.

#### 3.3.4 Test Setup





3.3.5 Test Result of Occupied Bandwidth and 26dB Bandwidth

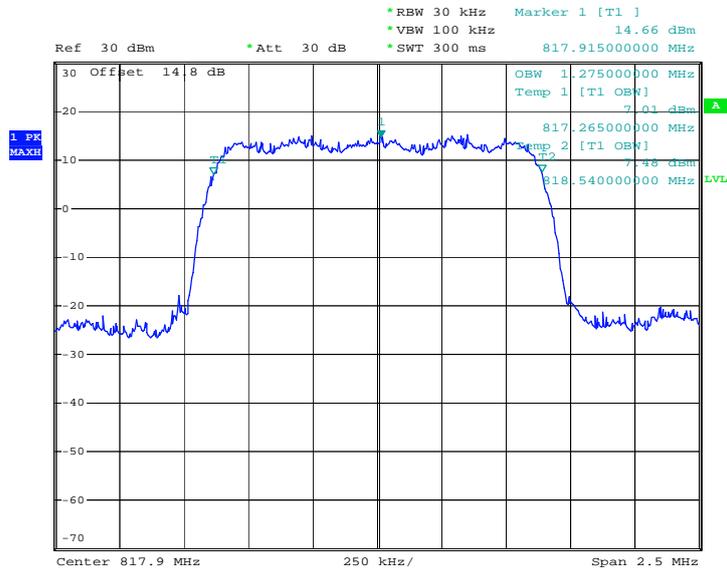
CDMA2000 BC10			
Test Mode	CDMA 2000 1xRTT		
Test Status	RC1+SO55		
Channel	476 (Low)	580 (Mid)	684 (High)
Frequency (MHz)	817.90	820.50	823.10
99% OBW (MHz)	1.275	1.275	1.270
26dB BW (MHz)	1.420	1.430	1.420



### 3.3.6 Test Result (Plots) of Occupied Bandwidth and 26dB Bandwidth

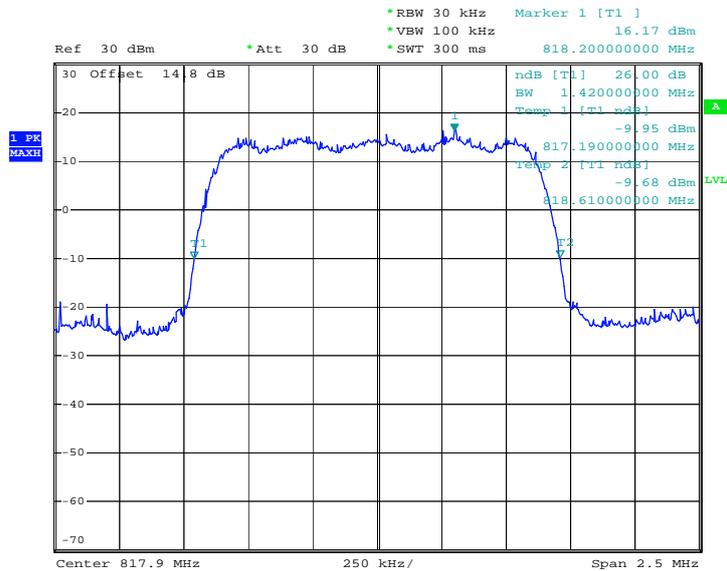
Band :	CDMA2000 BC 10	Test Mode :	1xRTT_RC1+SO55
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#### 99% Occupied Bandwidth Plot on Channel 476 (817.90MHz)



Date: 23.SEP.2013 18:26:06

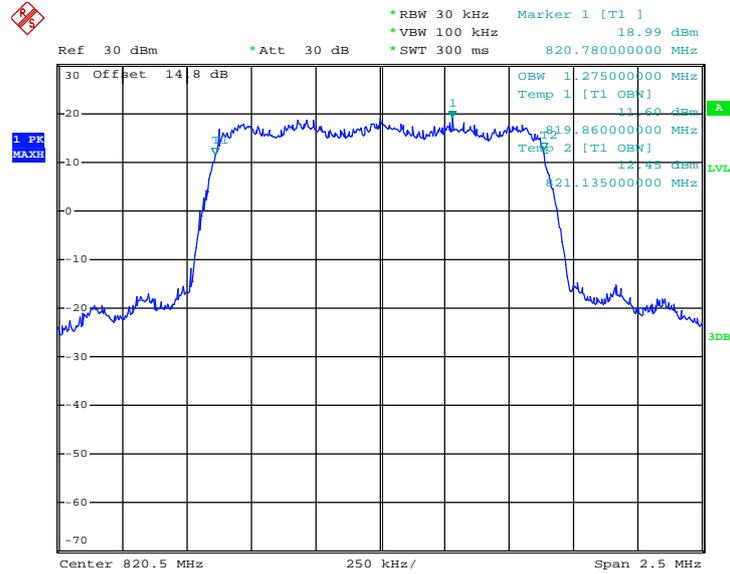
#### 26dB Bandwidth Plot on Channel 476 (817.90MHz)



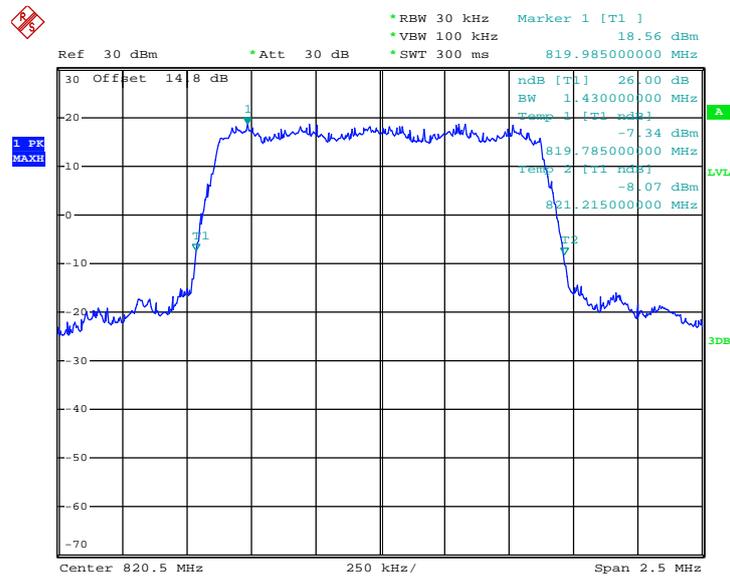
Date: 23.SEP.2013 18:23:47



99% Occupied Bandwidth Plot on Channel 580 (820.50MHz)

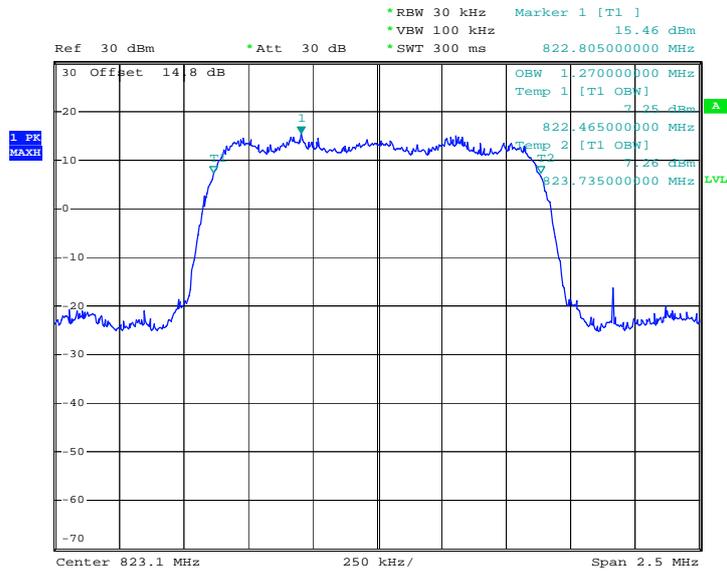


26dB Bandwidth Plot on Channel 580 (820.50MHz)



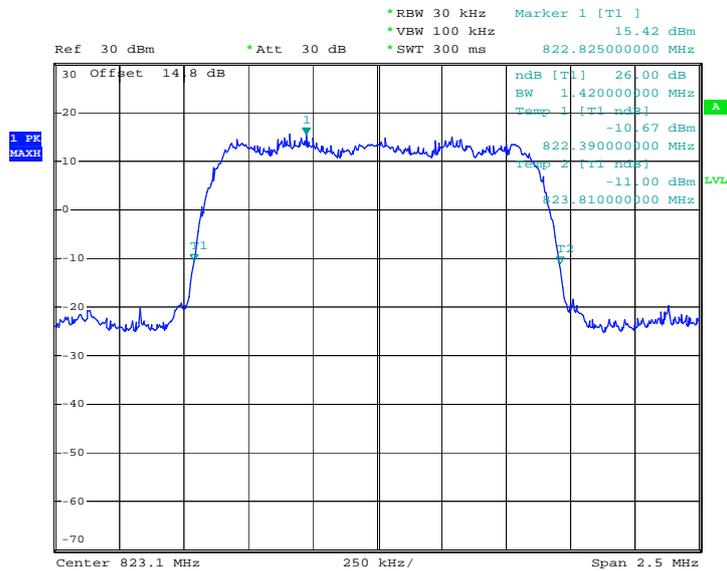


99% Occupied Bandwidth Plot on Channel 684 (823.10MHz)



Date: 23.SEP.2013 18:25:02

26dB Bandwidth Plot on Channel 684 (823.10MHz)



Date: 23.SEP.2013 18:24:20

## 3.4 Emissions Mask Measurement

### 3.4.1 Description of Emissions Mask Measurement

Equipment used in this licensed to EA or non-EA systems shall comply with the emission mask provisions of FCC Part 90.691.(a)(1)

- (a). Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:
- (1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least  $116 \text{ Log}_{10}(f/6.1)$  decibels or  $50 + 10 \text{ Log}_{10}(P)$  decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

### 3.4.2 Measuring Instruments

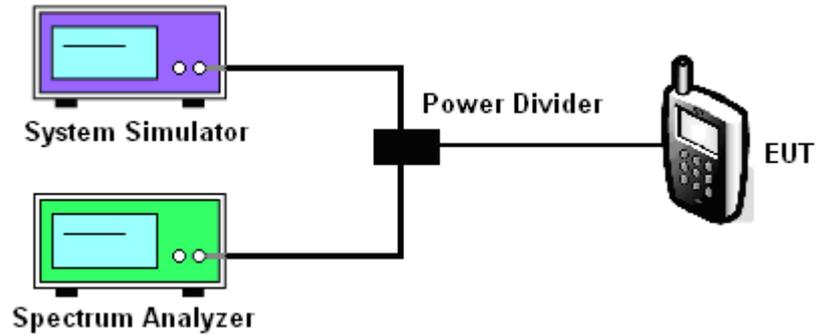
See list of measuring instruments of this test report.

### 3.4.3 Test Procedures

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The emissions mask of low and high channels for the highest RF powers were measured.
3. The RBW was set 30 kHz, higher than 1% of bandwidth 1.27MHz, and VBW was set 3 times of RBW.
4. The final test results were shown below plots with a correction offset factor including cable loss, insertion loss of power divider.
5. The 1% of bandwidth 1.27MHz approximately was 13kHz. The test results need to follow below equation.

$$\text{Test Result(dBm)} = \text{PwrAbs(dBm)} + 10 \cdot \text{LOG}(13\text{kHz}/30\text{KHz})(\text{dB}) (\sim -3.63\text{dB})$$

### 3.4.4 Test Setup





3.4.5 Test Result (Plots) of Conducted Emissions Mask

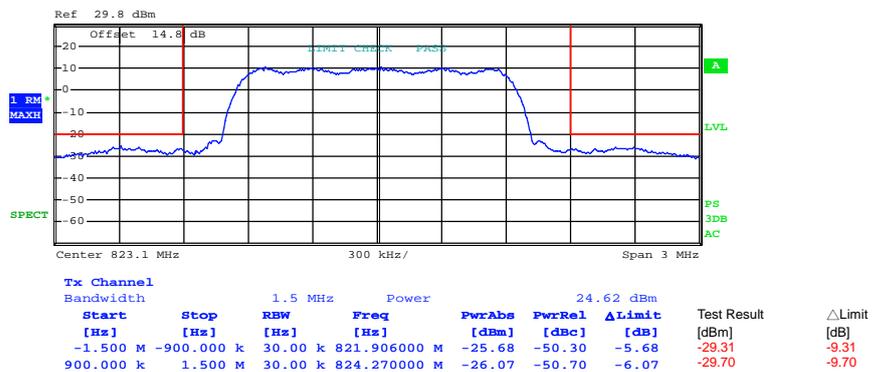
Band :	CDMA2000 BC10	Test Mode :	1xRTT_RC1+SO55
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Lower Band Edge Plot on Channel 476 (817.90MHz)



Date: 28.SEP.2013 21:30:08

Higher Band Edge Plot on Channel 684 (823.10MHz)



Date: 28.SEP.2013 21:38:25

### 3.5 Emissions Mask – Out Of Band Emissions Measurement

#### 3.5.1 Description of Conducted Emissions Out of band emissions measurement

The power of any emission FCC Part 90.691 (a)(2) on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth at least  $43 + 10 \log (P)$  dB. It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10<sup>th</sup> harmonic.

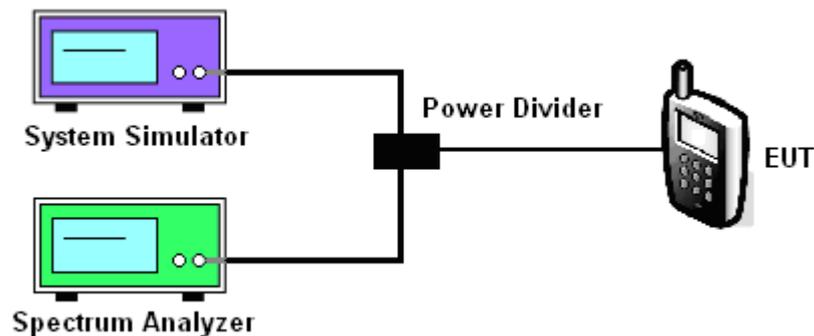
#### 3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

#### 3.5.3 Test Procedures

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The middle channel for the highest RF power within the transmitting frequency was measured.
3. The conducted spurious emission for the whole frequency range was taken.
4. The final test results were shown below plots with a correction offset factor including cable loss, insertion loss of power divider.

#### 3.5.4 Test Setup

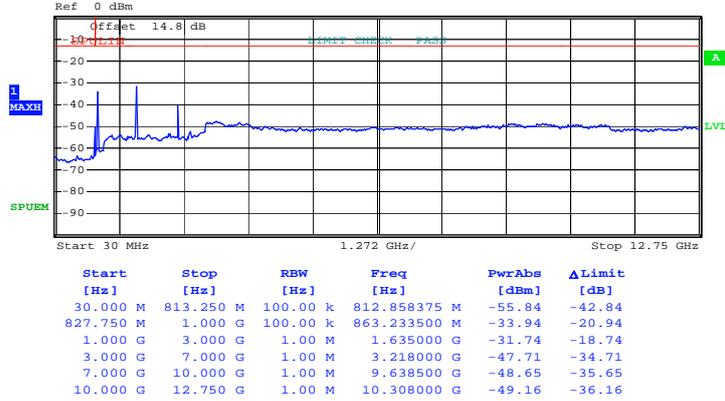




### 3.5.5 Test Result (Plots) of Conducted Emission

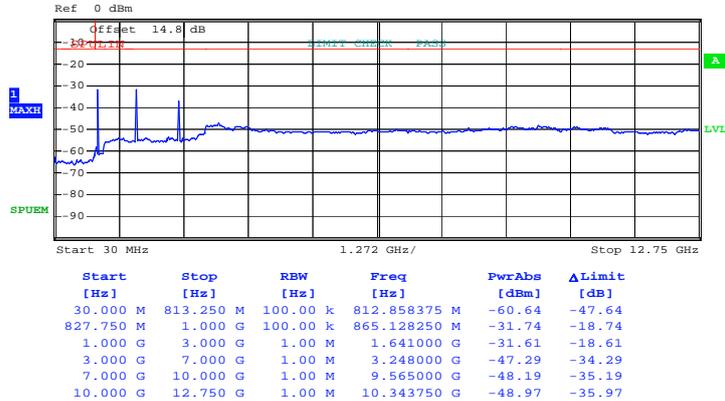
Band :	CDMA2000 BC10	Test Mode :	1xRTT_RC1+SO55
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Conducted Emission Plot between on Channel 476 (817.90MHz)



Date: 23.SEP.2013 20:33:17

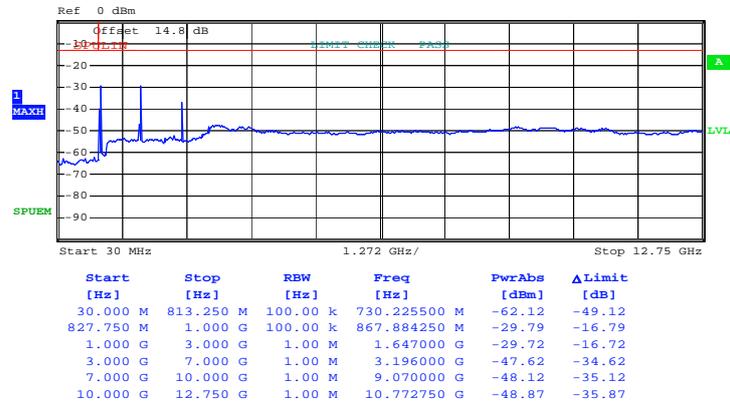
Conducted Emission Plot between on Channel 580 (820.50MHz)



Date: 23.SEP.2013 20:35:14



Conducted Emission Plot between on Channel 684 (823.10MHz)



Date: 23.SEP.2013 20:36:16

## 3.6 Field Strength of Spurious Radiation Measurement

### 3.6.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The power of any emission FCC Part 90.691 on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth at least  $43 + 10 \log (P)$  dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 3.6.2 Measuring Instruments

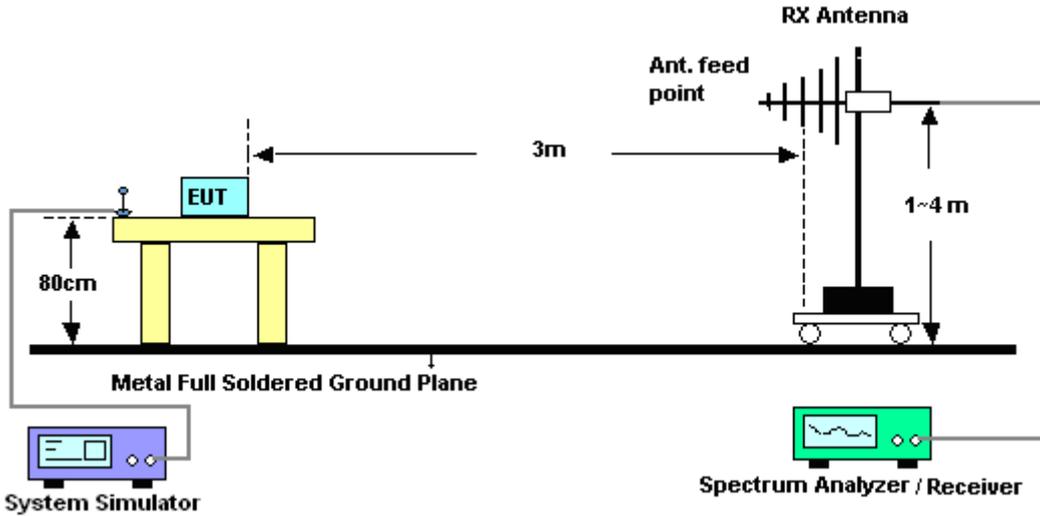
See list of measuring instruments of this test report.

### 3.6.3 Test Procedures

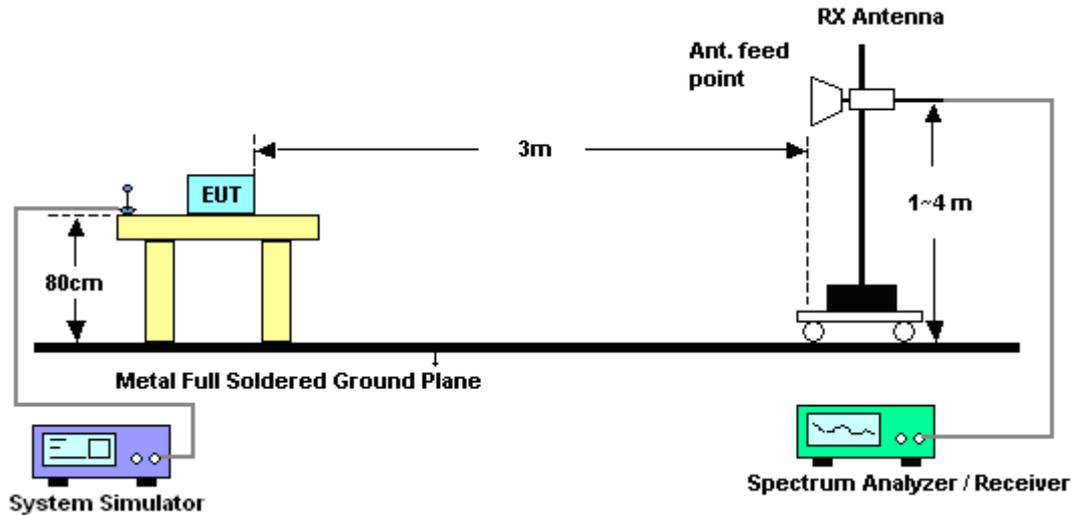
1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10.  $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
11.  $ERP (dBm) = EIRP - 2.15$

### 3.6.4 Test Setup

For radiated emissions from 30MHz to 1GHz



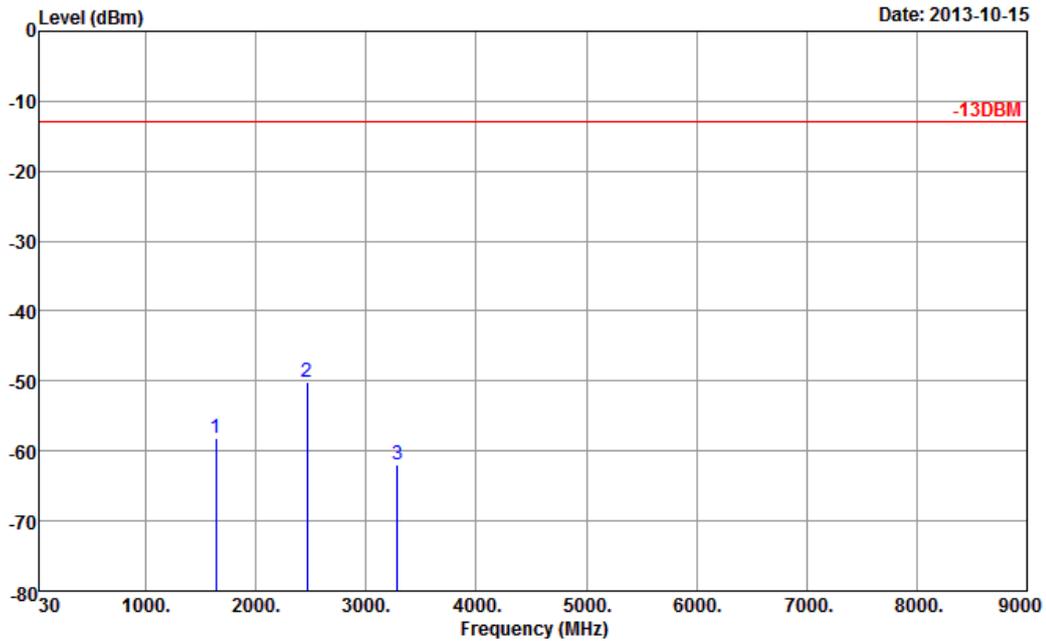
For radiated emissions above 1GHz





3.6.5 Test Result of Field Strength of Spurious Radiated

Band :	CDMA2000 BC10	Temperature :	24~25°C
Test Mode :	1xRTT_RC1+S055	Relative Humidity :	51~52%
Test Engineer :	Robin Luo	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

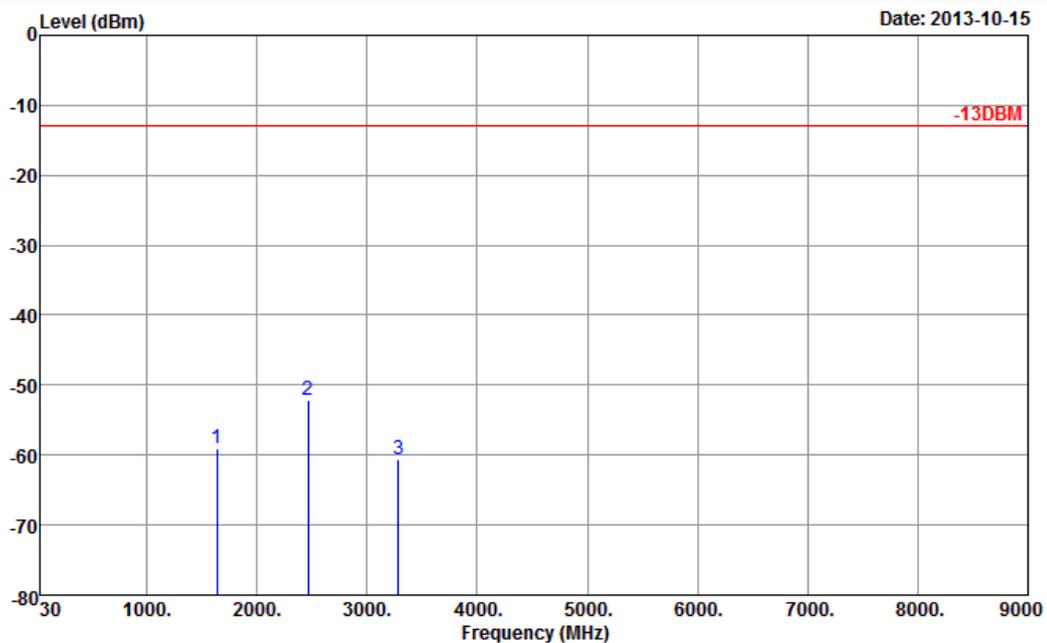


Site : 03CH01-SZ  
 Condition : -13DBM HF\_EIRP\_H\_130101 HORIZONTAL

Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
1641	-58.24	-13	-45.24	-71.16	-61.21	0.88	6.00	H	Pass
2462	-50.15	-13	-37.15	-71.74	-52.76	1.08	5.84	H	Pass
3282	-61.93	-13	-48.93	-72.53	-66.30	1.14	7.66	H	Pass



Band :	CDMA2000 BC10	Temperature :	24~25°C
Test Mode :	1xRTT_RC1+SO55	Relative Humidity :	51~52%
Test Engineer :	Robin Luo	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-SZ  
 Condition : -13DBM HF\_EIRP\_V\_130101 VERTICAL

Frequency ( MHz )	ERP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading ( dBm )	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain ( dBi )	Polarization ( H/V )	Result
1641	-59.13	-13	-46.13	-69.76	-62.10	0.88	6.00	V	Pass
2462	-52.20	-13	-39.20	-71.02	-54.81	1.08	5.84	V	Pass
3282	-60.58	-13	-47.58	-72.41	-64.95	1.14	7.66	V	Pass

## 3.7 Frequency Stability Measurement

### 3.7.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency according to FCC Part 90.213.

### 3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

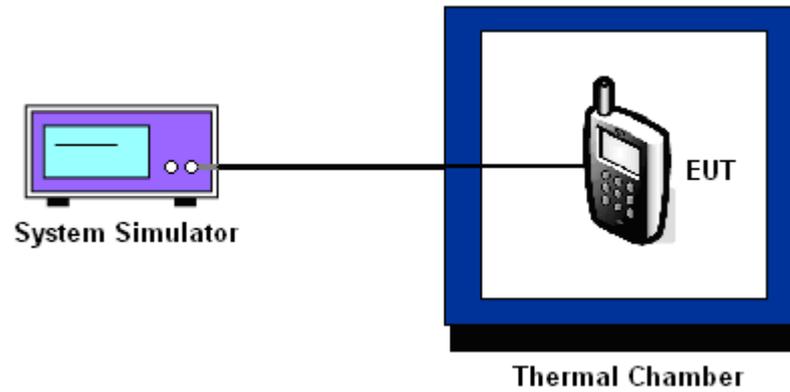
### 3.7.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to  $-30^{\circ}\text{C}$  and the EUT was stabilized for three hours. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.
4. If the EUT cannot be turned on at  $-30^{\circ}\text{C}$ , the testing lowest temperature will be raised in  $10^{\circ}\text{C}$  step until the EUT can be turned on.

### 3.7.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at  $25\pm 5^{\circ}\text{C}$  and connected with the base station.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

### 3.7.5 Test Setup





3.7.6 Test Result of Temperature Variation

Band :	CDMA2000 BC10 1xRTT_RC1+SO55	Channel :	580
Limit (ppm) :	2.5	Frequency :	820.5 MHz

Temperature (°C)	Freq. Dev. (Hz)	Deviation (ppm)	Result
-30	-41	-0.05	PASS
-20	-37	-0.04	
-10	-31	-0.04	
0	-29	-0.03	
10	-27	-0.03	
20	-22	-0.03	
30	-23	-0.03	
40	-28	-0.03	
50	-33	-0.04	

**3.7.7 Test Result of Voltage Variation**

Band & Channel	Mode	Voltage (Volt)	Freq. Dev. (Hz)	Deviation (ppm)	Limit (ppm)	Result
CDMA2000 BC10 CH580	1xRTT RC1+SO55	3.8	-36	-0.04	2.5	PASS
		BEP	-32	-0.04		
		4.35	-25	-0.03		

**Note :**

1. Normal Voltage = 3.8V.
2. Battery End Point (BEP) = 3.6 V.



## 4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 29, 2012	Sep. 23, 2013~ Oct. 22, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 29, 2012	Sep. 23, 2013~ Oct. 22, 2013	Dec. 28, 2013	Conducted (TH01-KS)
ESCI TEST Receiver	R&S	ESCI	100724	9K-3GHz	Mar. 28, 2013	Oct. 15, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSP30	101362	9kHz~30GHz	Nov. 11, 2012	Oct. 15, 2013	Nov. 10, 2013	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Nov. 12, 2012	Oct. 15, 2013	Nov. 11, 2013	Radiation (03CH01-SZ)
Bilog Antenna	SCHAFFNER	CBL6112B	2614	30MHz~2GHz	Nov. 03, 2012	Oct. 15, 2013	Nov. 02, 2013	Radiation (03CH01-SZ)
Turn Table	EM Electronic	EM 1000	N/A	0 ~ 360 degree	N/A	Oct. 15, 2013	N/A	Radiation (03CH01-SZ)
Antenna Mast	EM electronic	EM 1000	N/A	1 m - 4 m	N/A	Oct. 15, 2013	N/A	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3GHz Gain 30dB	Mar. 28, 2013	Oct. 15, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	Mar. 28, 2013	Oct. 15, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
SHF-EHF -Horn	Schwarzbeck	BBHA9170	BBHA9170249	14GHz~40GHz	Nov. 23, 2012	Oct. 15, 2013	Nov. 22, 2013	Radiation (03CH01-SZ)
Spectrum Analyzer	R&S	FSP 7	100819	9kHz~7GHz	May 23, 2013	Sep. 23, 2013~ Oct. 22, 2013	May 22, 2014	ERP (OTA01-KS)
Switch Control Manframe	Agilent	3499A	MY42005452	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Dual 1-to-6(4) MW MUX	Agilent	N2276A	MY42000841	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002573	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002586	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-04	00066993	700MHz~6GHz	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Conical Log Spiral (Small)	ETS-Lindgren	3102	00066951	1~10GHz	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Turn Table	ETS-Lindgren	2088	N/A	Resolution : 0.1degree	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)
Limiting Amplifier	ETS-lindgren	109643	920326	10M~2.5GHz	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	ERP (OTA01-KS)



EMQuest	ETS-Lindgren	EMQ-100	1125	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	EIRP (OTA01-KS)
Medium Duty Holder	ETS-Lindgren	2015	N/A	N/A	N/A	Sep. 23, 2013~ Oct. 22, 2013	N/A	EIRP (OTA01-KS)



## 5 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.54
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.72
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