



FCC RF Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : CDMA Digital Mobile Phone
BRAND NAME : ZTE
MODEL NAME : ZTE S155
FCC ID : SRQ-S155
STANDARD : FCC 47 CFR Part 2, and 90(S)
CLASSIFICATION : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Sep. 30, 2013 and completely tested on Oct. 13, 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.



TABLE OF CONTENTS

REVISION HISTORY..... 3

SUMMARY OF TEST RESULT 4

1 GENERAL DESCRIPTION 5

 1.1 Applicant..... 5

 1.2 Manufacturer 5

 1.3 Feature of Equipment Under Test..... 5

 1.4 Maximum ERP Power, Frequency Tolerance, and Emission Designator..... 6

 1.5 Testing Site 6

 1.6 Applied Standards 7

 1.7 Ancillary Equipment List..... 7

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST 8

 2.1 Test Mode..... 8

 2.2 Connection Diagram of Test System 9

3 TEST RESULT..... 10

 3.1 Conducted Output Power Measurement..... 10

 3.2 Effective Radiated Power Measurement..... 12

 3.3 Occupied Bandwidth and 26dB Bandwidth Measurement..... 14

 3.4 Emissions Mask Measurement 19

 3.5 Emissions Mask – Out Of Band Emissions Measurement..... 22

 3.6 Field Strength of Spurious Radiation Measurement 25

 3.7 Frequency Stability Measurement..... 29

4 LIST OF MEASURING EQUIPMENT 32

5 UNCERTAINTY OF EVALUATION 34

APPENDIX A. SETUP PHOTOGRAPHS



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 ₁₀ (P[Watts])	PASS	-
3.5	§2.1051 §90.691	Emission masks – Out of band emissions	< 43+10log ₁₀ (P[Watts])	PASS	-
3.6	§2.1053 §90.691	Field Strength of Spurious Radiation	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 36.92 dB at 3282.000 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 Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE S155
FCC ID	SRQ-S155
EUT supports Radios application	CDMA
HW Version	cdhA
SW Version	S155V1.0.0B01
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 : 23.31 dBm
Antenna Type	IFA Antenna
Type of Modulation	CDMA2000 : QPSK

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	0.1072	0.04 ppm	1M29F9W

1.5 Testing Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.				
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C. TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958				
Test Site No.	Sporton Site No.			FCC Registration No.	
	TH01-KS	03CH01-KS	OTA-KS	149928	



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

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 (Z plane).

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

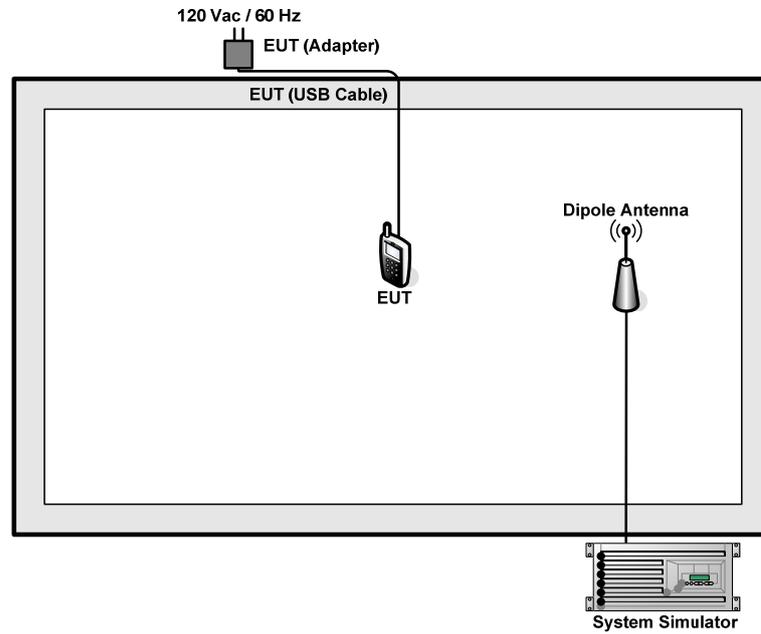
Test Modes		
Band	Radiated TCs	Conducted TCs
CDMA2000 BC10	■ 1xRTT Link	■ 1xRTT Link

Note: The maximum RF output power level is 1xRTT RC3+SO55 mode for CDMA2000 BC10 on QPSK Link; only this mode was 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	23.06	23.18	23.30
1xRTT RC3 SO55	23.04	23.15	23.31
1xRTT RC3 SO32(+ F-SCH)	22.95	23.15	23.23
1xRTT RC3 SO32(+SCH)	23.02	23.11	23.28

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.

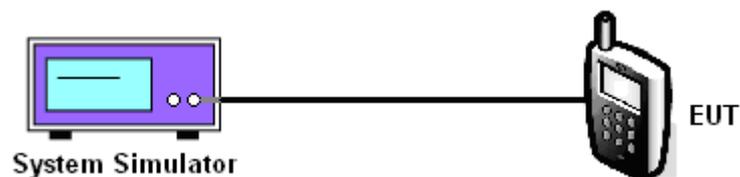
3.1.2 Measuring Instruments

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	RC3+SO55		
Channel	476 (Low)	580 (Mid)	684 (High)
Frequency (MHz)	817.90	820.50	823.10
Conducted Power (dBm)	23.04	23.15	23.31
Conducted Power (Watts)	0.20	0.21	0.21

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.

$E_t = R_t + AF$

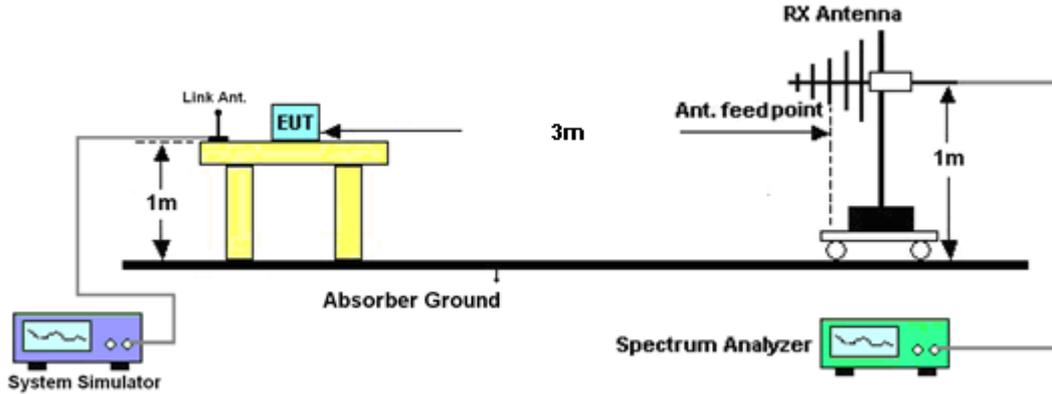
$E_s = R_s + AF$

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_RC3+SO55 Radiated Power ERP						
Horizontal Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
817.90	-28.04	-48.12	0.00	-1.08	19.00	0.0794
820.50	-27.40	-48.28	0.00	-0.93	19.95	0.0989
823.10	-27.29	-48.35	0.00	-0.76	20.30	0.1072
Vertical Polarization						
Frequency (MHz)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	ERP (dBm)	ERP (W)
817.90	-42.08	-47.97	0.00	-1.08	4.81	0.0030
820.50	-41.32	-48.01	0.00	-0.93	5.76	0.0038
823.10	-41.55	-48.05	0.00	-0.76	5.74	0.0038

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.

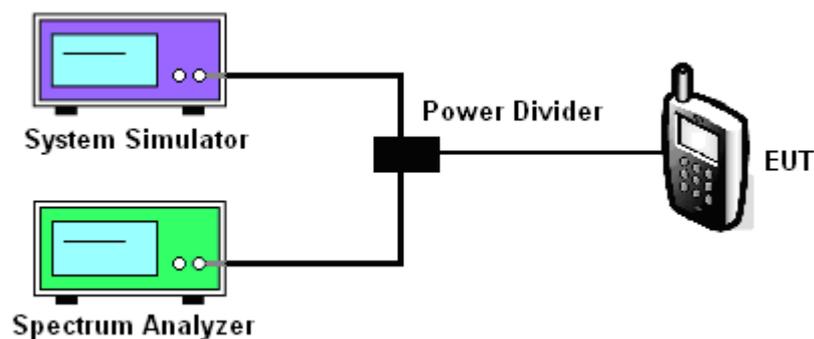
3.3.2 Measuring Instruments

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

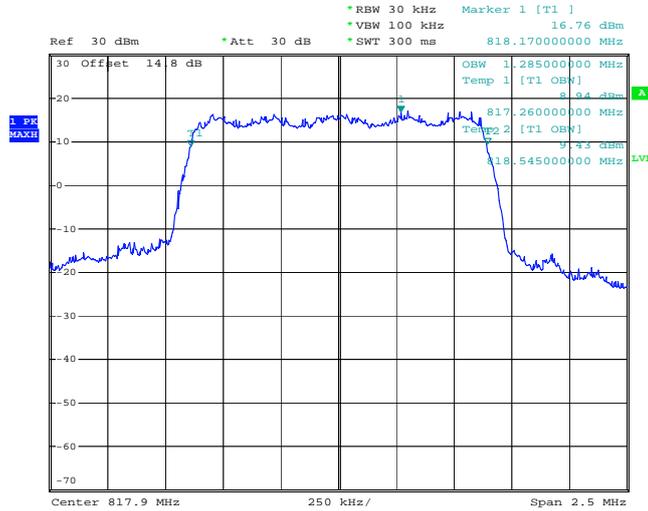
CDMA2000 BC10			
Test Mode	CDMA 2000 1xRTT		
Test Status	RC1+SO55		
Channel	476 (Low)	580 (Mid)	684 (High)
Frequency (MHz)	817.90	820.50	823.10
99% OBW (MHz)	1.285	1.280	1.280
26dB BW (MHz)	1.430	1.430	1.430



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

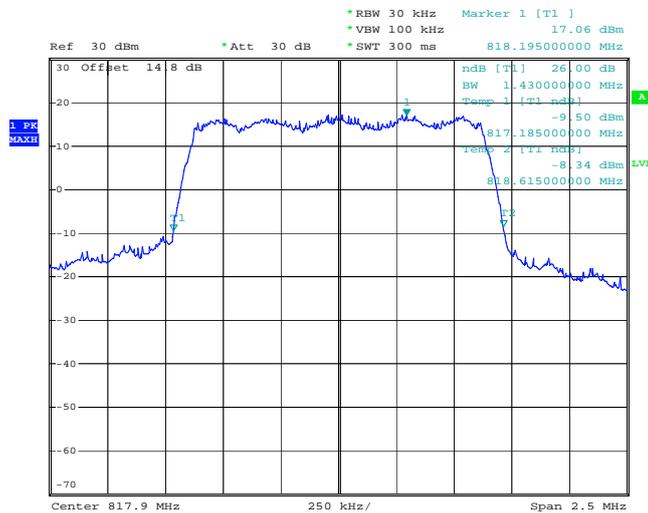
Band :	CDMA2000 BC 10	Test Mode :	1xRTT_RC3+SO55
--------	----------------	-------------	----------------

99% Occupied Bandwidth Plot on Channel 476 (817.90MHz)



Date: 19.SEP.2013 19:15:28

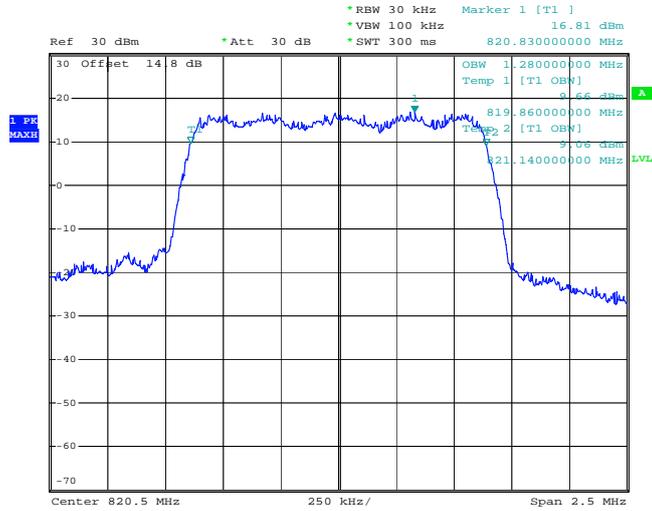
26dB Bandwidth Plot on Channel 476 (817.90MHz)



Date: 19.SEP.2013 19:10:07

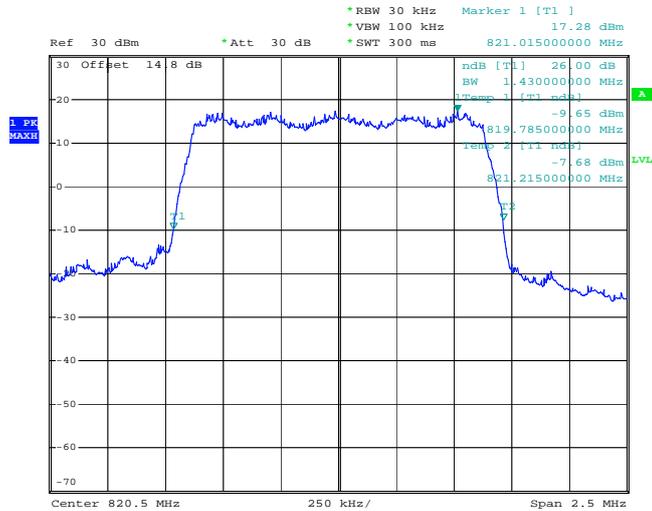


99% Occupied Bandwidth Plot on Channel 580 (820.50MHz)



Date: 19.SEP.2013 19:16:22

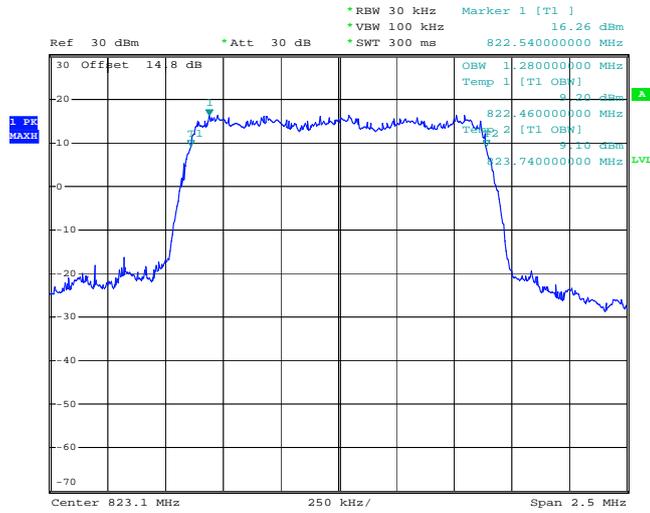
26dB Bandwidth Plot on Channel 580 (820.50MHz)



Date: 19.SEP.2013 19:11:11

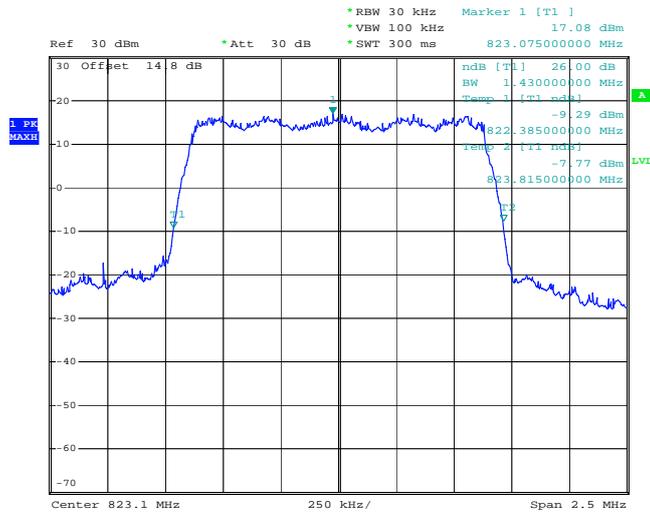


99% Occupied Bandwidth Plot on Channel 684 (823.10MHz)



Date: 19.SEP.2013 19:14:46

26dB Bandwidth Plot on Channel 684 (823.10MHz)



Date: 19.SEP.2013 19:12:04

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

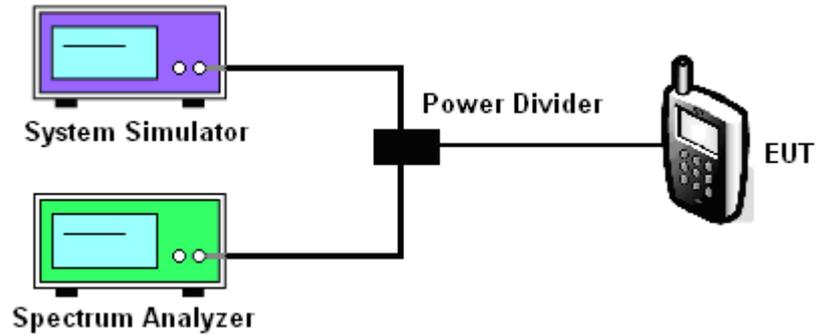
See list of measuring instruments of this test report.

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 was 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

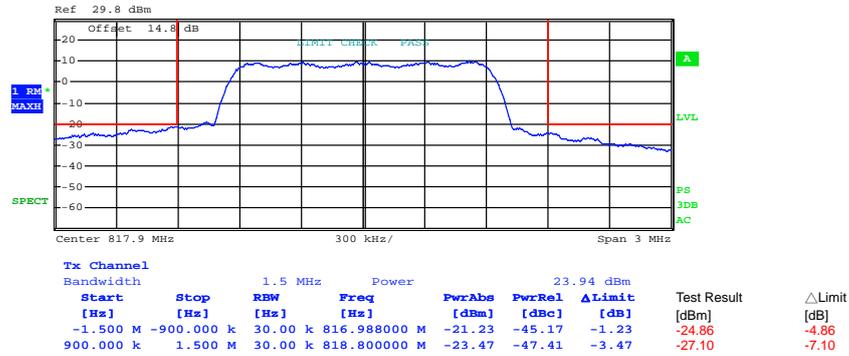




3.4.5 Test Result (Plots) of Conducted Emissions Mask

Band :	CDMA2000 BC10	Test Mode :	1xRTT_RC3+SO55
--------	---------------	-------------	----------------

Lower Band Edge Plot on Channel 476 (817.90MHz)



Date: 10.OCT.2013 21:29:29

Higher Band Edge Plot on Channel 684 (823.10MHz)



Date: 10.OCT.2013 21:28:33

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 10th harmonic.

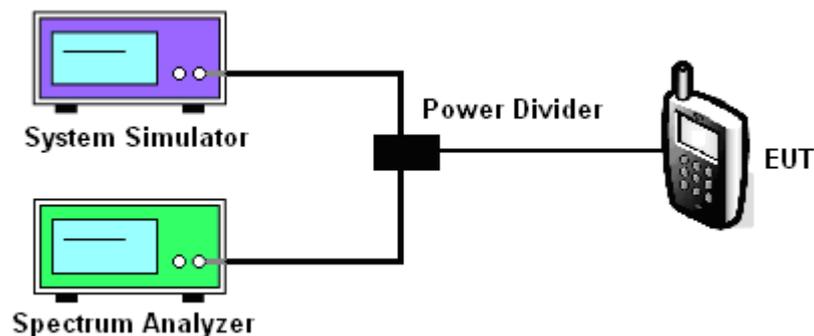
3.5.2 Measuring Instruments

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

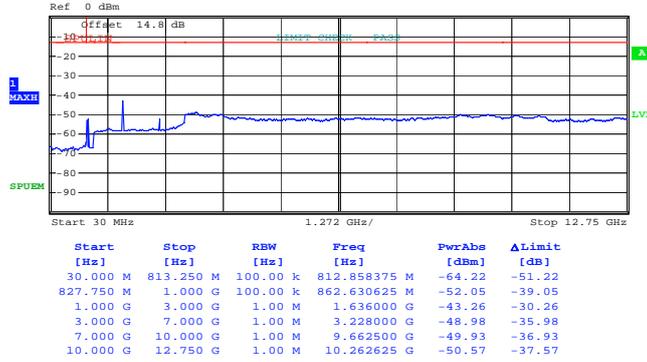




3.5.5 Test Result (Plots) of Conducted Emission

Band :	CDMA2000 BC10	Test Mode :	1xRTT_RC3+SO55
--------	---------------	-------------	----------------

Conducted Emission Plot between on Channel 476 (817.90MHz)



Date: 19.SEP.2013 19:47:12

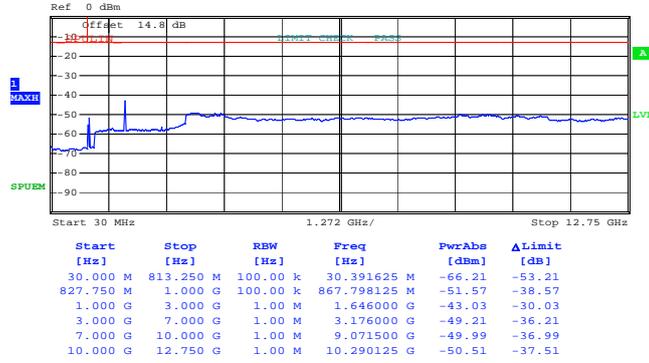
Conducted Emission Plot between on Channel 580 (820.50MHz)



Date: 19.SEP.2013 19:46:05



Conducted Emission Plot between on Channel 684 (823.10MHz)



Date: 19.SEP.2013 19:44:34

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

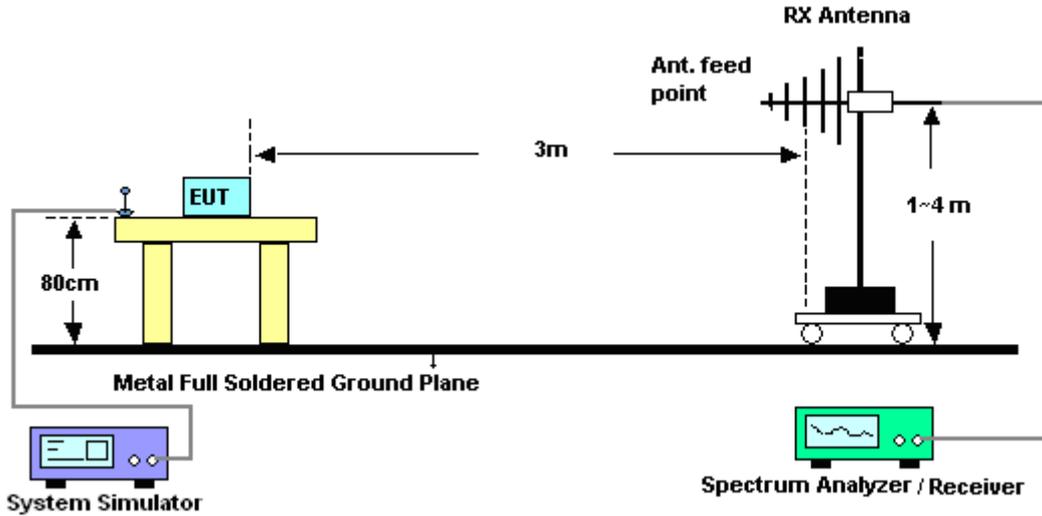
See list of measuring instruments of this test report.

3.6.3 Test Procedures

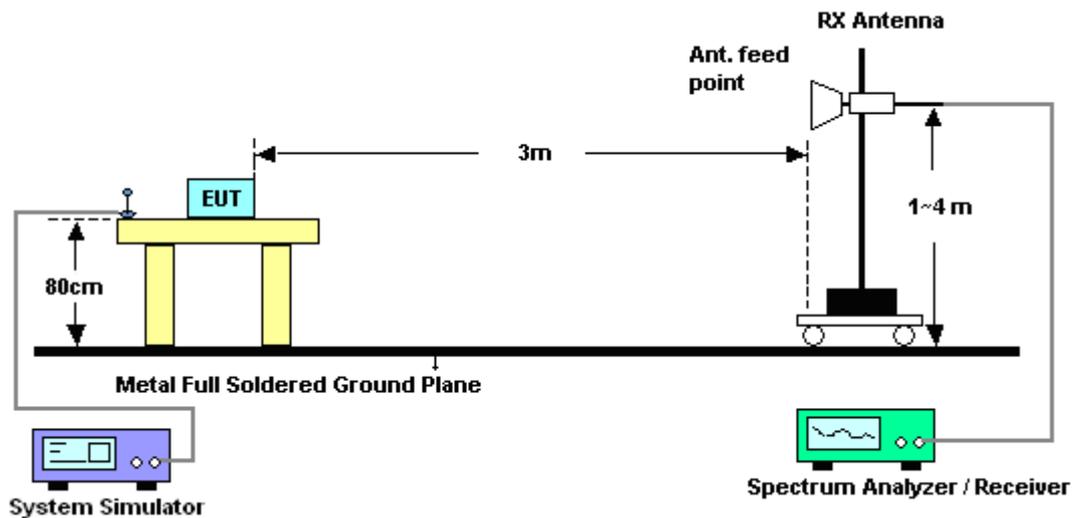
1. The EUT was placed on a rotatable wooden table with 0.8 meter about ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving 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



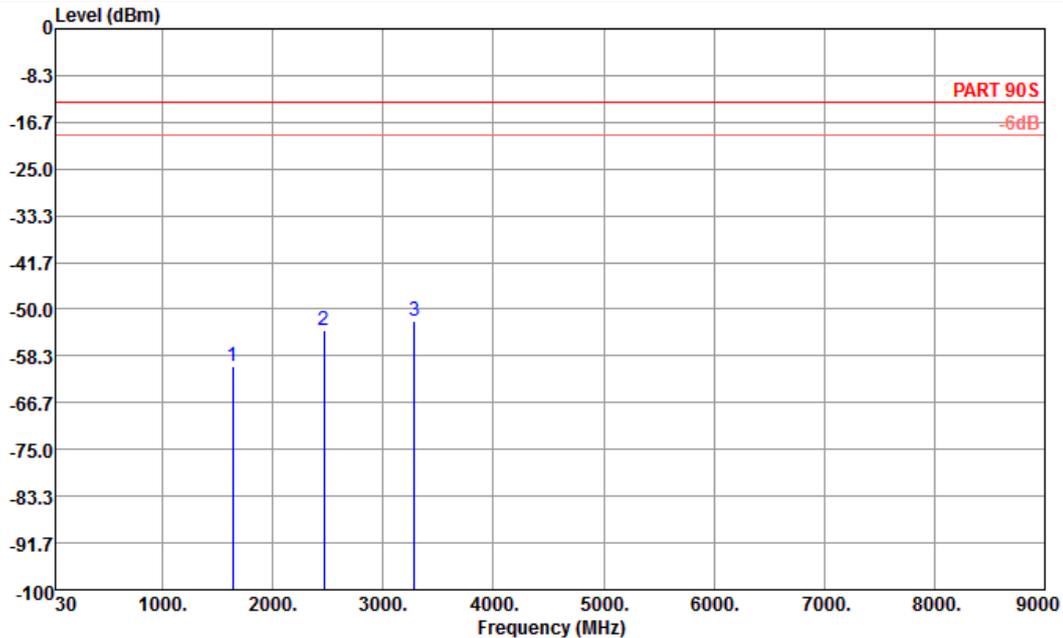
For radiated emissions above 1GHz





3.6.5 Test Result of Field Strength of Spurious Radiated

Band :	CDMA2000 BC10	Temperature :	23~24°C
Test Mode :	1xRTT_RC3+SO55	Relative Humidity :	43~44%
Test Engineer :	Stone Gu	Polarization :	Horizontal
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		

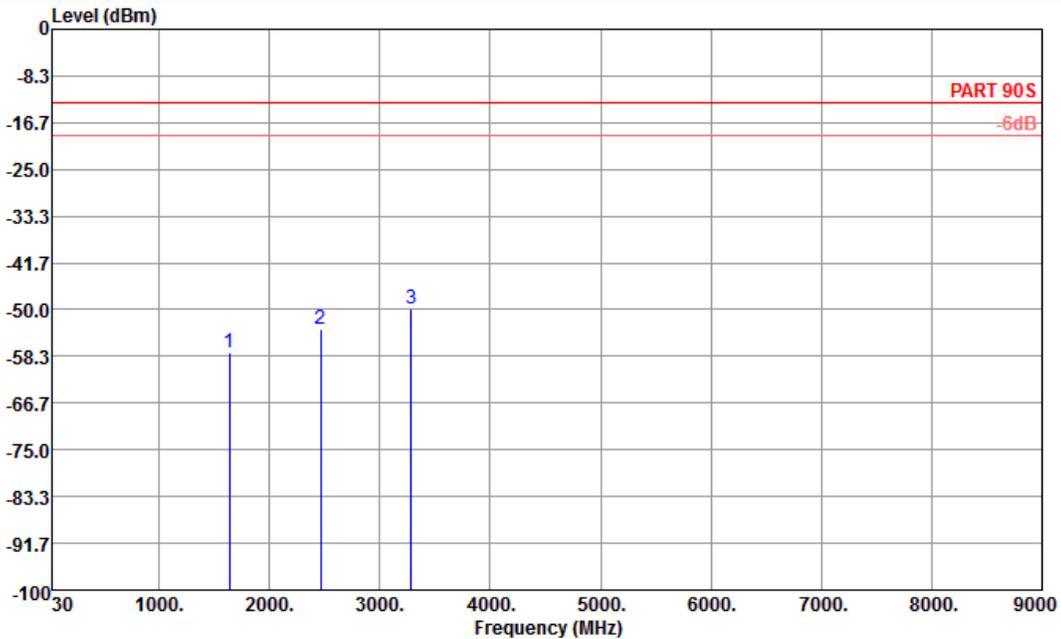


Site : 03CH01-KS
 Condition : PART 90S HF_EIRP_FACTOR130726 HORIZONTAL

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
1640	-60.07	-13	-47.07	-62.99	-61.39	3.41	6.88	H	Pass
2462	-53.85	-13	-40.85	-64.70	-56.71	3.86	8.87	H	Pass
3282	-52.00	-13	-39.00	-64.89	-55.33	4.72	10.20	H	Pass



Band :	CDMA2000 BC10	Temperature :	23~24°C
Test Mode :	1xRTT_RC3+SO55	Relative Humidity :	43~44%
Test Engineer :	Stone Gu	Polarization :	Vertical
Remark :	Spurious emissions within 30-1000MHz were found more than 20dB below limit line.		



Site : 03CH01-KS
 Condition : PART 90S HF_EIRP_FACTOR130726 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
1640	-57.74	-13	-44.74	-63.25	-59.06	3.41	6.88	V	Pass
2462	-53.42	-13	-40.42	-65.42	-56.28	3.86	8.87	V	Pass
3282	-49.92	-13	-36.92	-64.33	-53.25	4.72	10.20	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.

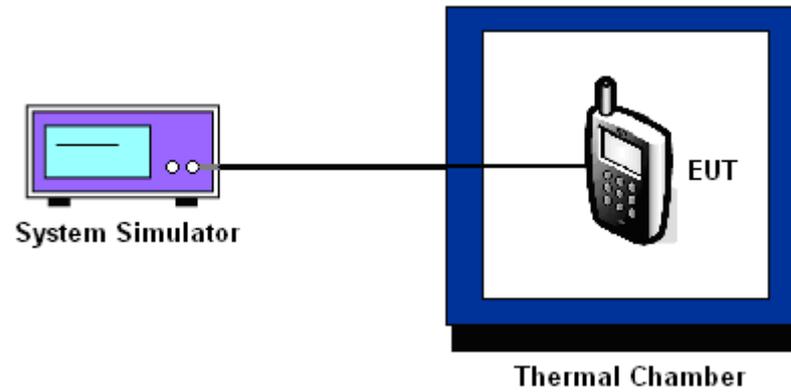
3.7.3 Test Procedures for Temperature Variation

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°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°C step up to 50°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°C , the testing lowest temperature will be raised in 10°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_RC3+SO55	Channel :	580
Limit (ppm) :	2.5	Frequency :	820.5 MHz

Temperature (°C)	Freq. Dev. (Hz)	Deviation (ppm)	Result
-30	-38	-0.04	PASS
-20	-35	-0.04	
-10	-28	-0.03	
0	-27	-0.03	
10	-25	-0.03	
20	-20	-0.02	
30	-21	-0.02	
40	-24	-0.03	
50	-28	-0.03	

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 RC3+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. 19, 2013~ Oct. 10, 2013	Dec. 28, 2013	Conducted (TH01-KS)
Pulse Power Sensor	Anritsu	MA2411B	0917070	N/A	Feb. 28, 2013	Sep. 19, 2013~ Oct. 10, 2013	Feb. 27, 2014	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	N/A	Feb. 28, 2013	Sep. 19, 2013~ Oct. 10, 2013	Feb. 27, 2014	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	N/A	Dec. 29, 2012	Sep. 19, 2013~ Oct. 10, 2013	Dec. 28, 2013	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Oct. 13, 2013	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	101399	9kHz~30GHz	May 23, 2013	Oct. 13, 2013	May 22, 2014	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 07, 2012	Oct. 13, 2013	Dec. 06, 2013	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	75959	1GHz~18GHz	Dec. 07, 2012	Oct. 13, 2013	Dec. 06, 2013	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	May 23, 2013	Oct. 13, 2013	May 22, 2014	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 29, 2012	Oct. 13, 2013	Dec. 28, 2013	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 07, 2012	Oct. 13, 2013	Nov. 06, 2013	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Nov. 23, 2012	Oct. 13, 2013	Nov. 22, 2013	Radiation (03CH01-KS)
Turn Table	MF	MF7802	N/A	0 ~ 360 degree	N/A	Oct. 13, 2013	N/A	Radiation (03CH01-KS)
Antenna Mast	MF	MF7802	N/A	1 m - 4 m	N/A	Oct. 13, 2013	N/A	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP 7	100819	9kHz~7GHz	May 23, 2013	Sep. 19, 2013~ Oct. 10, 2013	May 22, 2014	ERP (OTA01-KS)
Switch Control Manframe	Agilent	3499A	MY42005452	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Dual 1-to-6(4) MW MUX	Agilent	N2276A	MY42000841	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002573	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Microwave Switch	Agilent	44476A	MY42002586	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-04	00066993	700MHz~6GHz	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)



Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Conical Log Spiral (Small)	ETS-Lindgren	3102	00066951	1~10GHz	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Turn Table	ETS-Lindgren	2088	N/A	Resolution : 0.1degree	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Limiting Amplifier	ETS-lindgren	109643	920326	10M~2.5GHz	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
EMQuest	ETS-Lindgren	EMQ-100	1125	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (OTA01-KS)
Medium Duty Holder	ETS-Lindgren	2015	N/A	N/A	NCR	Sep. 19, 2013~ Oct. 10, 2013	NCR	ERP (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
---	------

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

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