

Variant FCC RF Test Report

APPLICANT : ZTE CORPORATION
EQUIPMENT : cdma2000 Digital Mobile Handset
BRAND NAME : ZTE
MODEL NAME : V8000
FCC ID : Q78-V8000
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : (DSS) Spread Spectrum Transmitter

This is a variant report which is only valid together with the original test report. The product was received on Jun. 25, 2012 and completely tested on Jul. 17, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and shown the 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:



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	IC Rule	Description	Limit	Result	Remark
3.1	15.247(b)(1)	A8.1(b)	Peak Output Power	≤ 125 mW	Pass	-
3.2	15.247(d)	A8.5	Radiated Band Edges	15.209(a) & 15.247(d)	Pass	-
3.3	15.247(d)	A8.5	Radiated Spurious Emission	15.209(a) & 15.247(d)	Pass	Under limit 7.34 dB at 37.810 MHz
3.4	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 12.76 dB at 0.520 MHz
3.5	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

ZTE CORPORATION

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

1.2 Manufacturer

ZTE CORPORATION

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

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	cdma2000 Digital Mobile Handset
Brand Name	ZTE
Model Name	V8000
FCC ID	Q78-V8000
EUT supports Radios application	CDMA / EV-DO / WLAN 11bgn / Bluetooth
HW Version	QB8655-02A_V1DMB_B
SW Version	V8000_CKT_1.72
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/Rx Frequency Range	2402 MHz ~ 2480 MHz
Number of Channels	79
Carrier Frequency of Each Channel	2402+n*1 MHz; n=0~78
Maximum Output Power to Antenna	Bluetooth (1Mbps) : 10.00 dBm (0.0100 W) Bluetooth EDR (2Mbps) : 9.77 dBm (0.0095 W) Bluetooth EDR (3Mbps) : 10.14 dBm (0.0103 W)
Antenna Type	PIFA Antenna with gain -1.00 dBi
Type of Modulation	Bluetooth (1Mbps) : GFSK Bluetooth 2.1 EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth 2.1 EDR (3Mbps) : 8-DPSK

1.4 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/IC Registration No.
	TH01-KS	CO01-KS	03CH01-KS
			149928/4086E-1

1.5 Applied Standards

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

- ♦ FCC Part 15 Subpart C §15.247
- ♦ FCC Public Notice DA 00-705
- ♦ ANSI C63.4-2003 and ANSI C63.10-2009
- ♦ IC RSS-210 Issue 8
- ♦ IC RSS-Gen Issue 3

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.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Base Station	R&S	CBT	FCC DoC	N/A	Unshielded, 1.8 m
3.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
4.	Bluetooth Earphone	Nokia	BH-106	QTLBH-106	NA	NA
5.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
6.	Notebook	DELL	VOSTRO1450	PPD-AR5B195	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 RF Output Power

Preliminary tests were performed in different data rate and recorded the RF output power in the following table:

Band	Bluetooth RF Output Power		
Channel	00	39	78
Frequency	2402	2441	2480
Peak Power	8.35	9.67	10.14

Remark:

1. All the test data for each data rate were verified, but only the worst case was reported.
2. The data rate was set in 3Mbps for all the test items due to the highest RF output power.
3. The EUT is programmed to transmit signals continuously for all testing.

2.2 Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and ANSI C63.10-2009 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 KHz to 30 MHz), radiation (9 KHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

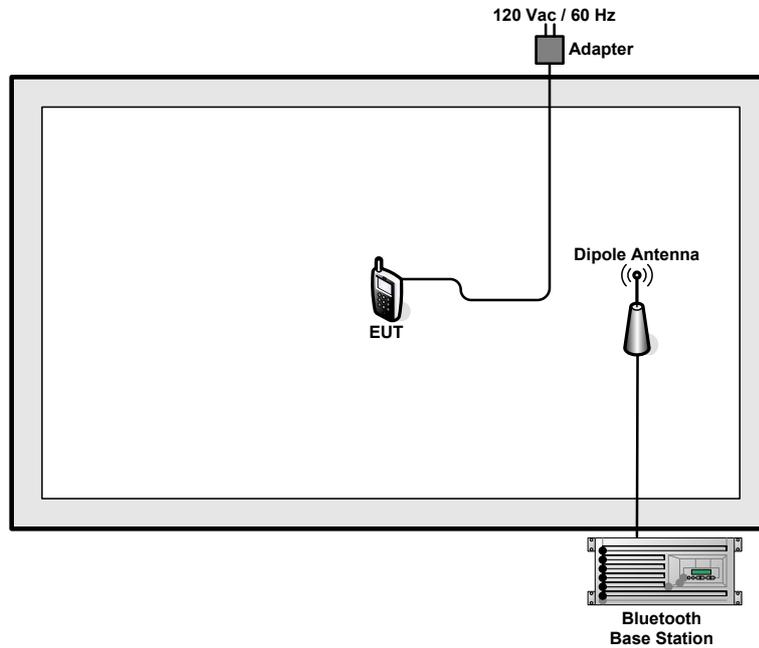
Pre-scanned tests, X, Y, Z in three orthogonal panels, were conducted to determine the final configuration from all possible combinations.

The following tables are showing the test modes as the worst cases (X plane) and recorded in this report.

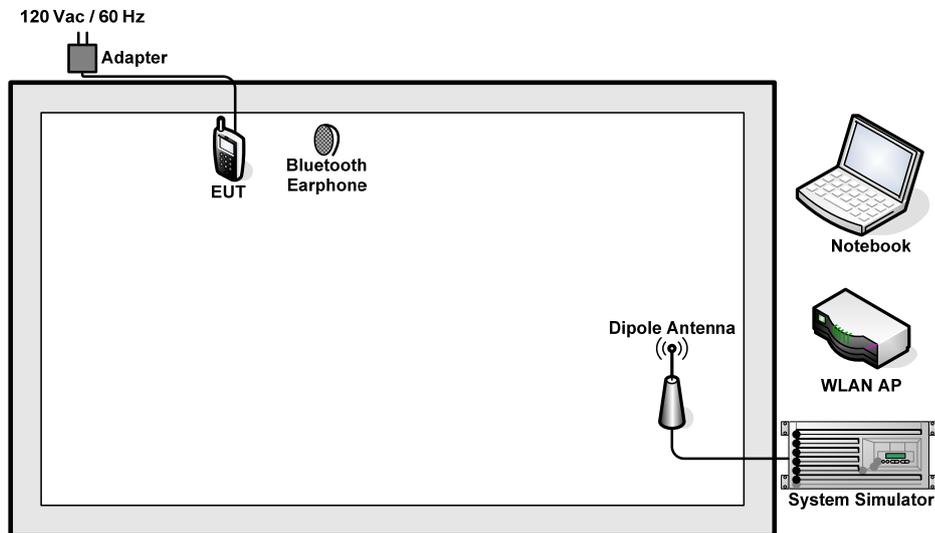
Test Cases			
Test Item	Data Rate / Modulation		
	Bluetooth 1Mbps GFSK	Bluetooth EDR 2Mbps $\pi/4$ -DQPSK	Bluetooth EDR 3Mbps 8-DPSK
Radiated TCs	N/A	N/A	Mode 1: CH78_2480 MHz
AC Conducted Emission	Mode 1 :CDMA2000 BC0 Idle + Bluetooth Link + WLAN Link + Adapter + Camera		
Remark: For radiated TCs, the data rate was set in 3Mbps due to the highest RF output power; only the data of these modes was reported.			

2.3 Connection Diagram of Test System

<Bluetooth Tx Mode>



<AC Conducted Emission Mode>



2.4 RF Utility

For Bluetooth function, key in “* # 8615 #” on the EUT directly. Then, the EUT will get into the engineering modes to contact with Bluetooth base station for continuous transmitting and receiving signals.

3 Test Result

3.1 Peak Output Power Measurement

3.1.1 Limit of Peak Output Power

Section 15.247 (b) The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts. The power limit for 1Mbps is 1watt, and for 2Mbps, and 3Mbps are 0.125 watts.

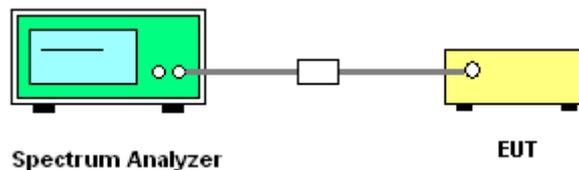
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.

3.1.4 Test Setup



3.1.5 Test Result of Peak Output Power

Test Mode :	3Mbps	Temperature :	23~24°C
Test Engineer :	Lizy Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	RF Power (dBm)		
		8-DPSK	Max. Limits (dBm)	Pass/Fail
		3 Mbps		
00	2402	8.35	20.97	Pass
39	2441	9.67	20.97	Pass
78	2480	10.14	20.97	Pass

3.2 Radiated Band Edges Measurement

3.2.1 Limit of Radiated Band Edges

In any 100 KHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

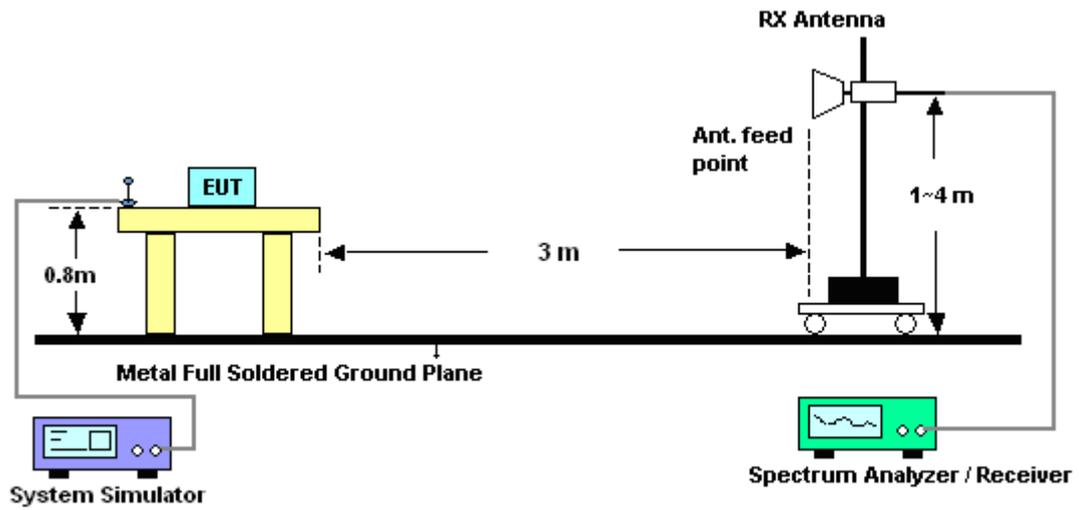
3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows the guidelines in Spurious Radiated Emissions of FCC Public Notice DA 00-705 Measurement Guidelines and fulfills ANSI C63.4-2003 and the guidelines in ANSI C63.10-2009 test site requirement.
2. Applies to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 1MHz, Sweep: Auto for Peak; set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto for Average. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation. See FCC Section 15.35(b) and (c).
3. In case the emission is fail due to the used RBW / VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

3.2.4 Test Setup



3.2.5 Test Result of Radiated Band Edges

Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
		Test Engineer :	Jack Li

ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2485.1	45.85	-28.15	74	43.36	33.01	3.68	34.2	112	175	Peak
2485.1	31.31	-22.69	54	28.82	33.01	3.68	34.2	112	175	Average

Summary results of marker-delta method:

Test mode	Maximum field strength of the fundamental emission (dBμV/m)	Delta Result (dB)	Average Result (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
Single Carrier Mode	84.41	54.96	29.45	54	-24.55	Pass
Hopping Mode	84.41	53.1	31.31	54	-22.69	Pass

Note : Average result = Maximum field strength – Delta result

ANTENNA POLARITY : VERTICAL										
Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2484.9	45.78	-28.22	74	43.29	33.01	3.68	34.2	100	0	Peak
2484.9	31.82	-22.18	54	29.33	33.01	3.68	34.2	100	0	Average

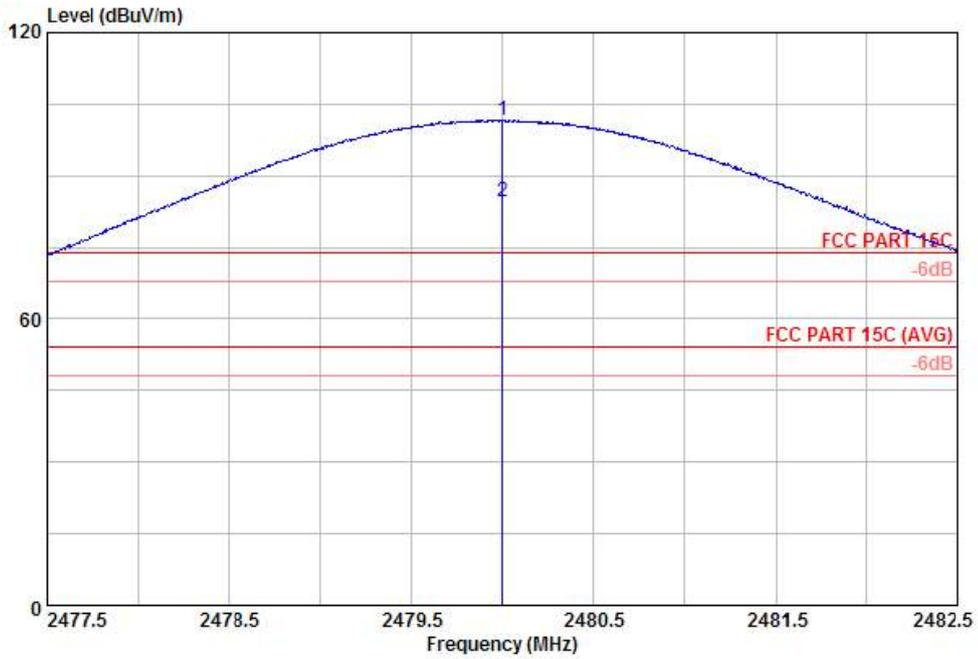
Summary results of marker-delta method:

Test mode	Maximum field strength of the fundamental emission (dBμV/m)	Delta Result (dB)	Average Result (dBμV/m)	Average Limit (dBμV/m)	Margin (dB)	Result
Single Carrier Mode	83.62	51.8	31.82	54	-22.18	Pass
Hopping Mode	83.62	51.85	31.77	54	-22.23	Pass

Note : Average result = Maximum field strength – Delta result



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal



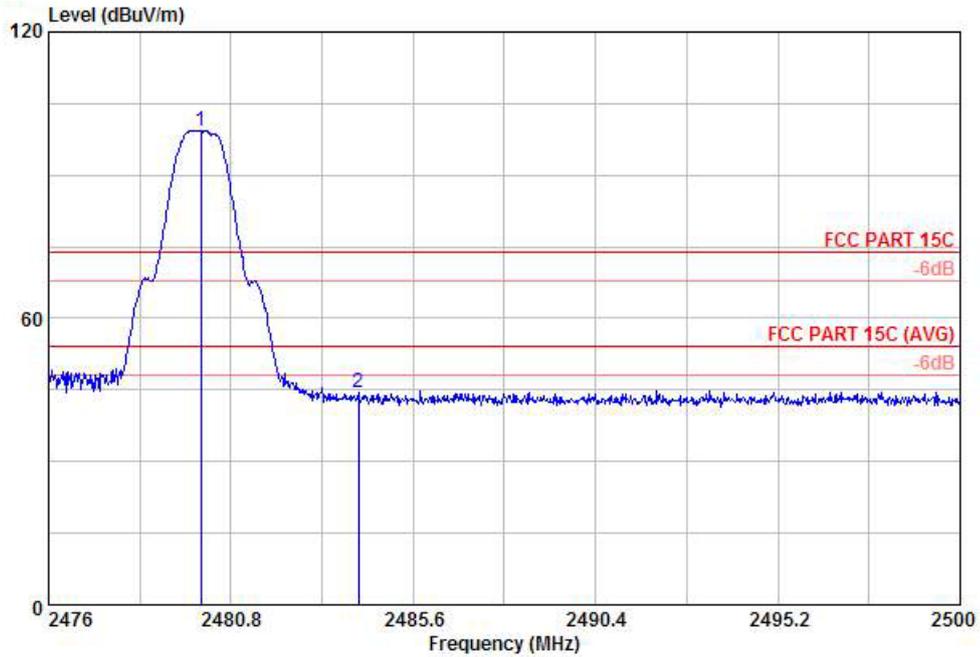
Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANI-100803 HORIZONTAL
 Mode : mode 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	Loss	Factor	Pos	Pos	
					dB/m	dB	dB	cm	deg	
1 X	2480.00	101.66	27.66	74.00	99.17	33.01	3.68	34.20	127	16 Peak
2 X	2480.00	84.41	30.41	54.00	81.92	33.01	3.68	34.20	127	16 Average

* Maximum field strength of the fundamental emission



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal



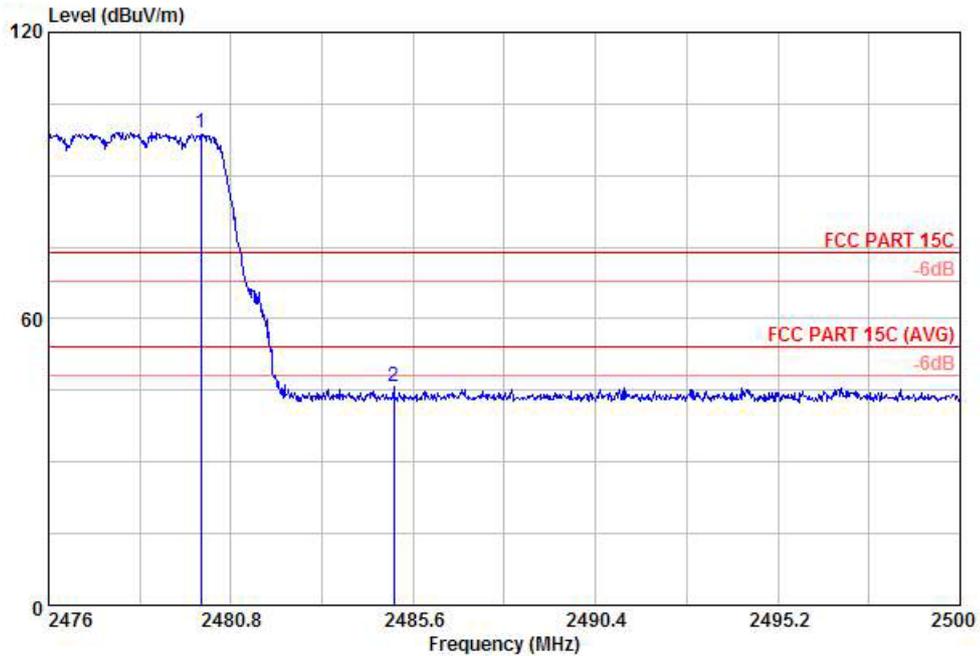
Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANI-100803 HORIZONTAL
 Mode : mode 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 X	2480.00	99.37	25.37	74.00	96.88	33.01	3.68	34.20	122	18 Peak
2	2484.16	44.41	-29.59	74.00	41.92	33.01	3.68	34.20	200	144 Peak

* Marker-Delta Method (RBW/VBW=100KHz): 54.96 dB , single carrier Mode



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal



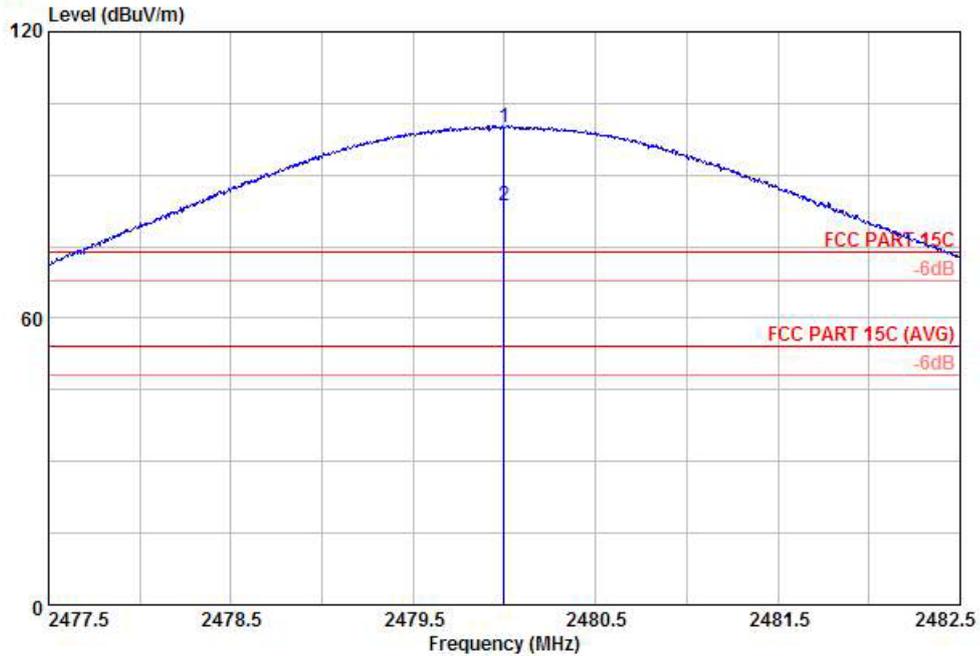
Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANI-100803 HORIZONTAL
 Mode : mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 X	2480.00	98.95	24.95	74.00	96.46	33.01	3.68	34.20	127	15	Peak
2	2485.10	45.85	-28.15	74.00	43.36	33.01	3.68	34.20	112	175	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 53.1 dB , Hopping Mode



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical



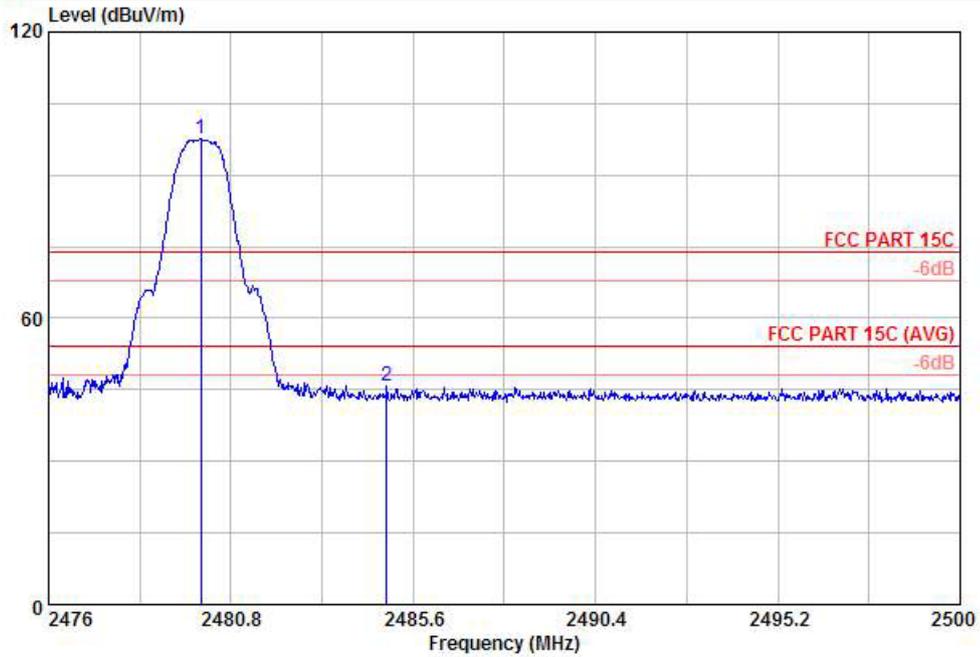
Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANT-100803 VERTICAL
 Mode : mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 X	2480.00	100.02	26.02	74.00	97.53	33.01	3.68	34.20	116	360	Peak
2 X	2480.00	83.62	29.62	54.00	81.13	33.01	3.68	34.20	116	360	Average

* Maximum field strength of the fundamental emission



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical



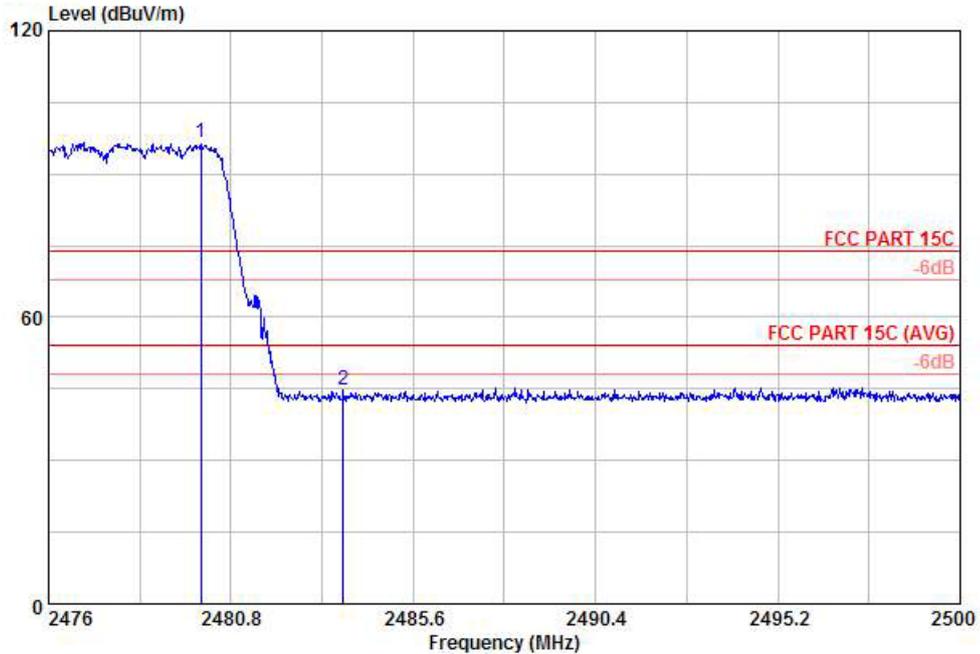
Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANI-100803 VERTICAL
 Mode : mode 1

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	dB	dBuV/m	dBuV	Loss	Factor	Pos	Pos	Remark
						dB	dB	cm	deg	
1 X	2480.00	97.58	23.58	74.00	95.09	3.68	34.20	115	359	Peak
2	2484.90	45.78	-28.22	74.00	43.29	3.68	34.20	100	0	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 51.8 dB , single carrier Mode



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical



Site : 03CH01-KS
 Condition: FCC PART 15C 3m HF ANI-100803 VERTICAL
 Mode : mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 X	2480.00	96.48	22.48	74.00	93.99	33.01	3.68	34.20	117	359	Peak
2	2483.75	44.63	-29.37	74.00	42.14	33.01	3.68	34.20	105	345	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 51.85 dB , Hopping Mode

3.3 Radiated Spurious Emission Measurement

3.3.1 Limit of Radiated Emission

In any 100 KHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

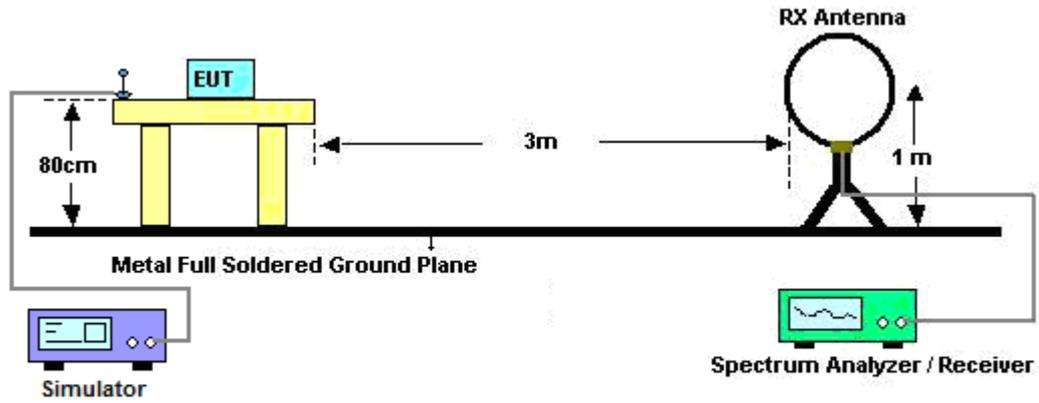


3.3.3 Test Procedures

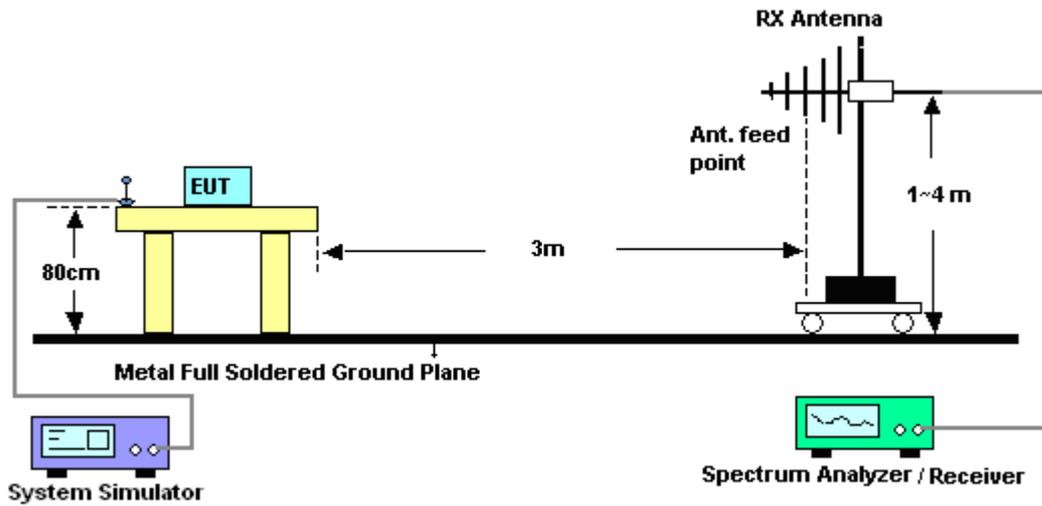
1. The testing follows the guidelines in Spurious Radiated Emissions of FCC Public Notice DA 00-705 Measurement Guidelines and fulfills ANSI C63.4-2003 and the guidelines in ANSI C63.10-2009 test site requirement.
2. Applies to band edge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 1MHz, Sweep: Auto for Peak; set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto for Average. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation. See FCC Section 15.35(b) and (c).
1. Follow the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.
2. Measured average value if the peak value is greater than 54 dBu/m

3.3.4 Test Setup

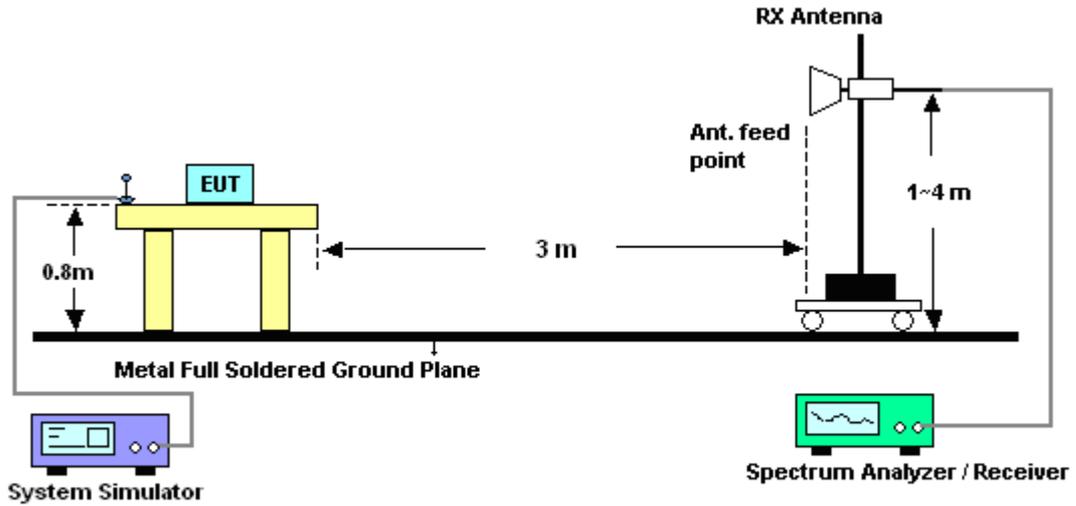
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.3.5 Test Results of Radiated Emissions (9 KHz ~ 30 MHz)

The low frequency, which started from 9 KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.3.6 Test Result of Radiated Emission (30 MHz ~ 10th Harmonic)

Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	2480 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
37.81	32.66	-7.34	40	48.78	13.7	0.24	30.06	100	123	Peak
189.74	21.61	-21.89	43.5	42.47	8.5	0.58	29.94	-	-	Peak
330.19	22.84	-23.16	46	38.05	13.95	0.78	29.94	-	-	Peak
502.94	24.14	-21.86	46	35.65	17.26	0.96	29.73	-	-	Peak
670.49	25.54	-20.46	46	35.07	19.05	1.1	29.68	-	-	Peak
839.18	30.87	-15.13	46	38.85	20.4	1.27	29.65	-	-	Peak
2340	36.08	-17.92	54	33.91	32.78	3.33	33.94	109	46	Average
2340	48.91	-25.09	74	46.74	32.78	3.33	33.94	109	46	Peak
2480	84.41	-	-	81.92	33.01	3.68	34.2	127	16	Average
2480	101.66	-	-	99.17	33.01	3.68	34.2	127	16	Peak
2485.1	45.85	-28.15	74	43.36	33.01	3.68	34.2	112	175	Peak
2485.1	31.31	-22.69	54	28.82	33.01	3.68	34.2	112	175	Average
4960	41.2	-12.8	54	33.26	35.2	5	32.26	128	360	Average
4960	51.47	-22.53	74	43.53	35.2	5	32.26	128	360	Peak



Test Mode :	3Mbps	Temperature :	22~23°C
Test Channel :	78	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	2480 MHz is fundamental signal which can be ignored.		

Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
35.82	31.48	-8.52	40	46.68	14.65	0.23	30.08	115	125	Peak
50.37	27.6	-12.4	40	50.05	7.4	0.28	30.13	-	-	Peak
140.58	22.68	-20.82	43.5	41.37	10.82	0.49	30	-	-	Peak
580.96	26.6	-19.4	46	36.62	18.57	1.05	29.64	-	-	Peak
721.61	29.91	-16.09	46	38.86	19.55	1.15	29.65	-	-	Peak
837.04	34.87	-11.13	46	42.88	20.37	1.27	29.65	-	-	Peak
2324	35.89	-18.11	54	33.76	32.76	3.27	33.9	124	89	Average
2324	48.61	-25.39	74	46.48	32.76	3.27	33.9	124	89	Peak
2480	83.62	-	-	81.13	33.01	3.68	34.2	116	360	Average
2480	100.02	-	-	97.53	33.01	3.68	34.2	116	360	Peak
2484.9	45.78	-28.22	74	43.29	33.01	3.68	34.2	100	0	Peak
2484.9	31.82	-22.18	54	29.33	33.01	3.68	34.2	100	0	Average
4960	43.41	-10.59	54	35.47	35.2	5	32.26	102	331	Average
4960	50.91	-23.09	74	42.97	35.2	5	32.26	102	331	Peak

3.4 AC Conducted Emission Measurement

3.4.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 KHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

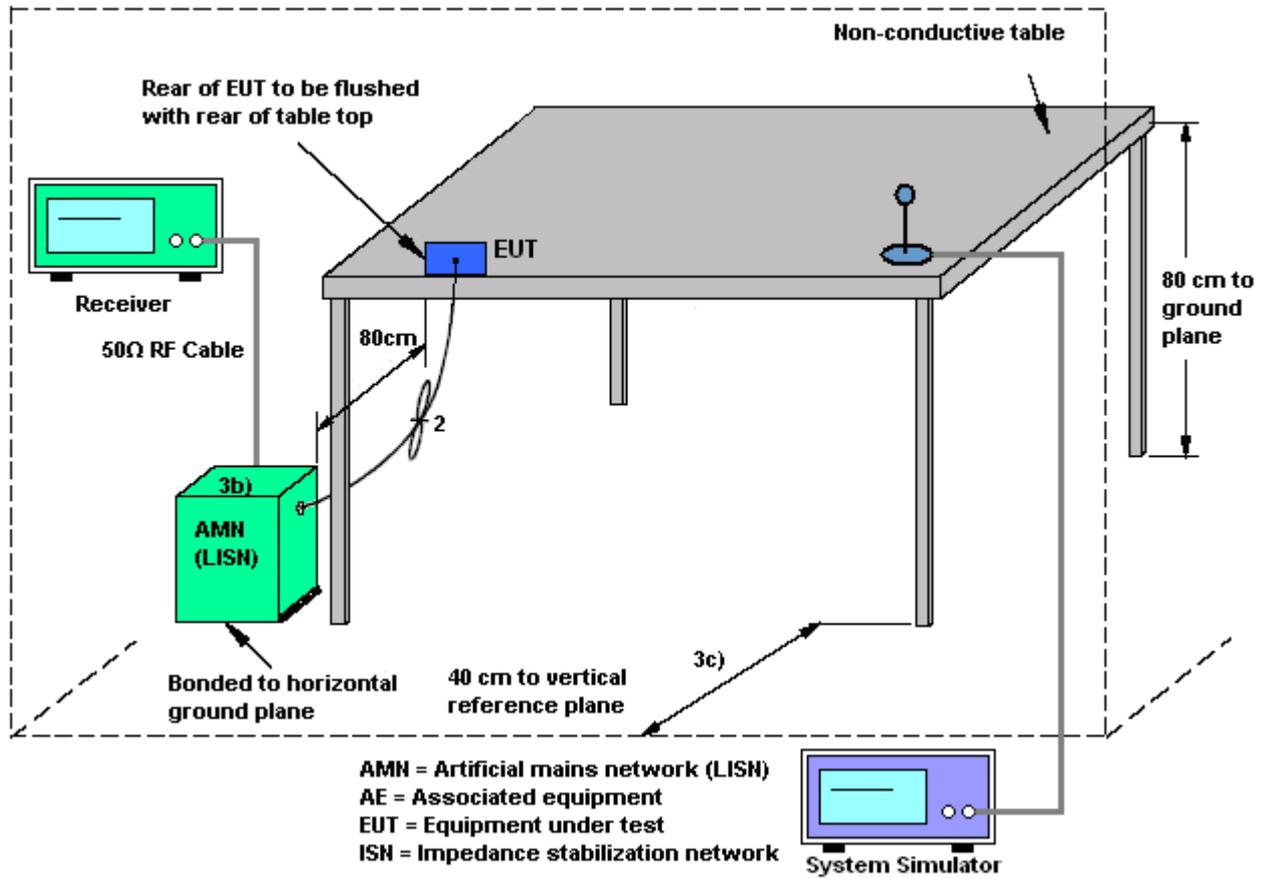
3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. Please follow the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009 test site requirement.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 KHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

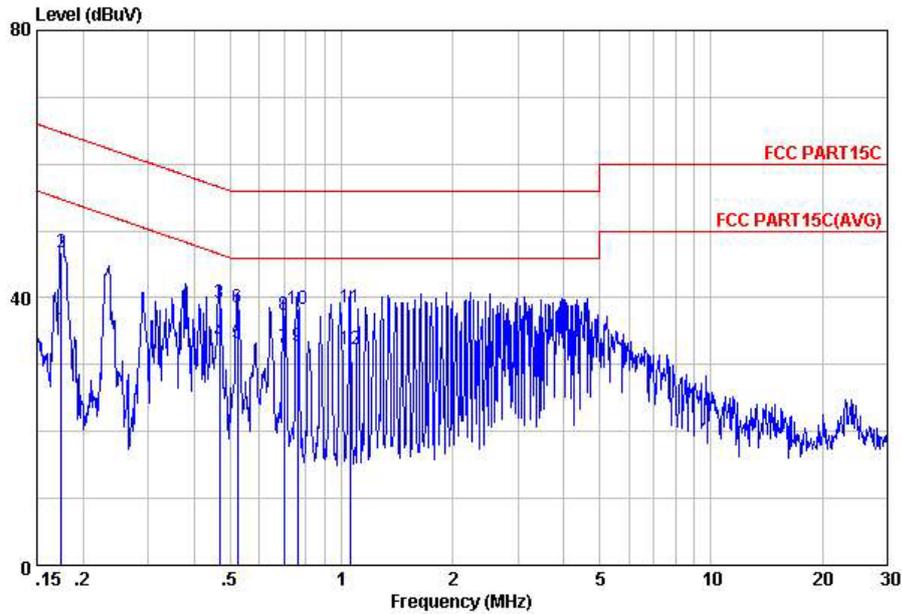
3.4.4 Test Setup





3.4.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	19~20°C
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	CDMA2000 BC0 Idle + Bluetooth Link + WLAN Link + Adapter + Camera		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



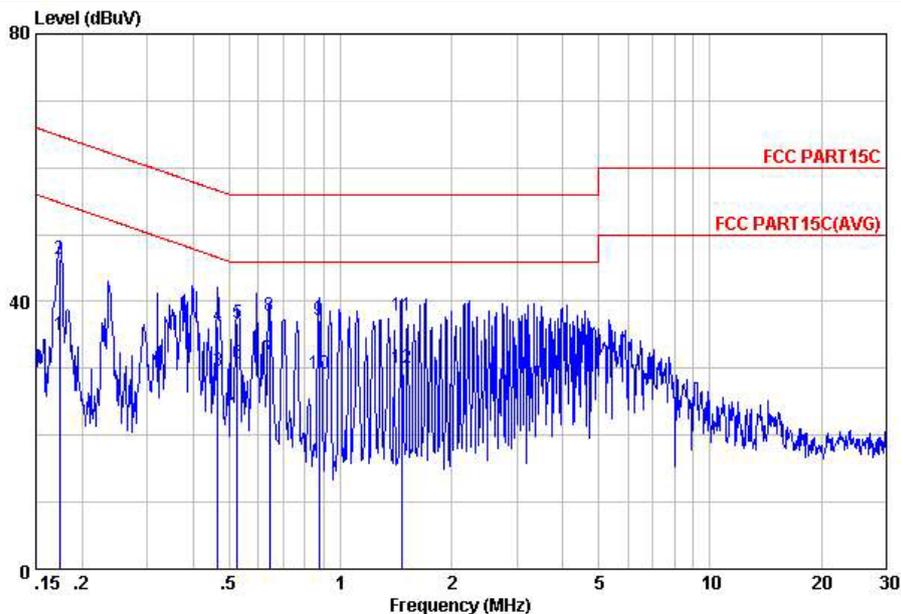
Site : C001-KS
 Condition: FCC PART15C LISN-111230 LINE

mode : Mode 1
 IMEI : 268435461001651233

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	35.27	-19.45	54.72	24.90	-0.07	10.44	Average
2	0.17	46.77	-17.95	64.72	36.40	-0.07	10.44	QP
3	0.47	39.14	-17.40	56.54	28.60	-0.08	10.62	QP
4	0.47	33.34	-13.20	46.54	22.80	-0.08	10.62	Average
5	0.52	33.24	-12.76	46.00	22.69	-0.08	10.63	Average
6	0.52	38.44	-17.56	56.00	27.89	-0.08	10.63	QP
7	0.70	32.45	-13.55	46.00	21.90	-0.09	10.64	Average
8	0.70	37.35	-18.65	56.00	26.80	-0.09	10.64	QP
9	0.76	32.75	-13.25	46.00	22.20	-0.09	10.64	Average
10	0.76	38.25	-17.75	56.00	27.70	-0.09	10.64	QP
11	1.05	38.45	-17.55	56.00	27.90	-0.10	10.65	QP
12	1.05	32.35	-13.65	46.00	21.80	-0.10	10.65	Average



Test Mode :	Mode 1	Temperature :	19~20°C
Test Engineer :	Tom Wang	Relative Humidity :	39~40%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	CDMA2000 BC0 Idle + Bluetooth Link + WLAN Link + Adapter + Camera		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Site : C001-KS
 Condition: FCC PART15C LISN-111230 NEUTRAL

mode : Mode 1
 IMEI : 268435461001651233

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.17	34.96	-19.81	54.77	24.60	-0.08	10.44	Average
2	0.17	46.36	-18.41	64.77	36.00	-0.08	10.44	QP
3	0.47	29.64	-16.94	46.58	19.10	-0.08	10.62	Average
4	0.47	36.24	-20.34	56.58	25.70	-0.08	10.62	QP
5	0.53	36.85	-19.15	56.00	26.30	-0.08	10.63	QP
6	0.53	30.85	-15.15	46.00	20.30	-0.08	10.63	Average
7	0.64	31.36	-14.64	46.00	20.80	-0.08	10.64	Average
8	0.64	37.86	-18.14	56.00	27.30	-0.08	10.64	QP
9	0.88	37.26	-18.74	56.00	26.70	-0.09	10.65	QP
10	0.88	29.26	-16.74	46.00	18.70	-0.09	10.65	Average
11	1.46	37.78	-18.22	56.00	27.20	-0.10	10.68	QP
12	1.46	30.18	-15.82	46.00	19.60	-0.10	10.68	Average



3.5 Antenna Requirements

3.5.1 Standard Applicable

If directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.5.2 Antenna Connected Construction

Non-standard connector used.

3.5.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
DC Power Supply	GWINSTEK	GPS-3030D	E1884515	N/A	Aug. 23, 2011	Jun. 30, 2012	Aug. 22, 2012	Conducted (TH01-KS)
Bluetooth Base Station	R&S	CBT	100783	N/A	Aug. 18, 2011	Jun. 30, 2012	Aug. 17, 2012	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 09, 2011	Jul. 17, 2012	Nov. 08, 2012	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Dec. 30, 2011	Jul. 17, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Jul. 17, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/00	9 kHz~30 MHz	Jul. 28, 2011	Jul. 17, 2012	Jul. 27, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 06, 2012	Jul. 17, 2012	Jan. 05, 2013	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Dec. 30, 2011	Jul. 17, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Jul. 17, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz~18GHz	Nov. 07, 2011	Jul. 17, 2012	Nov. 06, 2012	Radiation (03CH01-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Oct. 11, 2011	Jul. 17, 2012	Oct.10, 2012	Radiation (03CH01-KS)
Bluetooth Base Station	R&S	CBT	100783	N/A	Aug. 18, 2011	Jul. 17, 2012	Aug. 17, 2012	Radiation (03CH01-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	Jun. 01, 2012	Jul. 07, 2012	May 31, 2013	Conduction (CO01-KS)
LISN	MessTec	AN3016	60103	9kHz~30MHz	Dec. 30, 2011	Jul. 07, 2012	Dec. 29, 2012	Conduction (CO01-KS)
LISN	MessTec	AN3016	60105	9kHz~30MHz	Dec. 30, 2011	Jul. 07, 2012	Dec. 29, 2012	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP00000811	N/A	Nov. 16, 2011	Jul. 07, 2012	Nov. 15, 2012	Conduction (CO01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Jul. 07, 2012	Dec. 29, 2012	Conduction (CO01-KS)



5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.26
-------------------------------------------------------------------------	------

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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Appendix A. Photographs of EUT

Please refer to Sporton report number EP222301-01 as below.



Appendix C. Product Equality Declaration

ZTE CORPORATION

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

Tel: +86-755-86360734 ; Fax: +86-755-86360734

Date: July 26, 2012

Product Equality Declaration

We, ZTE CORPORATION, declare on our sole responsibility for the product of **V8000** below:

The differences between previous and current model of **V8000** are as below:

1. Added one SIM slot.
2. BT, WIFI Antenna was slightly changed.
3. Modified the software version.

Except listings above, the others are all the same as previous version.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,



Contact Person: Gong Bolin

Company: ZTE CORPORATION

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FAX: +86-755-86360734

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