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	:	(DTS) Digital Transmission System

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

Jones Tsai / Manager

Testing Laboratory 1190

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR222301-01B	Rev. 01	This is a variant report for V8000. The product equality declaration could be referred to Appendix C. All test cases were performed on original report which can be referred to SPORTON Report Number FR222301B. Based on the original test report, only the worse cases of Radiated Spurious Emissions, AC Conducted Emission and the conducted power were verified for the differences.	Jul. 26, 2012

SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(b)	A8.4	Power Output Measurement	≤ 30dBm	Pass	-
0	15.247(d)	A8.5	Radiated Band Edges	15.209(a) & 15.247(d)	Pass	-
			Radiated Spurious Emission		Pass	Under limit 3.66 dB at 839.180 MHz
3.3	15.207	Gen 7.2.4	AC Conducted Emission	15.207(a)	Pass	Under limit 12.76 dB at 0.520 MHz
3.4	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	2412 MHz ~ 2462 MHz
Number of Channels	11
Carrier Frequency of Each Channel	2412+(n-1)*5 MHz; n=1~11
Maximum Output Power to Antenna	802.11b : 15.89 dBm (0.0388 W) 802.11g : 21.78 dBm (0.1507 W) 802.11n HT-20 : 21.62 dBm (0.1452 W)
Antenna Type	PIFA Antenna with gain -1.00 dBi
Type of Modulation	802.11b : DSSS (BPSK / QPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

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 KDB Publication No. 558074 D01 DTS Meas. Guidance v01
- FCC TCB Workshop 2012, April
- 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.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
3.	Bluetooth Earphone	Nokia	BH-106	QTLBH-106	NA	NA
4.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
5.	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 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	1	2412	7	2442
	2	2417	8	2447
	3	2422	9	2452
	4	2427	10	2457
	5	2432	11	2462
	6	2437		

2.2 Pre-Scanned RF Power

Preliminary tests were performed in different data rate as below table and the highest power data rates (11b, 11g, 11n HT-20, 11n HT-40 modes) were chosen for full test in the following sections to demonstrate compliance to the FCC limit line. .

2.4GHz 802.11b mode				
Data Rate (MHz)	1M bps	2M bps	5.5M bps	11M bps
Peak Power (dBm)	15.89	15.65	15.55	15.85

2.4GHz 802.11g mode								
Data Rate (MHz)	6M bps	9M bps	12M bps	18M bps	24M bps	36M bps	48M bps	54M bps
Peak Power (dBm)	21.78	21.63	21.38	21.25	21.33	21.28	21.27	21.56

2.4GHz 802.11n HT-20 mode								
Data Rate (MHz)	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Peak Power (dBm)	21.62	21.35	21.18	21.07	21.16	21.11	21.07	21.23

2.3 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: conducted emission (150 KHz to 30 MHz), radiated emission (30 MHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

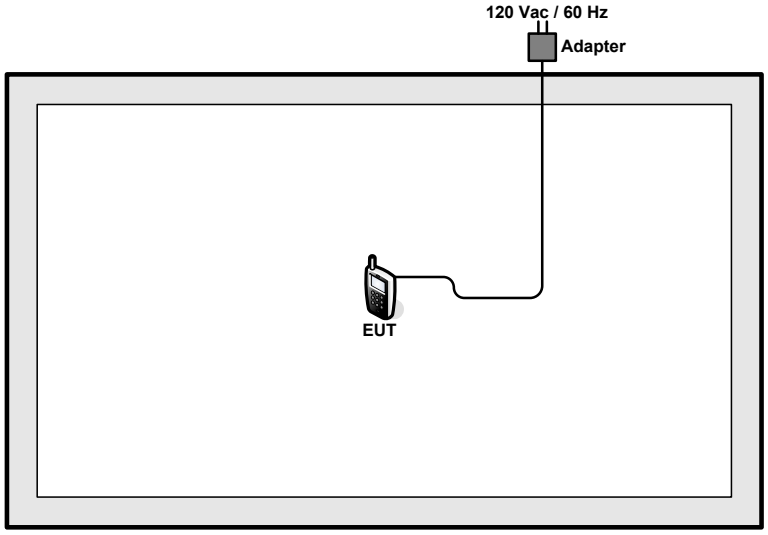
Pre-scanned tests, X, Y, Z in three orthogonal panels, were conducted to determine the final configuration from all possible combinations.

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

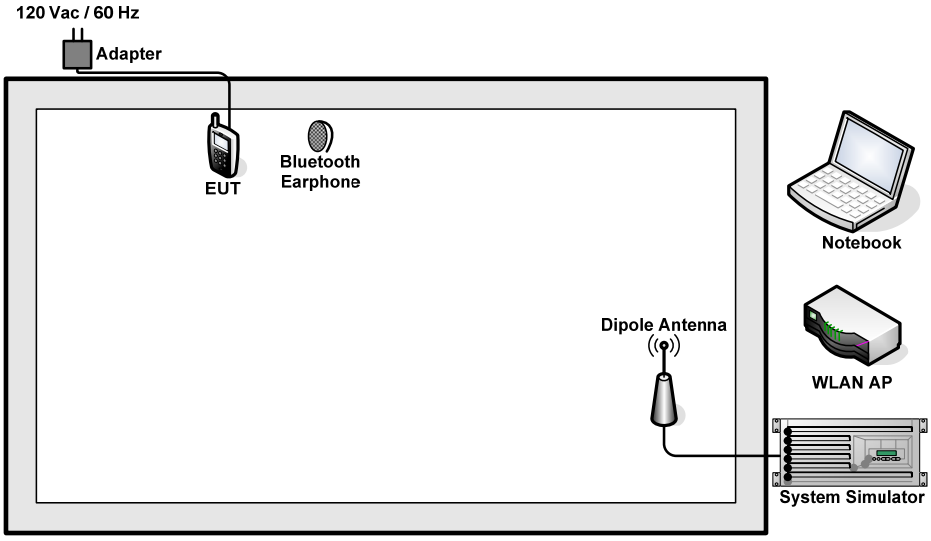
<table>
<tr><th colspan="2">Test Cases</th></tr>
<tr><th>Test Item</th><td>802.11b (Modulation : DSSS)
802.11g/n (Modulation : OFDM)</td></tr>
<tr><th>Radiated TCs</th><td>
<table>
<tr><th>Test Mode</th><th>802.11b</th><th>802.11g</th><th>802.11n HT-20</th></tr>
<tr><th>CH11</th><td>1</td><td>2</td><td>3</td></tr>
</table>
</td></tr>
<tr><th>AC Conducted Emission</th><td>Mode 1 ： CDMA2000 BC0 Idle + Bluetooth Link + WLAN Link + Adapter + Camera</td></tr>
</table>

2.4 Connection Diagram of Test System

<WLAN Tx Mode>



<AC Conducted Emission Mode>



2.5 RF Utility

For WLAN function, execute “ADB” to make the EUT contact with WLAN AP for continuous transmitting and receiving signals.

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm. If transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

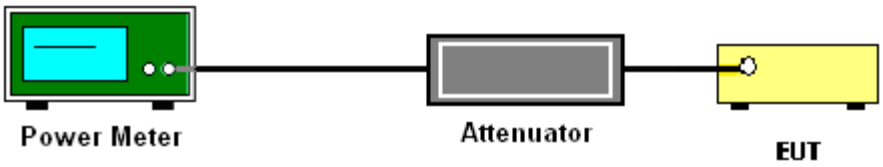
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedures

1. The testing follows the Measurement Procedure 7.2.1.3 Option 3(peak power meter method) of FCC KDB No. 558074 DTS Meas. Guidance DR01.
2. The RF output of EUT was connected to the power meter by a low loss cable
3. Measure the power by power meter.

3.1.4 Test Setup



3.1.5 Test Result of Peak Output Power

Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11b Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	14.76	30	Pass
06	2437	15.26	30	Pass
11	2462	15.89	30	Pass

Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	802.11g Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	20.49	30	Pass
06	2437	20.88	30	Pass
11	2462	21.78	30	Pass

Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%

Channel	Frequency (MHz)	2.4GHz 802.11n HT-20 Peak Output Power (dBm)	Max. Limits (dBm)	Pass/Fail
01	2412	20.46	30	Pass
06	2437	20.96	30	Pass
11	2462	21.62	30	Pass

3.1.6 Test Result of Average output Power (Reporting Only)

Test Mode :	802.11b	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%
Duty Cycle:	99.08%	Duty Factor:	0.04dB

Channel	Frequency (MHz)	802.11b Average Output Power (dBm)
01	2412	11.40
06	2437	12.12
11	2462	12.72

Test Mode :	802.11g	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%
Duty Cycle:	92.81%	Duty Factor:	0.32dB

Channel	Frequency (MHz)	802.11g Average Output Power (dBm)
01	2412	10.87
06	2437	11.51
11	2462	11.98

Test Mode :	802.11n HT-20	Temperature :	23~24℃
Test Engineer :	Lizy Li	Relative Humidity :	47~48%
Duty Cycle:	92.41%	Duty Factor:	0.34dB

Channel	Frequency (MHz)	802.11n HT-20 Average Output Power (dBm)
01	2412	10.77
06	2437	11.40
11	2462	11.87

3.2 Radiated Emission Measurement

3.2.1 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. If the output power of this device was measured by spectrum analyzer, the attenuation under this paragraph shall be 30 dB instead of 20 dB. 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

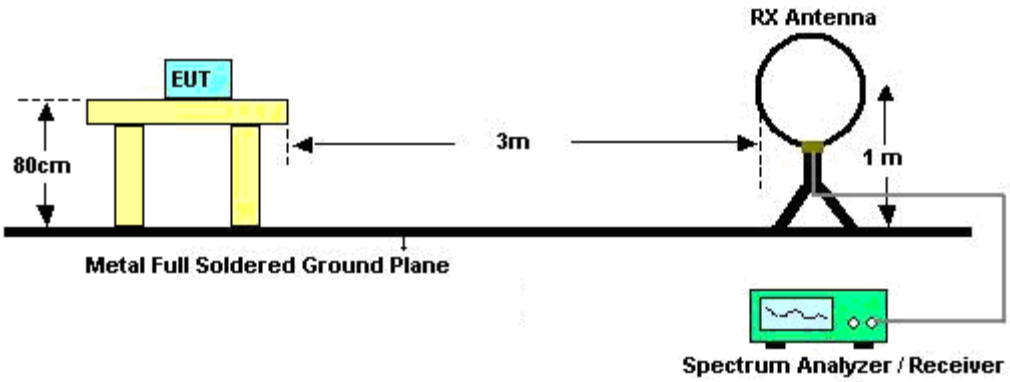
See list of measuring instruments of this test report.

3.2.3 Test Procedures

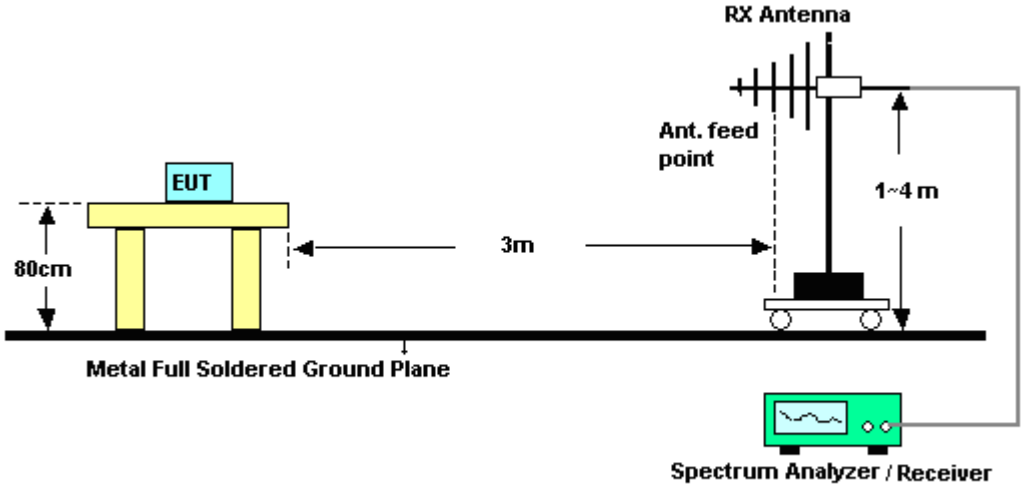
1. The testing follows TCB Workshop 2012, April and fulfills ANSI C63.4-2003 and the guidelines in ANSI C63.10-2009 test site requirement. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
2. The EUT was placed on a turntable with 0.8 meter above ground.
3. The EUT was set 3 meters from the interference receiving Antenna, which was mounted on the top of a variable height Antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest radiation.
5. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW = 1 MHz for f ≥ 1 GHz, 100 KHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
6. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
7. If the emission level of the EUT measured by the peak detector is more than 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported

3.2.4 Test Setup

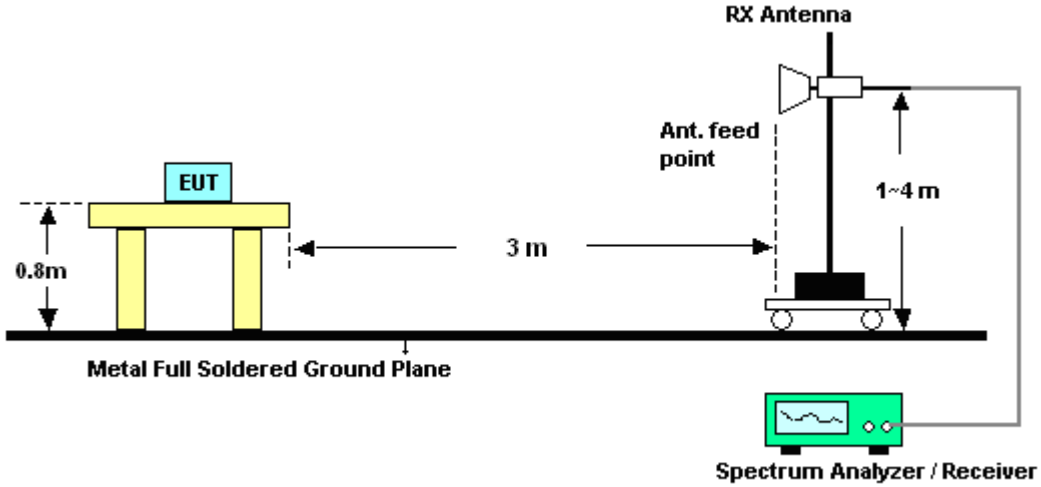
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.2.5 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.

3.2.6 Test Result of Radiated Band Edges

Test Mode :	802.11b	Temperature :	22~23°C
Test Band :	High	Relative Humidity :	40~41%
Test Channel :	11	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
2499.43	56.15	-17.85	74	53.61	33.05	3.72	34.23	152	246	Peak
2499.43	41.88	-12.12	54	39.34	33.05	3.72	34.23	152	246	Average

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
2483.85	53.77	-20.23	74	51.28	33.01	3.68	34.2	125	96	Peak
2483.85	43.74	-10.26	54	41.25	33.01	3.68	34.2	125	96	Average

Test Mode :	802.11g	Temperature :	22~23°C
Test Band :	High	Relative Humidity :	40~41%
Test Channel :	11	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
2484.99	64.42	-9.58	74	61.93	33.01	3.68	34.2	110	346	Peak
2484.99	44.43	-9.57	54	41.94	33.01	3.68	34.2	110	346	Average

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
2488.22	63.21	-10.79	74	60.67	33.05	3.72	34.23	115	325	Peak
2488.22	43.86	-10.14	54	41.32	33.05	3.72	34.23	115	325	Average

Test Mode :	802.11n HT-20	Temperature :	22~23°C
Test Band :	High	Relative Humidity :	40~41%
Test Channel :	11	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
2483.85	65.29	-8.71	74	62.8	33.01	3.68	34.2	110	324	Peak
2483.85	47.02	-6.98	54	44.53	33.01	3.68	34.2	110	324	Average

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
2485.94	64.09	-9.91	74	61.6	33.01	3.68	34.2	100	328	Peak
2485.94	46.29	-7.71	54	43.8	33.01	3.68	34.2	100	328	Average

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

Test Mode :	802.11b	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	2462 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
36.9	32.07	-7.93	40	47.71	14.19	0.24	30.07	-	-	Peak
140.84	21.33	-22.17	43.5	40.02	10.82	0.49	30	-	-	Peak
321.39	28.79	-17.21	46	44.39	13.59	0.76	29.95	-	-	Peak
344.39	25	-21	46	39.76	14.37	0.81	29.94	-	-	Peak
672.84	26.74	-19.26	46	36.24	19.08	1.11	29.69	-	-	Peak
836.24	42.15	-3.85	46	50.16	20.36	1.27	29.64	112	203	Peak
2350.66	36.4	-17.6	54	34.23	32.78	3.33	33.94	142	278	Average
2350.66	50.86	-23.14	74	48.69	32.78	3.33	33.94	142	278	Peak
2462	98.48	-	-	96.03	32.98	3.64	34.17	160	308	Average
2462	104.03	-	-	101.58	32.98	3.64	34.17	160	308	Peak
2499.43	41.88	-12.12	54	39.34	33.05	3.72	34.23	152	246	Average
2499.43	56.15	-17.85	74	53.61	33.05	3.72	34.23	152	246	Peak
4924	48.63	-5.37	54	40.71	35.19	4.99	32.26	100	290	Average
4924	54.41	-19.59	74	46.49	35.19	4.99	32.26	100	290	Peak

Test Mode :	802.11b	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	2462 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
36.13	34.12	-5.88	40	49.32	14.65	0.23	30.08	105	324	Peak
50.23	28.02	-11.98	40	50.47	7.4	0.28	30.13	-	-	Peak
221.39	22.92	-23.08	46	42.1	10.17	0.62	29.97	-	-	Peak
339.59	21.32	-24.68	46	36.21	14.25	0.8	29.94	-	-	Peak
601.43	27	-19	46	36.95	18.6	1.07	29.62	-	-	Peak
839.18	37.31	-8.69	46	45.29	20.4	1.27	29.65	-	-	Peak
2321.59	36.64	-17.36	54	34.51	32.76	3.27	33.9	120	301	Average
2321.59	50.64	-23.36	74	48.51	32.76	3.27	33.9	120	301	Peak
2462	99.34	-	-	96.89	32.98	3.64	34.17	119	315	Average
2462	102.74	-	-	100.29	32.98	3.64	34.17	119	315	Peak
2483.85	43.74	-10.26	54	41.25	33.01	3.68	34.2	125	96	Average
2483.85	53.77	-20.23	74	51.28	33.01	3.68	34.2	125	96	Peak
4924	49.85	-4.15	54	41.93	35.19	4.99	32.26	128	330	Average
4924	55.68	-18.32	74	47.76	35.19	4.99	32.26	128	330	Peak

Test Mode :	802.11g	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	2462 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	31.39	-8.61	40	47.51	13.7	0.24	30.06	-	-	Peak
147.4	22.17	-21.33	43.5	41.44	10.21	0.5	29.98	-	-	Peak
221.39	24.61	-21.39	46	43.79	10.17	0.62	29.97	-	-	Peak
331.35	22.59	-23.41	46	37.72	14.02	0.79	29.94	-	-	Peak
524.55	23.13	-22.87	46	34.01	17.85	0.98	29.71	-	-	Peak
839.18	42.34	-3.66	46	50.32	20.4	1.27	29.65	125	89	Peak
2341.35	36.93	-17.07	54	34.76	32.78	3.33	33.94	124	69	Average
2341.35	50.71	-23.29	74	48.54	32.78	3.33	33.94	124	69	Peak
2462	91	-	-	88.55	32.98	3.64	34.17	109	325	Average
2462	106	-	-	103.55	32.98	3.64	34.17	109	325	Peak
2484.99	44.43	-9.57	54	41.94	33.01	3.68	34.2	110	346	Average
2484.99	64.42	-9.58	74	61.93	33.01	3.68	34.2	110	346	Peak
4924	41.26	-12.74	54	33.34	35.19	4.99	32.26	125	360	Average
4924	53.4	-20.6	74	45.48	35.19	4.99	32.26	125	360	Peak

Test Mode :	802.11g	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	2462 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
37.68	32.53	-7.47	40	48.65	13.7	0.24	30.06	110	360	Peak
91.82	17.35	-26.15	43.5	37.59	9.35	0.39	29.98	-	-	Peak
140.84	17.82	-25.68	43.5	36.51	10.82	0.49	30	-	-	Peak
236.64	19.76	-26.24	46	37.6	11.35	0.65	29.84	-	-	Peak
719.2	29.38	-16.62	46	38.37	19.52	1.15	29.66	-	-	Peak
839.18	36.99	-9.01	46	44.97	20.4	1.27	29.65	-	-	Peak
2352.18	36.97	-17.03	54	34.76	32.81	3.38	33.98	125	69	Average
2352.18	50.97	-23.03	74	48.76	32.81	3.38	33.98	125	69	Peak
2462	89.7	-	-	87.25	32.98	3.64	34.17	118	353	Average
2462	103.33	-	-	100.88	32.98	3.64	34.17	118	353	Peak
2488.22	43.86	-10.14	54	41.32	33.05	3.72	34.23	115	325	Average
2488.22	63.21	-10.79	74	60.67	33.05	3.72	34.23	115	325	Peak
4924	42.98	-11.02	54	35.06	35.19	4.99	32.26	100	360	Average
4924	55.5	-18.5	74	47.58	35.19	4.99	32.26	100	360	Peak

Test Mode :	802.11n-HT20	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Horizontal
Remark :	2462 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
36.38	33.48	-6.52	40	49.12	14.19	0.24	30.07	100	360	Peak
147.4	23.81	-19.69	43.5	43.08	10.21	0.5	29.98	-	-	Peak
221.39	24.95	-21.05	46	44.13	10.17	0.62	29.97	-	-	Peak
296.18	22.42	-23.58	46	38.7	12.95	0.72	29.95	-	-	Peak
506.48	23.19	-22.81	46	34.65	17.31	0.96	29.73	-	-	Peak
952.09	31.67	-14.33	46	39.14	20.74	1.33	29.54	-	-	Peak
2310.76	37.57	-16.43	54	35.48	32.73	3.22	33.86	127	48	Average
2310.76	50.91	-23.09	74	48.82	32.73	3.22	33.86	127	48	Peak
2462	91.21	-	-	88.76	32.98	3.64	34.17	107	352	Average
2462	105.62	-	-	103.17	32.98	3.64	34.17	107	352	Peak
2483.85	47.02	-6.98	54	44.53	33.01	3.68	34.2	110	324	Average
2483.85	65.29	-8.71	74	62.8	33.01	3.68	34.2	110	324	Peak
4924	40.73	-13.27	54	32.81	35.19	4.99	32.26	120	15	Average
4924	52	-22	74	44.08	35.19	4.99	32.26	120	15	Peak

Test Mode :	802.11n-HT20	Temperature :	22~23°C
Test Channel :	11	Relative Humidity :	40~41%
Test Engineer :	Jack Li	Polarization :	Vertical
Remark :	2462 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	30.92	-9.08	40	47.04	13.7	0.24	30.06	125	247	Peak
49.71	27.23	-12.77	40	49.33	7.75	0.28	30.13	-	-	Peak
134.56	16.82	-26.68	43.5	35.03	11.3	0.48	29.99	-	-	Peak
221.39	22.03	-23.97	46	41.21	10.17	0.62	29.97	-	-	Peak
719.2	29.53	-16.47	46	38.52	19.52	1.15	29.66	-	-	Peak
952.09	32.74	-13.26	46	40.21	20.74	1.33	29.54	-	-	Peak
2310.38	37.7	-16.3	54	35.61	32.73	3.22	33.86	128	52	Average
2310.38	50.88	-23.12	74	48.79	32.73	3.22	33.86	128	52	Peak
2462	89.69	-	-	87.24	32.98	3.64	34.17	120	20	Average
2462	103.64	-	-	101.19	32.98	3.64	34.17	120	20	Peak
2485.94	46.29	-7.71	54	43.8	33.01	3.68	34.2	100	328	Average
2485.94	64.09	-9.91	74	61.6	33.01	3.68	34.2	100	328	Peak
4924	40.89	-13.11	54	32.97	35.19	4.99	32.26	100	360	Average
4924	55.39	-18.61	74	47.47	35.19	4.99	32.26	100	360	Peak

3.3 AC Conducted Emission Measurement

3.3.1 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.

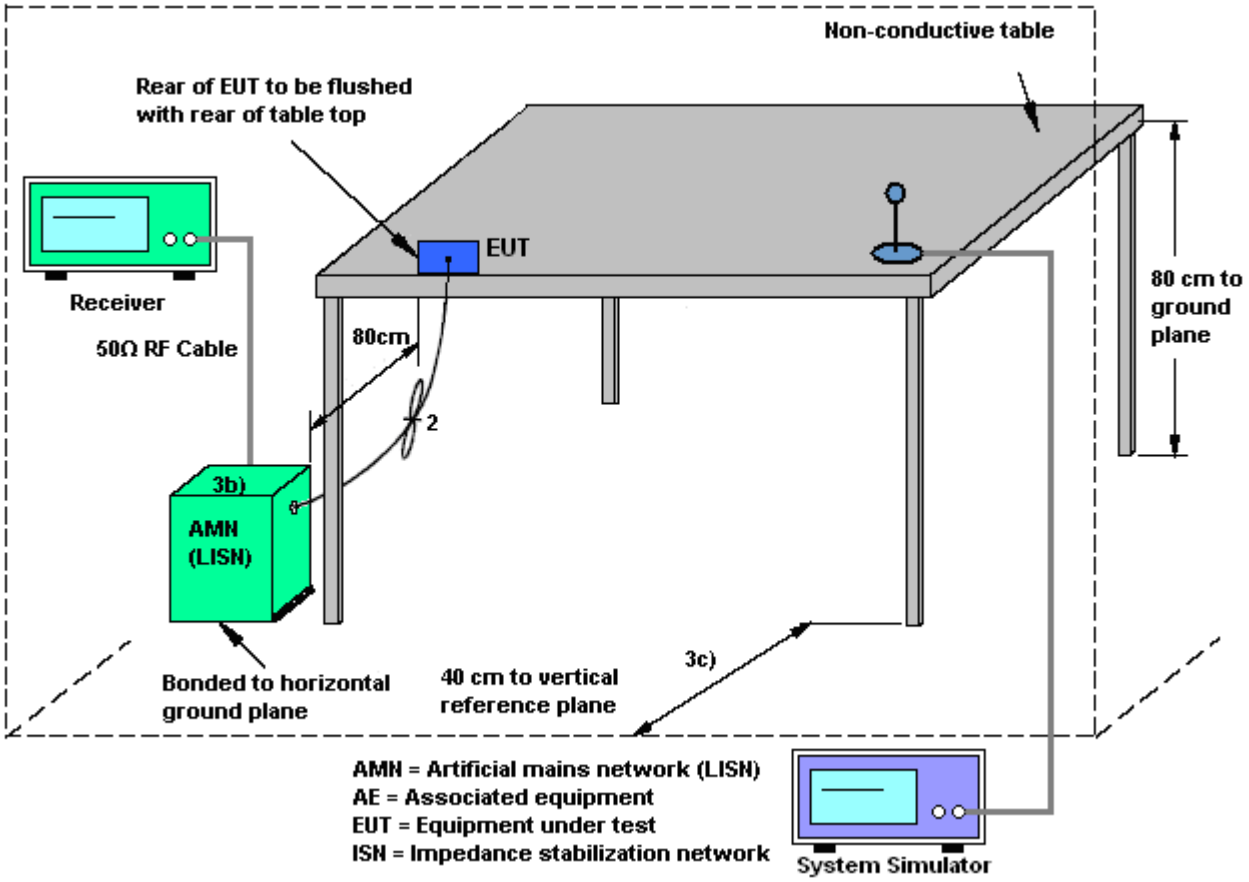
3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

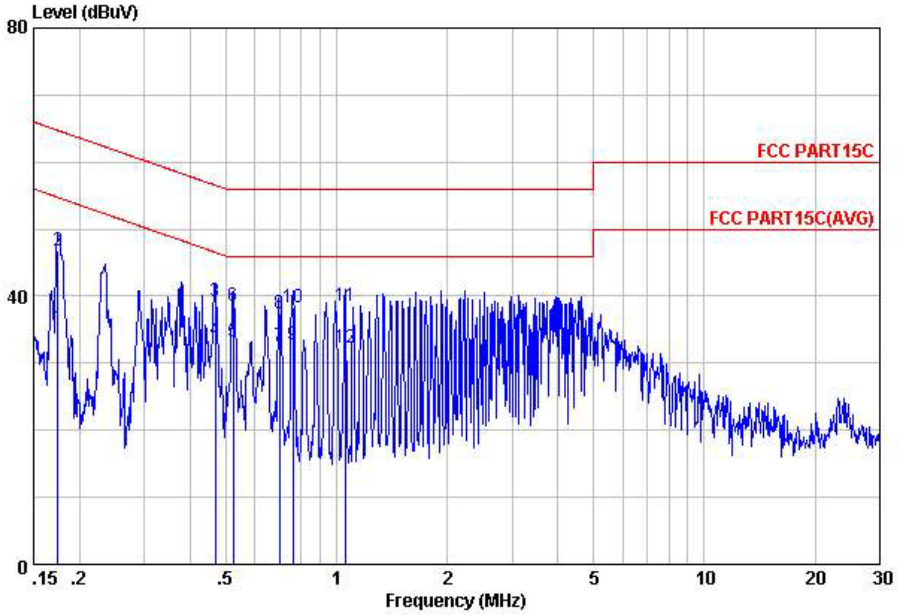
1. The testing follows the guidelines in ANSI C63.4-2003 and ANSI C63.10-2009.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room, and it was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance 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.

3.3.4 Test Setup



3.3.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	19~20℃
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.		

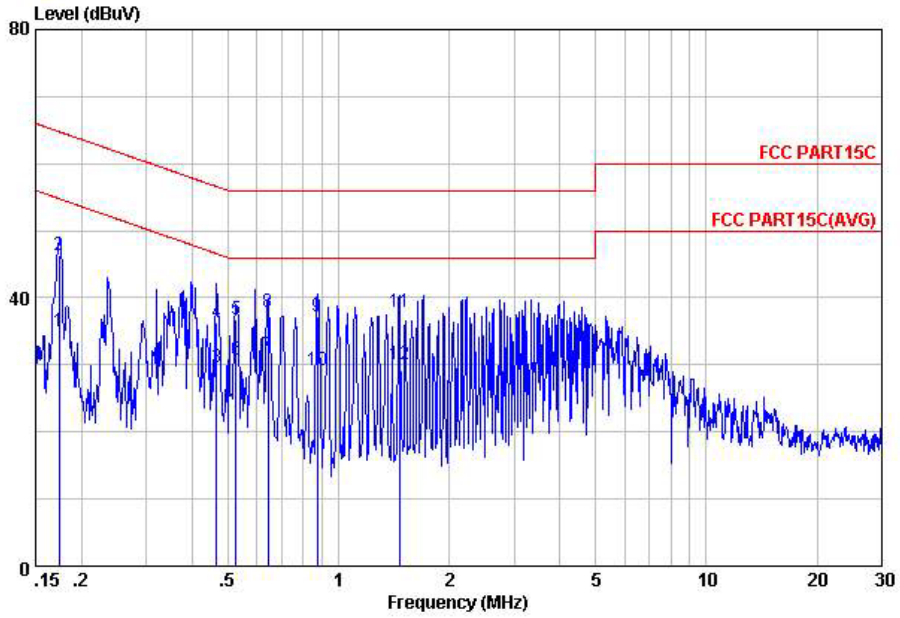


Site : C001-KS
Condition: FCC PART15C LISN-111230 LINE

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℃
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

3.4 Antenna Requirements

3.4.1 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. For the fixed point-to-point operation, the power shall be reduced by one dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi. 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.

3.4.2 Antenna Connected Construction

Non-standard connector used.

3.4.3 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)
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)
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	ABP000000811	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**

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

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

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
TEL: +86-755-86360734
FAX: +86-755-86360734
E-mail: Gong.bolin1@zte.com.cn