



FCC Test Report

APPLICANT : Yulong Computer Telecommunication
Scientific (Shenzhen) Co., Ltd
EQUIPMENT : Smartphone
BRAND NAME : Coolpad
MODEL NAME : Coolpad 3623A
MARKETING NAME : Coolpad Tattoo
FCC ID : R38YL3623A
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Dec. 26, 2015 and testing was completed on Mar. 03, 2016. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2009 and has been in 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

Prepared by: Andy Yeh / Manager

Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (SHENZHEN) INC.
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Nanshan District, Shenzhen, Guangdong, P. R. China





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APPENDIX A. PHOTOGRAPHS OF EUT



REVISION HISTORY



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 5.17 dB at 0.160 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 9.10 dB at 44.040 MHz



1. General Description

1.1. Applicant

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd

Coolpad Information Harbor, 2nd Mengxi Road, Hi-Tech Industrial Park(North), Nanshan district, Shenzhen, P.R.C

1.2. Manufacturer

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd

Coolpad Information Harbor, 2nd Mengxi Road, Hi-Tech Industrial Park(North), Nanshan district, Shenzhen, P.R.C

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Smartphone
Brand Name	Coolpad
Model Name	Coolpad 3623A
Marketing Name	Coolpad Tattoo
FCC ID	R38YL3623A
EUT supports Radios application	CDMA/EV-DO/WLAN 2.4GHz 802.11b/g/n HT20 Bluetooth v2.1 + EDR/Bluetooth v4.0 LE
MEID Code	Radiation: 99000773338062 Conduction: 99000564213668
HW Version	P1
SW Version	051.00.160215
EUT Stage	Production Unit

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



1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Rx Frequency	CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz Glonass : 1602 MHz + n × 0.5625MHz (n=-7,-6,-5,...0,...,6)
Antenna Type	WWAN : PIFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GPS/Glonass : PIFA Antenna
Type of Modulation	CDMA2000 : QPSK CDMA2000 1xEV-DO : 8PSK LTE: QPSK / 16QAM 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : $\pi/4$ -DQPSK Bluetooth (3Mbps) : 8-DPSK GPS/Glonass : BPSK



1.5. Modification of EUT

No modifications are made to the EUT during all test items.

1.6. Test Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.
Test Site Location	1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595
Test Site No.	Sporton Site No. CO01-SZ

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

1.7. Applicable Standards

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

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2009

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.



2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2009 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 (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

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

Item	EUT Configuration	Test Condition		
		EMI AC	EMI RE<1G	EMI RE≥1G
1.	Charging Mode (EUT with adapter)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.	Data application transferred mode (EUT connected with notebook)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Abbreviations:

- EMI AC: AC conducted emissions
- EMI RE \geq 1G: EUT radiated emissions \geq 1GHz
- EMI RE < 1G: EUT radiated emissions < 1GHz



Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1: CDMA2000 BC1 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 2: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back) <Fig.1> Mode 3: LTE Band 13 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 <Fig.1> Mode 4: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.2> Mode 5: CDMA2000 BC1 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx <Fig.3>
Radiated Emissions < 1GHz	1/2	Mode 1: CDMA2000 BC1 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) <Fig.1> Mode 2: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back) <Fig.1> Mode 3: LTE Band 13 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 <Fig.1> Mode 4: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.2> Mode 5: CDMA2000 BC1 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Glonass Rx <Fig.3>

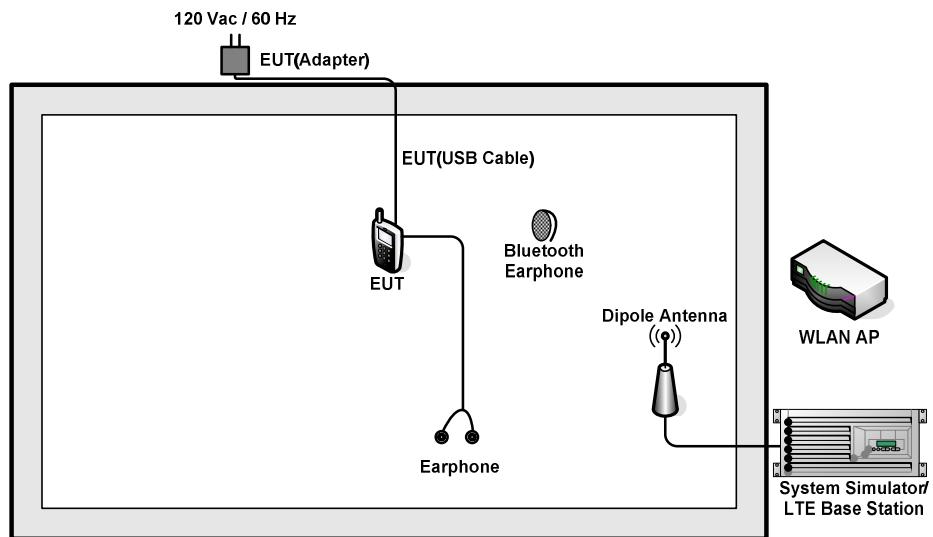


Test Items	EUT Configure Mode	Function Type
Radiated Emissions $\geq 1\text{GHz}$	1/2	Mode 1: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back) <Fig.1> Mode 2: CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx <Fig.2>

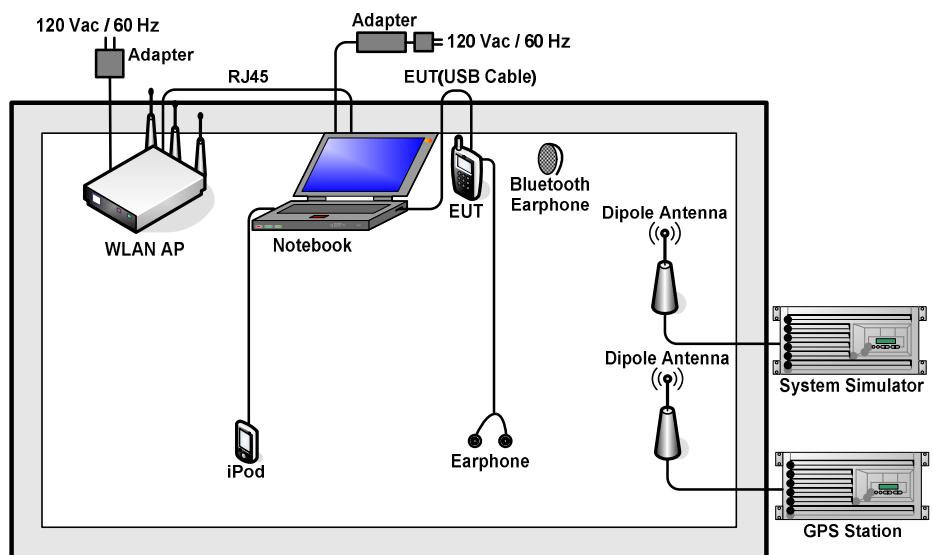
Remark:

1. The worst case of AC is mode 1; and the USB Link mode of AC is mode 4, only the test data of this mode was reported.
2. The worst case of RE $< 1\text{G}$ is mode 2; and the USB Link mode of RE is mode 4, only the test data of this mode was reported.
3. Link with Notebook means data application transferred mode between EUT and Notebook.

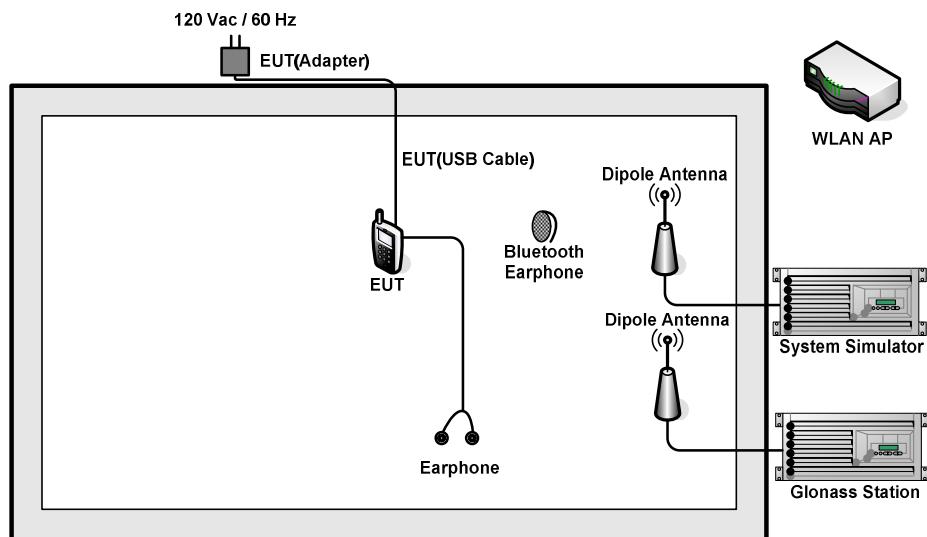
2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>



<Fig.3>



2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
4.	Glonass Station	RACELOGIC	RLLS03-2P	FCC DoC	N/A	N/A
5.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
6.	WLAN AP	ASUS	RT-AC66U	MSQ-RAC66U	N/A	Unshielded, 1.8 m
7.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
8.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
9.	Bluetooth Earphone	Samsung	HS3000	A3LHS3000	N/A	N/A
10.	iPod nano 8GB	Apple	MC690ZP/A	FCC DoC	Shielded, 1.2 m	N/A
11.	iPod Earphone	Apple	MC690ZP/A	N/A	N/A	N/A
12.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
13.	SD Card	SanDisk	4G class 4	N/A	N/A	N/A



2.4. EUT Operation Test Setup

The EUT was in LTE or CDMA2000 idle mode during the testing. The EUT was synchronized to the BCCH, and was in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between notebook and EUT via USB cable.
2. Turn on GPS/Glonass function to make the EUT receive continuous signals from GPS/Glonass station.
3. Execute "Video Player" to play MPEG4 files.
4. Turn on camera to capture images.



3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits 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.

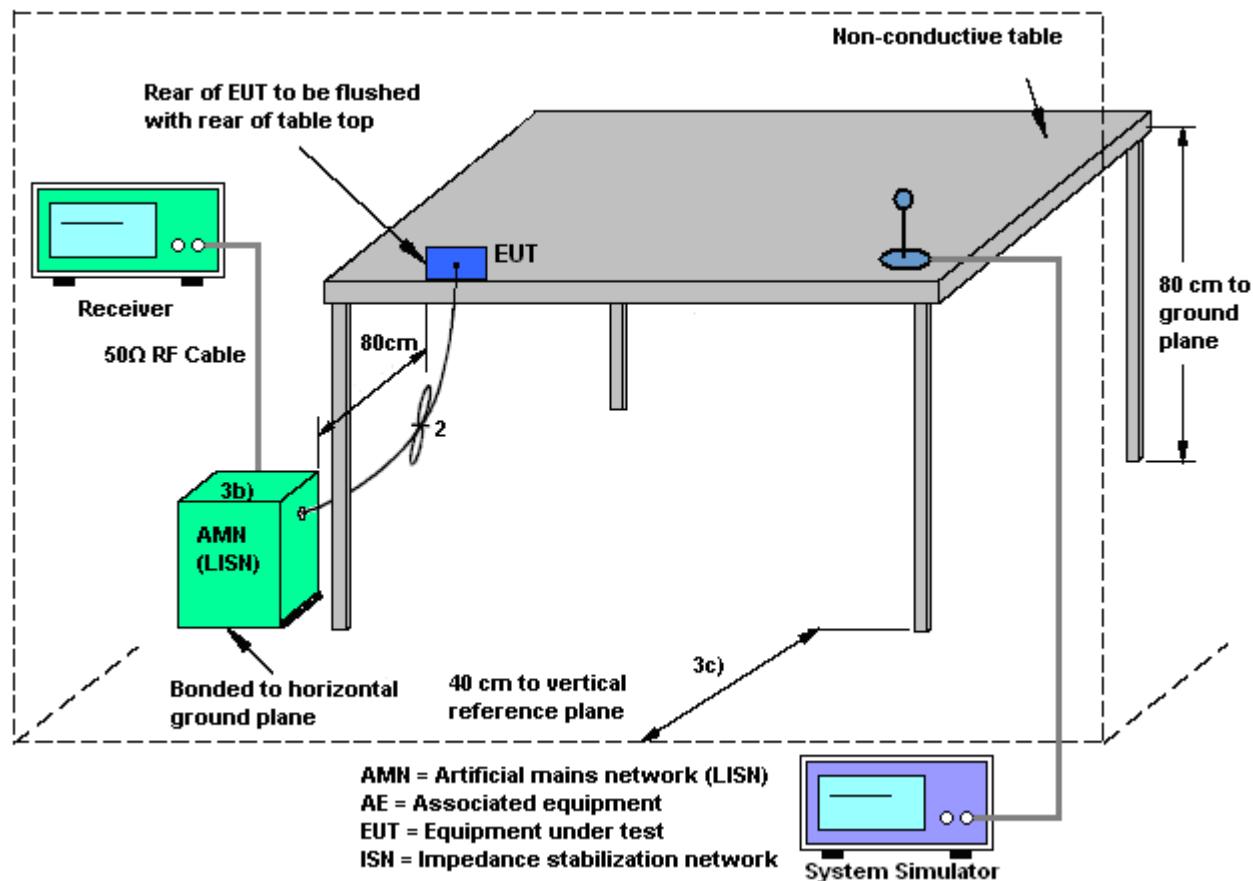
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

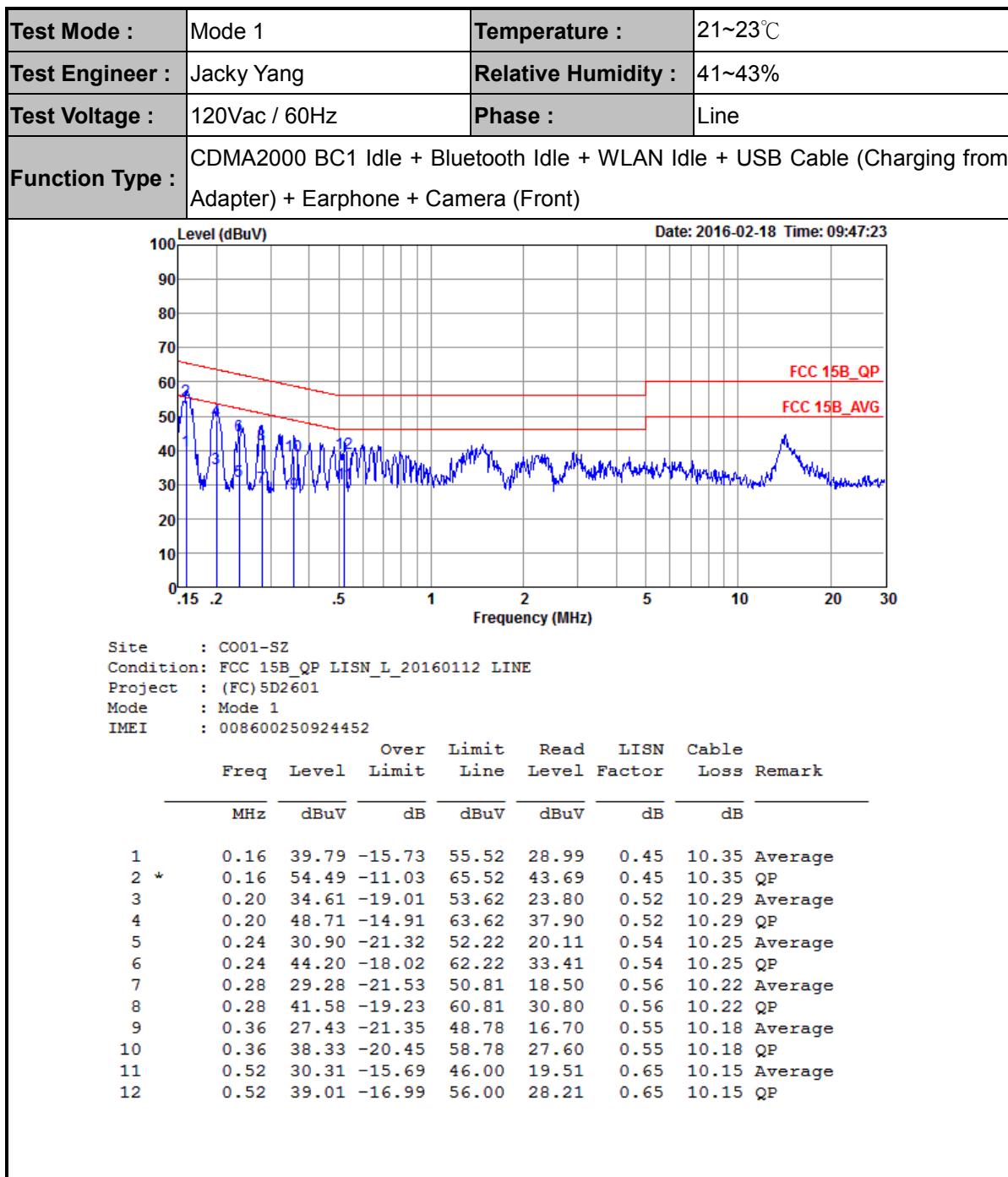
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

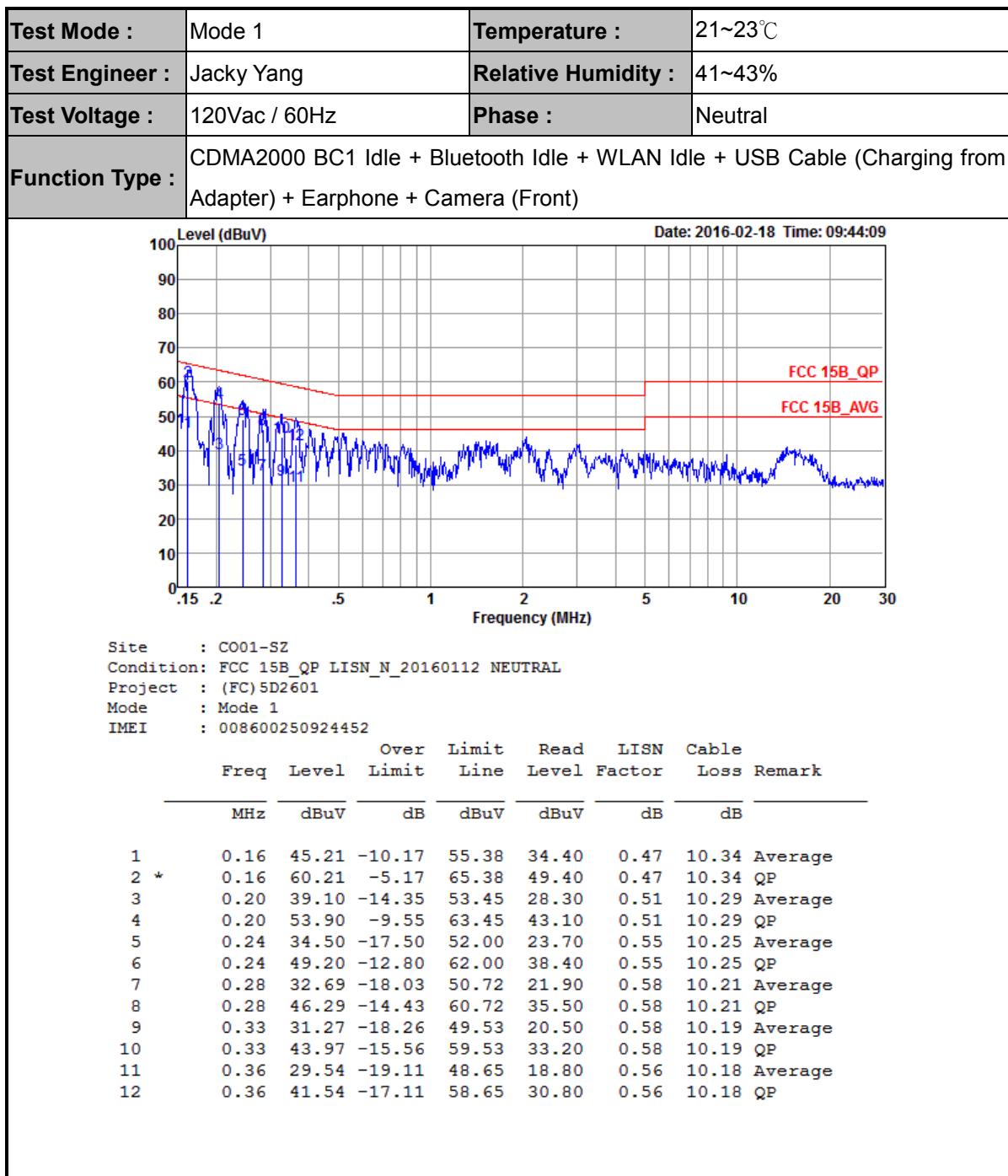
3.1.4 Test Setup





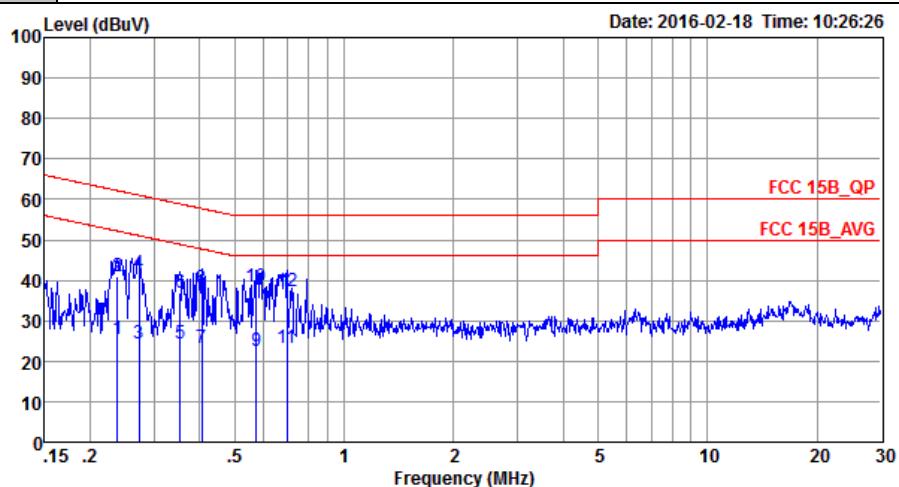
3.1.5 Test Result of AC Conducted Emission





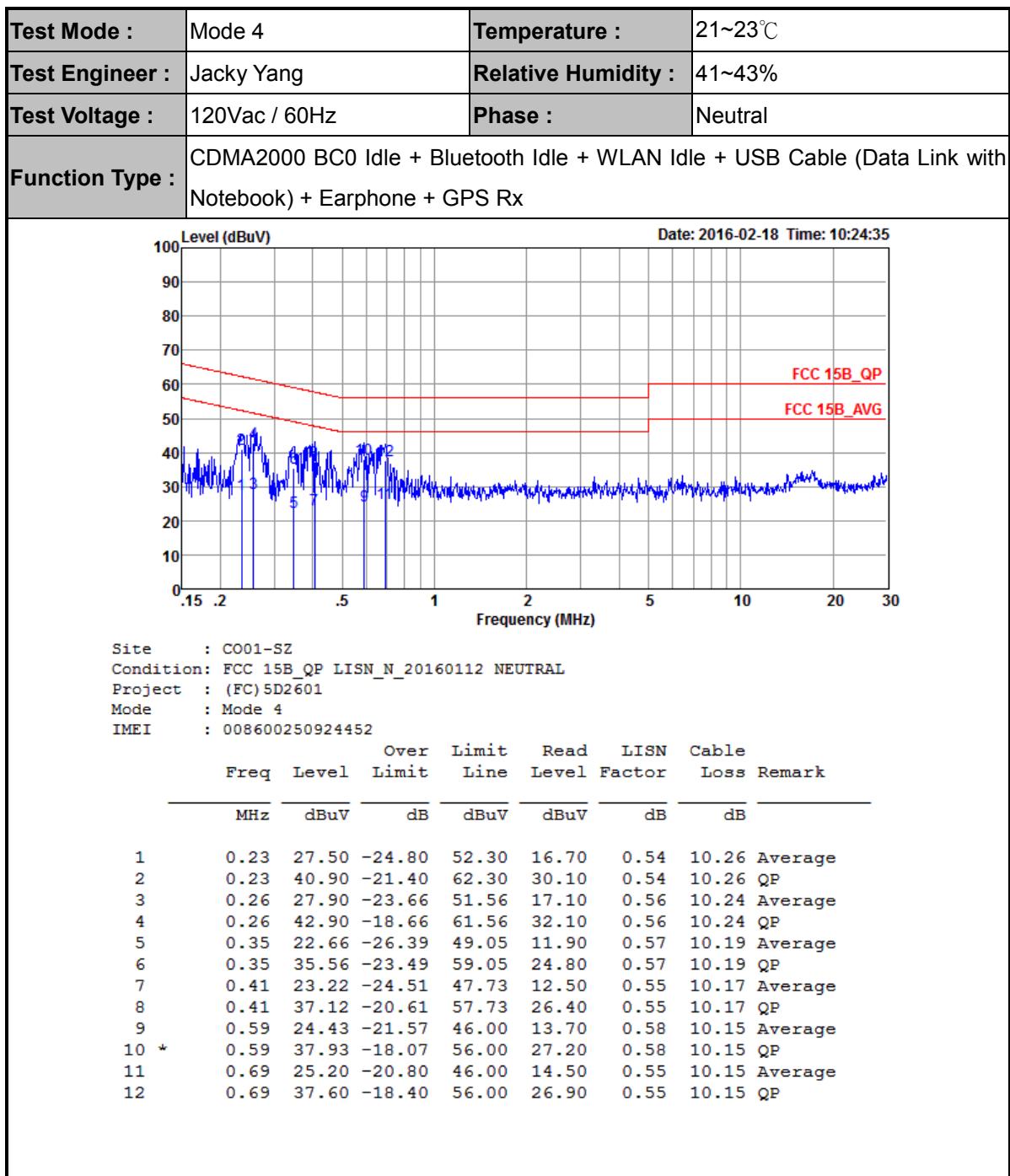


Test Mode :	Mode 4	Temperature :	21~23°C
Test Engineer :	Jacky Yang	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx		



Site : C001-SZ
Condition: FCC 15B_QP LISN_L_20160112 LINE
Project : (FC)5D2601
Mode : Mode 4
IMEI : 008600250924452

Freq	Level	Over	Limit	Read	LISN	Cable	Remark
		MHz	dBuV	dB	Line	Level	
1	0.24	25.60	-26.57	52.17	14.81	0.54	10.25 Average
2	0.24	40.80	-21.37	62.17	30.01	0.54	10.25 QP
3	0.27	24.28	-26.75	51.03	13.50	0.56	10.22 Average
4	0.27	41.88	-19.15	61.03	31.10	0.56	10.22 QP
5	0.35	24.44	-24.43	48.87	13.71	0.55	10.18 Average
6	0.35	37.04	-21.83	58.87	26.31	0.55	10.18 QP
7	0.41	23.22	-24.51	47.73	12.50	0.55	10.17 Average
8	0.41	38.12	-19.61	57.73	27.40	0.55	10.17 QP
9	0.57	22.67	-23.33	46.00	11.90	0.62	10.15 Average
10 *	0.57	38.27	-17.73	56.00	27.50	0.62	10.15 QP
11	0.70	23.09	-22.91	46.00	12.40	0.54	10.15 Average
12	0.70	37.39	-18.61	56.00	26.70	0.54	10.15 QP





3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

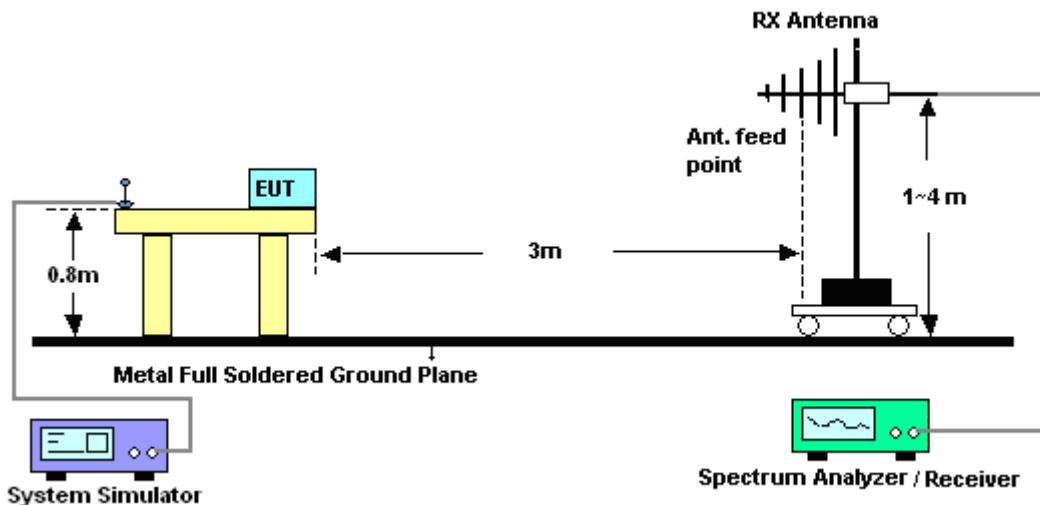
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

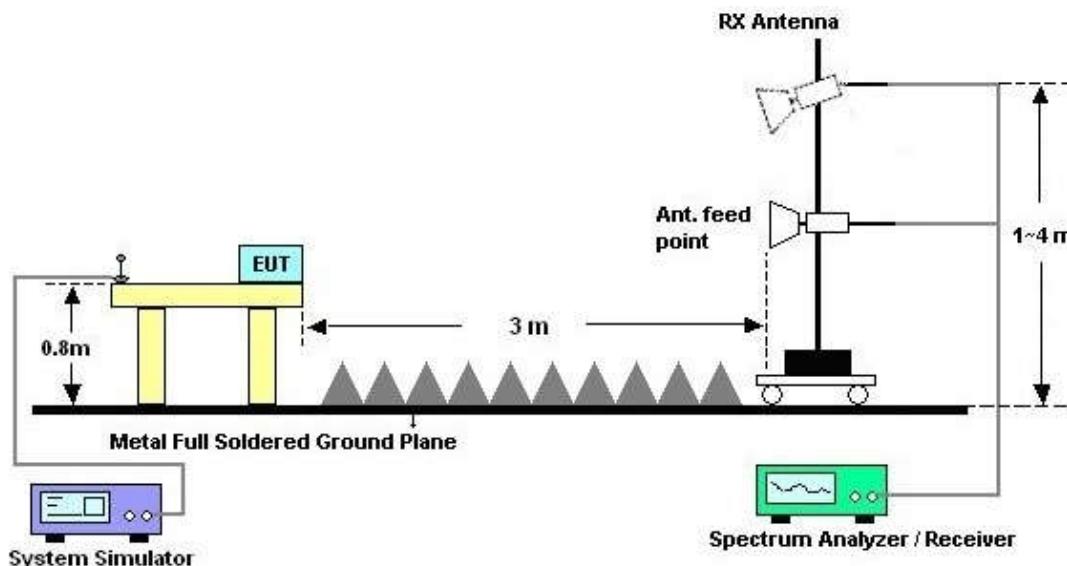
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. 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.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dB μ V/m) = 20 log Emission level (μ V/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 2	Temperature :	22~25°C																																																																																																																																																																				
Test Engineer :	Leo Liao	Relative Humidity :	48~50%																																																																																																																																																																				
Test Distance :	3m	Polarization :	Horizontal																																																																																																																																																																				
Function Type :	CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back)																																																																																																																																																																						
Remark :	#7 is system simulator signal which can be ignored.																																																																																																																																																																						
<p>Condition : FCC CLASS-B 3m LF35408CBL6112D_6 HORIZONTAL Detector : Peak Project : (FC) 5D2601 Mode : Mode 2 IMEI : 868010020002432 Plane : Y</p> <table border="1"> <thead> <tr> <th rowspan="2">Freq</th> <th rowspan="2">Level</th> <th rowspan="2">Over Limit</th> <th rowspan="2">Limit Line</th> <th rowspan="2">ReadAntenna Level</th> <th rowspan="2">Factor</th> <th rowspan="2">Cable Loss</th> <th rowspan="2">Preamp Factor</th> <th rowspan="2">A/Pos</th> <th rowspan="2">T/Pos</th> <th rowspan="2">Remark</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dB</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>35.13</td><td>20.08</td><td>-19.92</td><td>40.00</td><td>29.31</td><td>21.55</td><td>1.00</td><td>31.78</td><td>---</td><td>--- Peak</td></tr> <tr><td>2</td><td>102.90</td><td>18.88</td><td>-24.62</td><td>43.50</td><td>30.83</td><td>18.24</td><td>1.38</td><td>31.57</td><td>---</td><td>--- Peak</td></tr> <tr><td>3</td><td>200.10</td><td>26.03</td><td>-17.47</td><td>43.50</td><td>39.61</td><td>16.10</td><td>1.57</td><td>31.25</td><td>100</td><td>200 Peak</td></tr> <tr><td>4</td><td>405.00</td><td>23.31</td><td>-22.69</td><td>46.00</td><td>29.84</td><td>22.58</td><td>2.12</td><td>31.23</td><td>---</td><td>--- Peak</td></tr> <tr><td>5</td><td>612.90</td><td>26.37</td><td>-19.63</td><td>46.00</td><td>30.08</td><td>24.89</td><td>2.64</td><td>31.24</td><td>---</td><td>--- Peak</td></tr> <tr><td>6</td><td>774.60</td><td>27.69</td><td>-18.31</td><td>46.00</td><td>29.99</td><td>26.02</td><td>2.91</td><td>31.23</td><td>---</td><td>--- Peak</td></tr> <tr><td>7</td><td>881.52</td><td>39.35</td><td></td><td></td><td>40.66</td><td>26.93</td><td>3.03</td><td>31.27</td><td>---</td><td>--- Peak</td></tr> <tr><td>8</td><td>1400.00</td><td>36.83</td><td>-37.17</td><td>74.00</td><td>66.17</td><td>25.10</td><td>3.69</td><td>58.13</td><td>---</td><td>--- Peak</td></tr> <tr><td>9</td><td>4720.00</td><td>39.81</td><td>-34.19</td><td>74.00</td><td>61.10</td><td>30.91</td><td>6.89</td><td>59.09</td><td>---</td><td>--- Peak</td></tr> <tr><td>10</td><td>6732.00</td><td>47.17</td><td>-26.83</td><td>74.00</td><td>62.19</td><td>34.77</td><td>8.10</td><td>57.89</td><td>100</td><td>300 Peak</td></tr> <tr><td>11</td><td>8282.00</td><td>46.69</td><td>-27.31</td><td>74.00</td><td>58.27</td><td>37.11</td><td>8.90</td><td>57.59</td><td>---</td><td>--- Peak</td></tr> <tr><td>12</td><td>10018.00</td><td>44.79</td><td>-29.21</td><td>74.00</td><td>55.71</td><td>38.12</td><td>9.86</td><td>58.90</td><td>---</td><td>--- Peak</td></tr> <tr><td>13</td><td>11452.00</td><td>44.27</td><td>-29.73</td><td>74.00</td><td>53.89</td><td>39.09</td><td>11.03</td><td>59.74</td><td>---</td><td>--- Peak</td></tr> </tbody> </table>				Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	1	35.13	20.08	-19.92	40.00	29.31	21.55	1.00	31.78	---	--- Peak	2	102.90	18.88	-24.62	43.50	30.83	18.24	1.38	31.57	---	--- Peak	3	200.10	26.03	-17.47	43.50	39.61	16.10	1.57	31.25	100	200 Peak	4	405.00	23.31	-22.69	46.00	29.84	22.58	2.12	31.23	---	--- Peak	5	612.90	26.37	-19.63	46.00	30.08	24.89	2.64	31.24	---	--- Peak	6	774.60	27.69	-18.31	46.00	29.99	26.02	2.91	31.23	---	--- Peak	7	881.52	39.35			40.66	26.93	3.03	31.27	---	--- Peak	8	1400.00	36.83	-37.17	74.00	66.17	25.10	3.69	58.13	---	--- Peak	9	4720.00	39.81	-34.19	74.00	61.10	30.91	6.89	59.09	---	--- Peak	10	6732.00	47.17	-26.83	74.00	62.19	34.77	8.10	57.89	100	300 Peak	11	8282.00	46.69	-27.31	74.00	58.27	37.11	8.90	57.59	---	--- Peak	12	10018.00	44.79	-29.21	74.00	55.71	38.12	9.86	58.90	---	--- Peak	13	11452.00	44.27	-29.73	74.00	53.89	39.09	11.03	59.74	---	--- Peak
Freq	Level	Over Limit	Limit Line												ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark																																																																																																																																																		
				MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg																																																																																																																																																										
1	35.13	20.08	-19.92	40.00	29.31	21.55	1.00	31.78	---	--- Peak																																																																																																																																																													
2	102.90	18.88	-24.62	43.50	30.83	18.24	1.38	31.57	---	--- Peak																																																																																																																																																													
3	200.10	26.03	-17.47	43.50	39.61	16.10	1.57	31.25	100	200 Peak																																																																																																																																																													
4	405.00	23.31	-22.69	46.00	29.84	22.58	2.12	31.23	---	--- Peak																																																																																																																																																													
5	612.90	26.37	-19.63	46.00	30.08	24.89	2.64	31.24	---	--- Peak																																																																																																																																																													
6	774.60	27.69	-18.31	46.00	29.99	26.02	2.91	31.23	---	--- Peak																																																																																																																																																													
7	881.52	39.35			40.66	26.93	3.03	31.27	---	--- Peak																																																																																																																																																													
8	1400.00	36.83	-37.17	74.00	66.17	25.10	3.69	58.13	---	--- Peak																																																																																																																																																													
9	4720.00	39.81	-34.19	74.00	61.10	30.91	6.89	59.09	---	--- Peak																																																																																																																																																													
10	6732.00	47.17	-26.83	74.00	62.19	34.77	8.10	57.89	100	300 Peak																																																																																																																																																													
11	8282.00	46.69	-27.31	74.00	58.27	37.11	8.90	57.59	---	--- Peak																																																																																																																																																													
12	10018.00	44.79	-29.21	74.00	55.71	38.12	9.86	58.90	---	--- Peak																																																																																																																																																													
13	11452.00	44.27	-29.73	74.00	53.89	39.09	11.03	59.74	---	--- Peak																																																																																																																																																													



Test Mode :	Mode 2	Temperature :	22~25°C																																																																																																																																																																			
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Date: 2016-03-03																																																																																																																																																																						
Condition : FCC CLASS-B 3m LF35408CBL6112D_6 VERTICAL Detector : Peak Project : (FC) 5D2601 Mode : Mode 2 IMEI : 868010020002432 Plane : Y																																																																																																																																																																						
<table border="1"> <thead> <tr> <th rowspan="2">Freq MHz</th> <th rowspan="2">Level dBuV/m</th> <th>Over Limit</th> <th>Limit Line</th> <th>ReadAntenna Level</th> <th>Factor</th> <th>Cable Loss</th> <th>Preamp Factor</th> <th>A/Pos dB</th> <th>T/Pos deg</th> <th>Remark</th> </tr> <tr> <th>dB</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB/m</th> <th>dB</th> <th>dB</th> <th>cm</th> <th>deg</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>44.04</td> <td>30.90</td> <td>-9.10</td> <td>40.00</td> <td>44.19</td> <td>17.45</td> <td>1.00</td> <td>31.74</td> <td>100</td> <td>300 Peak</td> </tr> <tr> <td>2</td> <td>70.23</td> <td>21.06</td> <td>-18.94</td> <td>40.00</td> <td>38.21</td> <td>13.40</td> <td>1.14</td> <td>31.69</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>3</td> <td>200.10</td> <td>20.42</td> <td>-23.08</td> <td>43.50</td> <td>34.00</td> <td>16.10</td> <td>1.57</td> <td>31.25</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>4</td> <td>420.40</td> <td>23.82</td> <td>-22.18</td> <td>46.00</td> <td>30.04</td> <td>22.78</td> <td>2.22</td> <td>31.22</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>5</td> <td>659.80</td> <td>26.79</td> <td>-19.21</td> <td>46.00</td> <td>30.10</td> <td>25.21</td> <td>2.71</td> <td>31.23</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>6</td> <td>861.40</td> <td>29.33</td> <td>-16.67</td> <td>46.00</td> <td>30.81</td> <td>26.75</td> <td>3.03</td> <td>31.26</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>7</td> <td>881.52</td> <td>38.11</td> <td></td> <td></td> <td>39.42</td> <td>26.93</td> <td>3.03</td> <td>31.27</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>8</td> <td>1400.00</td> <td>34.79</td> <td>-39.21</td> <td>74.00</td> <td>64.13</td> <td>25.10</td> <td>3.69</td> <td>58.13</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>9</td> <td>3822.00</td> <td>37.66</td> <td>-36.34</td> <td>74.00</td> <td>61.81</td> <td>29.29</td> <td>6.08</td> <td>59.52</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>10</td> <td>6988.00</td> <td>47.22</td> <td>-26.78</td> <td>74.00</td> <td>60.95</td> <td>35.45</td> <td>7.99</td> <td>57.17</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>11</td> <td>8502.00</td> <td>49.78</td> <td>-24.22</td> <td>74.00</td> <td>60.80</td> <td>37.20</td> <td>9.14</td> <td>57.36</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>12</td> <td>10754.00</td> <td>50.37</td> <td>-23.63</td> <td>74.00</td> <td>60.00</td> <td>39.17</td> <td>10.51</td> <td>59.31</td> <td>100</td> <td>300 Peak</td> </tr> <tr> <td>13</td> <td>12130.00</td> <td>45.25</td> <td>-28.75</td> <td>74.00</td> <td>56.09</td> <td>38.64</td> <td>10.87</td> <td>60.35</td> <td>---</td> <td>--- Peak</td> </tr> </tbody> </table>				Freq MHz	Level dBuV/m	Over Limit	Limit Line	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	A/Pos dB	T/Pos deg	Remark	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		1	44.04	30.90	-9.10	40.00	44.19	17.45	1.00	31.74	100	300 Peak	2	70.23	21.06	-18.94	40.00	38.21	13.40	1.14	31.69	---	--- Peak	3	200.10	20.42	-23.08	43.50	34.00	16.10	1.57	31.25	---	--- Peak	4	420.40	23.82	-22.18	46.00	30.04	22.78	2.22	31.22	---	--- Peak	5	659.80	26.79	-19.21	46.00	30.10	25.21	2.71	31.23	---	--- Peak	6	861.40	29.33	-16.67	46.00	30.81	26.75	3.03	31.26	---	--- Peak	7	881.52	38.11			39.42	26.93	3.03	31.27	---	--- Peak	8	1400.00	34.79	-39.21	74.00	64.13	25.10	3.69	58.13	---	--- Peak	9	3822.00	37.66	-36.34	74.00	61.81	29.29	6.08	59.52	---	--- Peak	10	6988.00	47.22	-26.78	74.00	60.95	35.45	7.99	57.17	---	--- Peak	11	8502.00	49.78	-24.22	74.00	60.80	37.20	9.14	57.36	---	--- Peak	12	10754.00	50.37	-23.63	74.00	60.00	39.17	10.51	59.31	100	300 Peak	13	12130.00	45.25	-28.75	74.00	56.09	38.64	10.87	60.35	---	--- Peak
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Test Mode :	Mode 4	Temperature :	22~25°C																																																																																																																																																																													
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<p>Date: 2016-03-03</p> <p>Condition : FCC CLASS-B 3m LF35408CBL6112D_6 HORIZONTAL Detector : Peak Project : (FC) 5D2601 Mode : Mode 4 IMEI : 868010020002432 Plane : Y</p> <table border="1"> <thead> <tr> <th rowspan="2">Freq</th> <th rowspan="2">Level</th> <th>Over</th> <th>Limit</th> <th>Read</th> <th>Antenna</th> <th>Cable</th> <th>Preamp</th> <th>A/Pos</th> <th>T/Pos</th> <th rowspan="2">Remark</th> </tr> <tr> <th>Line</th> <th>Limit</th> <th>Level</th> <th>Factor</th> <th>Loss</th> <th>Factor</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>MHz</td> <td>dBuV/m</td> <td>dB</td> <td>dBuV/m</td> <td>dBuV</td> <td>dB/m</td> <td>dB</td> <td>dB</td> <td>cm</td> <td>deg</td> <td></td> </tr> <tr> <td>1</td> <td>99.93</td> <td>23.28</td> <td>-20.22</td> <td>43.50</td> <td>35.18</td> <td>18.30</td> <td>1.38</td> <td>31.58</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>2</td> <td>200.10</td> <td>28.85</td> <td>-14.65</td> <td>43.50</td> <td>42.43</td> <td>16.10</td> <td>1.57</td> <td>31.25</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>3</td> <td>300.00</td> <td>35.14</td> <td>-10.86</td> <td>46.00</td> <td>44.73</td> <td>19.80</td> <td>1.94</td> <td>31.33</td> <td>100</td> <td>200 Peak</td> </tr> <tr> <td>4</td> <td>300.00</td> <td>34.81</td> <td>-11.19</td> <td>46.00</td> <td>44.40</td> <td>19.80</td> <td>1.94</td> <td>31.33</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>5</td> <td>399.40</td> <td>30.56</td> <td>-15.44</td> <td>46.00</td> <td>37.18</td> <td>22.50</td> <td>2.12</td> <td>31.24</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>6</td> <td>682.90</td> <td>31.25</td> <td>-14.75</td> <td>46.00</td> <td>34.38</td> <td>25.38</td> <td>2.71</td> <td>31.22</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>7</td> <td>881.52</td> <td>37.26</td> <td>---</td> <td>38.57</td> <td>26.93</td> <td>3.03</td> <td>31.27</td> <td>---</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>8</td> <td>1942.00</td> <td>44.12</td> <td>-29.88</td> <td>74.00</td> <td>72.79</td> <td>25.60</td> <td>4.30</td> <td>58.57</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>9</td> <td>4224.00</td> <td>38.09</td> <td>-35.91</td> <td>74.00</td> <td>61.43</td> <td>30.12</td> <td>6.51</td> <td>59.97</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>10</td> <td>6064.00</td> <td>42.14</td> <td>-31.86</td> <td>74.00</td> <td>60.94</td> <td>32.98</td> <td>7.61</td> <td>59.39</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>11</td> <td>8352.00</td> <td>50.14</td> <td>-23.86</td> <td>74.00</td> <td>61.54</td> <td>37.14</td> <td>8.98</td> <td>57.52</td> <td>---</td> <td>--- Peak</td> </tr> <tr> <td>12</td> <td>10790.00</td> <td>50.76</td> <td>-23.24</td> <td>74.00</td> <td>60.32</td> <td>39.22</td> <td>10.56</td> <td>59.34</td> <td>100</td> <td>200 Peak</td> </tr> <tr> <td>13</td> <td>11890.00</td> <td>48.35</td> <td>-25.65</td> <td>74.00</td> <td>58.97</td> <td>38.69</td> <td>10.85</td> <td>60.16</td> <td>---</td> <td>--- Peak</td> </tr> </tbody> </table>				Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	A/Pos	T/Pos	Remark	Line	Limit	Level	Factor	Loss	Factor	cm	deg	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		1	99.93	23.28	-20.22	43.50	35.18	18.30	1.38	31.58	---	--- Peak	2	200.10	28.85	-14.65	43.50	42.43	16.10	1.57	31.25	---	--- Peak	3	300.00	35.14	-10.86	46.00	44.73	19.80	1.94	31.33	100	200 Peak	4	300.00	34.81	-11.19	46.00	44.40	19.80	1.94	31.33	---	--- Peak	5	399.40	30.56	-15.44	46.00	37.18	22.50	2.12	31.24	---	--- Peak	6	682.90	31.25	-14.75	46.00	34.38	25.38	2.71	31.22	---	--- Peak	7	881.52	37.26	---	38.57	26.93	3.03	31.27	---	---	--- Peak	8	1942.00	44.12	-29.88	74.00	72.79	25.60	4.30	58.57	---	--- Peak	9	4224.00	38.09	-35.91	74.00	61.43	30.12	6.51	59.97	---	--- Peak	10	6064.00	42.14	-31.86	74.00	60.94	32.98	7.61	59.39	---	--- Peak	11	8352.00	50.14	-23.86	74.00	61.54	37.14	8.98	57.52	---	--- Peak	12	10790.00	50.76	-23.24	74.00	60.32	39.22	10.56	59.34	100	200 Peak	13	11890.00	48.35	-25.65	74.00	58.97	38.69	10.85	60.16	---	--- Peak
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Test Mode :	Mode 4	Temperature :	22~25°C							
Test Engineer :	Leo Liao	Relative Humidity :	48~50%							
Test Distance :	3m	Polarization :	Vertical							
Function Type :	CDMA2000 BC0 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx									
Remark :	#7 is system simulator signal which can be ignored.									
<p>Level (dBuV/m)</p> <p>Date: 2016-03-03</p> <p>FCC CLASS-B</p> <p>FCC CLASS-B (AVG)</p> <p>Frequency (MHz)</p>										
Condition	: FCC CLASS-B 3m LF35408CBL6112D_6 VERTICAL									
Detector	: Peak									
Project	: (FC) 5D2601									
Mode	: Mode 4									
IMEI	: 868010020002432									
Plane	: Y									
	Freq	Over Level	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	A/Pos Factor	T/Pos	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	166.08	26.68	-16.82	43.50	39.66	16.85	1.53	31.36	---	--- Peak
2	199.83	25.35	-18.15	43.50	38.93	16.10	1.57	31.25	---	--- Peak
3	300.00	34.19	-11.81	46.00	43.78	19.80	1.94	31.33	---	--- Peak
4	300.00	34.45	-11.55	46.00	44.04	19.80	1.94	31.33	100	200 Peak
5	399.40	30.00	-16.00	46.00	36.62	22.50	2.12	31.24	---	--- Peak
6	598.20	31.90	-14.10	46.00	35.79	24.78	2.57	31.24	---	--- Peak
7	881.52	38.79	---	40.10	26.93	3.03	31.27	---	---	--- Peak
8	1998.00	48.58	-25.42	74.00	77.16	25.90	4.34	58.82	---	--- Peak
9	4580.00	39.66	-34.34	74.00	61.68	30.72	6.79	59.53	---	--- Peak
10	6532.00	44.96	-29.04	74.00	60.80	34.22	8.01	58.07	---	--- Peak
11	8424.00	49.85	-24.15	74.00	61.05	37.17	9.06	57.43	---	--- Peak
12	9928.00	50.58	-23.42	74.00	61.55	38.05	9.86	58.88	100	300 Peak
13	12242.00	48.33	-25.67	74.00	59.16	38.67	10.92	60.42	---	--- Peak



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100724	9kHz~3GHz;	Nov. 23, 2015	Feb. 18, 2016	Nov. 22, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103892	9kHz~30MHz	Jan.12, 2016	Feb. 18, 2016	Jan. 11, 2017	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	3816/2SH	00103912	9kHz~30MHz	Jan.12, 2016	Feb. 18, 2016	Jan. 11, 2017	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Aug. 07, 2015	Feb. 18, 2016	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 20. 2015	Feb. 18, 2016	Oct.19. 2016	Conduction (CO01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May. 26, 2015	Mar. 03, 2016	May.25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz; Max 30dBm	Jun. 07, 2015	Mar. 03, 2016	Jun. 06, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz-2GHz	Oct. 17, 2015	Mar. 03, 2016	Oct. 16, 2016	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 17, 2015	Mar. 03, 2016	Oct. 16, 2016	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Aug.19, 2015	Mar. 03, 2016	Aug. 18, 2016	Radiation (03CH01-SZ)
Amplifier	HP	8447F	3113A04622	9kHz ~1300MHz / 30 dB	Aug. 07, 2015	Mar. 03, 2016	Aug. 06, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 12, 2016	Mar. 03, 2016	Jan. 11, 2017	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 18. 2015	Mar. 03, 2016	Jul. 17. 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Mar. 03, 2016	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Mar. 03, 2016	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Mar. 03, 2016	NCR	Radiation (03CH01-SZ)

NCR: No Calibration Required



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))	2.3dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.8dB
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