



FCC Test Report

APPLICANT : Brightstar Corporation
EQUIPMENT : Mobile phone
BRAND NAME : mint
MODEL NAME : Mint 145
MARKETING NAME : Mint 145
FCC ID : WVB145M
STANDARD : FCC 47 CFR FCC Part 15 Subpart B
CLASSIFICATION : Certification

The product was received on Sep. 24, 2015 and testing was completed on Oct. 20, 2015. 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: James Huang / Manager

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL (SHENZHEN) INC.

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TABLE OF CONTENTS

REVISION HISTORY.....	3
SUMMARY OF TEST RESULT	4
1. GENERAL DESCRIPTION	5
1.1. Applicant.....	5
1.2. Manufacturer	5
1.3. Product Feature of Equipment Under Test	5
1.4. Product Specification subjective to this standard.....	6
1.5. Modification of EUT	6
1.6. Test Location	7
1.7. Applicable Standards	7
2. TEST CONFIGURATION OF EQUIPMENT UNDER TEST.....	8
2.1. Test Mode	8
2.2. Connection Diagram of Test System	10
2.3. Support Unit used in test configuration and system.....	11
2.4. EUT Operation Test Setup	12
3. TEST RESULT.....	13
3.1. Test of AC Conducted Emission Measurement	13
3.2. Test of Radiated Emission Measurement	19
4. LIST OF MEASURING EQUIPMENT	25
5. UNCERTAINTY OF EVALUATION	26

APPENDIX A. SETUP PHOTOGRAPHS



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 14.18 dB at 0.160 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 3.12 dB at 31.620 MHz for Quasi-Peak



1. General Description

1.1. Applicant

Brightstar Corporation

9725 NW 117th Ave., Miami, Florida, FL 33178, United States

1.2. Manufacturer

SpeedMobile Technology Co., Ltd.

Room701-703, East Block, Skyworth Semiconductor Building Nanshan District, Shenzhen, China

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile phone
Brand Name	mint
Model Name	Mint 145
Marketing Name	Mint 145
FCC ID	WVB145M
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/ WLAN 2.4GHz 802.11b/g/n HT20/HT40/ Bluetooth v3.0 + EDR/Bluetooth v4.0 LE
IMEI Code	Conduction: 358518020001540/358518020001557 Radiation: 358218020001664/358218020001672
HW Version	MOLY.WR8.W1315.MD.WG.MP.V47
SW Version	Mint_145_OM.CO.W25.V01.05
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 subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	GSM850 : 824.2 MHz ~ 848.8 MHz GSM1900 : 1850.2 MHz ~ 1909.8MHz WCDMA Band V : 826.4 MHz ~ 846.6 MHz WCDMA Band II : 1852.4 MHz ~ 1907.6 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Rx Frequency	GSM850 : 869.2 MHz ~ 893.8 MHz GSM1900 : 1930.2 MHz ~ 1989.8 MHz WCDMA Band V : 871.4 MHz ~ 891.6 MHz WCDMA Band II : 1932.4 MHz ~ 1987.6 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS : 1.57542 GHz
Antenna Type	WWAN : FPC Antenna WLAN : FPC Antenna Bluetooth : FPC Antenna GPS : FPC Antenna
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA: QPSK (Uplink) HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink) HSPA+: (16QAM uplink is not supported) 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 : 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

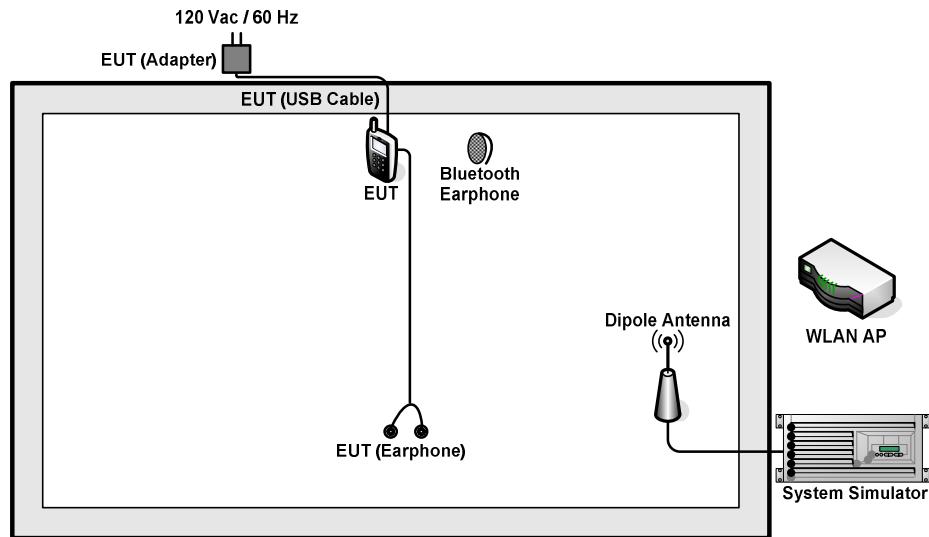


Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + Battery + SIM1<Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back) + Battery + SIM2<Fig.1> Mode 3: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx + Battery + SIM1<Fig.2> Mode 4: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) + Battery + SIM2<Fig.1>
Radiated Emissions < 1GHz	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + Battery + SIM1<Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Back) + Battery + SIM2<Fig.1> Mode 3: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx + Battery + SIM1<Fig.2> Mode 4: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera (Front) + Battery + SIM2<Fig.1>
Radiated Emissions \geq 1GHz	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + Battery + SIM1<Fig.1> Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx + Battery + SIM1<Fig.2>

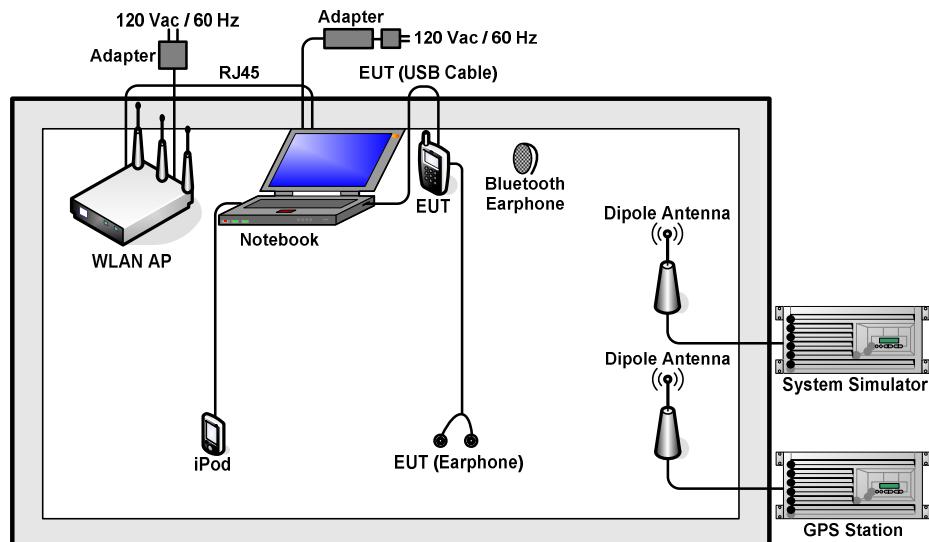
Remark:

1. The worst case of AC is mode 4; and the USB Link mode of AC is mode 3; the test data of these modes were reported.
2. The worst case of RE < 1G is mode 1; and the USB Link mode of RE is mode 3; the test data of these modes were 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>



2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 2.7 m with Core
4.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
6.	Notebook	Lenovo	E540	PD97260HU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
7.	iPod	Apple	MC525ZP/A	FCC DoC	Shielded, 1.0 m	N/A
8.	iPod nano 8GB	Apple	MC690ZP/A	FCC DoC	Shielded, 1.2 m	N/A
9.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A



2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA 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. Execute "GPS Test" to make the EUT receive continuous signals from GPS 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.

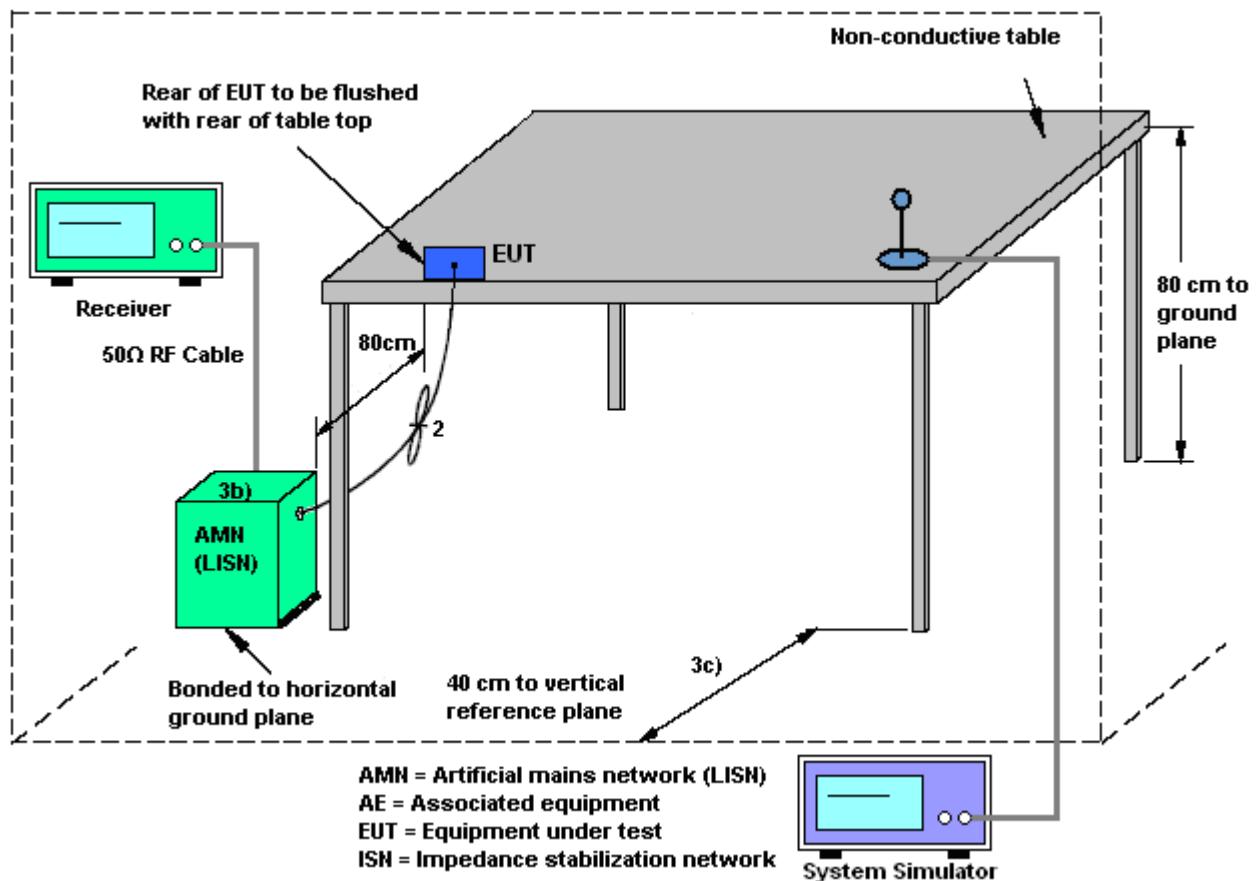
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

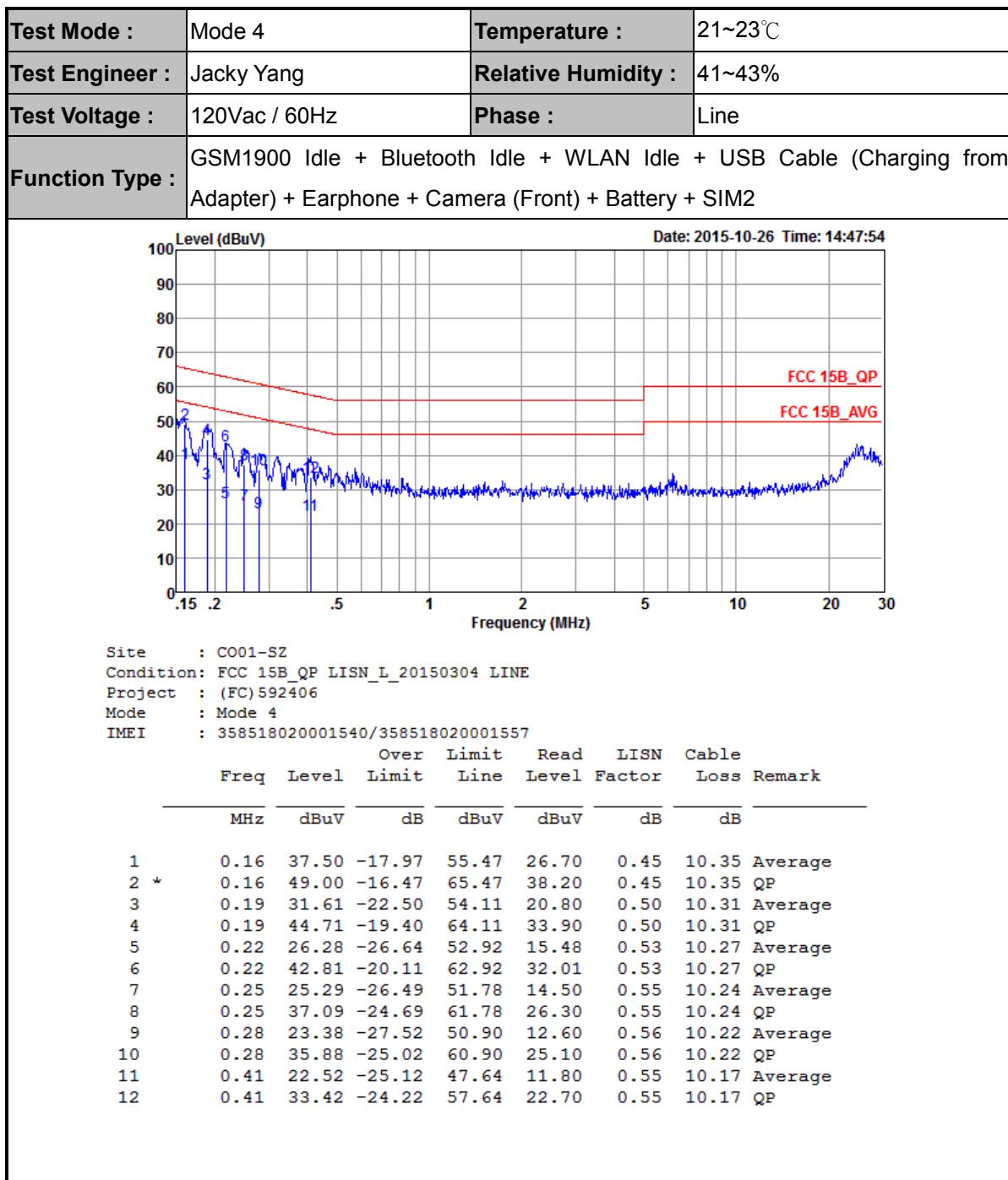
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
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.

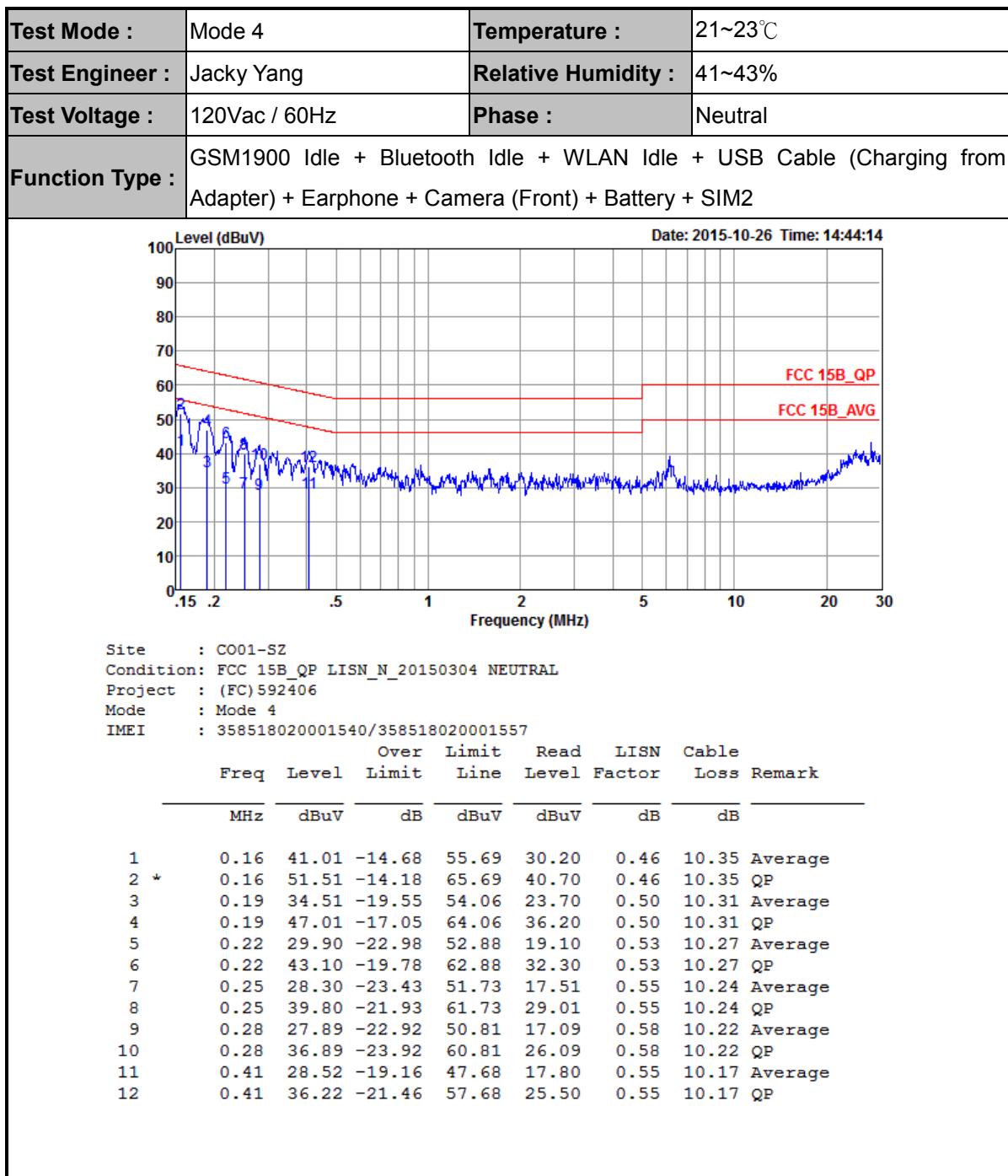
3.1.4 Test Setup

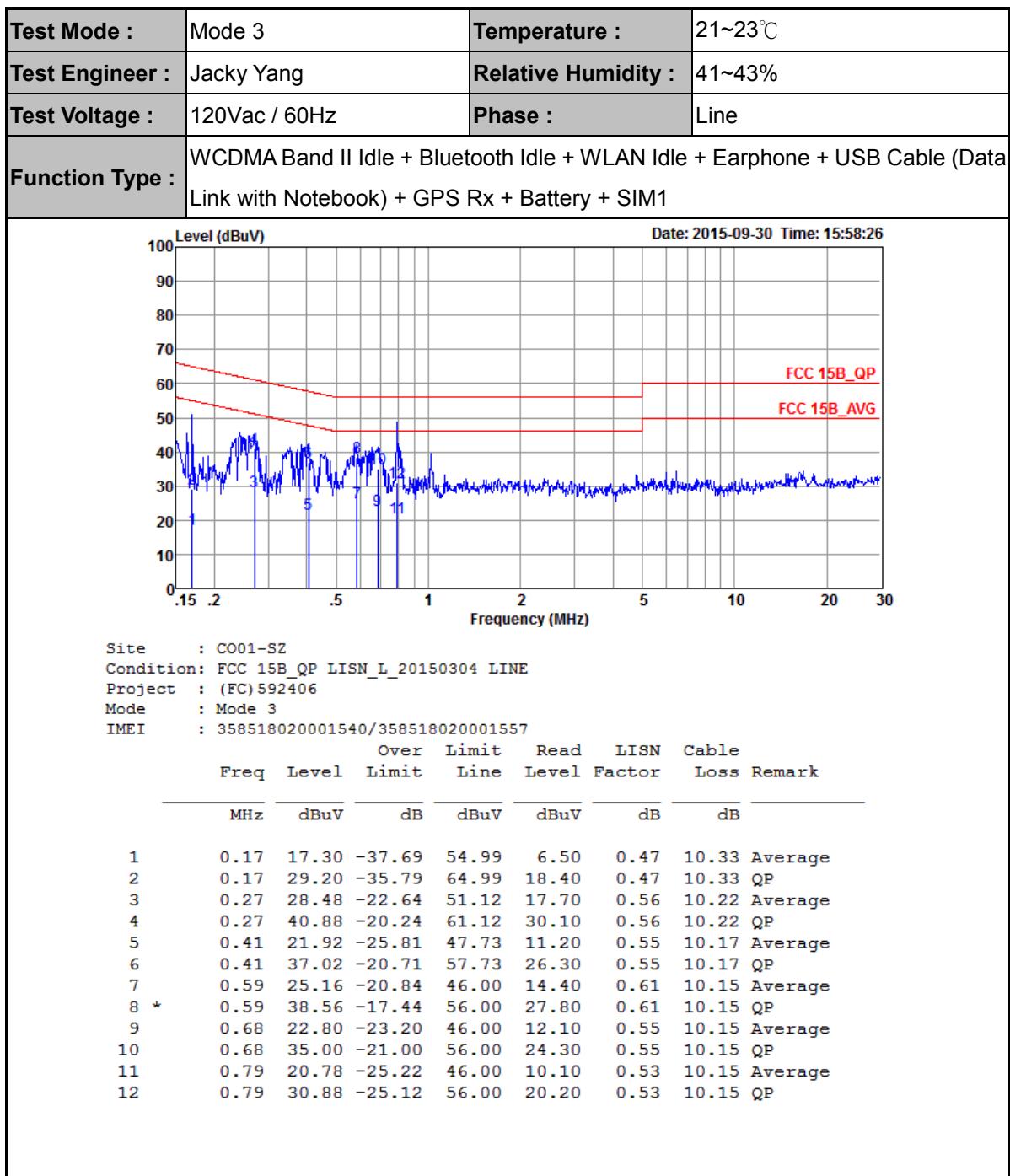


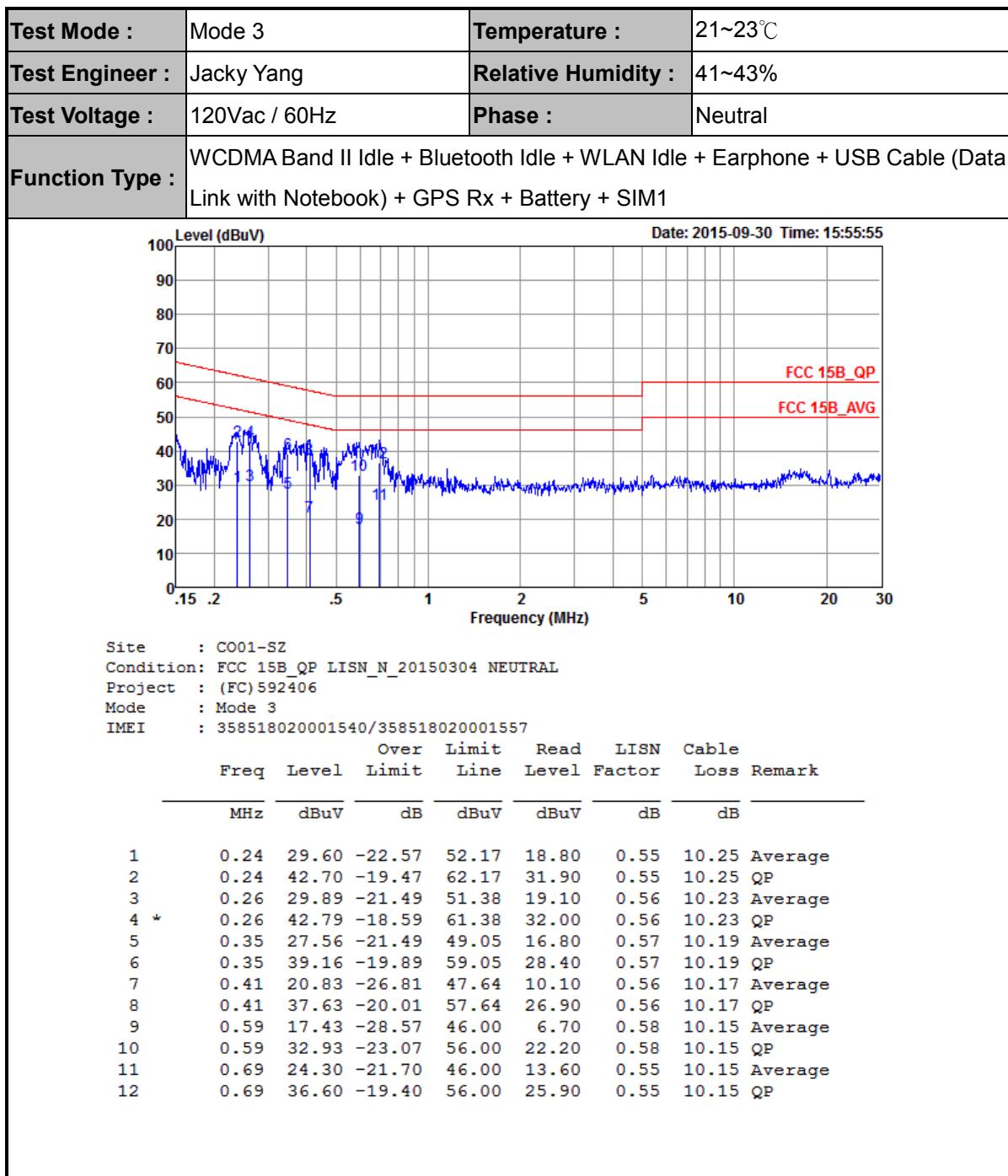


3.1.5 Test Result of AC Conducted Emission











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

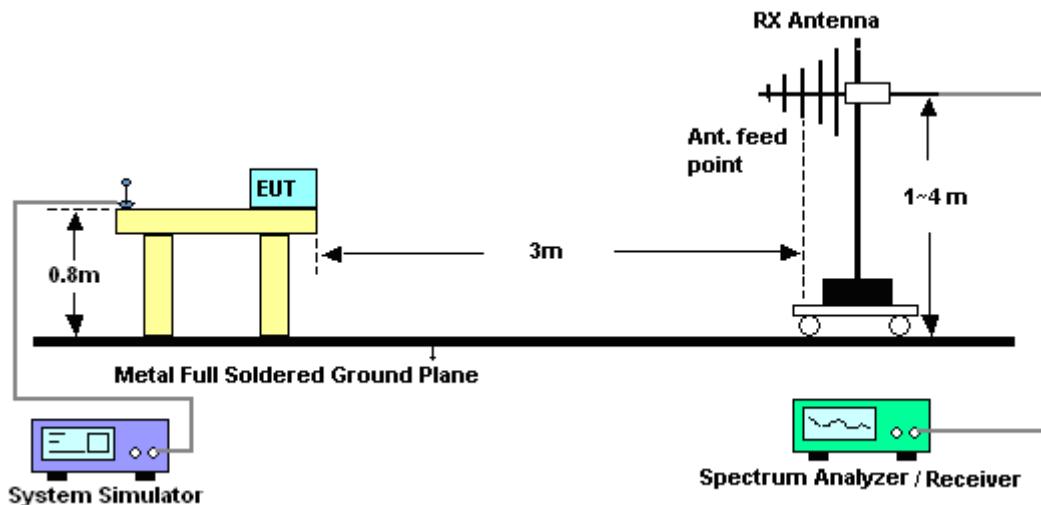
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

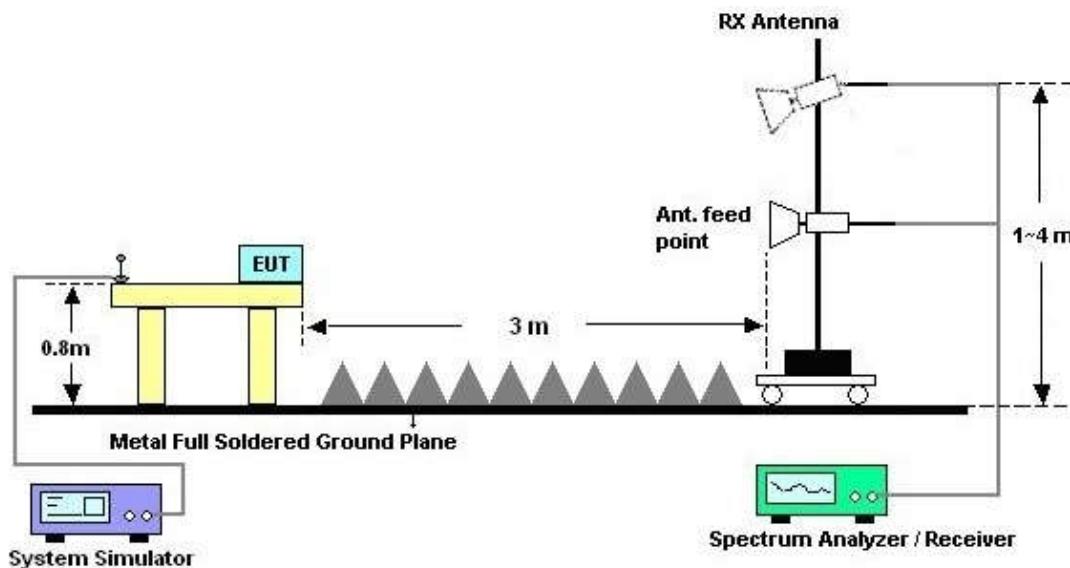
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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

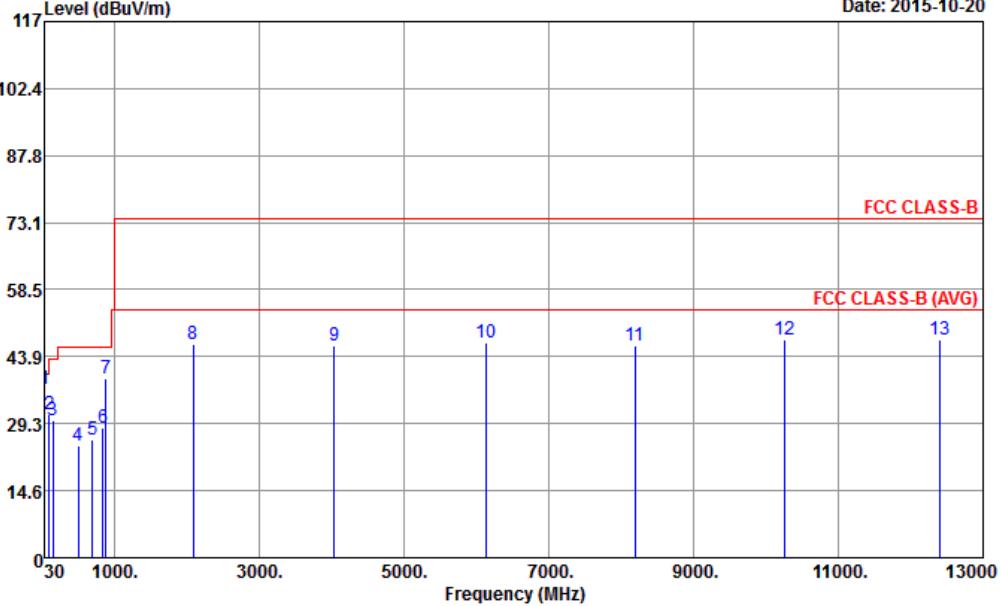




3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 1	Temperature :	23~25°C																																																																																																																																																							
Test Engineer :	Leo Liao	Relative Humidity :	48~52%																																																																																																																																																							
Test Distance :	3m	Polarization :	Horizontal																																																																																																																																																							
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + Battery + SIM1																																																																																																																																																									
Remark :	#7 is system simulator signal which can be ignored.																																																																																																																																																									
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Condition	: FCC CLASS-B 3m LF_ANT_141107 HORIZONTAL																																																																																																																																																									
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<table border="1"> <thead> <tr> <th rowspan="2">Freq MHz</th> <th rowspan="2">Level dBuV/m</th> <th rowspan="2">Over Limit dB</th> <th rowspan="2">Limit Line dBuV/m</th> <th rowspan="2">Read Antenna Level dBuV</th> <th rowspan="2">Cable Loss Factor</th> <th rowspan="2">Preamp Factor</th> <th rowspan="2">A/Pos dB</th> <th rowspan="2">T/Pos cm</th> <th rowspan="2">Remark</th> </tr> <tr> <th>Line</th> <th>Factor</th> <th>dB/m</th> <th>dB</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td><td>31.89</td><td>33.11</td><td>-6.89</td><td>40.00</td><td>33.88</td><td>24.58</td><td>0.70</td><td>26.05</td><td>100 0 Peak</td></tr> <tr> <td>2</td><td>99.93</td><td>30.55</td><td>-12.95</td><td>43.50</td><td>43.59</td><td>11.70</td><td>1.04</td><td>25.78</td><td>--- --- Peak</td></tr> <tr> <td>3</td><td>153.66</td><td>32.34</td><td>-11.16</td><td>43.50</td><td>43.87</td><td>12.77</td><td>1.20</td><td>25.50</td><td>--- --- Peak</td></tr> <tr> <td>4</td><td>484.80</td><td>24.60</td><td>-21.40</td><td>46.00</td><td>29.95</td><td>18.78</td><td>2.13</td><td>26.26</td><td>--- --- Peak</td></tr> <tr> <td>5</td><td>629.00</td><td>26.31</td><td>-19.69</td><td>46.00</td><td>30.30</td><td>19.87</td><td>2.56</td><td>26.42</td><td>--- --- Peak</td></tr> <tr> <td>6</td><td>780.20</td><td>28.92</td><td>-17.08</td><td>46.00</td><td>30.26</td><td>22.05</td><td>2.82</td><td>26.21</td><td>--- --- Peak</td></tr> <tr> <td>7</td><td>881.00</td><td>39.27</td><td></td><td>40.44</td><td>21.77</td><td>2.99</td><td>25.93</td><td></td><td>--- --- Peak</td></tr> <tr> <td>8</td><td>2242.00</td><td>45.65</td><td>-28.35</td><td>74.00</td><td>53.38</td><td>32.44</td><td>10.57</td><td>50.74</td><td>--- --- Peak</td></tr> <tr> <td>9</td><td>4078.00</td><td>46.88</td><td>-27.12</td><td>74.00</td><td>50.38</td><td>33.95</td><td>14.35</td><td>51.80</td><td>--- --- Peak</td></tr> <tr> <td>10</td><td>6648.00</td><td>46.57</td><td>-27.43</td><td>74.00</td><td>44.14</td><td>36.24</td><td>16.66</td><td>50.47</td><td>--- --- Peak</td></tr> <tr> <td>11</td><td>8756.00</td><td>46.91</td><td>-27.09</td><td>74.00</td><td>42.07</td><td>36.50</td><td>17.93</td><td>49.59</td><td>--- --- Peak</td></tr> <tr> <td>12</td><td>10482.00</td><td>46.60</td><td>-27.40</td><td>74.00</td><td>40.17</td><td>38.49</td><td>18.34</td><td>50.40</td><td>--- --- Peak</td></tr> <tr> <td>13</td><td>11988.00</td><td>47.22</td><td>-26.78</td><td>74.00</td><td>38.06</td><td>39.49</td><td>19.62</td><td>49.95</td><td>100 200 Peak</td></tr> </tbody> </table>										Freq MHz	Level dBuV/m	Over Limit dB	Limit Line dBuV/m	Read Antenna Level dBuV	Cable Loss Factor	Preamp Factor	A/Pos dB	T/Pos cm	Remark	Line	Factor	dB/m	dB	deg	1	31.89	33.11	-6.89	40.00	33.88	24.58	0.70	26.05	100 0 Peak	2	99.93	30.55	-12.95	43.50	43.59	11.70	1.04	25.78	--- --- Peak	3	153.66	32.34	-11.16	43.50	43.87	12.77	1.20	25.50	--- --- Peak	4	484.80	24.60	-21.40	46.00	29.95	18.78	2.13	26.26	--- --- Peak	5	629.00	26.31	-19.69	46.00	30.30	19.87	2.56	26.42	--- --- Peak	6	780.20	28.92	-17.08	46.00	30.26	22.05	2.82	26.21	--- --- Peak	7	881.00	39.27		40.44	21.77	2.99	25.93		--- --- Peak	8	2242.00	45.65	-28.35	74.00	53.38	32.44	10.57	50.74	--- --- Peak	9	4078.00	46.88	-27.12	74.00	50.38	33.95	14.35	51.80	--- --- Peak	10	6648.00	46.57	-27.43	74.00	44.14	36.24	16.66	50.47	--- --- Peak	11	8756.00	46.91	-27.09	74.00	42.07	36.50	17.93	49.59	--- --- Peak	12	10482.00	46.60	-27.40	74.00	40.17	38.49	18.34	50.40	--- --- Peak	13	11988.00	47.22	-26.78	74.00	38.06	39.49	19.62	49.95	100 200 Peak
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11	8756.00	46.91	-27.09	74.00	42.07	36.50	17.93	49.59	--- --- Peak																																																																																																																																																	
12	10482.00	46.60	-27.40	74.00	40.17	38.49	18.34	50.40	--- --- Peak																																																																																																																																																	
13	11988.00	47.22	-26.78	74.00	38.06	39.49	19.62	49.95	100 200 Peak																																																																																																																																																	



Test Mode :	Mode 1	Temperature :	23~25°C																																							
Test Engineer :	Leo Liao	Relative Humidity :	48~52%																																							
Test Distance :	3m	Polarization :	Vertical																																							
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + Battery + SIM1																																									
Remark :	#7 is system simulator signal which can be ignored.																																									
																																										
Site	: 03CH01-SZ																																									
Condition	: FCC CLASS-B 3m LF_ANT_141107 VERTICAL																																									
Project	: (FC)592406																																									
Mode	: Mode 1																																									
IMEI	: 358518020001664/358518020001672																																									
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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																																			
1	31.62	36.88	-3.12	40.00	42.65	19.58	0.70	26.05	110	265	QP																															
2	99.39	31.39	-12.11	43.50	44.43	11.70	1.04	25.78	---	---	Peak																															
3	152.04	30.10	-13.40	43.50	41.55	12.85	1.20	25.50	---	---	Peak																															
4	498.80	24.45	-21.55	46.00	29.29	19.32	2.17	26.33	---	---	Peak																															
5	695.50	25.67	-20.33	46.00	29.12	20.27	2.65	26.37	---	---	Peak																															
6	839.00	28.42	-17.58	46.00	29.38	22.15	2.94	26.05	---	---	Peak																															
7	881.00	39.15		40.32	21.77	2.99	25.93		---	---	Peak																															
8	2088.00	46.73	-27.27	74.00	55.32	32.29	10.05	50.93	---	---	Peak																															
9	4032.00	46.27	-27.73	74.00	49.88	33.92	14.27	51.80	---	---	Peak																															
10	6134.00	47.05	-26.95	74.00	44.78	35.93	16.18	49.84	---	---	Peak																															
11	8188.00	46.36	-27.64	74.00	42.30	36.39	17.65	49.98	---	---	Peak																															
12	10248.00	47.50	-26.50	74.00	40.64	38.30	18.73	50.17	---	---	Peak																															
13	12392.00	47.69	-26.31	74.00	40.01	39.34	18.14	49.80	152	300	Peak																															

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Test Mode :	Mode 3	Temperature :	23~25°C																																										
Test Engineer :	Leo Liao	Relative Humidity :	48~52%																																										
Test Distance :	3m	Polarization :	Horizontal																																										
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx + Battery + SIM1																																												
Remark :	#7 is system simulator signal which can be ignored.																																												
Site	: 03CH01-SZ																																												
Condition	: FCC CLASS-B 3m LF_ANT_141107 HORIZONTAL																																												
Project	: (FC) 592406																																												
Mode	: Mode 3																																												
IMEI	: 358518020001664/358518020001672																																												
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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																																						
1	32.97	31.52	-8.48	40.00	32.80	24.07	0.70	26.05	100	200	Peak																																		
2	188.76	30.14	-13.36	43.50	42.52	11.55	1.38	25.31	---	---	Peak																																		
3	240.06	34.94	-11.06	46.00	46.28	12.25	1.57	25.16	---	---	Peak																																		
4	300.00	34.71	-11.29	46.00	43.94	14.10	1.71	25.04	---	---	Peak																																		
5	489.00	27.32	-18.68	46.00	32.53	18.94	2.13	26.28	---	---	Peak																																		
6	720.00	32.99	-13.01	46.00	35.88	20.73	2.71	26.33	---	---	Peak																																		
7	1960.00	50.24	---	38.51	31.74	9.63	29.64	---	---	---	Peak																																		
8	2898.00	44.04	-29.96	74.00	27.37	33.02	12.63	28.98	---	---	Peak																																		
9	4216.00	46.15	-27.85	74.00	25.96	34.03	14.59	28.43	---	---	Peak																																		
10	5952.00	45.77	-28.23	74.00	22.17	35.73	16.00	28.13	---	---	Peak																																		
11	8214.00	45.93	-28.07	74.00	18.22	36.38	17.71	26.38	---	---	Peak																																		
12	10454.00	45.47	-28.53	74.00	13.63	38.46	18.40	25.02	---	---	Peak																																		
13	12864.00	46.78	-27.22	74.00	13.11	39.08	18.74	24.15	100	210	Peak																																		

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SPORTON INTERNATIONAL (SHENZHEN) INC.	Page Number	: 23 of 26
TEL : 86-755-8637-9589	Report Issued Date	: Oct. 27, 2015
FAX : 86-755-8637-9595	Report Version	: Rev. 01
FCC ID : WVB145M		



Test Mode :	Mode 3	Temperature :	23~25°C																														
Test Engineer :	Leo Liao	Relative Humidity :	48~52%																														
Test Distance :	3m	Polarization :	Vertical																														
Function Type :	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + Earphone + USB Cable (Data Link with Notebook) + GPS Rx + Battery + SIM1																																
Remark :	#7 is system simulator signal which can be ignored.																																
<p>Date: 2015-10-20</p> <p>Site : 03CH01-SZ Condition : FCC CLASS-B 3m LF_ANT_141107 VERTICAL Project : (FC) 592406 Mode : Mode 3 IMEI : 358518020001664/358518020001672</p>																																	
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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	45.66	26.30	-13.70	40.00	38.40	12.99	0.89	25.98	---	--- Peak																							
2	199.56	27.76	-15.74	43.50	39.91	11.60	1.50	25.25	---	--- Peak																							
3	299.73	34.49	-11.51	46.00	43.72	14.10	1.71	25.04	---	--- Peak																							
4	498.80	29.35	-16.65	46.00	34.19	19.32	2.17	26.33	---	--- Peak																							
5	720.00	37.31	-8.69	46.00	40.20	20.73	2.71	26.33	200	300 Peak																							
6	949.60	31.39	-14.61	46.00	32.32	21.40	3.16	25.49	---	--- Peak																							
7	1960.00	51.94		40.21	31.74	9.63	29.64		---	--- Peak																							
8	2578.00	45.12	-28.88	74.00	29.99	32.77	11.58	29.22	---	--- Peak																							
9	4222.00	46.51	-27.49	74.00	26.23	34.04	14.67	28.43	---	--- Peak																							
10	5624.00	44.62	-29.38	74.00	21.47	35.27	16.13	28.25	---	--- Peak																							
11	8860.00	45.62	-28.38	74.00	17.13	36.62	17.84	25.97	---	--- Peak																							
12	10934.00	46.03	-27.97	74.00	13.62	38.76	18.40	24.75	---	--- Peak																							
13	12480.00	47.31	-26.69	74.00	13.98	39.31	18.29	24.27	200	320 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;	Jan. 28, 2015	Sep. 30, 2015~Oct. 26, 2015	Jan. 27, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	103892	9kHz~30MHz	Feb. 02, 2015	Sep. 30, 2015~Oct. 26, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	AN3016	16850	9kHz~30MHz	Feb. 02, 2015	Sep. 30, 2015~Oct. 26, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	61602000089 1	100Vac~250Vac	Aug. 07, 2015	Sep. 30, 2015~Oct. 26, 2015	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 14, 2014 Oct. 20, 2015	Sep. 30, 2015~Oct. 26, 2015	Oct. 13, 2015 Oct. 19, 2016	Conduction (CO01-SZ)
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Oct. 20, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz; Max 30dBm	Jun. 07, 2015	Oct. 20, 2015	Jun. 06, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz~2GHz	Nov. 07, 2014	Oct. 20, 2015	Nov. 06, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 17, 2015	Oct. 20, 2015	Oct. 16, 2016	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Oct. 20, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5GHz	Jan. 28, 2015	Oct. 20, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	NCR	Oct. 20, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Oct. 20, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Oct. 20, 2015	NCR	Radiation (03CH01-SZ)



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))	4.5dB
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