FCC Test Report

APPLICANT	:	**CT Asia**
EQUIPMENT	:	**Smart Phone**
BRAND NAME	:	**BLU**
MODEL NAME	:	**Studio 5.0 C HD**
FCC ID	:	**YHLBLUSTUDIOHD**
STANDARD	:	**FCC 47 CFR FCC Part 15 Subpart B**
CLASSIFICATION	:	**Certification**

The product was received on May 14, 2014 and testing was completed on May 31, 2014. 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 C63.4-2003 and the testing has shown the tested sample to be 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.

Louis Wu

Reviewed by: Louis Wu / Manager

Jones Tsai

Approved by: Jones Tsai / Manager

Testing Laboratory
2353

SPORTON INTERNATIONAL (SHENZHEN) INC.
No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC451403	Rev. 01	Initial issue of report	Jun. 19, 2014

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 3.81 dB at 0.460 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 2.31 dB at 240.060 MHz for Quasi-Peak

1. General Description

1.1. Applicant

CT Asia

Unit 01, 15/F, Seaview Centre, 139-141 Hoi bun road, Kwun Tong, Kowloon, Hongkong

1.2. Manufacturer

TINNO MOBILE

4/F., H-3 Building, OCT Eastern Industrial Park. NO.1 Xiangshan East Road, Nan Shan District, Shenzhen, P.R. China

1.3. Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	BLU
Model Name	Studio 5.0 C HD
FCC ID	YHLBLUSTUDIOHD
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(Downlink Only)/ WLAN 2.4GHz 802.11b/g/n HT20/HT40/ Bluetooth v3.0+EDR/ Bluetooth v4.0 LE
HW Version	V1.1
SW Version	BLU_D534L_V01_GENERIC
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.

1.4. Product Specification of Equipment Under Test

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 : IFA Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna GPS : PIFA 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 (Downlink Only) 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth v4.0 LE : GFSK Bluetooth v3.0 EDR : GFSK, π/4-DQPSK, 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	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P.R.C. TEL: +86-755- 3320-2398		
Test Site No.	**Sporton Site No.**		**FCC Registration No.**
	CO01-SZ	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 C63.4-2003

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 C63.4-2003 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)	☒	☒	Note 1
2.	Data application transferred mode (EUT connected with notebook)	☒	☒	☒

Abbreviations:

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

Note 1: Testing for this mode is not required or not the worst case.

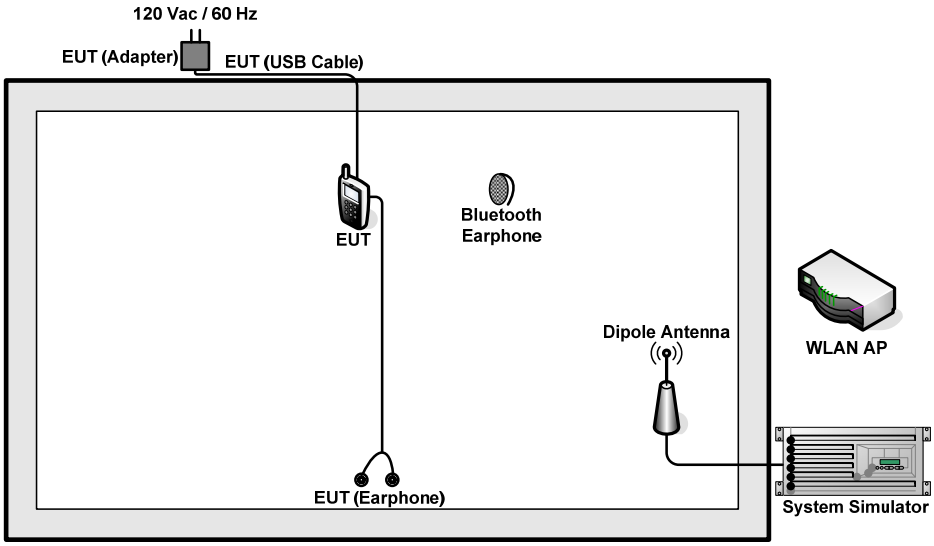
Remark: For signal above 1GHz, the worst case was test item 2.

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 + Camera + SIM 1 <Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM 1 <Fig.1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <Fig.2>
Radiated Emissions < 1GHz	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1 <Fig.1> Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM 1 <Fig.1> Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <Fig.2>
Radiated Emissions ≥ 1GHz	2	Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <Fig.2>

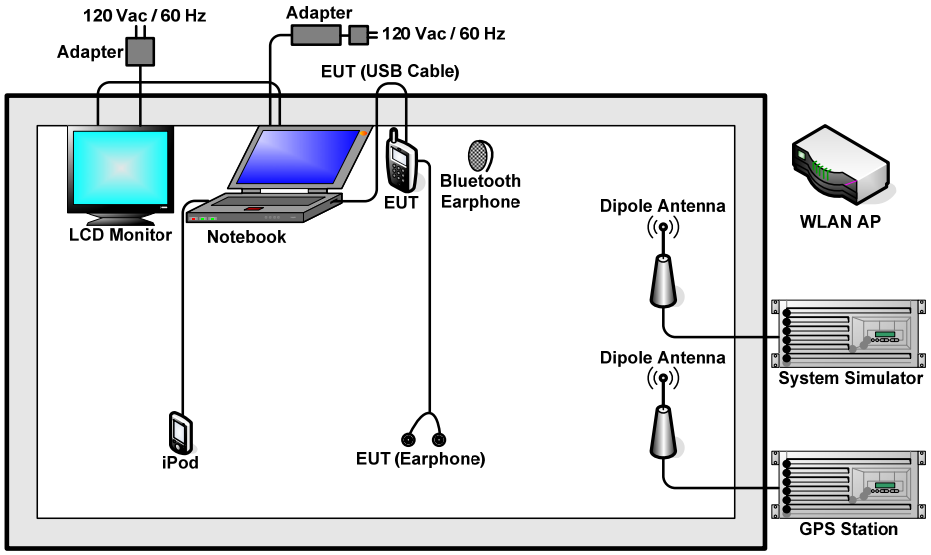
Remark:

1. The worst case of AC is mode 1, and the USB Link mode of AC is mode 3; the test data of these modes are reported.
2. The worst case of RE < 1G is mode 3, only the test data of this mode is 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	R&S	CMW 500	N/A	N/A	Unshielded, 1.8 m
2.	System Simulator	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-815	KA2IR815A1	N/A	Unshielded,1.8m
5.	WLAN AP	D-Link	DIR-615	N/A	N/A	Unshielded,1.8m
6.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
7.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
8.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
9.	LCD Monitor	DELL	IN1940MWB	FCC DoC	Shielded, 1.2m	Unshielded, 1.8 m
10.	iPod	Apple	MC525 ZP/A	FCC DoC	Shielded, 1.2m	N/A
11.	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. Execute the program, "Winthrax" under WIN7 installed in notebook for files transfer with 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.

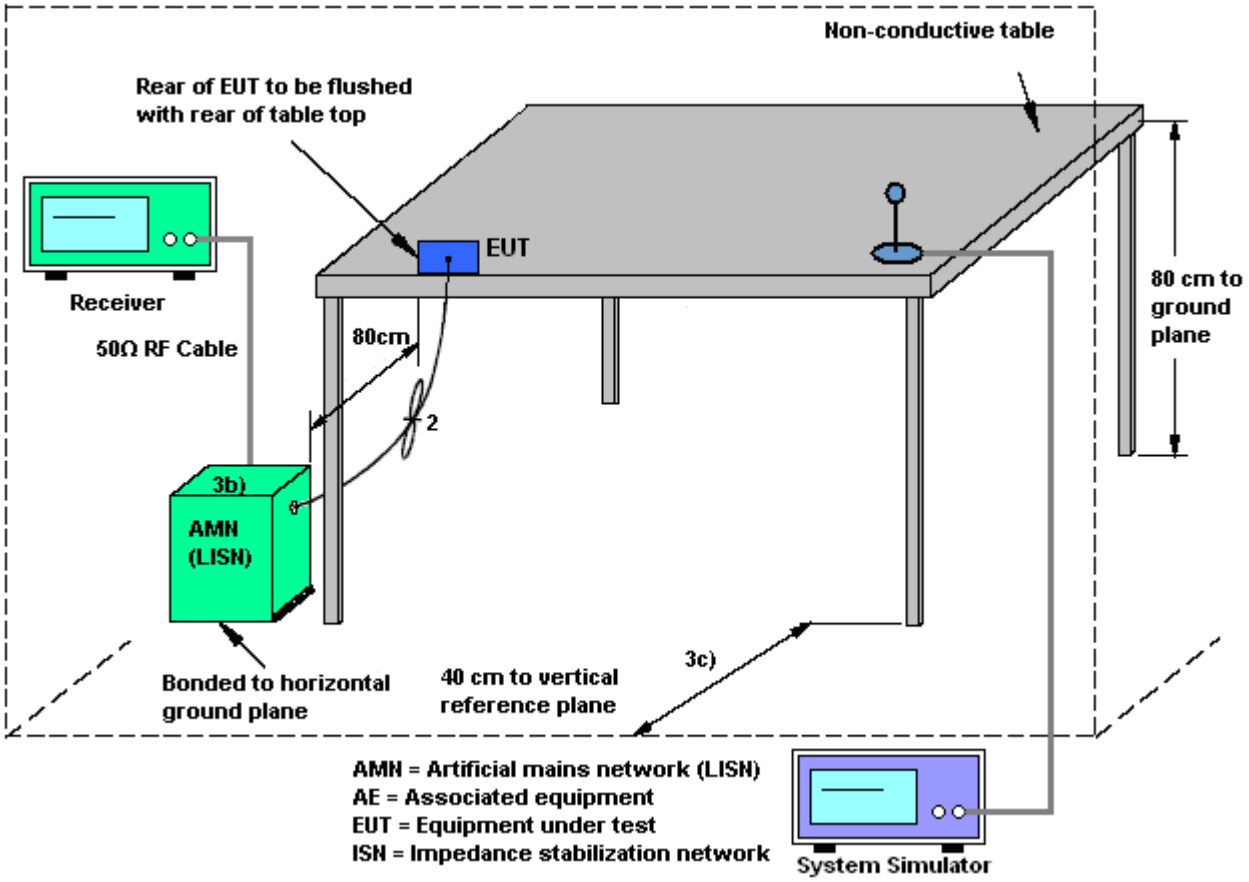
3.1.2 Measuring Instruments

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

3.1.3 Test Procedure

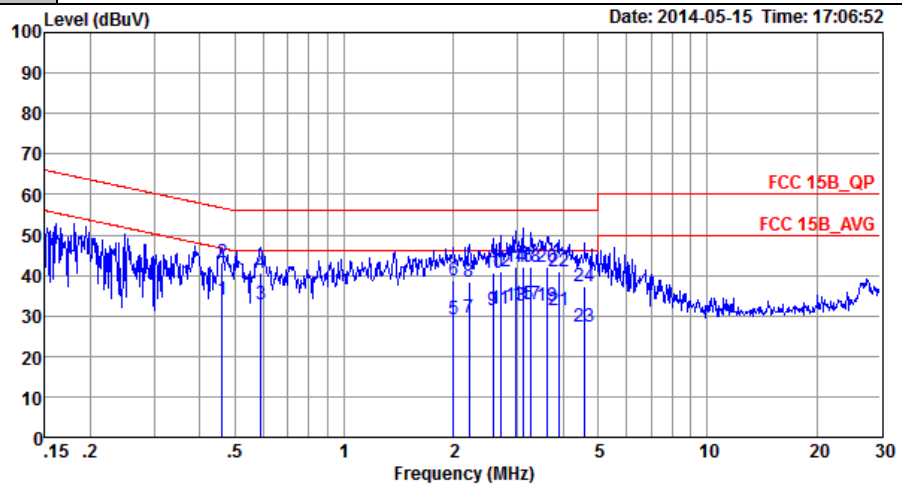
1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.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

3.1.4 Test Setup



3.1.5 Test Result of AC Conducted Emission

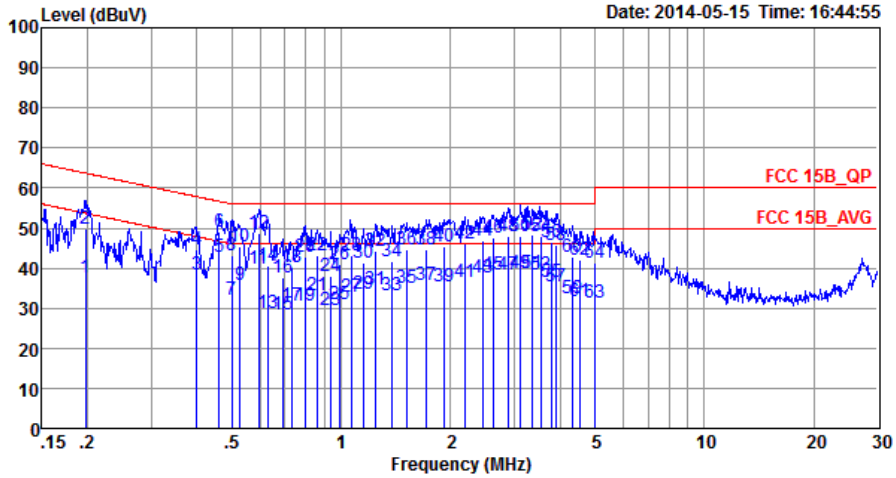
Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_L_20140304 LINE
Project : (FC)451403
Mode : Mode 1

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	*	0.46	33.95	-12.72	46.67	23.50	0.29	10.16	Average
2		0.46	43.25	-13.42	56.67	32.80	0.29	10.16	QP
3		0.59	32.79	-13.21	46.00	22.40	0.24	10.15	Average
4		0.59	40.59	-15.41	56.00	30.20	0.24	10.15	QP
5		2.00	29.21	-16.79	46.00	18.80	0.22	10.19	Average
6		2.00	38.61	-17.39	56.00	28.20	0.22	10.19	QP
7		2.21	29.54	-16.46	46.00	19.11	0.24	10.19	Average
8		2.21	38.34	-17.66	56.00	27.91	0.24	10.19	QP
9		2.57	31.38	-14.62	46.00	20.91	0.27	10.20	Average
10		2.57	40.58	-15.42	56.00	30.11	0.27	10.20	QP
11		2.69	31.59	-14.41	46.00	21.09	0.29	10.21	Average
12		2.69	40.79	-15.21	56.00	30.29	0.29	10.21	QP
13		2.96	32.52	-13.48	46.00	22.00	0.31	10.21	Average
14		2.96	41.92	-14.08	56.00	31.40	0.31	10.21	QP
15		3.11	32.83	-13.17	46.00	22.30	0.32	10.21	Average
16		3.11	42.03	-13.97	56.00	31.50	0.32	10.21	QP
17		3.28	32.84	-13.16	46.00	22.29	0.33	10.22	Average
18		3.28	41.94	-14.06	56.00	31.39	0.33	10.22	QP
19		3.62	32.57	-13.43	46.00	22.00	0.35	10.22	Average
20		3.62	42.07	-13.93	56.00	31.50	0.35	10.22	QP
21		3.90	31.19	-14.81	46.00	20.59	0.37	10.23	Average
22		3.90	40.79	-15.21	56.00	30.19	0.37	10.23	QP
23		4.60	27.44	-18.56	46.00	16.80	0.40	10.24	Average
24		4.60	37.34	-18.66	56.00	26.70	0.40	10.24	QP

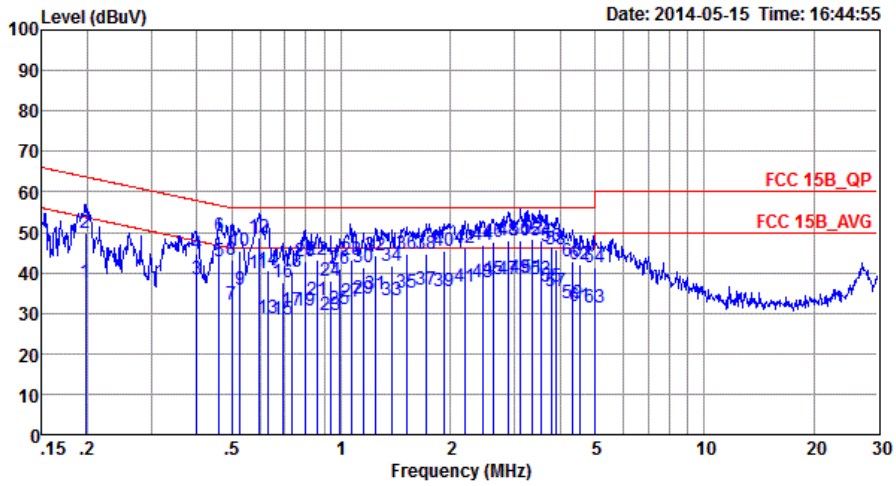
Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL
Project : (FC)451403
Mode : Mode 1

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.20	37.82	-15.89	53.71	27.20	0.32	10.30	Average
2		0.20	49.92	-13.79	63.71	39.30	0.32	10.30	QP
3		0.40	38.46	-9.40	47.86	27.90	0.39	10.17	Average
4		0.40	44.76	-13.10	57.86	34.20	0.39	10.17	QP
5	*	0.46	42.86	-3.81	46.67	32.30	0.40	10.16	Average
6		0.46	49.16	-7.51	56.67	38.60	0.40	10.16	QP
7		0.50	31.97	-14.04	46.01	21.40	0.41	10.16	Average
8		0.50	43.07	-12.94	56.01	32.50	0.41	10.16	QP
9		0.53	35.64	-10.36	46.00	25.11	0.38	10.15	Average
10		0.53	45.24	-10.76	56.00	34.71	0.38	10.15	QP
11		0.59	39.78	-6.22	46.00	29.30	0.33	10.15	Average
12		0.59	48.88	-7.12	56.00	38.40	0.33	10.15	QP
13		0.63	28.95	-17.05	46.00	18.50	0.30	10.15	Average
14		0.63	40.65	-15.35	56.00	30.20	0.30	10.15	QP
15		0.69	28.41	-17.59	46.00	18.00	0.26	10.15	Average
16		0.69	37.71	-18.29	56.00	27.30	0.26	10.15	QP
17		0.73	30.51	-15.49	46.00	20.10	0.26	10.15	Average
18		0.73	40.11	-15.89	56.00	29.70	0.26	10.15	QP
19		0.80	30.53	-15.47	46.00	20.10	0.28	10.15	Average
20		0.80	42.63	-13.37	56.00	32.20	0.28	10.15	QP
21		0.86	33.15	-12.85	46.00	22.70	0.30	10.15	Average
22		0.86	43.35	-12.65	56.00	32.90	0.30	10.15	QP
23		0.94	29.57	-16.43	46.00	19.10	0.32	10.15	Average
24		0.94	38.17	-17.83	56.00	27.70	0.32	10.15	QP
25		0.99	30.88	-15.12	46.00	20.40	0.33	10.15	Average
26		0.99	40.98	-15.02	56.00	30.50	0.33	10.15	QP
27		1.07	32.99	-13.01	46.00	22.51	0.33	10.15	Average
28		1.07	43.09	-12.91	56.00	32.61	0.33	10.15	QP
29		1.15	33.60	-12.40	46.00	23.10	0.34	10.16	Average

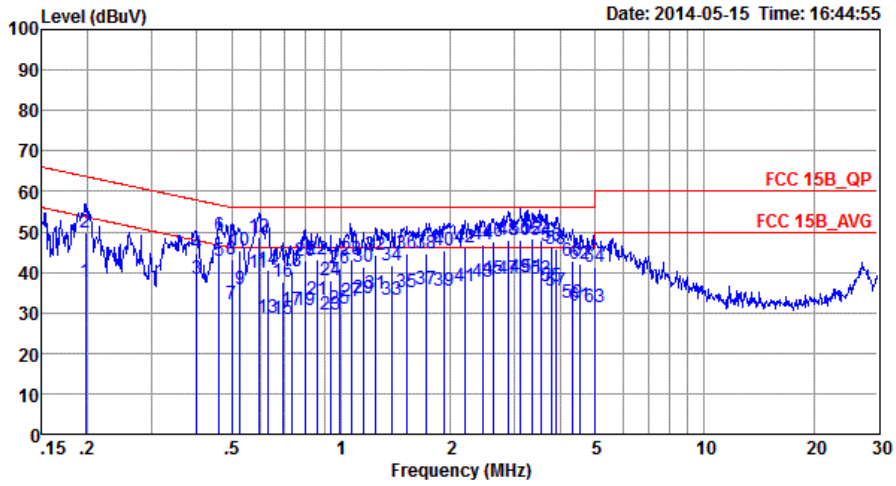
Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL
Project : (FC)451403
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
30	1.15	41.30	-14.70	56.00	30.80	0.34	10.16	QP
31	1.24	34.50	-11.50	46.00	24.00	0.34	10.16	Average
32	1.24	44.30	-11.70	56.00	33.80	0.34	10.16	QP
33	1.38	33.12	-12.88	46.00	22.60	0.35	10.17	Average
34	1.38	41.82	-14.18	56.00	31.30	0.35	10.17	QP
35	1.51	35.03	-10.97	46.00	24.51	0.35	10.17	Average
36	1.51	44.63	-11.37	56.00	34.11	0.35	10.17	QP
37	1.71	35.74	-10.26	46.00	25.20	0.36	10.18	Average
38	1.71	44.74	-11.26	56.00	34.20	0.36	10.18	QP
39	1.93	35.35	-10.65	46.00	24.79	0.37	10.19	Average
40	1.93	45.35	-10.65	56.00	34.79	0.37	10.19	QP
41	2.19	36.58	-9.42	46.00	26.01	0.38	10.19	Average
42	2.19	46.08	-9.92	56.00	35.51	0.38	10.19	QP
43	2.46	37.60	-8.40	46.00	27.00	0.40	10.20	Average
44	2.46	46.80	-9.20	56.00	36.20	0.40	10.20	QP
45	2.64	38.21	-7.79	46.00	27.60	0.41	10.20	Average
46	2.64	47.61	-8.39	56.00	37.00	0.41	10.20	QP
47	2.88	38.53	-7.47	46.00	27.90	0.42	10.21	Average
48	2.88	47.83	-8.17	56.00	37.20	0.42	10.21	QP
49	3.12	38.84	-7.16	46.00	28.20	0.43	10.21	Average
50	3.12	48.04	-7.96	56.00	37.40	0.43	10.21	QP

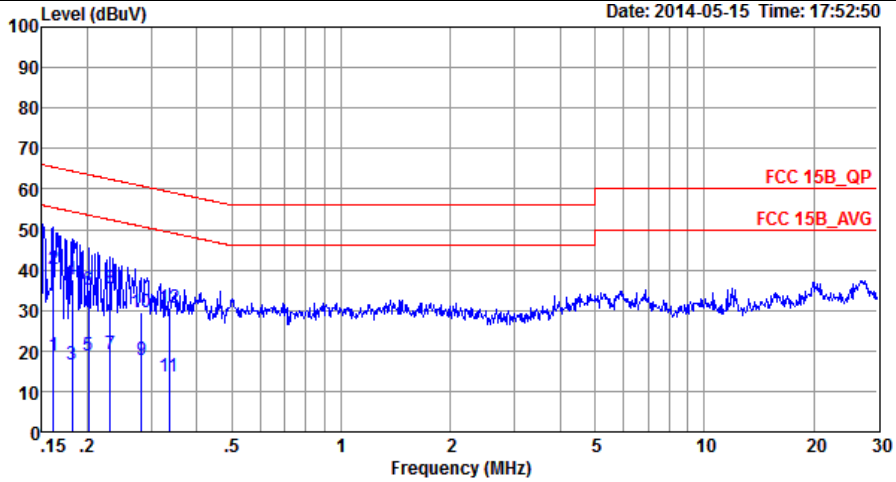
Test Mode :	Mode 1	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL
Project : (FC)451403
Mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
51	3.36	38.86	-7.14	46.00	28.20	0.44	10.22	Average
52	3.36	48.36	-7.64	56.00	37.70	0.44	10.22	QP
53	3.57	38.37	-7.63	46.00	27.70	0.45	10.22	Average
54	3.57	47.87	-8.13	56.00	37.20	0.45	10.22	QP
55	3.78	36.68	-9.32	46.00	26.01	0.45	10.22	Average
56	3.78	46.58	-9.42	56.00	35.91	0.45	10.22	QP
57	3.92	35.58	-10.42	46.00	24.89	0.46	10.23	Average
58	3.92	45.58	-10.42	56.00	34.89	0.46	10.23	QP
59	4.34	32.50	-13.50	46.00	21.80	0.47	10.23	Average
60	4.34	42.90	-13.10	56.00	32.20	0.47	10.23	QP
61	4.55	31.61	-14.39	46.00	20.90	0.48	10.23	Average
62	4.55	42.01	-13.99	56.00	31.30	0.48	10.23	QP
63	4.98	31.33	-14.67	46.00	20.60	0.49	10.24	Average
64	4.98	41.33	-14.67	56.00	30.60	0.49	10.24	QP

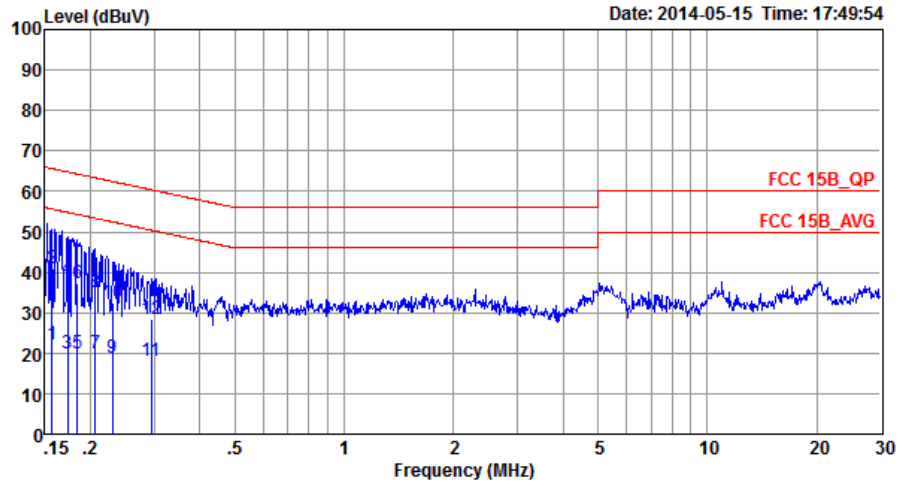
Test Mode :	Mode 3	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_L_20140304 LINE
Project : (FC)451403
Mode : Mode 3

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.16	18.86	-36.52	55.38	8.30	0.22	10.34	Average
2	*	0.16	40.06	-25.32	65.38	29.50	0.22	10.34	QP
3		0.18	16.74	-37.68	54.42	6.20	0.22	10.32	Average
4		0.18	37.54	-26.88	64.42	27.00	0.22	10.32	QP
5		0.20	18.91	-34.63	53.54	8.40	0.22	10.29	Average
6		0.20	35.11	-28.43	63.54	24.60	0.22	10.29	QP
7		0.23	19.09	-33.30	52.39	8.60	0.23	10.26	Average
8		0.23	35.39	-27.00	62.39	24.90	0.23	10.26	QP
9		0.28	17.87	-32.89	50.76	7.41	0.25	10.21	Average
10		0.28	29.37	-31.39	60.76	18.91	0.25	10.21	QP
11	*	0.34	13.75	-45.56	59.31	3.29	0.27	10.19	Peak
12		0.34	30.65	-28.66	59.31	20.19	0.27	10.19	QP

Test Mode :	Mode 3	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~42%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1		



Site : CO01-SZ
Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL
Project : (FC)451403
Mode : Mode 3

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.16	22.08	-33.57	55.65	11.40	0.33	10.35	Average
2	*	0.16	40.88	-24.77	65.65	30.20	0.33	10.35	QP
3		0.17	20.05	-34.76	54.81	9.39	0.33	10.33	Average
4		0.17	38.55	-26.26	64.81	27.89	0.33	10.33	QP
5		0.18	19.84	-34.44	54.28	9.21	0.32	10.31	Average
6		0.18	37.44	-26.84	64.28	26.81	0.32	10.31	QP
7		0.21	20.01	-33.35	53.36	9.40	0.32	10.29	Average
8		0.21	34.91	-28.45	63.36	24.30	0.32	10.29	QP
9		0.23	18.90	-33.54	52.44	8.31	0.33	10.26	Average
10		0.23	32.60	-29.84	62.44	22.01	0.33	10.26	QP
11		0.29	18.16	-32.25	50.41	7.60	0.36	10.20	Average
12		0.29	28.46	-31.95	60.41	17.90	0.36	10.20	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

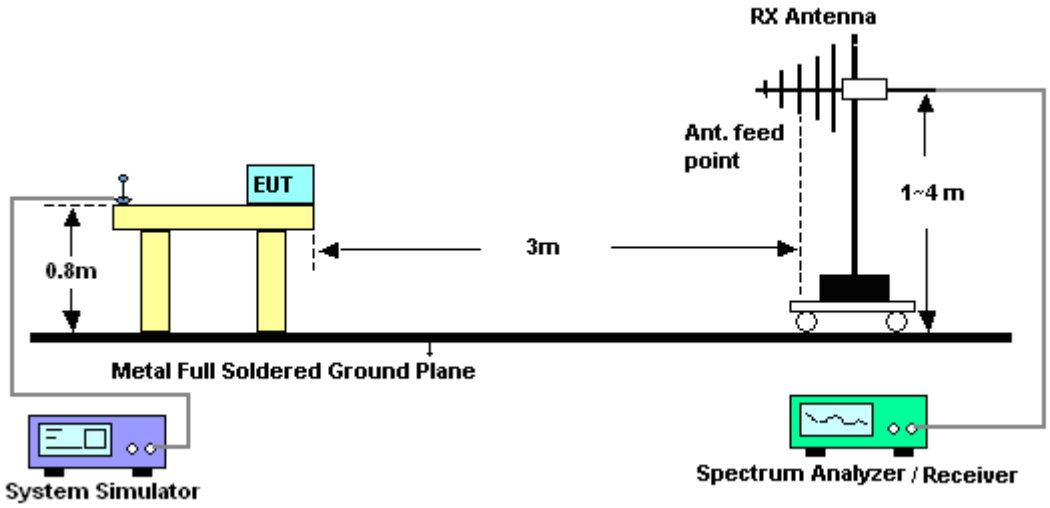
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

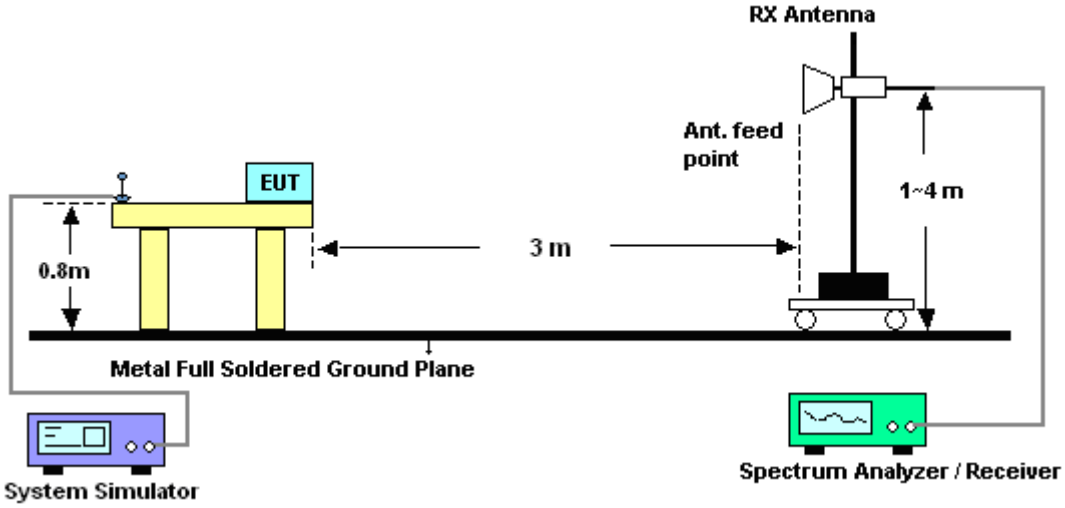
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna 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.
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 (dBμV/m) = 20 log Emission level (μV/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

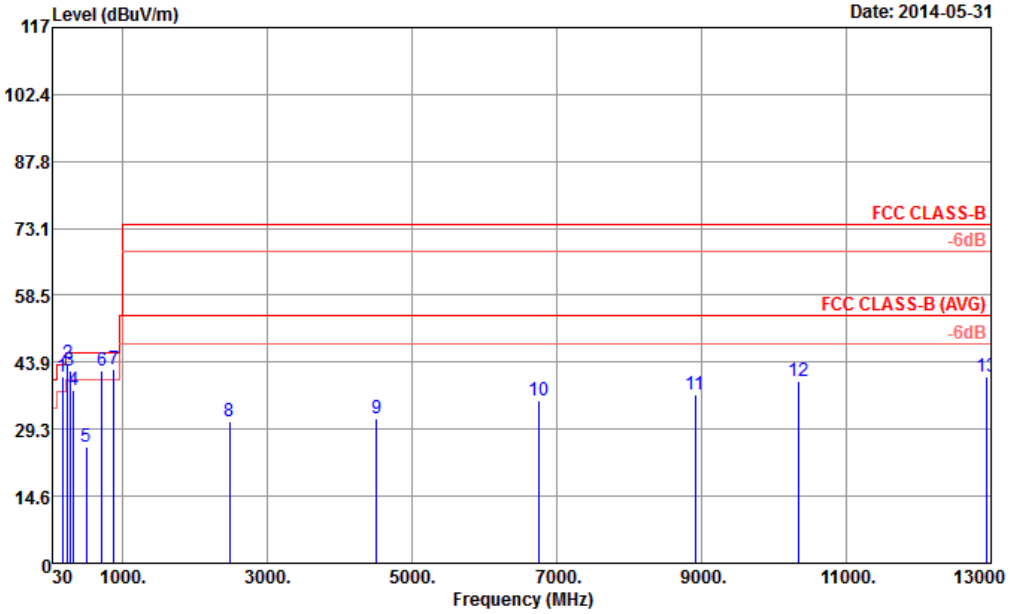


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

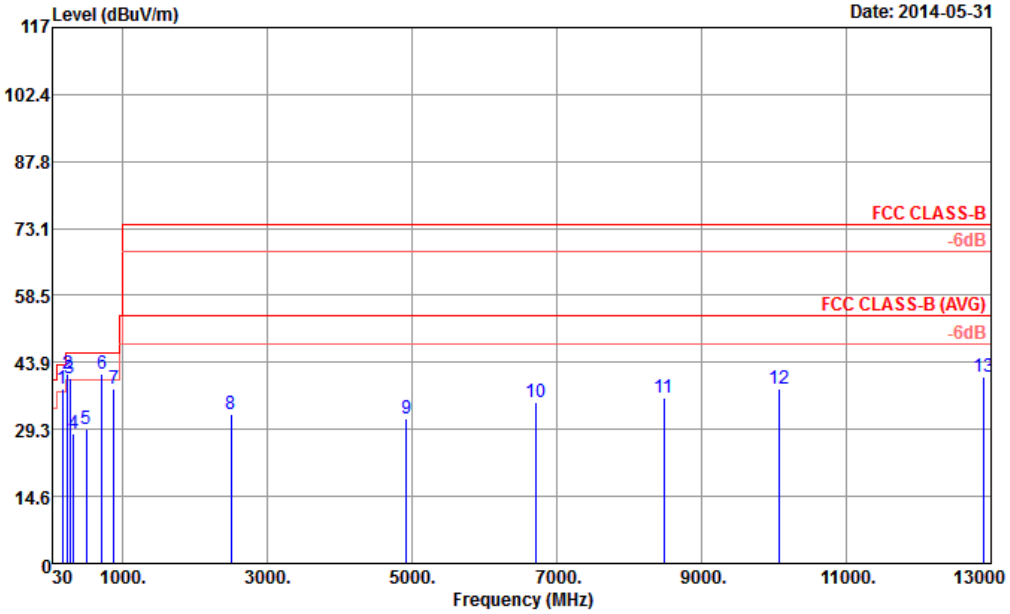
Test Mode :	Mode 3	Temperature :	24~25°C
Test Engineer :	Leo Liao	Relative Humidity :	48~49%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1		
Remark :	#7 is system simulator signal which can be ignored.		



Site : 03CH01-SZ
Condition : FCC CLASS-B 3m LF_ANT_131026 HORIZONTAL
Project : (FC)451403
Mode : Mode 3

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	P	173.10	40.76	-2.74	43.50	60.86	8.25	1.59	29.94	---	---	Peak
2	Q	240.06	43.69	-2.31	46.00	60.45	11.35	1.82	29.93	104	0	QP
3	!	267.87	42.10	-3.90	46.00	57.92	12.20	1.91	29.93	---	---	Peak
4		327.30	37.65	-8.35	46.00	51.50	13.99	2.09	29.93	---	---	Peak
5		499.50	25.47	-20.53	46.00	35.84	17.02	2.53	29.92	---	---	Peak
6	!	720.00	42.00	-4.00	46.00	49.64	19.30	2.99	29.93	---	---	Peak
7	!	881.70	42.36			48.45	20.56	3.29	29.94	---	---	Peak
8		2476.00	30.89	-43.11	74.00	49.55	32.41	5.71	56.78	---	---	Peak
9		4508.00	31.57	-42.43	74.00	48.25	33.10	8.05	57.83	---	---	Peak
10		6746.00	35.64	-38.36	74.00	49.03	33.86	9.86	57.11	---	---	Peak
11		8908.00	36.81	-37.19	74.00	44.67	36.28	11.10	55.24	---	---	Peak
12		10344.00	39.63	-34.37	74.00	46.91	36.79	12.84	56.91	---	---	Peak
13		12936.00	40.72	-33.28	74.00	43.87	38.68	14.34	56.17	154	125	Peak

Test Mode :	Mode 3	Temperature :	24~25°C
Test Engineer :	Leo Liao	Relative Humidity :	48~49%
Test Distance :	3m	Polarization :	Vertical
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1		
Remark :	#7 is system simulator signal which can be ignored.		



Site : 03CH01-SZ
Condition : FCC CLASS-B 3m LF_ANT_131026 VERTICAL
Project : (FC)451403
Mode : Mode 3

		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	!	173.37	38.16	-5.34	43.50	58.26	8.25	1.59	29.94	---	---	Peak
2	Q	240.06	41.37	-4.63	46.00	58.13	11.35	1.82	29.93	100	103	QP
3	!	268.14	40.37	-5.63	46.00	56.24	12.15	1.91	29.93	---	---	Peak
4		327.30	28.50	-17.50	46.00	42.35	13.99	2.09	29.93	---	---	Peak
5		498.10	29.25	-16.75	46.00	39.61	17.04	2.52	29.92	---	---	Peak
6	P	720.00	41.48	-4.52	46.00	49.12	19.30	2.99	29.93	---	---	Peak
7		881.70	38.11			44.20	20.56	3.29	29.94	---	---	Peak
8		2498.00	32.53	-41.47	74.00	51.08	32.50	5.74	56.79	---	---	Peak
9		4926.00	31.50	-42.50	74.00	46.07	34.05	8.46	57.08	---	---	Peak
10		6710.00	35.36	-38.64	74.00	48.67	33.88	9.86	57.05	---	---	Peak
11		8476.00	36.33	-37.67	74.00	45.27	35.77	11.02	55.73	---	---	Peak
12		10062.00	38.13	-35.87	74.00	45.45	36.96	12.70	56.98	---	---	Peak
13		12896.00	40.65	-33.35	74.00	43.87	38.62	14.33	56.17	123	236	Peak

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	May 15, 2014	Feb. 20, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Mar. 04, 2014	May 15, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Mar. 04, 2014	May 15, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Dec. 17, 2013	May 15, 2014	Dec. 16, 2014	Conduction (CO01-SZ)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	May 31, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2014	May 31, 2014	May 25, 2015	Radiation (03CH01-SZ)
Bilog Antenna	TESEQ	CBL 6112D	23188	30MHz~2GHz	Oct. 26, 2013	May 31, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 26, 2013	May 31, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz	Feb. 21, 2014	May 31, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 08, 2014	May 31, 2014	May 07, 2015	Radiation (03CH01-SZ)
AC Source (AVR)	Chroma	61601	616010001985	100Vac~250Vac	Mar. 25, 2014	May 31, 2014	Mar. 24, 2015	Radiation (03CH01-SZ)
Turn Table	EM Electronics	EM 1000	N/A	0~360 degree	NCR	May 31, 2014	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM Electronics	EM 1000	N/A	1 m~4 m	NCR	May 31, 2014	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))	**2.31**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.90**