FCC Test Report

APPLICANT : CT Asia

EQUIPMENT: Mobile phone

BRAND NAME : BLU

MODEL NAME : Studio X

FCC ID : YHLBLUSTUDIOX

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION : Certification

The product was received on Oct. 22, 2014 and testing was completed on Nov. 14, 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 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.

Reviewed by: Louis Wu / Manager

Lunis Win

Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL (SHENZHEN) INC.

1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China

SPORTON INTERNATIONAL (SHENZHEN) INC.

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC4O2207	Rev. 01	Initial issue of report	Nov. 24, 2014

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	9.24 dB at
					0.320 MHz
					Under limit
3.2	15 100	Dadiated Emission	< 15 100 limits	DACC	2.51 dB at
3.2	15.109	15.109 Radiated Emission	< 15.109 limits	PASS	36.750 MHz for
					Quasi-Peak

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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

Ragentek Technology

D10/D11, No.3188, Xiupu Road, PuDong District, Shanghai

1.3. Product Feature of Equipment Under Test

	Product Feature
Equipment	Mobile phone
Brand Name	BLU
Model Name	Studio X
FCC ID	YHLBLUSTUDIOX
EUT supports Radios application	GSM/GPRS/EGPRS(Downlink Only)/ WCDMA/HSPA/HSPA+(Downlink Only)/ WLAN 2.4GHz 802.11b/g/n HT20/HT40/ Bluetooth v3.0 + EDR/Bluetooth v4.0 LE
HW Version	V1.2
SW Version	J5010_BLU_V03
EUT Stage	Pre-Production

Remark:

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

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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: PIFA 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 (Downlink Only) 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 (1Mbps): GFSK Bluetooth (2Mbps): \pi /4-DQPSK Bluetooth (3Mbps): 8-DPSK GPS: BPSK			

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

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.			
	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan			
Test Site Location	warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China			
	TEL: +86-755- 3320-2398			
Took Oiko No	Sporton Site No.	FCC Registration No.		
Test Site 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 C63.4-2003

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

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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.

		Test Condition		
Item	EUT Configuration	EMI	EMI	EMI
			RE<1G	RE≥1G
1.	Charging Mode (EUT with adapter)	\boxtimes	\boxtimes	\boxtimes
2.	Data application transferred mode		\boxtimes	\boxtimes
	(EUT connected with notebook)			

Abbreviations:

EMI AC: AC conducted emissions

EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz

• EMI RE < 1G: EUT radiated emissions < 1GHz

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Test Items	EUT Configure Mode	Function Type
		Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
AC Conducted Emission	1/2	Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM2 <fig.2></fig.2>
	Hz 1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
Radiated Emissions < 1GHz		Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM2 <fig.2></fig.2>
Radiated	iated	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
Emissions ≥ 1GHz	1/2	Mode 2: WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM2 <fig.2></fig.2>

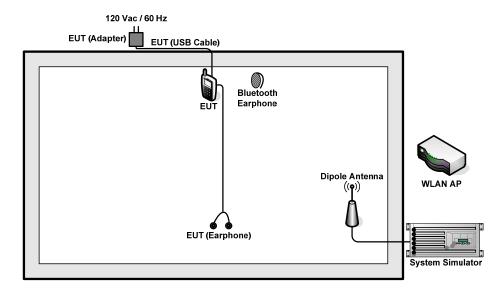
Remark:

- The worst case of AC is mode 1; and the USB Link mode of AC is mode 3, only the test data of these modes are reported.
- 2. The worst case of RE < 1G is mode 1; and the USB Link mode of RE is mode 3, only the test data of these modes are reported.
- Link with notebook means data application transferred mode between EUT and notebook.

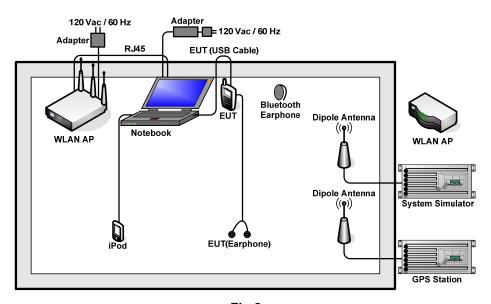
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2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>

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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, 1.8 m
5.	WLAN AP	D-Link	DIR-615	KA2IR615A1	N/A	Unshielded, 1.8 m
6.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
7.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
8.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
9.	Bluetooth Earphone	Lenovo	LBH301	N/A	N/A	N/A
10.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
11.	Notebook	DELL	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
12.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A
13.	iPod nano 8GB	Apple	MC690ZP/A	FCC DoC	Shielded, 1.2 m	N/A
14.	iPod	Apple	MC525ZP/A	FCC DoC	Shielded, 1.0 m	N/A

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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 "Windows Media Player" to play MPEG4 files.
- 4. Turn on camera to capture images.

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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	Conducted limit (dBuV)		
(MHz)	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

- 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.

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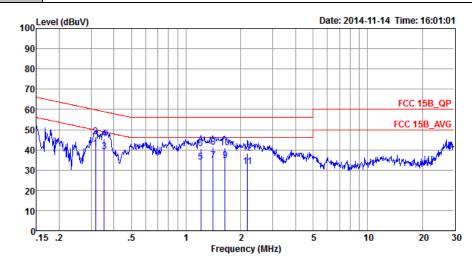
3.1.4 Test Setup



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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)		
Function Type :	+ Earphone + Camera + SIN	/ 1	



: CO01-SZ

Condition: FCC 15B_QP LISN_L_20140304 LINE Project : (FC)402207 Mode : Mode 1

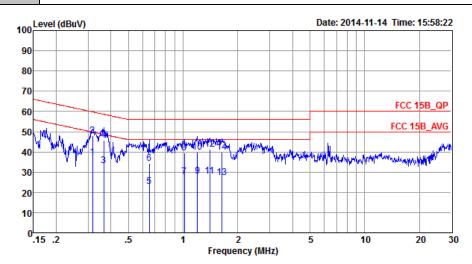
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
-	MHz	dBu∀	dB	dBuV	dBu∀	dB	dB	
1 *	0.32		-9.24	49.80	30.11	0.26		Average
2 3	0.32 0.35		-13.44 -9.82	59.80 48.87	35.91 28.60	0.26 0.27	10.19 10.18	QP Average
4 5	0.35 1.20		-13.52 -12.09	58.87 46.00	34.90 23.50			QP Average
6 7	1.20		-15.49 -11.39	56.00	30.10	0.25	10.16	QP
8	1.41 1.41		-11.39	46.00 56.00	24.20 30.80	0.24	10.17	Average QP
9 10	1.64 1.64		-11.19 -15.19	46.00 56.00	24.40	0.23	10.18	Average OP
11 12	2.18 2.18		-14.37 -17.77	46.00 56.00	21.20 27.80	0.24 0.24	10.19 10.19	Average QP

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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 Id	le + WLAN Idle + USB	Cable (Charging from Adapter)

+ Earphone + Camera + SIM1



: CO01-SZ

Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL

Project : (FC)402207 Mode : Mode 1

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBu₹	dB	dBu₹	dBu∀	dB	dB	
1	0.32	37.16	-12.64	49.80	26.60	0.37	10.19	Average
2 *	0.32	48.06	-11.74	59.80	37.50	0.37	10.19	QP
3	0.37	33.06	-15.55	48.61	22.50	0.38	10.18	Average
4	0.37	45.76	-12.85	58.61	35.20	0.38	10.18	QP
5	0.65	22.93	-23.07	46.00	12.50	0.28	10.15	Average
6	0.65	34.13	-21.87	56.00	23.70	0.28	10.15	QP
7	1.02	27.68	-18.32	46.00	17.20	0.33	10.15	Average
8	1.02	39.48	-16.52	56.00	29.00	0.33	10.15	QP
9	1.20	28.00	-18.00	46.00	17.50	0.34	10.16	Average
10	1.20	39.90	-16.10	56.00	29.40	0.34	10.16	QP
11	1.40	28.12	-17.88	46.00	17.60	0.35	10.17	Average
12	1.40	41.22	-14.78	56.00	30.70	0.35	10.17	QP
13	1.64	27.24	-18.76	46.00	16.70	0.36	10.18	Average
14	1.64	39.94	-16.06	56.00	29.40	0.36	10.18	QP

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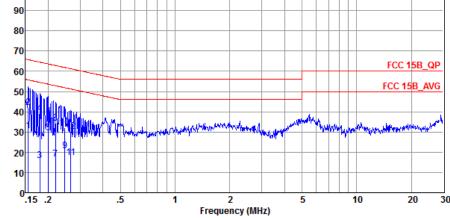
Test Mode :	Mode 3	Temperature :	21~22 ℃					
Test Engineer :	Jack Tian	Relative Humidity :	41~42%					
Test Voltage :	120Vac / 60Hz	Phase :	Line					
Francisco Trans.	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with							
Function Type :	Notabaak) Farabana CF	OC Deci CIMO						

Notebook) + Earphone + GPS Rx + SIM2

Date: 2014-11-14 Time: 16:34:21

Date: 2014-11-15 Time: 16:34:21

FCC 15B_QP



Site : CO01-SZ

Condition: FCC 15B_QP LISN_L_20140304 LINE

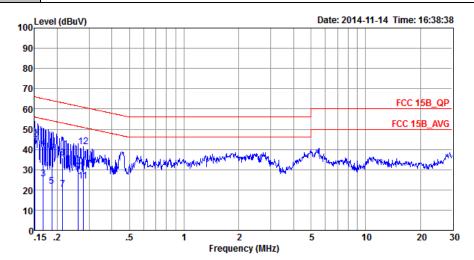
Project : (FC) 402207 Mode : Mode 3

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBu∇	dBu∀	dB	dB	
1	0.16	30.47	-25.22	55.69	19.90	0.22	10.35	Average
2 '	* 0.16	42.17	-23.52	65.69	31.60	0.22	10.35	QP
3	0.18	15.84	-38.66	54.50	5.30	0.22	10.32	Average
4	0.18	39.04	-25.46	64.50	28.50	0.22	10.32	QP
5	0.20	29.41	-24.17	53.58	18.90	0.22	10.29	Average
6	0.20	37.51	-26.07	63.58	27.00	0.22	10.29	QP
7	0.22	16.60	-36.23	52.83	6.10	0.23	10.27	Average
8	0.22	34.40	-28.43	62.83	23.90	0.23	10.27	QP
9	0.25	20.58	-31.28	51.86	10.09	0.24	10.25	Average
10	0.25	31.98	-29.88	61.86	21.49	0.24	10.25	QP
11	0.27	17.27	-33.98	51.25	6.80	0.24	10.23	Average
12	0.27	30.37	-30.88	61.25	19.90	0.24	10.23	OP

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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 + Blue	le + USB Cable (Data Link with						
Function Type :	Notebook) + Earphone + GPS Rx + SIM2							



: CO01-SZ

Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL

Project : (FC)4o2207 Mode : Mode 3

	Prog	Level	Over	Limit	Read	LISN Factor	Cable	Remark
	rreq	телет	TIMIL	птие	телет	ractor	TOSS	Remark
	MHz	dBu∇	dB	dBu∇	dBu∀	dB	dB	
1 *	0.15	41.29	-14.67	55.96	30.60	0.33	10.36	Average
2	0.15	44.89	-21.07	65.96	34.20	0.33	10.36	QP
3	0.17	25.36	-29.72	55.08	14.70	0.33	10.33	Average
4	0.17	40.76	-24.32	65.08	30.10	0.33	10.33	QP
5	0.19	21.83	-32.37	54.20	11.20	0.32	10.31	Average
6	0.19	38.53	-25.67	64.20	27.90	0.32	10.31	QP
7	0.21	20.21	-32.84	53.05	9.60	0.33	10.28	Average
8	0.21	35.81	-27.24	63.05	25.20	0.33	10.28	QP
9	0.26	28.68	-22.74	51.42	18.10	0.35	10.23	Average
10	0.26	31.58	-29.84	61.42	21.00	0.35	10.23	QP
11	0.28	24.27	-26.63	50.90	13.70	0.35	10.22	Average
12	0.28	41.17	-19.73	60.90	30.60	0.35	10.22	QP

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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	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(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 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

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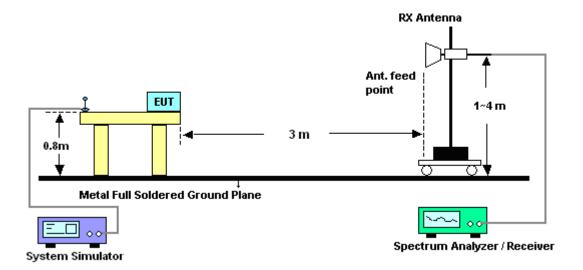
Report No.: FC4O2207

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz

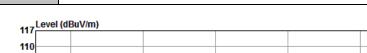


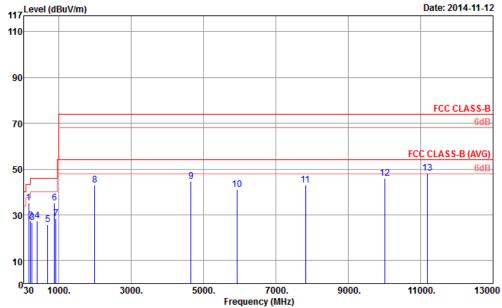
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3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 1	+ SIM1						
Test Engineer :	Kaer Huang	Relative Humidity :	ity: 48~52% Horizontal USB Cable (Charging from Adapter)					
Test Distance : 3m Polarization : Horizontal	Horizontal							
Function Type .	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from A	Cable (Charging from Adapter)						
runction type:	+ Earphone + Camera + SIM1							
Remark :	#6 is system simulator signa	s system simulator signal which can be ignored.						





: 03CH01-SZ

Site Condition : FCC CLASS-B 3m LF_ANT_131026 HORIZONTAL

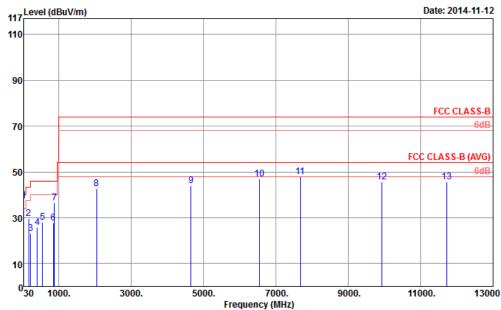
Project : (FC)4O2207 Mode : Mode 1

	Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 F	167.97	35.11	-8.39	43.50	55.23	8.58	2.01	30.71	125	65	Peak
2	216.03	27.34	-18.66	46.00	46.47	9.22	2.29	30.64			Peak
3	264.09	26.68	-19.32	46.00	42.27	12.40	2.56	30.55			Peak
4	407.80	27.44	-18.56	46.00	38.27	16.26	3.21	30.30			Peak
5	696.20	25.86	-20.14	46.00	32.22	18.82	4.27	29.45			Peak
6	881.70	35.25			38.85	20.56	4.89	29.05			Peak
7	918.10	28.41	-17.59	46.00	31.24	21.18	4.92	28.93			Peak
8	1994.00	43.06	-30.94	74.00	49.38	32.05	7.90	46.27			Peak
9	4656.00	44.59	-29.41	74.00	44.26	34.29	12.76	46.72			Peak
10	5924.00	41.22	-32.78	74.00	36.11	35.70	13.78	44.37			Peak
11	7818.00	42.92	-31.08	74.00	38.16	36.43	15.61	47.28			Peak
12	10014.00	45.91	-28.09	74.00	36.50	38.11	18.23	46.93			Peak
13	11194.00	48.20	-25.80	74.00	39.13	38.96	18.34	48.23	165	65	Peak

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Test Mode :	Mode 1	Temperature :	23~25°C				
Test Engineer :	Kaer Huang	Relative Humidity :	48~52%				
Test Distance :	Vertical						
Function Type	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter)						
Function Type :	+ Earphone + Camera + SIM1						
Remark :	#7 is system simulator signal which can be ignored.						
Level	(dBuV/m)		Date: 2014-11-12				



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_131026 VERTICAL

Project Mode : (FC)4O2207 : Mode 1

	Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 Q	36.75	37.49	-2.51	40.00	52.42	14.90	0.92	30.75	165	87	QP
2	167.97	29.61	-13.89	43.50	49.73	8.58	2.01	30.71			Peak
3	216.03	23.05	-22.95	46.00	42.18	9.22	2.29	30.64			Peak
4	407.80	25.72	-20.28	46.00	36.55	16.26	3.21	30.30			Peak
5	552.00	28.15	-17.85	46.00	36.22	18.06	3.77	29.90			Peak
6	850.90	27.57	-18.43	46.00	31.22	20.71	4.76	29.12			Peak
7 P	881.70	36.42			40.02	20.56	4.89	29.05			Peak
8	2042.00	42.62	-31.38	74.00	48.59	32.23	8.07	46.27			Peak
9	4652.00	44.02	-29.98	74.00	43.69	34.29	12.76	46.72			Peak
10	6544.00	46.78	-27.22	74.00	43.01	36.29	14.43	46.95			Peak
11	7678.00	47.86	-26.14	74.00	43.53	36.37	15.33	47.37	158	85	Peak
12	9930.00	45.78	-28.22	74.00	36.52	38.02	18.06	46.82			Peak
13	11718.00	45.49	-28.51	74.00	36.17	39.32	18.67	48.67			Peak

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Test Mode :	Mode 3			Temperature :			23~	23~25°C			
Test Engineer :	Kaer Huang			Relative Humidity :			48~	48~52%			
Test Distance :	3m			Polarization :			Hor	Horizontal			
Function Type :	WCDMA B	and V Idle +	Blueto	oth Id	lle + \	NLAN I	dle +	USB	Cable (I	Data Lin	k with
runction type.	Notebook) + Earphone + GPS Rx + SIM2										
Remark :	#7 is system simulator signal which can be ignored.										
117 Level	(dBuV/m)								Date: 2	2014-11-10	
110											
90											
									FCC	CLASS-B	
70										6dB	
									FCC CLAS	S-B (AVG)	
50	8		9	10		11		12	13	6dB	
ļ	6,		Ĭ								
30 1 	lí										
10											
030	4000	2000	5000		7000	<u></u>	2000		44000	4200	
30	1000.	3000.	5000.	Frequenc	7000. y (MHz)		9000.		11000.	13000	J
Site Condition	: 03CH01-	-SZ ASS-B3mLFAN	JT 14101	5 02 HC	RIZON	TAI					
Project Mode	: (FC)4O2			0_02110	ruzort	.,					
Wiode	. Wode 5										
	Freq Level	Over Limit Limit Line	ReadAr Level F			Preamp Factor	A/Pos		Remark		
	MHz dBuV/m	dB dBuV/m	dBuV	dB/m	dB	dB -	cm	deg		-	
		-15.12 43.50							Peak		
		-10.73 43.50 -13.60 46.00				30.67 30.58			Peak Peak		
		-13.57 46.00				30.32			Peak		
		-13.72 46.00 -9.13 46.00				29.88 29.53			Peak Peak		
7 8	81.70 33.85		36.26	21.75	4.89	29.05			Peak		
		-30.10 74.00 -30.40 74.00				46.28 46.72			Peak Peak		
10 63	06.00 45.51	-28.49 74.00	41.04	36.10	14.16	45.79			Peak		
		-28.64 74.00 -27.60 74.00							Peak Peak		
		-26.80 74.00							Peak		

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Test Mode :	Mode 3		Tempe	rature :	23~25°C	23~25°C			
Test Engineer :	Kaer Huan	9	Relativ	e Humidity:	48~52%				
Test Distance :	3m		Polariz	cation :	Vertical	Vertical			
Function Type :	WCDMA Band V Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM2								
Remark :	Remark: #7 is system simulator signal which can be ignored.								
117 Level	(dBuV/m)					Date: 2014-11-10)		
110									
90									
70						FCC CLASS-B 6dB			
50					12	FCC CLASS-B (AVG)			
30	6 ₇	9	10	11		13			
030	1000.	3000. 50	000.		9000.	11000. 130	0 0		
Site Condition Project Mode	: 03CH01- : FCC CLA : (FC)4O22 : Mode 3	ASS-B 3m LF_ANT_ 207 Over Limit R	141015_02 VI	cy (MHz) ERTICAL Cable Preamp Loss Factor	A/Pos T/Pos	Remark			
	MHz dBuV/m	dB dBuV/m d	IBuV dB/m	dB dB	cm deg				
2 1 3 2 4 3 5 6 6 7 7 8 8 26 9 45 10 59 11 77 12 99	66.62 28.91 38.17 32.14 68.60 33.21 75.90 38.95 64.10 39.49 81.70 37.95 00.00 44.54 76.00 41.49 44.90 43.97 06.00 44.90 56.00 46.86	-29.46 74.00 48 -32.51 74.00 41 -30.03 74.00 38 -29.10 74.00 40 -27.14 74.00 37	1.75 1.94 11.36 1.22 15.38 19.71 1.76 20.77 1.36 21.75 1.98 32.78 1.35 34.24 1.59 35.78 1.42 36.38 1.59 36.38 1.52 38.06	3.05 30.40 4.21 29.35 4.49 29.53 4.89 29.05 9.02 46.24 12.77 46.87 13.74 44.14 15.46 47.36 18.14 46.86	 	Peak Peak Peak Peak Peak Peak Peak Peak			
12 99	56.00 46.86		.52 38.06	18.14 46.86					

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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	Nov. 14, 2014	Feb. 20, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Mar. 04, 2014	Nov. 14, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Mar. 04, 2014	Nov. 14, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000891	100Vac~250Vac	Dec. 17, 2013	Nov. 14, 2014	Dec. 16, 2014	Conduction (CO01-SZ)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Nov. 10, 2014~ Nov. 12, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2014	Nov. 10, 2014~ Nov. 12, 2014	May 25, 2015	Radiation (03CH01-SZ)
Bilog Antenna	TESEQ	CBL 6112D	37877	30MHz~2GHz	Oct. 15, 2014	Nov. 10, 2014~ Nov. 12, 2014	Oct. 14, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Nov. 10, 2014~ Nov. 12, 2014	Oct. 14, 2015	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz	Feb. 21, 2014	Nov. 10, 2014~ Nov. 12, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 08, 2014	Nov. 10, 2014~ Nov. 12, 2014	May 07, 2015	Radiation (03CH01-SZ)
AC Source(AVR)	Chroma	61601	616010001985	100Vac~250Vac	Mar. 25, 2014	Nov. 10, 2014~ Nov. 12, 2014	Mar. 24, 2015	Radiation (03CH01-SZ)
Turn Table	EM Electronics	EM 1000	N/A	0~360 degree	NCR	Nov. 10, 2014~ Nov. 12, 2014	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM Electronics	EM 1000	N/A	1 m~4 m	NCR	Nov. 10, 2014~ Nov. 12, 2014	NCR	Radiation (03CH01-SZ)

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5. Uncertainty of Evaluation

<u>Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)</u>

Measuring Uncertainty for a Level of	2.2
Confidence of 95% (U = 2Uc(y))	2.3

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

Measuring Uncertainty for a Level of	2.0
Confidence of 95% (U = 2Uc(y))	3.9

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