# **FCC Test Report**

APPLICANT : CT Asia

**EQUIPMENT**: Mobile Phone

BRAND NAME : BLU
MODEL NAME : Aria II

FCC ID : YHLBLUARIAII

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

**CLASSIFICATION**: Certification

The product was received on Jun. 18, 2014 and testing was completed on Jul. 23, 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

Louis Wu

Approved by: Jones Tsai / Manager

## 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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Testing Laboratory 2353

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## **REVISION HISTORY**

Report No.: FC461803

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC461803	Rev. 01	Initial issue of report	Jul. 29, 2014

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## **SUMMARY OF TEST RESULT**

Report Section	FCC Rule Description		C Rule Description Limit		Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	12.87 dB at
					0.410 MHz
					Under limit
2.2	15.109	Dadiated Emission	< 15 100 limita	PASS	2.32 dB at
3.2		5.109 Radiated Emission	< 15.109 limits		95.880 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

#### **TINNO MOBILE**

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

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### 1.3. Product Feature of Equipment Under Test

	Product Feature			
Equipment	Mobile Phone			
Brand Name	BLU			
Model Name	Aria II			
FCC ID	YHLBLUARIAII			
EUT supports Radios application	GSM/GPRS Bluetooth v3.0 + EDR			
HW Version	V1.1			
SW Version	B1083CP_PP_BLU_OPEN_US_00_03			
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.

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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 Bluetooth: 2402 MHz ~ 2480 MHz					
Rx Frequency	GSM850 : 869.2 MHz ~ 893.8 MHz GSM1900 : 1930.2 MHz ~ 1989.8 MHz Bluetooth: 2402 MHz ~ 2480 MHz					
Antenna Type	WWAN :IFA Antenna Bluetooth : Monopole Antenna					
Type of Modulation	GSM: GMSK GPRS: GMSK Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : π /4-DQPSK Bluetooth (3Mbps) : 8-DPSK					

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### 1.5. Modification of EUT

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

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#### 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. FO		FCC Registration No.			
rest site 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.

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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	
		AC	RE<1G	RE≥1G	
1.	Charging Mode (EUT with adapter)	$\boxtimes$	$\boxtimes$	$\boxtimes$	
2.	Data application transferred mode	$\boxtimes$	$\boxtimes$	$\boxtimes$	
	(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 + USB Cable (Charging from Adapter) + Camera + SIM1 <fig.1></fig.1>
AC Conducted Emission	1/2	Mode 2: GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + USB Cable (Data Link with Notebook) + SIM1 <fig.2></fig.2>
	z 1/2	Mode 1: GSM850 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + Camera + SIM1 <fig.1></fig.1>
Radiated Emissions < 1GHz		Mode 2: GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4 + SIM1 <fig.1></fig.1>
		Mode 3: WCDMA Band V Idle + Bluetooth Idle + USB Cable (Data Link with Notebook) + SIM1 <fig.2></fig.2>
Radiated	1	Mode 1: GSM850 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + Camera + SIM1 <fig.1></fig.1>
Emissions ≥ 1GHz	1	Mode 2: WCDMA Band V Idle + Bluetooth Idle + USB Cable (Data Link with Notebook) + SIM1 <fig.2></fig.2>

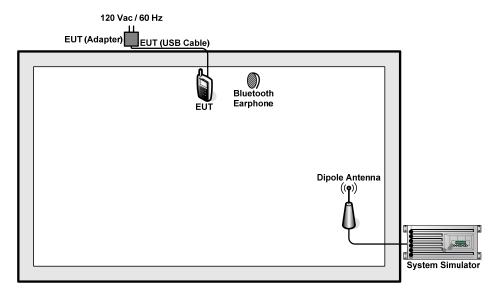
#### Remark:

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

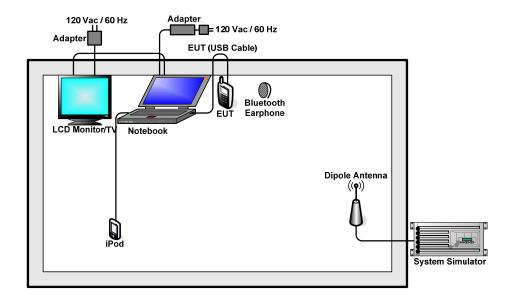
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## 2.2. Connection Diagram of Test System

### <EUT with Adapter Mode>



<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.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
3.	Base Station	Agilent	8960	N/A	N/A	Unshielded, 1.8 m
4.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8 m
5.	Television	changhong	LTE19920EX	N/A	N/A	Unshielded, 1.8 m
6.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8 m
7.	LCD Monitor	DELL	IN1940MWb	FCC DoC	Shielded, 1.6 m	Unshielded, 1.8 m
8.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A
9.	iPod	Apple	MC525 ZP/A	FCC DoC	Shielded, 1.0 m	N/A

## 2.4. EUT Operation Test Setup

The EUT was in GSM 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 "Video player" to play MPEG4 files.
- 3. 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		

<sup>\*</sup>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

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- 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.

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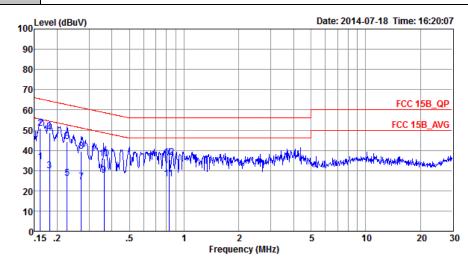
### 3.1.4 Test Setup



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### 3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	21~22°ℂ		
Test Engineer :	Jack Tian	Relative Humidity :	41~42%		
Test Voltage :	120Vac / 60Hz	Phase :	Line		
Function Type	GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4				
Function Type :	SIM1				



Site : CO01-SZ

Condition: FCC 15B\_QP LISN\_L\_20140304 LINE

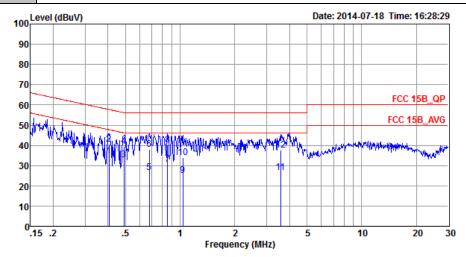
Project : (FC)461803 Mode : Mode 2

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu₹	dB	dBuV	dBu₹	dB	dB	
1	0.16	34.26	-21.12	55.38	23.70	0.22	10.34	Average
2 *	0.16	50.76	-14.62	65.38	40.20	0.22	10.34	QP
3	0.18	29.84	-24.58	54.42	19.30	0.22	10.32	Average
4	0.18	48.54	-15.88	64.42	38.00	0.22	10.32	QP
5	0.23	26.30	-26.27	52.57	15.81	0.23	10.26	Average
6	0.23	44.20	-18.37	62.57	33.71	0.23	10.26	QP
7	0.27	24.27	-26.80	51.07	13.80	0.25	10.22	Average
8	0.27	39.57	-21.50	61.07	29.10	0.25	10.22	QP
9	0.36	27.65	-21.04	48.69	17.20	0.27	10.18	Average
10	0.36	35.65	-23.04	58.69	25.20	0.27	10.18	QP
11	0.83	25.67	-20.33	46.00	15.30	0.22	10.15	Average
12	0.83	36.57	-19.43	56.00	26.20	0.22	10.15	QP

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Test Mode :	Mode 2	Temperature :	21~22℃					
Test Engineer :	Jack Tian	Relative Humidity :	41~42%					
Test Voltage :	120Vac / 60Hz	Phase :	Neutral					
Function Type :	GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4 +							
Function Type :	SIM1							



Site : CO01-SZ Condition: FCC 15B\_QP LISN\_N\_20140304 NEUTRAL

Project : (FC) 461803 Mode : Mode 2

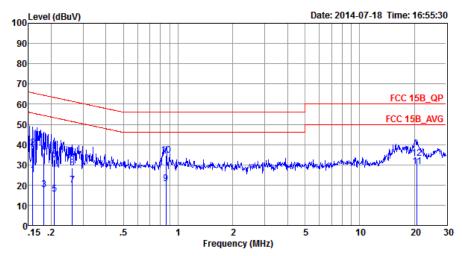
			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBu∇	dB	dBu∀	dBu₹	dB	dB	
1 *	0.41	34.86	-12.87	47.73	24.30	0.39	10.17	Average
2	0.41	40.76	-16.97	57.73	30.20	0.39	10.17	QP
3	0.49	32.77	-13.37	46.14	22.20	0.41	10.16	Average
4	0.49	39.67	-16.47	56.14	29.10	0.41	10.16	QP
5	0.68	26.42	-19.58	46.00	16.00	0.27	10.15	Average
6	0.68	37.92	-18.08	56.00	27.50	0.27	10.15	QP
7	0.85	30.54	-15.46	46.00	20.10	0.29	10.15	Average
8	0.85	40.34	-15.66	56.00	29.90	0.29	10.15	QP
9	1.04	25.18	-20.82	46.00	14.70	0.33	10.15	Average
10	1.04	33.78	-22.22	56.00	23.30	0.33	10.15	QP
11	3.58	26.47	-19.53	46.00	15.80	0.45	10.22	Average
12	3.58	37.77	-18.23	56.00	27.10	0.45	10.22	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					
	GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4 +							
Function Type :	ISIM1							



: CO01-SZ

Condition: FCC 15B\_QP LISN\_L\_20140304 LINE

Project : (FC)461803 Mode : Mode 3

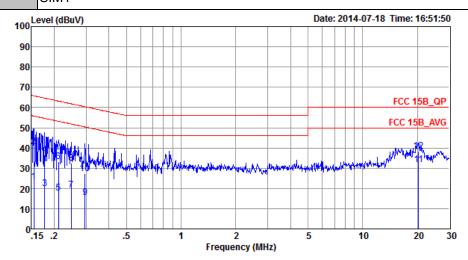
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu∇	dB	dBu∀	dBu∇	dB	dB	
1	0.16	25.27	-30.29	55.56	14.70	0.22	10.35	Average
2	0.16	38.27	-27.29	65.56	27.70	0.22	10.35	QP
3	0.18	17.73	-36.64	54.37	7.20	0.22	10.31	Average
4	0.18	35.63	-28.74	64.37	25.10	0.22	10.31	QP
5	0.21	15.41	-37.86	53.27	4.91	0.22	10.28	Average
6	0.21	32.31	-30.96	63.27	21.81	0.22	10.28	QP
7	0.26	19.88	-31.50	51.38	9.41	0.24	10.23	Average
8	0.26	28.28	-33.10	61.38	17.81	0.24	10.23	QP
9	0.86	20.68	-25.32	46.00	10.30	0.23	10.15	Average
10	0.86	34.58	-21.42	56.00	24.20	0.23	10.15	QP
11 *	20.70	29.27	-20.73	50.00	16.90	1.75	10.62	Average
12	20.70	33.27	-26.73	60.00	20.90	1.75	10.62	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 :	Neutral					
Francisco Transco	GSM1900 Idle + Bluetooth Idle + USB Cable (Charging from Adapter) + MPEG4 +							
Function Type :	ISIM1							



Site : CO01-SZ

Condition: FCC 15B\_QP LISN\_N\_20140304 NEUTRAL

Project : (FC)461803 Mode : Mode 3

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu₹	dB	dBuV	dBu∀	dB	dB	
1	0.15	23.38	-32.36	55.74	12.70	0.33	10.35	Average
2	0.15	40.58	-25.16	65.74	29.90	0.33	10.35	QP
3	0.18	20.04	-34.55	54.59	9.40	0.32	10.32	Average
4	0.18	36.44	-28.15	64.59	25.80	0.32	10.32	QP
5	0.21	17.71	-35.43	53.14	7.10	0.33	10.28	Average
6	0.21	33.11	-30.03	63.14	22.50	0.33	10.28	QP
7	0.25	19.09	-32.73	51.82	8.51	0.34	10.24	Average
8	0.25	32.49	-29.33	61.82	21.91	0.34	10.24	QP
9	0.30	15.66	-34.71	50.37	5.10	0.36	10.20	Average
10	0.30	27.36	-33.01	60.37	16.80	0.36	10.20	QP
11 *	20.27	31.88	-18.12	50.00	19.51	1.75	10.62	Average
12	20.27	38.28	-21.72	60.00	25.91	1.75	10.62	OP

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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

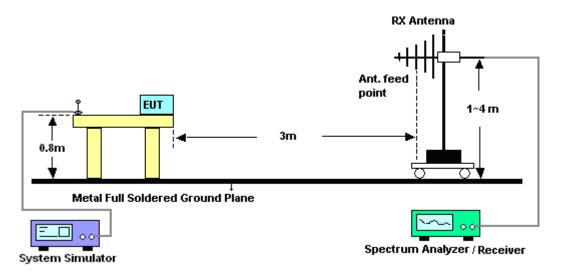
- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna 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.
- 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 $\mu$ V/m) = 20 log Emission level ( $\mu$ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

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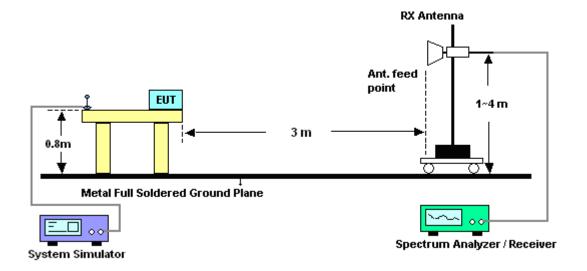
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### 3.2.4. Test Setup of Radiated Emission

#### For radiated emissions from 30MHz to 1GHz

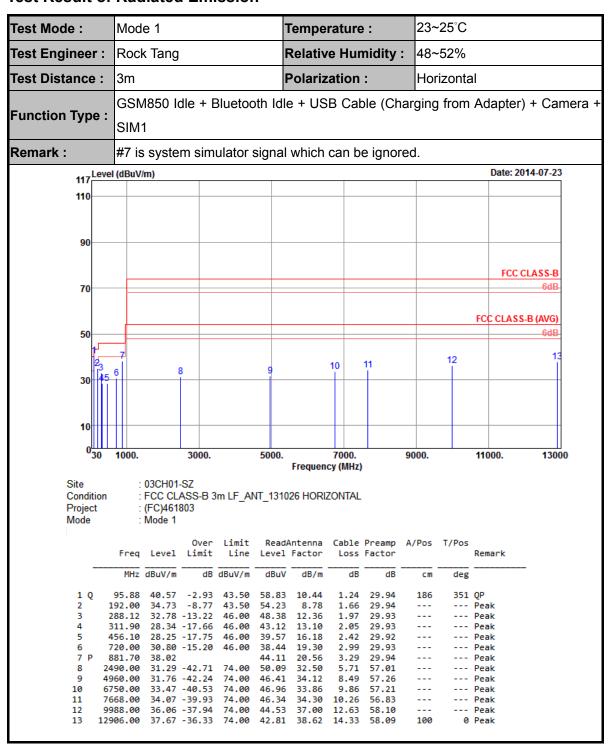


#### For radiated emissions above 1GHz



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#### 3.2.5. Test Result of Radiated Emission



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Test Mode :	Mode 1		Temperature	e :	23~25°C			
Test Engineer :	Rock Tang		Relative Hu	midity:	48~52%			
Test Distance :	3m		Polarization	on: Vertical				
Function Type :	GSM850 Id SIM1	dle + Bluetooth	Idle + USB Ca	ble (Char	ging from	Adapter) + Car	mer	
Remark :	#7 is syste	m simulator sig	nal which can b	e ignored	d.			
117 Level	(dBuV/m)					Date: 2014-07-23	3	
110								
90								
70						FCC CLASS-B		
50						FCC CLASS-B (AVG)		
30 45	7 6	8 9	10	11	12	4		
10 0 <sub>30</sub>	1000.	3000. 50	000. 7000.	QI	000.	11000. 1300	10	
Site Condition Project Mode	: 03CH01- : FCC CL/ : (FC)4618 : Mode 1	ASS-B 3m LF_ANT_ 803		)				
iviodė	Freq Level		ReadAntenna Cable Evel Factor Loss	Preamp A	/Pos T/Pos	Remark		
моде	Freq Level MHz dBuV/m	Limit Line Le		Factor	/Pos T/Pos deg 100 306			

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Test Mode :	Mode 3		Т	Temperature :			23~	23~25°C		
Test Engineer :	Rock Tang	1	F	Relativ	e Hun	nidity :	48~	52%		
Test Distance :	3m	Polarization : Horizontal								
Function Type :	GSM850 I SIM1	dle + Bluetoot	h Idle	e + US	B Cab	ole (Cha	arging	from A	Adapter)	+ Camera ·
Remark :	#7 is syste	em simulator s	ignal	which	can be	e ignor	ed.			
117 Leve	l (dBuV/m)								Date: 201	14-07-23
110										
90										
70									FCC CI	LASS-B 6dB-
								F	CC CLASS-	
50	7	3		40		11		12		<del>6dB_</del> 1
30			9	10		<u> </u>				
10										
030	1000.	3000.	5000.	Frequenc	7000. y (MHz)		9000.	1	11000.	13000
Site Condition Project Mode	: 03CH01 : FCC CL : (FC)461 : Mode 3	.ASS-B 3m LF_AN 1803	Γ_ <b>1</b> 310:	26 HORIZ	ONTAL					
	Freq Level		Level	Antenna Factor	Loss	Factor	A/Pos		emark	
	MHz dBuV/m		dBuV	dB/m	dB	dB	cm	deg		
2 2 3 2 4 P 3 5 4 6 5	216.03 30.79 264.09 34.91 385.40 41.56 468.00 34.79	-11.14 43.50 -15.21 46.00 -11.09 46.00 -4.44 46.00 -11.21 46.00 -11.10 46.00	49.76 50.54 53.79 45.31 44.19	9.22 12.40 15.45 16.95	1.74 1.90 2.25 2.45 2.71	29.94 29.93 29.93 29.93 29.92 29.92 29.94	100	P P 360 P P P	eak eak eak eak eak	
8 23 9 47 10 62 11 76 12 98	394.00 35.14 778.00 32.70 246.00 33.85 584.00 34.83 354.00 36.30	-38.86 74.00 -41.30 74.00 -40.15 74.00 -39.17 74.00 -37.70 74.00 -35.64 74.00	54.52 48.29 47.02 47.02 45.24	31.98 33.71 34.00 34.33 36.81	5.62 8.31 9.55 10.29 12.41	56.98 57.61 56.72 56.81 58.16		P P P P 203 P	eak eak eak eak eak	
15 125	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	33.04 74.00	73.32	30.77	14.33	30.00	100	203 P	Car	

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SPORTON LAB.	FCC Test Report

Test Mode :	М	lode 3				Temp	Temperature :			23~25°C			
est Enginee	r: R	ock Tan	ıg			Relat	ive Hı	umidity	<b>y</b> : 48	8~52%	o o		
Test Distance	e: 3r	n				Polar	izatio	n :	Ve	ertical			
Function Typ	e:	SM850 IM1	Idle +	Blueto	oth Id	lle + U	SB Ca	able (C	Chargin	ng fror	n Adapte	er) + Came	
Remark :	#7	7 is syst	tem sir	mulato	r signa	al whic	h can	be ign	ored.				
117 <u>Le</u>	vel (dBu\	V/m)									Date: 20	014-07-23	
110													
90-							_						
											FCC (	CLASS-B	
70			#		#		#		#		- 100	6dB	
											FCC CLASS	ER (AVG)	
50			#		#		#		_		1000	6dB	
Ļ	6 7 49 1	8			_	1	10	11		12	2	1	
30	3	-			9		<del>Ĭ</del>		_				
						1							
10							-						
030	1000.		3000.		5000.		7000.		9000.		11000.	13000	
						Frequen		)					
Site Condition Project Mode	n	: 03CH01- : FCC CL/ : (FC)4618 : Mode 3	.ASS-B 3 1803	m LF_AN	√T_1310	26 VERT	ICAL						
	Free	q Level		Limit Line	ReadA Level			Preamp Factor	A/Pos	T/Pos	Remark		
	MHz	z dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg		-	
1 2	89.94	3 28.88 4 25.76	-17.74	43.50	45.20	9.30	1.20	29.93 29.94			Peak Peak		
3 4		3 26.19 0 36.55						29.93 29.92			Peak Peak		
5 6 P	530.30	0 35.74 0 38.69	-10.26	46.00	45.41	17.62	2.63	29.92 29.92	120		Peak Peak		
7	881.70	0 38.57			44.66	20.56	3.29	29.94			Peak		
		0 33.28 0 32.61						56.88 58.00			Peak Peak		
10	6558.00	0 34.53	-39.47	74.00	47.74	33.97	9.84	57.02			Peak		
		0 34.99 0 36.63									Peak Peak		
				74.00					100		Peak		

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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	Jul. 23, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY522601 85	20Hz~26.5GHz	May 26, 2014	Jul. 23, 2014	May 25, 2015	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 09, 2014	Jul. 23, 2014	May 08, 2015	Radiation (03CH01-SZ)
Bilog Antenna	TESEQ	CBL 6112D	23188	30MHz~2GHz	Oct. 26, 2013	Jul. 23, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 26, 2013	Jul. 23, 2014	Oct. 25, 2014	Radiation (03CH01-SZ)
Double Ridged Horn Antenna	COM-POWER	AH-840	101073	18GHz~40GHz	Jan. 27, 2014	Jul. 23, 2014	Jan. 26, 2015	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz	Feb. 21, 2014	Jul. 23, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 08, 2014	Jul. 23, 2014	May 07, 2015	Radiation (03CH01-SZ)
AC Source(AVR)	Chroma	61601	616010001 985	100Vac~250Vac	Mar. 25, 2014	Jul. 23, 2014	Mar. 24, 2015	Radiation (03CH01-SZ)
Turn Table	EM Electronics	EM 1000	N/A	0~360 degree	NCR	Jul. 23, 2014	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM Electronics	EM 1000	N/A	1 m~4 m	NCR	Jul. 23, 2014	NCR	Radiation (03CH01-SZ)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Jul. 18, 2014	Feb. 20, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Mar. 04, 2014	Jul. 18, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Mar. 04, 2014	Jul. 18, 2014	Mar. 03, 2015	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000 891	100Vac~250Vac	Dec. 17, 2013	Jul. 18, 2014	Dec. 16, 2014	Conduction (CO01-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

Report No. : FC461803

### <u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

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

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