

Report No.: FC2N0504

FCC Test Report

APPLICANT : CT Asia

: GSM 850/900/1800/1900/GPRS Mobile Phone **EQUIPMENT**

: BLU BRAND NAME

MODEL NAME : Brooklyn

FCC ID : YHLBLUBROOKLYN

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION : Certification

The product was received on Nov. 05, 2012 and completely tested on Nov. 28, 2012. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the 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 (KUNSHAN) INC., the test report shall not be reproduced except in full.

Reviewed by:

Jones Tsai / Manager





SPORTON INTERNATIONAL (KUNSHAN) INC. No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 1 of 24 Report Issued Date: Dec. 10, 2012

Report Version : Rev. 01



TABLE OF CONTENTS

RE	VISIO	N HISTORY	3
SU	MMAI	RY OF TEST RESULT	4
1.	GEN	ERAL DESCRIPTION	5
	1.1.	Applicant	5
	1.2.	Manufacturer	
	1.3.	Feature of Equipment Under Test	6
	1.4.	Test Site	7
	1.5.	Applied Standards	7
	1.6.	Ancillary Equipment List	8
2.	TES1	Γ CONFIGURATION OF EQUIPMENT UNDER TEST	8
	2.1.	Test Mode	9
	2.2.	Connection Diagram of Test System	
	2.3.	Test Software	12
3.	TES1	Γ RESULT	13
	3.1.	Test of AC Conducted Emission Measurement	13
		Test of Radiated Emission Measurement	
4.	LIST	OF MEASURING EQUIPMENT	23
5.	UNC	ERTAINTY OF EVALUATION	24
ΑP	PEND	OIX A. PHOTOGRAPHS OF EUT	
ΔΡ	PEND	NX B. SETUP PHOTOGRAPHS	

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC2N0504	Rev. 01	Initial issue of report	Dec. 10, 2012

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 3 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.107	7.2.4	AC Conducted Emission	< 15.107 limits < RSS-Gen table 2 limits	PASS	Under limit 6.23 dB at 0.450 MHz
3.2	15.109	7.2.3.2	Radiated Emission	< 15.109 limits or < RSS-Gen table 1 limits (Section 6)	PASS	Under limit 1.74 dB at 167.740 MHz for Quasi-Peak

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 4 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

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

Kingtech Mobile LTD

Floor3, NO.9, East of Shangxue Sci.&Tech, Industry Park, Buji Town, Longgang district, Shenzhen city, **PRC**

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 5 of 24 Report Issued Date: Dec. 10, 2012

Report No.: FC2N0504

: Rev. 01 Report Version



1.3. Feature of Equipment Under Test

	Product Feature
Equipment	GSM 850/900/1800/1900/GPRS Mobile Phone
Brand Name	BLU
Model Name	Brooklyn
FCC ID	YHLBLUBROOKLYN
EUT supports Radios application	GSM/GPRS/WLAN 11bgn/Bluetooth
HW Version	V1.02
SW Version	BLU-Brooklyn-V05-GENERIC
EUT Stage	Identical Prototype

Remark:

- 1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
- 2 · There are two different types of EUT. They are single SIM card mobile and triple SIM card mobile. The others are the same including circuit design, PCB board, structure and all components. It is special to declare. After pre-scan two types of EUT, we found test result of the sample that triple SIM was the worst, so we choose triple SIM card mobile to perform all tests.

Product Specification subjective to this standard					
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz				
Rx Frequency Range	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz FM: 88 MHz ~ 108 MHz				
Antenna Type	WWAN : FPC Antenna WLAN : FPC Antenna Bluetooth : FPC Antenna				
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE: GMSK/8PSK (Downlink Only) 802.11b: DSSS (BPSK / QPSK / CCK) 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth 2.1 BDR (1Mbps): GFSK Bluetooth 2.1 EDR (2Mbps): \pi /4-DQPSK Bluetooth 2.1 EDR (3Mbps): 8-DPSK FM				

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 6 of 24
Report Issued Date : Dec. 10, 2012

Report No.: FC2N0504

Report Version : Rev. 01

1.4. Test Site

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.					
	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P.R.C.					
Test Site Location	TEL: +86-0512-5790-0158					
	FAX: +86-0512-5790-0958					
Took Oiko No	Sporton	Site No.	FCC/IC Registration No.			
Test Site No.	CO01-KS	03CH01-KS	149928/4086E-1			

1.5. Applied 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
- · IC RSS-Gen Issue 3

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

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUBROOKLYN

Page Number : 7 of 24
Report Issued Date : Dec. 10, 2012

Report No.: FC2N0504

Report Version : Rev. 01



1.6. Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	Signal Generator	R&S	SMR40	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
4.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
5.	Monitor	DELL	E1910Hc	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
6.	Monitor	DELL	IN1930MWc	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
7.	PC	DELL	MT320	FCC DoC	N/A	Unshielded, 1.8 m
8.	PC	DELL	D12M	FCC DoC	N/A	Unshielded, 1.8 m
9.	(USB) Mouse	DELL	N231	FCC DoC	Shielded, 1.8 m	N/A
10.	(USB) Mouse	DELL	MS111-P	FCC DoC	Shielded, 1.8 m	N/A
11.	(USB) Keyboard	DELL	SK-8115	FCC DoC	Shielded, 1.8 m with core	N/A
12.	(USB) Keyboard	DELL	SK-8120	FCC DoC	Shielded, 1.8 m	N/A
13.	Printer	HP	Laser Jet 1018	FCC DoC	Shielded, 1.8 m	Unshielded, 1.8 m
14.	Bluetooth Earphone	Nokia	BH-102	PYAHS-107W	N/A	N/A
15.	Bluetooth Earphone	Nokia	BH-106	QTLBH-106	N/A	N/A

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 8 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

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.

		Те	st Condition	on
Item	EUT Configuration	EMI AC	EMI RE<1G	EMI RE≥1G
1.	Charging Mode (EUT with adapter)			Note 1
2.	Data application transferred mode (EUT with PC)	\boxtimes	\boxtimes	\boxtimes

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.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 9 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



Test Items	EUT Configure Mode	Function Type
		Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1 <fig. 1=""></fig.>
AC Conducted	1/2	Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MP3 + SIM 1 <fig. 1=""></fig.>
Emission	1/2	Mode 3: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + FM Rx + SIM 1 <fig. 2=""></fig.>
		Mode 4: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with PC) + Earphone + SIM 1 <fig. 3=""></fig.>
		Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1 <fig. 1=""></fig.>
Radiated	1/2	Mode 2: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MP3 + SIM 1 <fig. 1=""></fig.>
Emissions < 1GHz		Mode 3: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + FM Rx + SIM 1 <fig. 2=""></fig.>
		Mode 4: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with PC) + Earphone + SIM 1 <fig. 3=""></fig.>
Radiated Emissions ≥ 1GHz	2	Mode 1: GSM1900 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with PC) + Earphone + SIM 1 <fig. 3=""></fig.>

Remark:

- 1. The worst case of AC Conducted Emission is mode 3; only the test data of this mode was reported.
- 2. The USB Link mode of AC Conducted Emission is mode 4; the test data of this mode was reported.
- 3. The worst case of Radiated Emissions is mode 4; only the test data of this mode was reported.
- 4. Data Link with PC means data application transferred mode between EUT and PC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

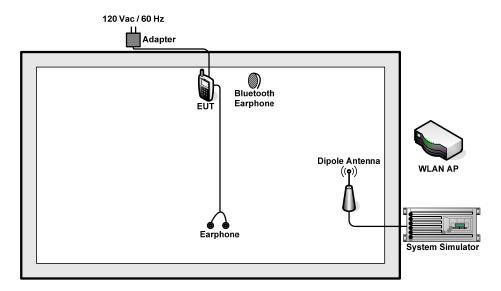
FCC ID: YHLBLUBROOKLYN

Page Number : 10 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

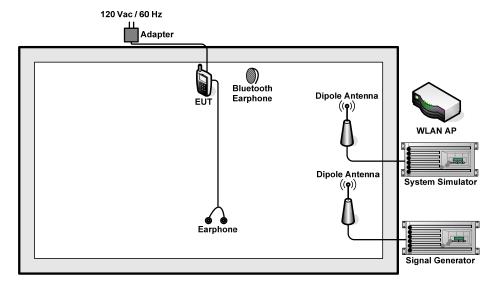


Report No.: FC2N0504

2.2. Connection Diagram of Test System

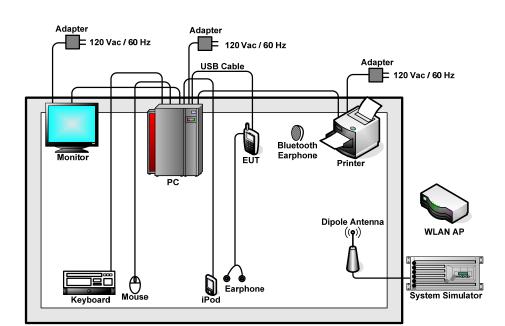


<Fig. 1>



<Fig. 2>

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 11 of 24 Report Issued Date : Dec. 10, 2012 Report Version : Rev. 01



<Fig. 3>

2.3. Test Software

The EUT was in GSM idle mode during the testing. The EUT was synchronized to the BCCH, and is 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" installed in PC for files transfer with EUT via USB cable.
- 2. Execute "Music Player" to play MP3 file.
- 3. Turn on camera to capture images.
- 4. Turn on FM function to make the EUT receive continuous signals from signal generator.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 12 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

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.

Report No.: FC2N0504

: 13 of 24

: Rev. 01

Report Issued Date: Dec. 10, 2012

Page Number

Report Version

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

See list of measuring instruments of this test report.

3.1.3 Test Procedure

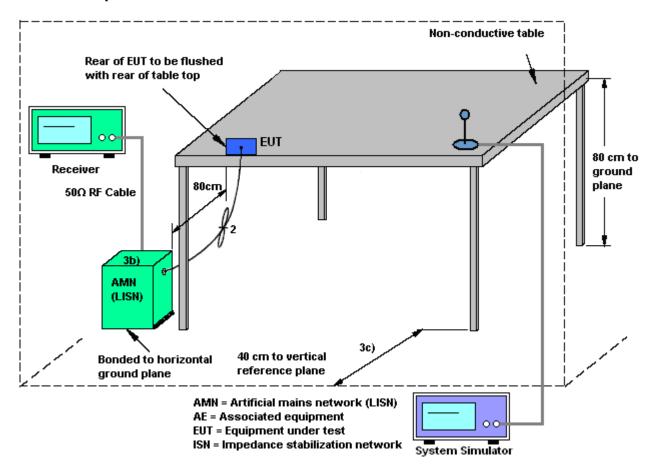
- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other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

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN



Report No.: FC2N0504

3.1.4 Test Setup



TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 14 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 3	3			Temp	erature	:	19	~20 ℃	<u> </u>		
Test Engineer :	-				Relati	Relative Humidity :			39~40%			
Test Voltage :	120Va	120Vac / 60Hz				Phase: Line						
	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Cha									Chargir	ng fr	om Adapt
Function Type :	+ Earp	+ Earphone + FM Rx + SIM 1										
Remark :	All emi	All emissions not reported here are more than 10 dB below the prescribed limit.										
8	Level (dBu	IV)										
1/2	3											
										and the		
								-		FCC CI	LASS-	В
									FC	C CLASS-	B(AVC	G)
			_						100			
4	0	. 1										=
	Marson by	da M		i . Na	at at 10 to 20 to 20 to 20							
	A. M.	MANA.	2 0 4 1 4 4 5 9 11			MAN	/II/W/	MAAA	WALLA.	MANUAL MA	للا والريطان أور	phi
	0 .15 .2		5 9 11	1		2	5	MANA	10	Paril _i mandu.	p ^{le} llusqu ¹	30
		s	5 9 11	1		2 ncy (MHz)	5	MWho	10	Puritanahi 2	p <mark>rofessorial section of the sectio</mark>	30
Site	0.15 .2 : C001-K:			9,500			5	MMA	10	Parly Manhi	p ^J e li may ^{il}	30
Site	: C001-K	ASS-B LIS	s N- 11123	O LINE		ncy (MHz)		Mayay	10	Paroliphian de la 2	e ^{do} lace	30
Site Conditio	: COO1-K: n: FCC CL. : mode 3	ASS-B LIS	0 n- 11123 Over	9,500	Freque Read		Cable	Rema		Psych _e viapole.	edelleren	30
Site Conditio	: COO1-K: n: FCC CL. : mode 3	ASS-B LIS	0 n- 11123 Over	O LINE	Freque Read	ncy (MHz) LISN	Cable	Rema:		Ostol _a vandi.	24	30

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 15 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

FCC Test Report No.: FC2N0504

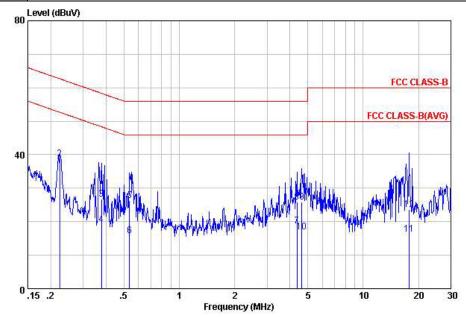
Test Mode :	Mode 3			Tempe	rature	:	19~20	$^{\circ}\mathbb{C}$		
Test Engineer :	Tom Wang			Relativ	e Hun	nidity:	39~40	%		
Test Voltage :	120Vac / 60H	Phase : Neutral								
Function Type :	GSM850 Idle + Earphone +				AN Idl	e + USE	3 Cable	(Charg	ging from	Adapter)
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.									
40	Level (dBuV)	3 12 11	Wanter Market	r\\^	YWY	Varian	who we would have	FCC CLAS	CLASS-B	
Site	.15 .2 : COO1-KS : FCC CLASS-B L:	.5	1 NEUTRA	40.0546600	cy (MHz)	5	10)	20 30	
	Freq Level	Over Limit	Limit Line	Read Level	LISM	Cable Loss 1	Remark			
N <u> </u>	MHz dBuV	dB	dBuV	dBu∀	dB	dB		<u></u>		
1 2 3 4 5 6 7 8 9 10 11	0.43 38.37 0.45 40.57 0.45 48.87 0.50 28.27 0.50 28.27 0.54 29.68 0.54 35.38 0.56 34.28 0.56 41.78 0.69 29.99	-6.23 -7.93 -17.53 -17.73 -16.32 -20.62 -11.72 -14.22 -16.01	46.80 56.80 56.00 46.00 56.00 46.00 56.00 46.00	28.20 30.40 38.70 28.30 18.10 19.50 25.20 24.10 31.60 19.80	-0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08 -0.08	10.25 (10.25 (10.26 (10.26 (10.26 (10.26 (Average Average QP QP Average Average QP Average QP Average			

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 16 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



FCC Test Report

Test Mode :	Mode 4	Temperature :	19~20℃				
Test Engineer :	Tom Wang	Relative Humidity :	39~40%				
Test Voltage :	120Vac / 60Hz	Phase :	Line				
Eurotion Type	GSM1900 Idle + Bluetooth	ldle + WLAN Idle + US	SB Cable (Data Link with PC) +				
Function Type :	Earphone + SIM 1						
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.						



Site : COO1-KS

Condition: FCC CLASS-B LISN-111230 LINE

mode : Mode 4

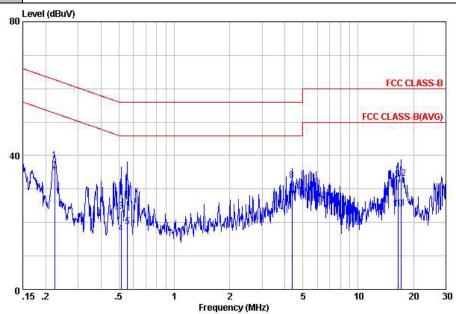
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu₹	dB	dBu∀	dBu₹	dB	dB	
1	0.22	36.70	-16.00	52.70	26.55	-0.07	10.22	Average
2	0.22	38.80	-23.90	62.70	28.65	-0.07	10.22	QP
3	0.38	26.67	-31.67	58.34	16.50	-0.08	10.25	OP
1 2 3 4 5 6 7 8 9	0.38	19.07	-29.27	48.34	8.90	-0.08	10.25	Average
5	0.53	26.37	-29.63	56.00	16.19	-0.08	10.26	QP
6	0.53	15.77	-30.23	46.00	5.59	-0.08	10.26	Average
7	4.36	18.80	-27.20	46.00	8.60	-0.13		Average
8	4.36	25.80	-30.20	56.00	15.60	-0.13	10.33	QP
9	4.65	25.80	-30.20	56.00	15.60	-0.13	10.33	ÖP
10	4.65	17.00	-29.00	46.00	6.80	-0.13	10.33	Average
11	17.85	16.20	-33.80	50.00	5.69	0.05	10.46	Average
12	17.85	23.60	-36.40	60.00	13.09	0.05	10.46	

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 17 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



FCC Test Report

nk with PC) +						
Earphone + SIM 1						
All emissions not reported here are more than 10 dB below the prescribed limit.						



Site : C001-KS Condition: FCC CLASS-B LISM-111230 NEUTRAL

mode : Mode 4

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
_	MHz	dBu₹	dB	dBuV	dBuV	dB	dB	
1	0.22	38.60	-24.10	62.70	28.45	-0.07	10.22	QP
1 2 3 4 5 6 7 8 9	0.22	35.50	-17.20	52.70	25.35	-0.07	10.22	Average
3	0.51	23.30	-32.70	56.00	13.12	-0.08	10.26	QP
4	0.51	16.80	-29.20	46.00	6.62	-0.08	10.26	Average
5	0.56	18.70	-27.30	46.00	8.52	-0.08	10.26	Average
6	0.56	26.50	-29.50	56.00	16.32	-0.08	10.26	
7	4.36		-17.30	46.00	18.50	-0.13		Average
8	4.36	32.61	-23.39	56.00	22.41	-0.13	10.33	QP
	16.49	33.00	-27.00	60.00	22.60	-0.01	10.41	QP
.0	16.49		-26.00	50.00	13.60	-0.01	10.41	Average
1	17.11	24.30	-25.70	50.00	13.86	0.01	10.43	Average
.2	17.11	33.30	-26.70	60.00	22.86	0.01	10.43	QP

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN

: 18 of 24 Page Number Report Issued Date : Dec. 10, 2012 Report Version : Rev. 01

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

See list of measuring instruments 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.
- For each suspected emission, the EUT was arranged to its worst case and then tune the 5. antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum 6. 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 (dBuV/m) = 20 log Emission level (uV/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor= Level

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 19 of 24 Report Issued Date: Dec. 10, 2012

Report No.: FC2N0504

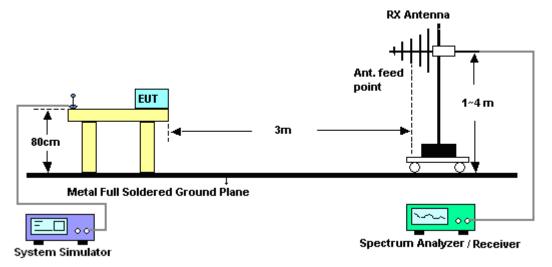
Report Version : Rev. 01



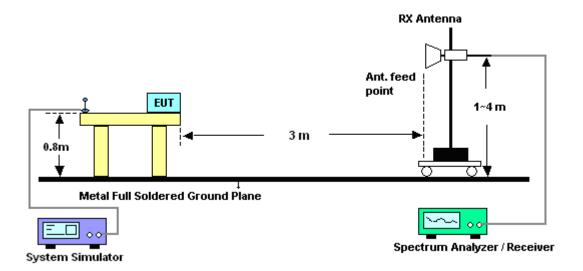
Report No.: FC2N0504

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



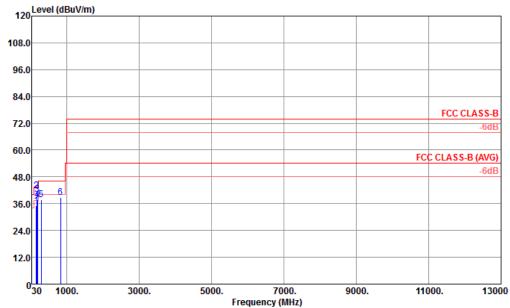
SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 20 of 24 Report Issued Date: Dec. 10, 2012 : Rev. 01 Report Version



3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 4	Temperature :	21~22°C			
Test Engineer :	Allen Cheng	Relative Humidity :	46~47%			
Test Distance :	3m	Polarization :	Horizontal			
Function Type :	SB Cable (Data Link with PC) +					
Function Type :	Earphone + SIM 1					
Lavel	(dDu)//m)					



Site : 03CH01-KS

: mode 4

Mode

Condition : FCC CLASS-B 3m LF_ANT_100803 HORIZONTAL

	Freq	Level				Antenna Factor				T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
2 ! 3 ! 4 !	167. 74 179. 38 191. 99	41. 76 40. 12 37. 63	-1. 74 -3. 38 -5. 87	43.50 43.50 43.50 43.50 46.00	65. 30 64. 43 61. 79	9. 27 8. 47	0. 76 0. 79 0. 81	33. 58 33. 57 33. 57 33. 56 33. 39	200	270 	Peak Peak Peak
6	826. 37	38.80	-7. 20	46.00	49.64	20.20	1.64	32.68			Peak

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUBROOKLYN

Page Number : 21 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01

LAB. FCC Test	t Report		Report No. : FC2I	N0504
Test Mode :	Mode 4	Temperature :	21~22°C	
Test Engineer :	Allen Cheng	Relative Humidity :	46~47%	
Test Distance :	3m	Polarization :	Vertical	
Ftion T	GSM1900 Idle + Bluetooth	Idle + WLAN Idle + US	SB Cable (Data Link with	PC) +
Function Type :	Earphone + SIM 1			
120 Leve	l (dBuV/m)			
108.0				
96.0				
84.0			FCC CLASS-B	
72.0			-6dB	
60.0			FCC CLASS-B (AVG)	
48.0			-6dB	
36.0 12 3 5	i 6			

Site : 03CH01-KS

1000.

12.0

030

Condition : FCC CLASS-B 3m LF_ANT_100803 VERTICAL

3000.

Mode : mode 4

	Freq	Level		Limit Line							Remark
	MHz	$\overline{dBuV/m}$	dB	$\overline{dBuV/m}$	dBuV	dB/m	dB	dB	cm	deg	
1	167.74	32.74	-10.76	43.50	56, 28	9. 27	0.76	33, 57			Peak
2	179.38	33.44	-10.06	43.50	57.75	8.47	0.79	33.57	120	154	Peak
3	384.05	30.09	-15.91	46.00	46.68	15.59	1.14	33.32			Peak
4	551.86	30.82	-15.18	46.00	44.00	18.50	1.33	33.01			Peak
5	564.47	31. 24	-14.76	46.00	44.37	18.52	1.35	33.00			
6	826, 37	32, 69	-13.31	46, 00	43, 53	20, 20	1.64	32, 68			Peak

5000.

7000.

Frequency (MHz)

9000.

11000.

13000

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 22 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz	Jun. 01, 2012	Nov. 28, 2012	May 31, 2013	Conduction (CO01-KS)
LISN	MessTec	AN3016	60103	9kHz~30MHz	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)
LISN	MessTec	AN3016	60105	9kHz~30MHz	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP0000008 11	N/A	Nov. 15, 2012	Nov. 28, 2012	Nov. 14, 2013	Conduction (CO01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)
Signal Generator	R&S	SMR40	100455	10MHz~40GHz	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 08, 2012	Nov. 28, 2012	Nov. 07, 2013	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP30	100400	9kHz~30GHz	Jun. 01, 2012	Nov. 28, 2012	May 31, 2013	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 08, 2011	Nov. 28, 2012	Dec. 07, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 07, 2012	Nov. 28, 2012	Jan. 06, 2013	Radiation (03CH01-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1GHz	Jun. 01, 2012	Nov. 28, 2012	May 31, 2013	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
Signal Generator	R&S	SMR40	100455	10MHz~40GHz	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Radiation (03CH01-KS)
System Simulator	R&S	CMU200	837587/066	2G Full-Band	Dec. 30, 2011	Nov. 28, 2012	Dec. 29, 2012	Radiation (03CH01-KS)

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 23 of 24
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01



FCC Test Report

5. Uncertainty of Evaluation

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

Managerina Unacetainty for a Lavel of	
Measuring Uncertainty for a Level of	2.26
Confidence of 95% (U = 2Uc(y))	2.20

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54
Confidence of 35% (0 = 200(y))	

Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of	
Confidence of 95%	4.72
(U = 2Uc(y))	

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : 24 of 24 Report Issued Date : Dec. 10, 2012

Report No.: FC2N0504

: Rev. 01 Report Version

Appendix A. Photographs of EUT

Please refer to Sporton report number EP2N0504 as below.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUBROOKLYN Page Number : A1 of A1
Report Issued Date : Dec. 10, 2012
Report Version : Rev. 01