

FCC Test Report

APPLICANT : CT Asia

EQUIPMENT: **GSM/WCDMA** touch book

BRAND NAME : BLU

MODEL NAME : Touch book 7.0

FCC ID : YHLBLUTOUCHBOOK

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION : Certification

The product was received on Nov. 12, 2011 and completely tested on Dec. 05, 2011. We, SPORTON INTERNATIONAL (KUNSAHN) 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





Report No.: FD1N1201

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

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : 1 of 21
Report Issued Date : Dec. 06, 2011

Report Version : Rev. 01





TABLE OF CONTENTS

RE	VISIO	N HISTORY	3			
SU	MMAF	RY OF TEST RESULT	4			
1.	GENI	ERAL DESCRIPTION	5			
	1.1.	Applicant	5			
	1.2.	Manufacturer				
	1.3.	Feature of Equipment Under Test	5			
	1.4.	Test Site				
	1.5.	11				
	1.6.	Ancillary Equipment List	7			
2.	TEST CONFIGURATION OF EQUIPMENT UNDER TEST					
	2.1.	Test Mode	8			
	2.2.	Connection Diagram of Test System	9			
	2.3.	Test Software	10			
3.	TEST	RESULT	11			
	3.1.	Test of AC Conducted Emission Measurement	11			
	3.2.	Test of Radiated Emission Measurement	15			
4.	LIST	OF MEASURING EQUIPMENT	19			
5.	UNCI	ERTAINTY OF EVALUATION	20			
ΑP	PEND	IX A. PHOTOGRAPHS OF EUT				
ΑP	PEND	IX B. SETUP PHOTOGRAPHS				

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : 2 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01





Report No.: FD1N1201

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FD1N1201	Rev. 01	Initial issue of report	Dec. 06, 2011

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 3 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



SUMMARY OF TEST RESULT

Report Section	FCC Rule	CC Rule Description Limit		Result	Remark
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	12.44 dB at
					0.15 MHz
					Under limit
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	0.72 dB at
					181.47 MHz

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 4 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



1. General Description

1.1. Applicant

CT Asia

RMA2011, 20/F, GOLDEN CENTRAL TOWER, NO.3037# JINTIAN ROAD, FUTIAN DISTRICT

Report No.: FD1N1201

1.2. Manufacturer

Dynamax Industry Co., Ltd.

Room 808, Block A, TianJing Building, Tian`an Cyber Park, FuTian, Shenzhen, China

1.3. Feature of Equipment Under Test

Product Feature & Specification					
Equipment	GSM/WCDMA touch book				
Brand Name	BLU				
Model Name	Touch book 7.0				
FCC ID	YHLBLUTOUCHBOOK				
Tx Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band V: 824 MHz ~ 849 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz WLAN: 2400 MHz ~ 2483.5 MHz				
Rx Frequency Range	GSM850: 869 MHz ~ 894 MHz GSM1900: 1930 MHz ~ 1990 MHz WCDMA Band V: 869 MHz ~ 894 MHz WCDMA Band II: 1930 MHz ~ 1990 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz WLAN: 2400 MHz ~ 2483.5 MHz				
Antenna Type	WWAN : Fixed Internal Antenna WLAN : PIFA Antenna Bluetooth : PIFA Antenna				
HW Version	ver2.0				
SW Version	REL_C1.2ZZ02V01.01				
Type of Modulation	GSM / GPRS : GMSK EDGE : 8PSK WCDMA : QPSK HSDPA : QPSK / 16QAM Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : π/4-DQPSK Bluetooth EDR (3Mbps) : 8-DPSK 802.11b : DSSS (BPSK / QPSK / CCK) 802.11g : OFDM (BPSK / QPSK / 16QAM / 64QAM)				
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.

SPORTON INTERNATIONAL (KUNSHAN) INC. Page Number : 5 of 21 TEL: 86-0512-5790-0158 Report Issued Date: Dec. 06, 2011 Report Version FAX: 86-0512-5790-0958 : Rev. 01

FCC ID: YHLBLUTOUCHBOOK

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 Cita No	Sporton Site No.				
Test Site No.	03CH01-KS				

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.					
	No. 101, Complex Building C, Guanglong Village, Xili Town,					
Test Site Location	Nanshan District, Shenzhen, Guangdong, P.R.C.					
	TEL: +86-755-8637-9589					
Took Site No.	Sporton Site No. :					
Test Site No.	CO01-SZ					

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

Remark:

- All test items were verified and recorded according to the standards and without any deviation during the test.
- 2. This report is intention of applying for FCC 15B certification only.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 6 of 21 Report Issued Date: Dec. 06, 2011 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.	System Simulator	Agilent	8960	N/A	N/A	Unshielded, 1.8 m
3.	PC	DELL	MT380	FCC DoC	N/A	Unshielded, 1.8 m
4.	Monitor	DELL	E1910Hc	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
5.	Monitor	DELL	1707FPt	FCC DoC	Shielded, 1.2 m	Unshielded, 1.8 m
6.	(USB) Mouse	DELL	MO56UC	FCC DoC	Shielded, 1.8 m	N/A
7.	(USB) Keyboard	DELL	SK-8115	FCC DoC	Shielded, 1.8 m with Core	N/A
8.	Printer	HP	Laser Jet 1018	FCC DoC	Shielded, 1.8 m	Unshielded, 1.8 m
9.	iPod	Apple	A1199	FCC DoC	Shielded, 1.2 m	N/A
10.	iPod	Apple	MC525 ZP/A	FCC DoC	Shielded, 1.0 m	N/A
11.	Bluetooth Earphone	Nokia	BH-102	PYAHS-107W	N/A	N/A
12.	Bluetooth Earphone	Nokia	BH-108	N/A	N/A	N/A
13.	Earphone	Eimuse	E-500MV	FCC DoC	Shielded, 2.2 m	N/A
14.	Router	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded, 1.8 m
15.	Router	D-Link	DIR-615	N/A	N/A	Unshielded, 1.8 m
16.	Mini Card	Kingston	N0214-001.AOOLF	N/A	N/A	N/A
17.	Notebook	IBM	1706	FCC DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : 7 of 21
Report Issued Date : Dec. 06, 2011
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.

		Test Condition			
Item	EUT Configuration	EMI AC	EMI RE<1G	EMI RE≥1G	
1.	Data application transferred Mode (EUT	M	\bowtie	M	
	with PC/Notebook)				

Abbreviations:

• EMI AC: AC conducted emissions

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

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

Test Items	EUT Configure Mode	Function Type
AC Conducted Emission	1	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with Notebook) + Earphone
Radiated Emissions < 1GHz	1	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with PC) + Earphone
Radiated Emissions ≥ 1GHz	1	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with PC) + Earphone

Remark: Link with PC/Notebook means data application transferred mode between DUT and PC/Notebook.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

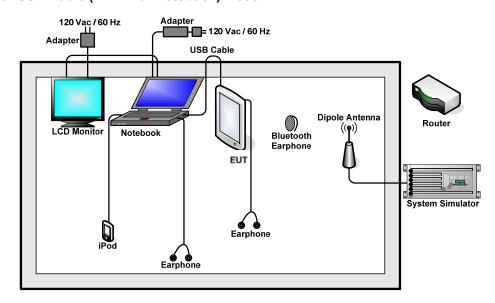
FCC ID: YHLBLUTOUCHBOOK

Page Number : 8 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01

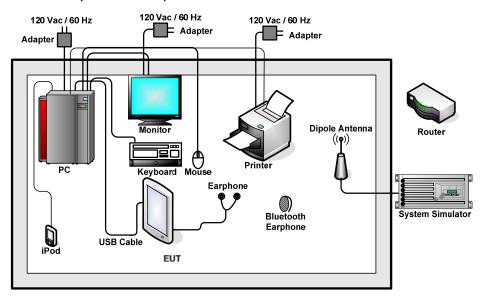


2.2. Connection Diagram of Test System

<EUT with USB Cable (Link with Notebook) Mode>



<EUT with USB Cable (Link with PC) Mode>



SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 9 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



FCC Test Report No.: FD1N1201

2.3. Test Software

The EUT was in GSM or WCDMA 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 execute the program, "Winthrax", installed in notebook or PC for active sync files transfer with EUT via USB cable / iPod.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : 10 of 21
Report Issued Date : Dec. 06, 2011
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.

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

- 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. The EUT link with PC/notebook, connect PC/notebook 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.
- The FCC states that a 50 ohm, 50 microhenry LISN should be used. 5.
- Both sides of AC line were checked for maximum conducted interference. 6.
- 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.

SPORTON INTERNATIONAL (KUNSHAN) INC. TEL: 86-0512-5790-0158

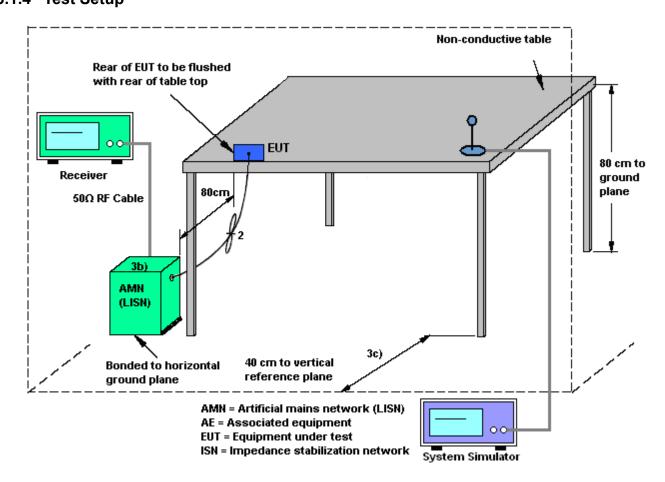
FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 11 of 21 Report Issued Date: Dec. 06, 2011

Report No.: FD1N1201

Report Version : Rev. 01



3.1.4 Test Setup

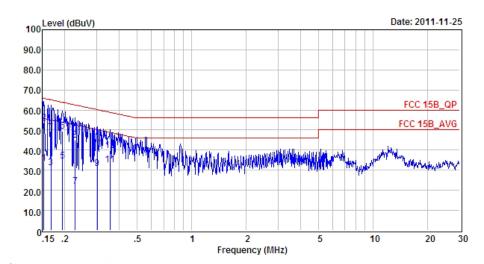


TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 12 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1 Temperature :		23 ℃			
Test Engineer :	Lei Wang	Relative Humidity :	45%			
Test Voltage :	120Vac / 60Hz	Phase :	Line			
Eurotion Type	WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with					
Function Type :	Notebook) + Earphone					
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.					



Site : CO01-SZ

Condition: FCC 15B_QP LISN_L_2000601 LINE

Project : (FD) 1N1201

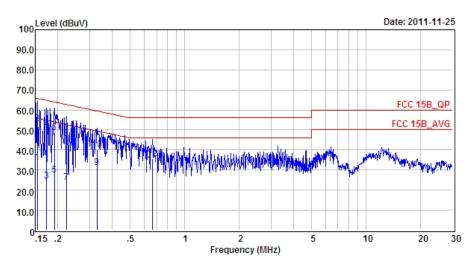
	Freq	Level dBuV	Over Limit ———————————————————————————————————	Limit Line dBuV	Read Level dBuV	LISN Factor —	Cable Loss dB	Remark
1	0.15	33.58	-22.24	55.82	23.50	0.03	10.05	Average
2	0.15	53.38	-12.44	65.82	43.30	0.03	10.05	QP
3	0.17	31.18	-23.90	55.08	21.10	0.03	10.05	Average
4	0.17	51.08	-14.00	65.08	41.00	0.03	10.05	QP
5	0.19	34.68	-19.16	53.84	24.60	0.03	10.05	Average
6	0.19	49.38	-14.46	63.84	39.30	0.03	10.05	QP
7	0.23	22.08	-30.44	52.52	12.00	0.02	10.06	Average
8	0.23	44.98	-17.54	62.52	34.90	0.02	10.06	QP
9	0.30	30.89	-19.30	50.19	20.81	0.02	10.06	Average
10	0.30	40.39	-19.80	60.19	30.31	0.02	10.06	QP
11	0.35	32.89	-15.98	48.87	22.80	0.02	10.07	Average
12	0.35	39.79	-19.08	58.87	29.70	0.02	10.07	QP

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 13 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



Test Mode: Mode 1 Temperature: **23**℃ Test Engineer: Lei Wang Relative Humidity: 45% 120Vac / 60Hz Test Voltage: Phase: Neutral WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with Function Type: Notebook) + Earphone All emissions not reported here are more than 10 dB below the prescribed limit. Remark:



Site : CO01-SZ

Condition: FCC 15B_QP LISN_N_2000601 NEUTRAL

Project : (FD) 1N1201

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	33.67	-22.11	55.78	23.60	0.02	10.05	Average
2	0.15	52.97	-12.81	65.78	42.90	0.02	10.05	QP
3	0.17	24.58	-30.23	54.81	14.51	0.02	10.05	Average
4	0.17	50.68	-14.13	64.81	40.61	0.02	10.05	QP
5	0.19	27.37	-26.61	53.98	17.30	0.02	10.05	Average
6	0.19	48.77	-15.21	63.98	38.70	0.02	10.05	QP
7	0.22	23.87	-28.83	52.70	13.79	0.02	10.06	Average
8	0.22	45.67	-17.03	62.70	35.59	0.02	10.06	QP
9	0.33	31.28	-18.21	49.49	21.19	0.02	10.07	Average
10	0.33	40.18	-19.31	59.49	30.09	0.02	10.07	QP
11	0.66	32.62	-13.38	46.00	22.50	0.02	10.10	Average
12	0.66	35.52	-20.48	56.00	25.40	0.02	10.10	QP

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : 14 of 21
Report Issued Date : Dec. 06, 2011
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.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 15 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01

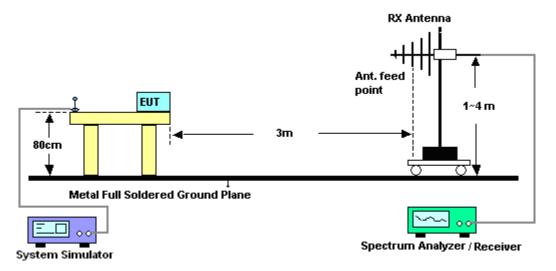


Report No.: FD1N1201

3.2.3. Test Procedures

- 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 meter and 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, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one 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

3.2.4. Test Setup of Radiated Emission

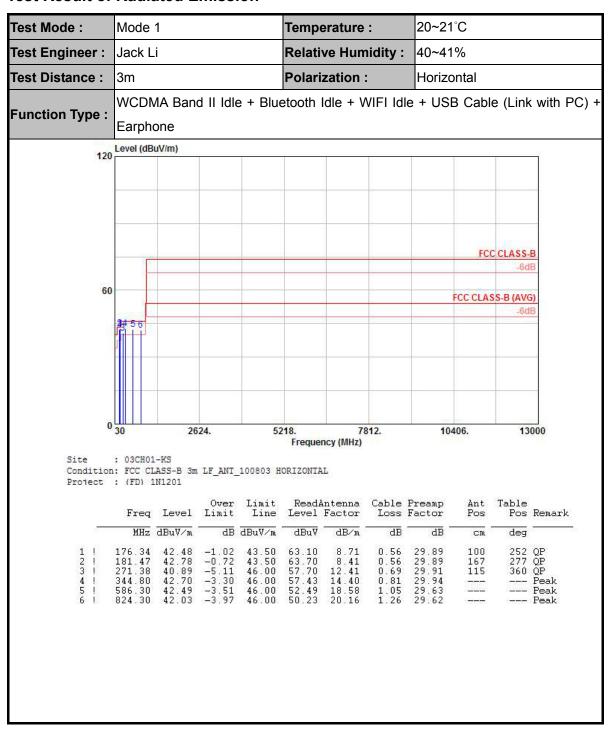


SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 16 of 21 Report Issued Date: Dec. 06, 2011 Report Version : Rev. 01



3.2.5. Test Result of Radiated Emission

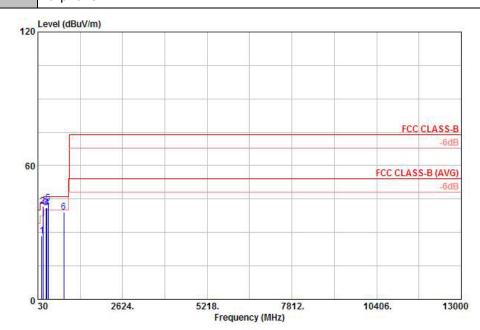


TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 17 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



Test Mode: Mode 1 Temperature: 20~21°C Jack Li 40~41% Test Engineer: Relative Humidity: Polarization: Test Distance: 3m Vertical

WCDMA Band II Idle + Bluetooth Idle + WIFI Idle + USB Cable (Link with PC) + Function Type: Earphone



Site : 03CH01-KS
Condition: FCC CLASS-B 3m LF_ANT_100803 VERTICAL
Project : (FD) 1N1201

		Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	Ant Pos	Table Pos	Remark
	70	MHz	$\overline{\mathtt{dBuV/m}}$	dB	$\overline{\mathtt{dBuV/m}}$	dBuV	dB/m	dB		CM	deg	4
1		149.34	28.40	-15.10	43.50	47.79	10.07	0.51	29.97	200	0	QP
2	13	181.47	41.78	-1.72	43.50	62.70	8.41	0.56	29.89	101	222	QP
3	1	271.65	41.19	-4.81	46.00	58.00	12.41	0.69	29.91	100	211	QP
4	1.5	314.00	41.00	-5.00	46.00	56.85	13.36	0.74	29.95		-	Peak
5	18	344.80	43.05	-2.95	46.00	57.78	14.40	0.81	29.94			Peak
6		824 30	39 13	-6 87	46 00	47 33	20 16	1 26	29 62		***************************************	Peak

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 18 of 21 Report Issued Date: Dec. 06, 2011 Report Version : Rev. 01



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
ESCI TEST Receiver	R&S	1142.8007. 03	100724	9K-3GHz	Mar. 08, 2011	Nov. 25, 2011	Mar. 07, 2012	Conduction (CO01-SZ)
AC LISN	ETS-LINDGR EN	3816/2SH	00103912	0.1MHz~108M Hz	Feb. 28, 2011	Nov. 25, 2011	Feb. 27, 2012	Conduction (CO01-SZ)
AC LISN	ETS-LINDGR EN	3816/2SH	00103892	0.1MHz~108M Hz	Feb. 28, 2011	Nov. 25, 2011	Feb. 27, 2012	Conduction (CO01-SZ)
AVR	Throma	61602	61602000089 1N/A	NA	Oct. 12, 2011	Nov. 25, 2011	Oct. 11, 2012	Conduction (CO01-SZ)
System Simulator	Agilent	8960	MY50264168	GSM/WCDMA /CDMA2000	Mar. 14, 2011	Nov. 25, 2011	Mar. 13, 2012	Conduction (CO01-SZ)
EMI Test Receiver	R&S	ESCI	100534	9kHz~3GHz	Nov. 09, 2011	Dec. 05, 2011	Nov. 08, 2012	Radiation (03CH01-KS)
Spectrum Analyzer	R&S	FSP40	100319	9kHz~40GHz	Jan. 07, 2011	Dec. 05, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Bilog Antenna	SCHAFFNER	CBL6112D	23182	25MHz~2GHz	Dec. 07, 2010	Dec. 05, 2011	Dec. 06, 2011	Radiation (03CH01-KS)
Loop Antenna	R&S	HFH2-Z2	860004/00	9G-30GHz	Jul. 28, 2011	Dec. 05, 2011	Jul. 27, 2012	Radiation (03CH01-KS)
Double Ridge Horn Antenna	EMCO	3117	00075959	1GHz~18GHz	Jan. 07, 2011	Dec. 05, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Amplifier	Wireless	FPA-6592G	060004	30MHz~2GHz	Dec. 09, 2010	Dec. 05, 2011	Dec. 08, 2011	Radiation (03CH01-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Jan. 07, 2011	Dec. 05, 2011	Jan. 06, 2012	Radiation (03CH01-KS)
Active Horn Antenna	com-power	AHA-118	701023	1GHz -18GHz	Nov. 07, 2011	Dec. 05, 2011	Nov. 06, 2012	Radiation (03CH01-KS)
SHE-EHF Horn	Schwarzbeck	BBHA9170	BBHA170249	15GHz -40GHz	Oct. 11, 2011	Dec. 05, 2011	Oct. 10, 2012	Radiation (03CH01-KS)
System Simulator	R&S	CMU200	837587/066	Full-Band	Jan. 07, 2011	Dec. 05, 2011	Jan. 06, 2012	Radiation (03CH01-KS)

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 19 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01





5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

	Uncerta				
Contribution	dB	Probability Distribution	u(X _i)		
Receiver Reading	0.10	Normal (k=2)	0.05		
Cable Loss	0.10	Normal (k=2)	0.05		
AMN Insertion Loss	2.50	Rectangular	0.63		
Receiver Specification	1.50	Rectangular	0.43		
Site Imperfection	1.39	Rectangular	0.80		
Mismatch	+0.34 / -0.35	U-Shape	0.24		
Combined Standard Uncertainty Uc(y)	1.13				
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.26				

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

	Uncerta	inty of X _i		
Contribution	dB	Probability Distribution	u(X _i)	
Receiver Reading	0.41	Normal (k=2)	0.21	
Antenna Factor Calibration	0.83	Normal (k=2)	0.42	
Cable Loss Calibration	0.25	Normal (k=2)	0.13	
Pre-Amplifier Gain Calibration	0.27	Normal (k=2)	0.14	
RCV/SPA Specification	2.50	Rectangular	0.72	
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29	
Site Imperfection	1.43	Rectangular	0.83	
Mismatch	+0.39 / -0.41	U-Shape	0.28	
Combined Standard Uncertainty Uc(y)	1.27			
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.54			

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 20 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01





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

		<u> </u>				
	Uncertai					
Contribution	dB	dB Probability Distribution		C _i	C _i * u(X _i)	
Receiver Reading	±0.10	Normal (k=2)	0.10	1	0.10	
Antenna Factor Calibration	±1.70	Normal (k=2)	0.85	1	0.85	
Cable Loss Calibration	±0.50	Normal (k=2)	0.25	1	0.25	
Receiver Correction	±2.00	Rectangular	1.15	1	1.15	
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87	
Site Imperfection	±2.80	Triangular	1.14	1	1.14	
Mismatch Receiver VSWR Γ 1 = 0.197 Antenna VSWR Γ 2 = 0.194 Uncertainty = 20Log(1- Γ 1* Γ 2)	+0.34 / -0.35	U-Shape	0.244	1	0.244	
Combined Standard Uncertainty Uc(y)	2.36					
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))		4.	72			

TEL: 86-0512-5790-0158 FAX: 86-0512-5790-0958 FCC ID: YHLBLUTOUCHBOOK Page Number : 21 of 21
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01



FCC Test Report No.: FD1N1201

Appendix A. Photographs of EUT

Please refer to Sporton report number EP1N1201 as below.

SPORTON INTERNATIONAL (KUNSHAN) INC.

TEL: 86-0512-5790-0158

FAX: 86-0512-5790-0958

FCC ID: YHLBLUTOUCHBOOK

Page Number : A1 of A1
Report Issued Date : Dec. 06, 2011
Report Version : Rev. 01