

Report No. : FC381601

FCC Test Report

APPLICANT: Brightstar Corporation

EQUIPMENT: Mobile Phone

BRAND NAME : Avvio

MODEL NAME : Avvio 775S/Avvio 775

FCC ID : WVBA775X

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION : Certification

The product was received on Aug. 16, 2013 and testing was completed on Sep. 10, 2013. We, SPORTON INTERNATIONAL (SHENZHEN) 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 to be compliant 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.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 1 of 26
Report Issued Date : Sep. 17, 2013

2353



TABLE OF CONTENTS

RE	VISIO	N HISTORY	3
SU	ΜΜΔΕ	RY OF TEST RESULT	2
		ERAL DESCRIPTION	
	1.1. 1.2. 1.3. 1.4. 1.5. 1.6. 1.7.	Applicant	
2.	2.1.	Test Mode	10
3.	3.1. 3.2.		13
		OF MEASURING EQUIPMENT	
ΑP	PEND	IX A. SETUP PHOTOGRAPHS	

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 2 of 26 Report Issued Date : Sep. 17, 2013

Report No. : FC381601

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC381601	Rev. 01	Initial issue of report	Sep. 17, 2013

FCC ID: WVBA775X

Page Number : 3 of 26
Report Issued Date : Sep. 17, 2013
Report Version : Rev. 01



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	6.26 dB at
					0.350 MHz
					Under limit
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	9.90 dB at
					78.500 MHz

TEL: 86-755-3320-2398 FCC ID: WVBA775X

: 4 of 26 Page Number

Report No. : FC381601

Report Issued Date : Sep. 17, 2013 Report Version

: Rev. 01

1. General Description

1.1. Applicant

Brightstar Corporation

9725 NW 117th Ave., Miami, Florida, FL 33178, United States

1.2. Manufacturer

Konka Telecommunications Techenology co., LTD.

Overseas Chinese Town, Nanshan District, Shenzhen, China

1.3. Feature of Equipment Under Test

	Product Feature
Equipment	Mobile Phone
Brand Name	Avvio
Model Name	Avvio 775S/Avvio 775
FCC ID	WVBA775X
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+(Downlink Only)/WLAN 2.4GHz 802.11bgn/Bluetooth v3.0 + EDR/ Bluetooth v4.0
HW Version	1.1
SW Version	KAAI120_SAPBO_Es_En_0.00.809
EUT Stage	Production Unit

Report No.: FC381601

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 (Model Name: Avvio 775) and dual SIM card mobile (Model Name: Avvio 775S). 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 dual SIM (Model Name: Avvio 775S) was the worst, so we choose dual SIM card mobile to perform all test.
- 3. For dual SIM card mobile, SIM1 supports GSM and WCDMA functions, and SIM2 only supports GSM function.

SPORTON INTERNATIONAL (SHENZHEN) INC.Page Number: 5 of 26TEL: 86-755- 3320-2398Report Issued Date: Sep. 17, 2013FCC ID: WVBA775XReport Version: Rev. 01



1.4. Product Specification of Equipment Under Test

Product Specif	ication subjective to this standard
·	GSM850: 824.2 MHz ~ 848.8 MHz
	GSM1900: 1850.2 MHz ~ 1909.8MHz
Tx Frequency	WCDMA Band V: 826.4 MHz ~ 846.6 MHz
TX Tequelicy	WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz
	802.11b/g/n: 2412 MHz ~ 2462 MHz
	Bluetooth: 2402 MHz ~ 2480 MHz
	GSM850: 869.2 MHz ~ 893.8 MHz
	GSM1900: 1930.2 MHz ~ 1989.8 MHz
	WCDMA Band V: 871.4 MHz ~ 891.6 MHz
Rx Frequency	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
	WWAN: PIFA Antenna
Antenna Type	WLAN: PIFA Antenna
	Bluetooth: PIFA Antenna
	GSM: GMSK
	GPRS: GMSK
	EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK
	WCDMA: QPSK (Uplink)
	HSDPA: QPSK (Uplink)
	HSUPA: QPSK (Uplink)
Type of Modulation	HSPA+:16QAM (Downlink Only)
Type of modulation	802.11b: DSSS (DBPSK / DQPSK / CCK)
	802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
	Bluetooth BR (1Mbps): GFSK
	Bluetooth EDR (2Mbps): π /4-DQPSK
	Bluetooth EDR (3Mbps): 8-DPSK
	Bluetooth v4.0 - LE: GFSK
	GPS: BPSK

Report No.: FC381601

1.5. Modification of EUT

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

SPORTON INTERNATIONAL (SHENZHEN) INC.

 TEL: 86-755- 3320-2398
 Report Issued Date : Sep. 17, 2013

 FCC ID: WVBA775X
 Report Version : Rev. 01

Page Number

: 6 of 26

1.6. Test Site

Test Site	SPORTON INTERI	NATIONAL (SHENZI	HEN) INC.		
Test Site Location			uth, Shahe River west, Fengzeyuan n, Guangdong, P.R.C.		
	TEL: +86-755- 3320-2398				
Toot Site No	Sporton	Site No.	FCC Registration No.		
Test Site No.	CO01-SZ	03CH01-SZ	831040		

1.7. 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.

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 7 of 26 Report Issued Date : Sep. 17, 2013

Report No.: FC381601

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	EMI	EMI
		AC	RE<1G	RE≥1G
1.	Charging Mode (EUT with adapter)	\boxtimes	\boxtimes	Note1
2.	Data application transferred mode (EUT with notebook)	\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 (SHENZHEN) INC.

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 8 of 26 Report Issued Date : Sep. 17, 2013

Report No.: FC381601



Test Items	EUT Configure Mode	Function Type
AC Conducted	410	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1 <fig. 1=""></fig.>
Emission	1/2	Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <fig. 2=""></fig.>
Radiated	410	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM 1 <fig. 1=""></fig.>
Emissions < 1GHz	1/2	Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <fig. 2=""></fig.>
Radiated Emissions ≥ 1GHz	2	Mode 1: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1 <fig. 2=""></fig.>

Remark:

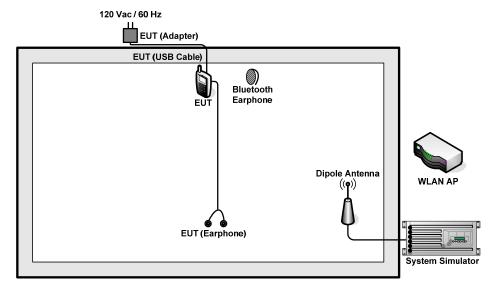
- The worst case of AC is mode 1, and the USB Link Mode of AC is mode 2; the test data of these modes are reported.
- 2. The worst case of RE < 1G is mode 2; only the test data of this mode is reported.
- 3. Link with Notebook means data application transferred mode between EUT and Notebook.

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 9 of 26
Report Issued Date : Sep. 17, 2013
Report Version : Rev. 01

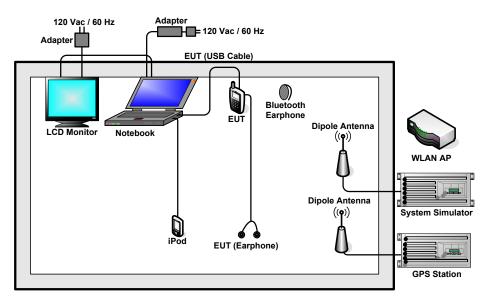


Report No.: FC381601

2.2. Connection Diagram of Test System



<Fig. 1>



<Fig. 2>

TEL: 86-755-3320-2398 FCC ID: WVBA775X

Page Number : 10 of 26 Report Issued Date: Sep. 17, 2013 Report Version : Rev. 01

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	Agilent	E5515C	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	D-link	DIR-612	FCC DoC	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-link	DIR-615	FCC DoC	N/A	Unshielded, 1.8 m
5.	Bluetooth Earphone	Nokia	BH-108	FCC DoC	N/A	N/A
6.	Notebook	DELL	P08S	FCC DoC	N/A	AC I/P: Unshielded, 1.8 m DC O/P: Shielded, 1.8 m
7.	Monitor	Dell	1707FPt	FCC DoC	shielded, 1.2 m	Unshielded, 1.8 m
8.	Monitor	Dell	IN1940MWB	FCC DoC	shielded, 1.2 m	Unshielded, 1.8 m
9.	iPod	Apple	MC525 ZP/A	FCC DoC	Shielded, 1.0 m	N/A

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 11 of 26
Report Issued Date : Sep. 17, 2013

Report No. : FC381601

2.4. EUT Operation Test Setup

The EUT was in GSM or WCDMA idle mode during the testing. The EUT was synchronized to the BCCH, and was in continuous receiving mode by setting system simulator's paging reorganization.

At the same time, the EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

- 1. Execute the program, "Winthrax" under WIN7 installed in notebook for files transfer with EUT via USB cable.
- 2. Turn on GPS function to make the EUT receive continuous signals from GPS station.
- 3. Turn on camera to capture images.
- 4. Execute "H Pattern" to show H Pattern via VGA Cable on the Monitor.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 12 of 26 Report Issued Date : Sep. 17, 2013

Report No.: FC381601

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.: FC381601

: 13 of 26

Page Number

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.

SPORTON INTERNATIONAL (SHENZHEN) INC. TEL: 86-755-3320-2398

TEL: 86-755- 3320-2398 Report Issued Date : Sep. 17, 2013 FCC ID: WVBA775X Report Version : Rev. 01



Report No.: FC381601

3.1.4 Test Setup



TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 14 of 26
Report Issued Date : Sep. 17, 2013
Report Version : Rev. 01



Report No. : FC381601

3.1.5

Test Mode :	Mode 1			Ten	Temperature :			22~23℃		
Гest Engineer :	age: 120Vac / 60Hz Phase: Line						50%			
Test Voltage :	120Vac / 60Hz			Pha	Phase :					
	GSM850	Idle +	Bluetoot	h Idle +	WLAN	ldle + US	B Cabl	le (Charging fr	om	
Function Type :	+ Earpho	ne + C	amera +	SIM 1						
امد	_evel (dBuV)					Dat	te: 2013-0	9-10 Time: 11:48:55	<u> </u>	
90										
80										
70			1							
60			9 0	0 8		FCC 15B_QP				
50	Mark					FCC 15B AV				
40	1/W// Man		company for all the	444204462	property of the state of the	March - Nanda Printer	- Angellen og begreeten	MANAGER OF BEEN STREET		
30	y k	11113	17	19 21						
20			16							
							6 (0380)			
10										
0.	15 .2	.5	1		2 ency (MHz	5	10	20 3	30	
Site	: C001-S	Z		39	,,,,,,	•				
Conditi	on: FCC 15B_QP LISN_L_20130328 LINE									
Mode	: Mode 1									
			Over	Limit	Read	LISN	Cable			
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark		
-	MHz	dBuV	dB	dBu∇	dBu∇	dB	dB			
1	0.15	40.72	-15.19	55.91	30.30	0.06	10.36	Average		
_	1 22 20 20	F4 40				0 00		44 TOTA		

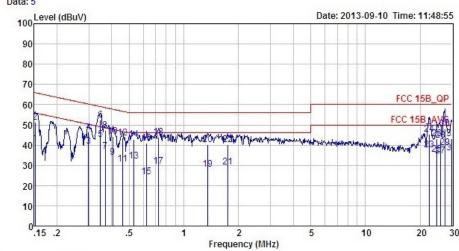
	Freq	Level	Over Limit	Limit Line	30,000	LISN Factor		Remark
-	MHz	dBu∀	dB	dBuV	dBuV	dB	dB	
1	0.15	40.72	-15.19	55.91	30.30	0.06	10.36	Average
2	0.15	51.12	-14.79	65.91	40.70	0.06	10.36	QP
3	0.30	39.50	-10.78	50.28	29.20	0.10	10.20	Average
4 5 *	0.30	46.40	-13.88	60.28	36.10	0.10	10.20	QP
5 *	0.35	42.79	-6.26	49.05	32.50	0.11	10.18	Average
6	0.35	52.49	-6.56	59.05	42.20	0.11	10.18	QP
7	0.37	36.79	-11.73	48.52	26.49	0.12	10.18	Average
7 B	0.37	47.29	-11.23	58.52	36.99	0.12	10.18	QP
9	0.41	33.99	-13.74	47.73	23.70	0.12	10.17	Average
D	0.41	44.29	-13.44	57.73	34.00	0.12	10.17	QP
1	0.46	30.79	-15.88	46.67	20.50	0.13	10.16	Average
2	0.46	43.39	-13.28	56.67	33.10	0.13	10.16	QP
3	0.53	32.10	-13.90	46.00	21.81	0.14	10.15	Average
4	0.53	42.70	-13.30	56.00	32.41	0.14	10.15	QP
5	0.62	24.40	-21.60	46.00	14.10	0.15	10.15	Average
6	0.62	41.00	-15.00	56.00	30.70	0.15	10.15	QP
7	0.73	29.61	-16.39	46.00	19.31	0.16	10.14	Average
В	0.73	44.01	-11.99	56.00	33.71	0.16	10.14	QP
9	1.35	27.98	-18.02	46.00	17.60	0.21	10.17	Average
0	1.35	40.18	-15.82	56.00	29.80	0.21	10.17	QP

: 15 of 26 Page Number TEL: 86-755-3320-2398 Report Issued Date: Sep. 17, 2013 FCC ID: WVBA775X Report Version : Rev. 01



FCC Test Report

		_	00.00°0				
Test Mode :	Mode 1	Temperature :	22~23 ℃				
Test Engineer :	Henry Chen	Relative Humidity :	49~50%				
Test Voltage :	120Vac / 60Hz	Phase :	Line				
Eupotion Type	GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter)						
Function Type :	+ Earphone + Camera + SIN	<i>1</i> 1					
Data: 5		9/2002	A SQUARE OF STREET				
100	Level (dBuV) Date: 2013-09-10 Time: 11:48:55						
90							



Site : CO01-SZ Condition: FCC 15B_QP LISN_L_20130328 LINE

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	20
21	1.74	29.20	-16.80	46.00	18.80	0.22	10.18	Average
22	1.74	40.40	-15.60	56.00	30.00	0.22	10.18	QP
23	22.42	37.75	-12.25	50.00	25.50	1.68	10.57	Average
24	22.42	45.55	-14.45	60.00	33.30	1.68	10.57	QP
25	24.79	35.57	-14.43	50.00	23.01	2.01	10.55	Average
26	24.79	43.27	-16.73	60.00	30.71	2.01	10.55	QP
27	25.86	34.74	-15.26	50.00	22.20	1.98	10.56	Average
28	25.86	42.54	-17.46	60.00	30.00	1.98	10.56	QP
29	27.42	38.90	-11.10	50.00	26.50	1.83	10.57	Average
30	27.42	47.80	-12.20	60.00	35.40	1.83	10.57	QP
31	29.84	36.34	-13.66	50.00	24.10	1.61	10.63	Average
32	29.84	43.24	-16.76	60.00	31.00	1.61	10.63	QP

TEL: 86-755-3320-2398 FCC ID: WVBA775X

Page Number : 16 of 26 Report Issued Date: Sep. 17, 2013 Report Version : Rev. 01



 Test Mode :
 Mode 1
 Temperature :
 22~23°C

 Test Engineer :
 Henry Chen
 Relative Humidity :
 49~50%

 Test Voltage :
 120Vac / 60Hz
 Phase :
 Neutral

 Function Type :

 + Earphone + Camera + SIM 1

Date: 2013-09-10 Time: 14:01:17

90

80

70

60

50

40

11 1315 17

20

10 15 .2 .5 1 2 5 10 20 30

Frequency (MHz)

Site : CO01-SZ Condition: FCC 15B_QP LISN_N_20130328 NEUTRAL

Mode : Mode 1

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.15	39.20	-16.76	55.96	28.80	0.04	10.36	Average
2	0.15	49.90	-16.06	65.96	39.50	0.04	10.36	QP
3	0.30	37.84	-12.35	50.19	27.60	0.04	10.20	Average
4	0.30	45.74	-14.45	60.19	35.50	0.04	10.20	QP
5	0.35	39.22	-9.83	49.05	29.00	0.04	10.18	Average
6 *	0.35	49.32	-9.73	59.05	39.10	0.04	10.18	QP
7	0.37	29.02	-19.59	48.61	18.80	0.04	10.18	Average
8	0.37	44.32	-14.29	58.61	34.10	0.04	10.18	QP
9	0.41	30.41	-17.32	47.73	20.20	0.04	10.17	Average
0	0.41	41.41	-16.32	57.73	31.20	0.04		
1	0.47	27.30	-19.28	46.58	17.10	0.04	10.16	Average
2	0.47	39.40	-17.18	56.58	29.20	0.04	10.16	QP
3	0.55	24.79	-21.21	46.00	14.60	0.04	10.15	Average
4	0.55	39.19	-16.81	56.00	29.00	0.04	10.15	QP
5	0.63	24.19	-21.81	46.00	14.00	0.04	10.15	Average
6	0.63	37.69	-18.31	56.00	27.50	0.04	10.15	QP
7	0.81	24.29	-21.71	46.00	14.10	0.04	10.15	Average
8	0.81	37.79	-18.21	56.00	27.60	0.04	10.15	QP
9	22.66	39.23	-10.77	50.00	27.70	0.96	10.57	Average
0	22.66	45.53	-14.47	60.00	34.00	0.96	10.57	QP
1	25.05	35.80	-14.20	50.00	24.20	1.05	10.55	Average
2	25.05	41.00	-19.00	60.00	29.40	1.05	10.55	QP
3	27.56	44.60	-15.40	60.00	32.80	1.23	10.57	QP
4	27.56	37.80	-22.20	60.00	26.00	1.23	10.57	QP
5	30.00	37.21	-12.79	50.00	25.20	1.38	10.63	Average
6	30.00	43.01	-16.99	60.00	31.00	1.38	10.63	QP

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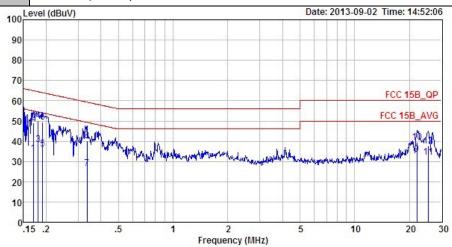
TEL: 86-755- 3320-2398 FCC ID: WVBA775X

Page Number : 17 of 26
Report Issued Date : Sep. 17, 2013
Report Version : Rev. 01



22~23℃ Test Mode: Mode 2 Temperature : 49~50% Relative Humidity: Test Engineer: Henry Chen Phase: Test Voltage : 120Vac / 60Hz Line WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with

Function Type: Notebook) + Earphone + GPS Rx + SIM 1



: C001-SZ

Condition: FCC 15B_QP LISN_L_20130328 LINE

Mode : Mode 2

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	-	MHz	dBu∇	dB	dBu√	dBu∇	dB	dB	
1		0.17	34.08	-20.86	54.94	23.70	0.06	10.32	Average
2		0.17	49.18	-15.76	64.94	38.80	0.06	10.32	QP
3		0.18	38.37	-16.09	54.46	28.00	0.07	10.30	Average
4	*	0.18	50.37	-14.09	64.46	40.00	0.07	10.30	QP
5		0.19	36.15	-17.83	53.98	25.80	0.07	10.28	Average
6		0.19	49.35	-14.63	63.98	39.00	0.07	10.28	QP
7		0.34	26.50	-22.81	49.31	16.20	0.11	10.19	Average
8		0.34	40.30	-19.01	59.31	30.00	0.11	10.19	QP
9		22.06	33.50	-16.50	50.00	21.30	1.63	10.57	Average
10		22.06	39.50	-20.50	60.00	27.30	1.63	10.57	QP
11		25.46	32.28	-17.72	50.00	19.70	2.03	10.55	Average
12		25.46	37.68	-22.32	60.00	25.10	2.03	10.55	QP

TEL: 86-755-3320-2398 FCC ID: WVBA775X

Page Number : 18 of 26 Report Issued Date: Sep. 17, 2013 Report Version : Rev. 01

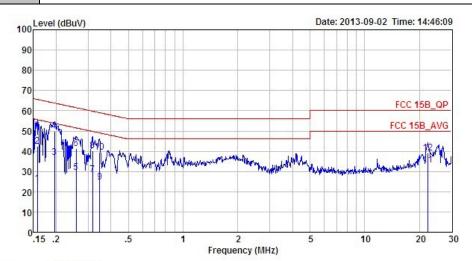


 Test Mode :
 Mode 2
 Temperature :
 22~23°C

 Test Engineer :
 Henry Chen
 Relative Humidity :
 49~50%

 Test Voltage :
 120Vac / 60Hz
 Phase :
 Neutral

 Function Type :
 WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM 1



Site : CO01-SZ

Condition: FCC 15B_QP LISN_N_20130328 NEUTRAL

Mode : Mode 2

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	-	MHz	dBuV	dB	dBu∇	dBuV	dB	dB	0 1
1		0.16	23.98	-31.62	55.60	13.60	0.04	10.34	Average
2		0.16	42.38	-23.22	65.60	32.00	0.04	10.34	QP
3		0.20	37.02	-16.78	53.80	26.70	0.04	10.28	Average
4	*	0.20	49.92	-13.88	63.80	39.60	0.04	10.28	QP
5		0.26	29.46	-22.05	51.51	19.20	0.04	10.22	Average
6		0.26	41.46	-20.05	61.51	31.20	0.04	10.22	QP
7		0.32	28.33	-21.47	49.80	18.10	0.04	10.19	Average
8		0.32	40.23	-19.57	59.80	30.00	0.04	10.19	QP
9		0.35	24.82	-24.23	49.05	14.60	0.04	10.18	Average
10		0.35	39.32	-19.73	59.05	29.10	0.04	10.18	QP
11		22.18	33.32	-16.68	50.00	21.80	0.95	10.57	Average
12		22.18	39.22	-20.78	60.00	27.70	0.95	10.57	QP

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 19 of 26
Report Issued Date : Sep. 17, 2013
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	Field Strength	Measurement Distance		
(MHz)	(microvolts/meter)	(meters)		
30 – 88	100	3		
88 – 216	150	3		
216 - 960	200	3		
Above 960	500	3		

TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 20 of 26
Report Issued Date : Sep. 17, 2013
Report Version : Rev. 01

3.2.2. Measuring Instruments

See list of measuring instruments of this test report.

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 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 μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

TEL: 86-755-3320-2398 FCC ID: WVBA775X

: 21 of 26 Page Number Report Issued Date: Sep. 17, 2013

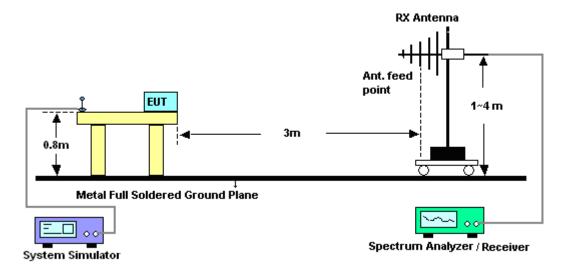
Report No.: FC381601



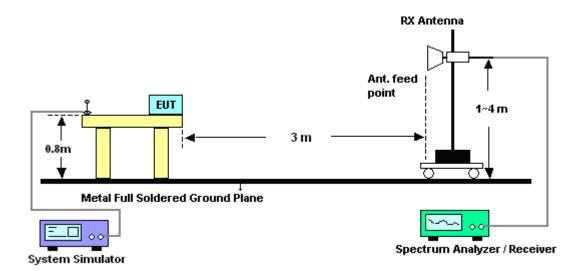
Report No.: FC381601

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



TEL: 86-755-3320-2398 FCC ID: WVBA775X

Page Number : 22 of 26 Report Issued Date: Sep. 17, 2013 Report Version : Rev. 01



3.2.5. Test Result of Radiated Emission

Test Mode :	Mode 2			Temperature :		23~	∕25°C			
Гest Engineer :	Gavin Zha	ng		Relativ	e Hur	nidity	: 48~	·52%		
Геst Distance :	3m			Polariz	ation	:	Hor	izonta		
Function Type :		and II Idle + Earphone					ldle +	USB (Cable	(Data Lii
	, , , , , , , , , , , , , , , , , , ,	Larphone			Olivi	-				
	(dBuV/m)								Date:	2013-09-10
110										
90										
									FC	C CLASS-B
70										6dB
									FCC CLA	SS-B (AVG)
50										-6dB
4 5	6									
30										
10										
030	1000.	3000.	5000.		7000.		9000.		11000.	1300
Site	: 03CH01	67		Frequen	cy (MHz))				
Condition	: FCC CL	ASS-B 3m LF_/	NT_1211	103 HORIZ	ZONTAL					
Project Mode	: (FC)381 : Mode 2	601								
	Freq Level	Over Limit Limit Line	Read Level	Antenna Factor		Preamp Factor	A/Pos		Remark	
	MHz dBuV/m	dB dBuV/r	n dBuV	dB/m	dB	dB	cm	deg		
		-9.90 40.00					145	236		
3 1	91.99 30.96	-13.87 43.56 -12.54 43.56	49.99	9.67	1.66	30.36			Peak	
4 2		-11.43 46.00 -13.93 46.00				30.20				

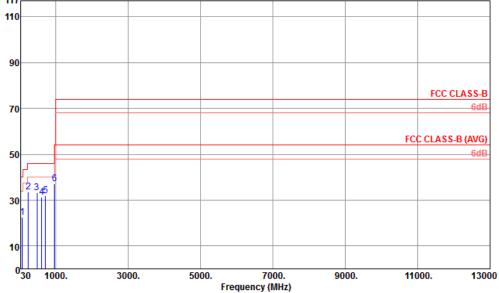
TEL: 86-755- 3320-2398 FCC ID: WVBA775X Page Number : 23 of 26
Report Issued Date : Sep. 17, 2013

Report No. : FC381601



23~25°C Test Mode: Mode 2 Temperature: Test Engineer: Gavin Zhang **Relative Humidity:** 48~52% Polarization: Test Distance: 3m Vertical WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Function Type:

Notebook) + Earphone + GPS Rx + SIM 1 117 Level (dBuV/m) Date: 2013-09-10 110 90



: 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_121103 VERTICAL

Project : (FC)381601 Mode : Mode 2

Over Limit ReadAntenna Cable Preamp A/Pos T/Pos Freq Level Limit Line Level Factor Loss Factor Remark MHz dBuV/m dB dBuV/m dBuV dB/m dB dB cm deg 77.53 22.43 -17.57 40.00 45.26 6.65 1.12 30.60 --- Peak 240.49 33.43 -12.57 480.08 33.28 -12.72 2 P 46.00 49.91 11.90 1.82 30.20 185 326 Peak --- Peak 46.00 43.00 17.20 2.48 29.40 ---614.91 31.17 -14.83 --- Peak 46.00 38.47 2.80 29.18 19.08 719.67 31.85 -14.15 46.00 37.90 --- Peak 960.23 37.13 -16.87 54.00 40.62 21.80 3.43 28.72 --- Peak

TEL: 86-755-3320-2398 FCC ID: WVBA775X

Page Number : 24 of 26 Report Issued Date: Sep. 17, 2013 : Rev. 01 Report Version



4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
ESCIO TEST Receiver	R&S	1142.8007.0 3	100724	9kHz~3GHz	Mar. 08, 2013	Sep. 02, 2013~ Sep. 10, 2013	Mar. 07, 2014	Conduction (CO01-SZ)
AC LISN	ETS-LINDGREN	3816/2SH	00103912	0.1MHz~108MHz	Feb. 28, 2013	Sep. 02, 2013~ Sep. 10, 2013	Feb. 27, 2014	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	ETS-LINDGREN	3816/2SH	00103892	0.1MHz~108MHz	Feb. 28, 2013	Sep. 02, 2013~ Sep. 10, 2013	Feb. 27, 2014	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000 891N/A	N/A	Oct. 12, 2012	Sep. 02, 2013~ Sep. 10, 2013	Oct. 11, 2013	Conduction (CO01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY52260 185	20Hz~26.5GHz	Apr. 04, 2013	Sep. 10, 2013	Apr. 03, 2014	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 12, 2012	Sep. 10, 2013	Oct. 11, 2013	Radiation (03CH01-SZ)
Bilog Antenna	SCHAFFNER	CBL6112B	2614	30MHz~2GHz	Nov. 03, 2012	Sep. 10, 2013	Nov. 02, 2013	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz GAIN 30db	Mar. 28, 2013	Sep. 10, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	Mar. 28, 2013	Sep. 10, 2013	Mar. 27, 2014	Radiation (03CH01-SZ)
Turn Table	EM Electronic	EM 1000	N/A	0 ~ 360 degree	N/A	Sep. 10, 2013	N/A	Radiation (03CH01-SZ)
Antenna Mast	EM electronic	EM 1000	N/A	1 m - 4 m	N/A	Sep. 10, 2013	N/A	Radiation (03CH01-SZ)

Report No. : FC381601

 TEL: 86-755- 3320-2398
 Report Issued Date : Sep. 17, 2013

 FCC ID: WVBA775X
 Report Version : Rev. 01

Page Number

: 25 of 26



FCC Test Report

5. Uncertainty of Evaluation

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

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

Report No.: FC381601

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

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% (U = 2Uc(y))	4.72
20111acrice 01 00 /0 (3 200(y))	

SPORTON INTERNATIONAL (SHENZHEN) INC.Page Number: 26 of 26TEL: 86-755- 3320-2398Report Issued Date: Sep. 17, 2013FCC ID: WVBA775XReport Version: Rev. 01