

# FCC 47 CFR PART 15 SUBPART B TEST REPORT

For

- Applicant : Brightstar Corporation
  - Address: 9725 NW117th Ave, Miami, Florida 33178, USA
- Product Name : GSM Mobile Phone
  - Model Name: Avvio 505, Avvio 505A, Avvio 505E
  - Brand Name : AVVIO

FCC ID: WVB-AVVIO505

- Report No. : STS091208F1
- Date of Issue : January 5, 2010
  - Issued by : Most Technology Service Co., Ltd.
  - Address : No.5, Nangshan 2nd Rd., North Hi-Tech Industrial Park ,Nanshan, Shenzhen, Guangdong ,China
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## 1. VERIFICATION OF CONFORMITY

Equipment Under Test:	GSM MOBILE PHONE
Brand Name:	AVVIO
Model Number:	Avvio 505
Series Model Name:	Avvio 505A, Avvio 505E
Series Model Difference description:	Only the appurtenance is different
FCC ID:	WVB-AVVIO505
Applicant:	Brightstar Corporation
	9725 NW117th Ave, Miami, Florida 33178, USA
Manufacturer:	Shanghai Xphone Communication
	E-2306,No.82,Caobao Rd.,Shanghai, P.R.China
Technical Standards:	FCC Part 15 B
File Number:	STS091208F1
Date of test:	December 25, 2009 ~ January 4, 2010
Deviation:	None
Condition of Test Sample:	Normal
Test Result:	PASS

The above equipment was tested by Most Technology Service Co., Ltd. for compliance with the requirements set forth in FCC Part 15 and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in this report.

Tested by (+ signature):	Petter ping
Review by (+ signature):	Petter Ping January 5, 2010
	July Wen January 5, 2
Approved by (+ signature):	Teny Kung

Terry Yang January 5, 2010

# 2. GENERAL INFORMATION 2.1 PRODUCT INFORMATION

EUT1- Mobile Phone	
Description:	GSM MOBILE PHONE
Model Name:	Avvio 505
IMEI No.:	135790246811220
Hardware Version:	X630_4.0
Software Version:	Avvoi_505_V02
Frequency:	Tx: 824.2-848.8 MHz 1850.2-1909.8 MHz
	Rx: 849.2-893.8 MHz 1930.2-1989.8 MHz
Ancillary Equipment – Power Supply	y
Description:	AC/DC Adapter
Model Name:	Avvio 505
Brand Name:	AVVIO
Manufacturer:	ShenZhen XinHeCheng Electronic Co., Ltd.
Rated Input:	AC 100-240V,50/60HZ
Rated Output:	DC 5.0V,600mA
Length DC cable:	100 cm
Ancillary Equipment – Battery	
Description:	Lithium-ion Battery
Model Name:	Avvio 505
Brand Name:	AVVIO
Manufacturer:	YiLian Technology Co., Ltd.
Capacitance:	850 mAh
Rated Voltage:	3.7V
Charge Limit:	4.2V

#### NOTE:

- 1. The EUT is a model of GSM Portable Mobile Station (MS). It consists of hand telephone set, lithium battery, USB Cable, Earphone and charger as listed above.
- 2. Please refer to Appendix 2 for the photographs of the EUT. For a more detailed features description about the EUT, please refer to User's Manual.

#### FCC ID: WVB-AVVIO505

## 2.2 OBJECTIVE

Perform FCC Part 15 Subpart B tests for FCC Marking.

## 2.3 TEST STANDARDS AND RESULTS

Test items and the results are as bellow:

EMISSION						
Standard		ltem	Result	Remarks		
FCC 47 CFR Part 15 Subpart B (10-1-05 Edition)	§15.107	Conducted Emission	PASS	Meet Class B limit		
	§15.109	Radiated Emission	PASS	Meet Class B limit		

Note: 1. The test result judgment is decided by the limit of measurement standard 2. The information of measurement uncertainty is available upon the customer's request.

## 2.4 ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35°C
- Humidity: 30-60 %
- Atmospheric pressure: 86-106 kPa

# 3. TEST METHODOLOGY

## 3. 1TEST FACILITY

Test Site: Location:	Most Technology Service Co., Ltd. No.5, Nangshan 2nd Rd., North Hi-Tech Industrial Park ,Nanshan, Shenzhen, Guangdong ,China
Description:	There is one 3m semi-anechoic an area test sites and two line conducted labs for final
	test. The Open Area Test Sites and the Line Conducted labs are constructed and
	calibrated to meet the FCC requirements in documents ANSI C63.4:2003 and CISPR
	16 requirements. The FCC Registration Number is 490827.
Site Filing:	The site description is on file with the Federal Communications
	Commission, 7435 Oakland Mills Road, Columbia, MD 21046.
Instrument Tolerance:	All measuring equipment is in accord with ANSI C63.4:2003 and CISPR 16
	requirements that meet industry regulatory agency and accreditation agency
	requirement.
Ground Plane:	Two conductive reference ground planes were used during the Line Conducted
	Emission, one in vertical and the other in horizontal. The dimensions of these ground
	planes are as below. The vertical ground plane was placed distancing 40 cm to the
	rear of the wooden test table on where the EUT and the support equipment were
	placed during test. The horizontal ground plane projected 50 cm beyond the footprint
	of the EUT system and distanced 80 cm to the wooden test table. For Radiated
	Emission Test, one horizontal conductive ground plane extended at least 1m beyond
	the periphery of the EUT and the largest measuring antenna, and covered the entire
	area between the EUT and the antenna. It has no holes or gaps having longitudinal
	dimensions larger than one-tenth of a wavelength at the highest frequency of
	measurement up to 1GHz.

## 3.2 GENERAL TEST PROCEDURES

#### Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4:2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

#### Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4:2003.

# 3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	( <sup>2</sup> )
13.36 - 13.41			

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

<sup>1</sup> Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

<sup>2</sup> Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

# 4 SETUP OF EQUIPMENT UNDER TEST 4.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

## **4.2 SUPPORT EQUIPMENT**

Device Type	Brand	Model	FCC ID	Series No.	Data Cable	Power Cord
Notebook	Acer	M52180	N/A	63401866020	N/A	N/A
Adapter	HP	92P1158	N/A	N/A	2 m	N/A

Remark:

All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

## 4.3 TEST EQUIPMENT LIST

**Instrumentation:** The following list contains equipment used at MOST for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

No.	Equipment	Manufacturer	Model No.	S/N	Calculator due date
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2010/03/14
2	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2010/03/14
3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2010/03/14
4	Terminator	Hubersuhner	50Ω	No.1	2010/03/14
5	RF Cable	SchwarzBeck	N/A	No.1	2010/03/14
6	Test Receiver	Rohde & Schwarz	ESPI	101202	2010/03/14
7	Bilog Antenna	Sunol	JB3	A121206	2010/03/14
8	Cable	SchwarzBeck	N/A	NO.1	2010/03/14
9	Cable	SchwarzBeck	N/A	NO.2	2010/03/14
10	Cable	SchwarzBeck	N/A	NO.3	2010/03/14
11	DC Power Filter	DuoJi	DL2×30B	N/A	2010/03/14
12	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2010/03/14
13	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2010/03/14
14	Test Receiver	Rohde & Schwarz	ESCI	100492	2010/03/14
15	Absorbing Clamp	Luthi	MDS21	3635	2010/03/14
16	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2010/03/14
17	AC Power Source	Kikusui	AC40MA	LM003232	2010/03/14
18	Test Analyzer	Kikusui	KHA1000	LM003720	2010/03/14
19	Line Impendence Network	Kikusui	LIN40MA- PCR-L	LM002352	2010/03/14
20	ESD Tester	Kikusui	KES4021	LM003537	2010/03/14
21	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2010/03/14
22	Signal Generator	IFR	2032	203002/100	2010/03/14
23	Amplifier	A&R	150W1000	301584	2010/03/14
24	CDN	FCC	FCC-801-M2-25	47	2010/03/14
25	CDN	FCC	FCC-801-M3-25	107	2010/03/14
26	EM Injection Clamp	FCC	F-203I-23mm	403	2010/03/14
27	RF Cable	MIYAZAKI	N/A	No.1/No.2	2010/03/14
28	Universal Radio Communication Tester	ROHDE&SCHWARZ	CMU200	0304789	2010/03/14
29	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2010/03/14
30	Spectrum Analyzer	Agilent	E4408	MY41440460	2010/03/14
31	Horn Antenna	SCHWARZBECK	BBHA9120D	D69250	2010/03/14

NOTE: Equipments listed above have been calibrated and are in the period of validation.

## 5. 47 CFR PART 15B REQUIREMENTS

## **5.1 GENERAL INFORMATION**

#### **EUT Function and Test Mode**

#### Mode 1: Call Mode

Before the measurement, the lithium battery was completely discharge.

During the measurement, the lithium battery and the charger were installed, and the MS were in charging state. A communication link was established between the MS and a System Simulator (SS). The MS operated at GSM 900MHz mid ARFCN (62) and maximum output power (level 5).

The EUT configuration of the emission test was MS + Battery+ Charger.

#### Mode 2: Idle Mode

The MS was registered to the base station simulator but no call was set up.

The EUT configuration of the emission test was **MS + Battery+ Charger**.

#### Mode 3: FM Mode

During the test, the MS was playing the FM function continuously.

The EUT configuration of the emission test was MS + Battery+ Earphone.

#### Mode 4: USB Mode

During the test, the MS was connected with the notebook and made the data transmission function continuously.

The EUT configuration of the emission test was **MS + Battery+ USB Cable+ Notebook** (Acer, Model Name: M52180, SNID: 63401866020).

#### Mode 5: MP3/MP4 Mode

During the test, the MS was playing the MP3/MP4 function continuously.

The EUT configuration of the emission test was **MS + Battery + Charger**.

#### Mode 6: Camera Mode

During the test, the MS was playing the camera function continuously.

The EUT configuration of the emission test was **MS + Battery + Charger**.

#### Mode 7: TV Mode

During the test, the MS was playing the TV function continuously.

The EUT configuration of the emission test was **MS + Battery +Charger**.

## 6. LINE CONDUCTED EMISSION TEST

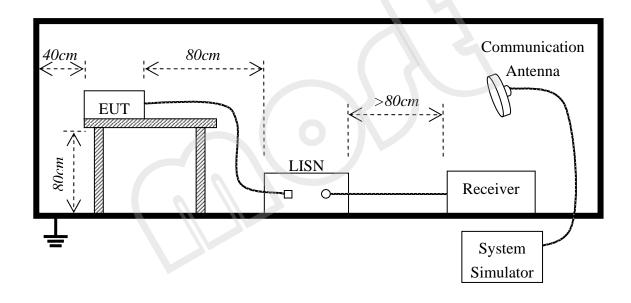
## 6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Fraguanay	Maximum RF Line Voltage				
Frequency	Q.P.( dBuV)	Average( dBuV)			
150kHz-500kHz	66-56	56-46			
500kHz-5MHz	56	46			
5MHz-30MHz	60	50			

\*\*Note: 1. the lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

## 6.2. BLOCK DIAGRAM OF TEST SETUP



# 6.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per FCC Part 15 (see Test Facility for the dimensions of the ground plane used). When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2) Support equipment, if needed, was placed as per FCC Part 15.
- 3) All I/O cables were positioned to simulate typical actual usage as per FCC Part 15.
- 4) The EUT received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5) All support equipments received power from a second LISN supplying power of AC 120V/60Hz, if any.
- 6) The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7) Analyzer / Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.
- 8) During the above scans, the emissions were maximized by cable manipulation.
- 9) The following test mode(s) were scanned during the preliminary test:

Preliminary Conducted Emission Test					
Frequency Range In	vestigated	150KHz TO 30 MHz			
Mode of operation	Date	Report No.	Data#	Worst Mode	
Call Mode	2009-12-25	STS091208F1	AVVIO 505_1(L,N)		
Idle Mode	2009-12-25	STS091208F1	AVVIO 505_2(L,N)		
USB Mode	2009-12-25	STS091208F1	AVVIO 505_4(L,N)		
MP3/MP4 Mode	2009-12-25	STS091208F1	AVVIO 505_5(L,N)		
Camera Mode	2009-12-25	STS091208F1	AVVIO 505_6(L,N)		
TV Mode	2009-12-25	STS091208F1	AVVIO 505_7(L,N)	$\square$	

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

# 6.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

EUT and support equipment was set up on the test bench as per step 9 of the preliminary test.

A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

The test data of the worst case condition(s) was reported on the Summary Data page.

# 6.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

EUT	:	GSM Mobile phone	Power	:	AC 120V/60Hz
M/N	:	Avvio 505	Temperature	:	27 °C
Mode	:	TV Mode	Humidity	:	60%

FREQ	Q.P.	AVG	Q.P.	AVG	Q.P.	AVG	
MHz	RAW	RAW	Limit	Limit	Margin	Margin	NOTE
	dBuV	dBuV	dBuV	dBuV	dB	dB	
0.166	57.57	44.66	65.16	55.16	-7.59	-10.50	L
0.318	54.55	39.88	59.76	49.76	-5.21	-9.88	L
0.490	48.20	36.43	56.17	46.17	-7.97	-9.74	L
0.786	44.05	30.40	56.00	46.00	-11.95	-15.60	L
0.982	42.00	29.65	56.00	46.00	-14.00	-16.35	L
0.159	50.01	46.50	<u>65 57</u>	<u> </u>	6.26	0.05	NI
0.158	59.21	46.52	65.57	55.57	-6.36	-9.05	N
0.166	58.51	46.21	65.16	55.16	-6.65	-8.95	N
0.322	52.58	41.74	59.66	49.66	-7.08	-7.92	N
0.790	34.67	44.06	56.00	46.00	-21.33	-1.94	N
1.266	41.10	30.03	56.00	46.00	-14.90	-15.97	Ν

Freq.

Reading level

Factor

**Emission level** 

Limit

Margin

"---"

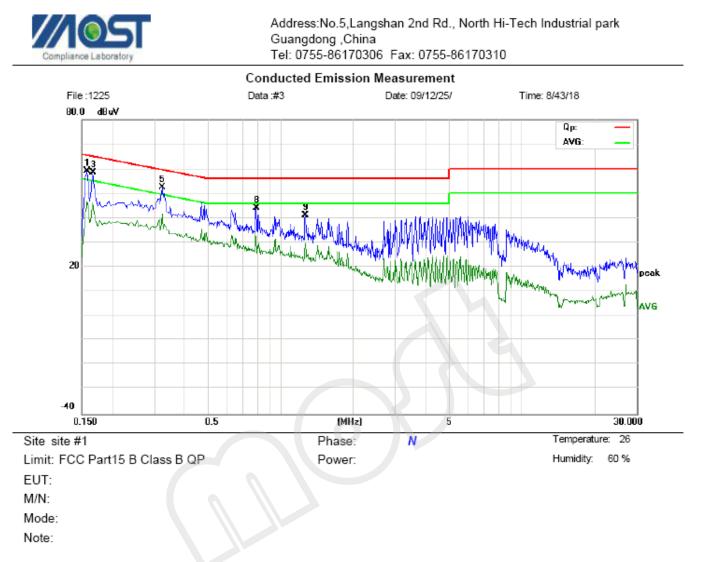
= Emission frequency in MHz

= Uncorrected Analyzer/Receiver reading

- = Cable loss + LISN inserting loss
- = Reading level + Factor
- = Limit stated in standard
- = Reading in reference to limit
- = The emission level complied with the Average limits, with at least 2 dB margin, so no further recheck.

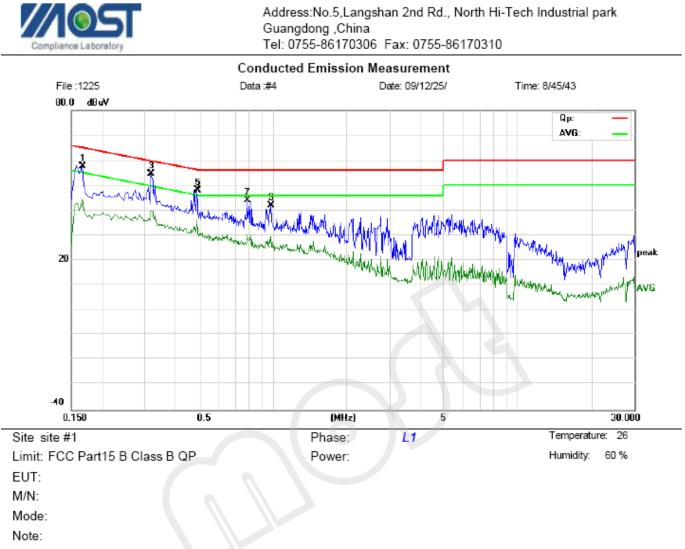
#### FCC ID: WVB-AVVIO505

#### 1 · Mains terminal disturbance voltage, L phase



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBu∀	dB	Detector	Comment
1 *	0.1580	49.73	9.48	59.21	65.57	-6.36	peak	
2	0.1580	37.04	9.48	46.52	55.57	-9.05	AVG	
3	0.1660	48.55	9.96	58.51	65.16	-6.65	peak	
4	0.1660	36.25	9.96	46.21	55.16	-8.95	AVG	
5	0.3220	41.39	11.19	52.58	59.66	-7.08	peak	
6	0.3220	30.55	11.19	41.74	49.66	-7.92	AVG	
7	0.7900	24.67	10.00	34.67	46.00	-11.33	AVG	
8	0.7940	34.06	10.00	44.06	56.00	-11.94	peak	
9	1.2660	31.37	9.73	41.10	56.00	-14.90	peak	
10	1.2700	20.30	9.73	30.03	46.00	-15.97	AVG	

#### $2\cdot$ Mains terminal disturbance voltage, N phase



No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBu∨	dB	dBuV	dBu∀	dB	Detector	Comment
1	0.1660	47.61	9.96	57.57	65.16	-7.59	peak	
2	0.1660	34.70	9.96	44.66	55.16	-10.50	AVG	
3 *	0.3180	43.34	11.21	54.55	59.76	-5.21	peak	
4	0.3180	28.67	11.21	39.88	49.76	-9.88	AVG	
5	0.4900	38.13	10.07	48.20	56.17	-7.97	peak	
6	0.4900	26.36	10.07	36.43	46.17	-9.74	AVG	
7	0.7860	34.05	10.00	44.05	56.00	-11.95	peak	
8	0.7860	20.40	10.00	30.40	46.00	-15.60	AVG	
9	0.9820	32.00	10.00	42.00	56.00	-14.00	peak	
10	0.9820	19.65	10.00	29.65	46.00	-16.35	AVG	

## 7. RADIATED EMISSION TEST

## 7.1. LIMITS OF RADIATED DISTURBANCES AT 3M DISTANCES FOR CLASS B

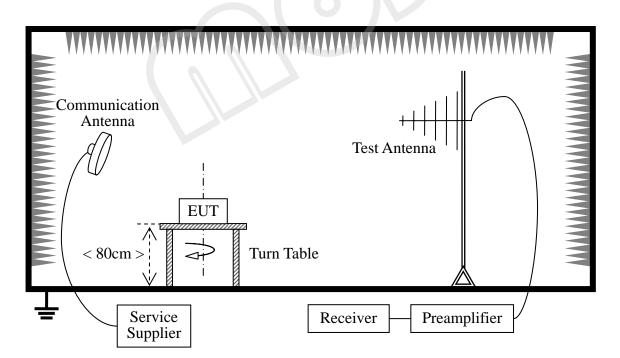
According to FCC section 15.109, except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m)	Measurement Distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

For frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

## 7.2 TEST DESCRIPTION

#### Test Setup:



The EUT is powered by the Battery. The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading. During the measurement, the EUT is activated and transmitting with the other Bluetooth device (Supply by the Applicant)

during the test.

#### For the Test Antenna:

(a) In the frequency range of 9 kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.

(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

Preliminary Radiated Emission Test										
Frequenc	y Range Investi	30 MHz TO 1000 MHz								
Mode of operation	on Date Repor		Data#	Worst Mode						
Call Mode	2009-12-25	STS091208F1	Avvio 505_1(H,V)							
Idle Mode	2009-12-25	STS091208F1	Avvio 505_2(H,V)							
FM Mode	2009-12-25	STS091208F1	Avvio 505_3(H,V)							
USB Mode	2009-12-25	STS091208F1	Avvio 505_4(H,V)							
MP3/MP4 Mode	2009-12-25	STS091208F1	Avvio 505_5(H,V)							
Camera Mode	2009-12-25	STS091208F1	Avvio 505_6(H,V)							
TV Mode	2009-12-25	STS091208F1	Avvio 505_7(H,V)	$\square$						

## 7.3 TEST RESULT

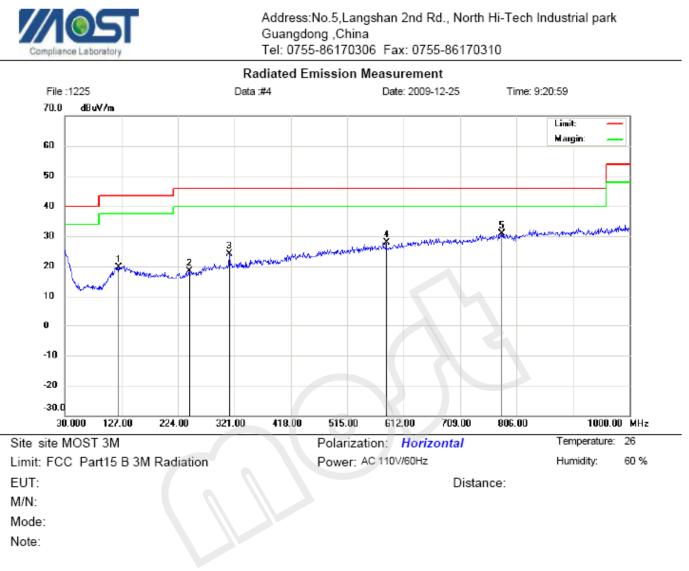
EUT	:	GSM Mobile phone	Power	:	AC 120V60Hz
M/N	:	Avvio 505	Temperature	:	27 °C
Mode	:	TV Mode	Humidity	:	60%

	Frequency Range Investigated (30 MHz TO 1000 MHz)											
Freq. (MHz)	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) Limits(QP) (dBuV/m) (dBuV/m)		Safe Margins (dBuV/m)	Ant. H/V	Mark					
122.150	4.14	15.59	19.73	43.50	-23.77	Н	Q					
243.400	3.97	14.34	18.31	46.00	-27.69	Н	Q					
312.270	7.39	16.69	24.08	46.00	-21.92	Н	Q					
581.930	4.93	22.92	27.85	46.00	-18.15	Н	Q					
779.810	4.62	26.20	30.82	46.00	-15.18	Н	Q					
50.370	11.80	9.26	21.06	40.00	-18.94	V	Q					
72.680	9.98	9.67	19.65	40.00	-20.35	V	Q					
131.850	5.18	15.61	20.79	43.50	-22.71	V	Q					
203.630	5.04	14.22	19.26	43.50	-24.24	V	Q					
384.050	5.18	18.18	23.36	46.00	-22.64	V	Q					

Note:

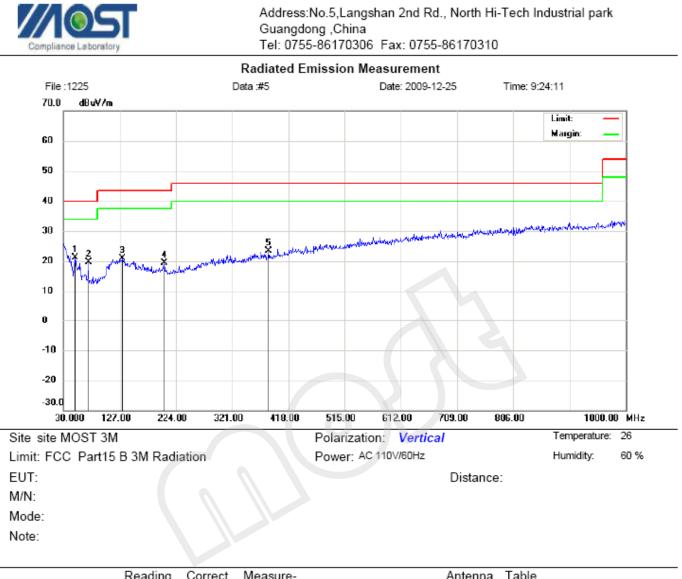
The maximum radiated emission is searched using PK, QP and AV detectors; the emission levels more than the limits, and that have narrow margins from the limits will be re-measured with AV and QP detectors.

#### 1 · Radiated Disturbance Measurement, max peak detector, antenna polarization: Horizontal



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height		
		MHz	dBuV	dB	dBu∀/m	dBuV/m	dB	Detector	cm	degree	Comment
1		122.1500	4.14	15.59	19.73	43.50	-23.77	peak			
2		243.4000	3.97	14.34	18.31	46.00	-27.69	peak			
3		312.2700	7.39	16.69	24.08	46.00	-21.92	peak			
4		581.9300	4.93	22.92	27.85	46.00	-18.15	peak			
5	*	779.8100	4.62	26.20	30.82	46.00	-15.18	peak			

## 2 · Radiated Disturbance Measurement, max peak detector, antenna polarization: Vertical



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height		
		MHz	dBuV	dB	dBu∀/m	dBu∨/m	dB	Detector	cm	degree	Comment
1	*	50.3700	11.80	9.26	21.06	40.00	-18.94	peak			
2		72.6800	9.98	9.67	19.65	40.00	-20.35	peak			
3		131.8500	5.18	15.61	20.79	43.50	-22.71	peak			
4		203.6300	5.04	14.22	19.26	43.50	-24.24	peak			
5		384.0500	5.18	18.18	23.36	46.00	-22.64	peak			

-----END OF REPORT-----