

# FCC 47 CFR PART 15 SUBPART B TEST REPORT

For

Applicant: SUNSTRIKE INTERNATIONAL LIMITED

7th Floor, Unit C, Gemstar Tower, 23 Man Lok Street, Address:

Hunghom, Kowloon, Hong Kong

**Product Name: GSM Mobile Phone** 

Model Name: RQ101

**Brand Name: RAGE** 

FCC ID: YHR-RQ101

Report No.: STS100508F1

Date of Issue: June. 04, 2010

Issued by: Shenzhen Super Test Service Technology Co., Ltd.

No.5, Langshan 2nd Rd., North Hi-Tech Industrial park, Nanshan, Shenzhen, Guangdong, China

Tel:86-755-2795 8522

Fax:86-755-2795 8022

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### 1. VERIFICATION OF CONFORMITY

**Equipment Under Test:** GSM Mobile Phone

Brand Name: RAGE
Model Number: RQ101
Series Model Name: N/A
Series Model Difference N/A

description:

FCC ID: YHR-RQ101

Applicant: SUNSTRIKE INTERNATIONAL LIMITED

7th Floor, Unit C. Gemstar Tower, 23 Man Lok Street, Hunghom,

Kowloon, Hong Kong

Manufacturer: SUNSTRIKE INTERNATIONAL LIMITED

7th Floor, Unit C, Gemstar Tower, 23 Man Lok Street, Hunghom,

Kowloon, Hong Kong

**Technical Standards:** FCC Part 15 B **File Number:** STS100508F1

**Date of test:** June. 01 ~ June. 04, 2010

Deviation: None
Condition of Test Sample: Normal
Test Result: PASS

The above equipment was tested by Shenzhen Super Test Service Technology 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):

July Wen

Petter Ping June. 04, 2010

Review by (+ signature):

June. 04, 2010

Approved by (+ signature):

Terry Yang June. 04, 2010

# 2. GENERAL INFORMATION

# 2.1 PRODUCT INFORMATION

EUT1- Mobile Phone	
Description:	GSM Mobile Phone
Model Name:	RQ101
Serial No.:	N/A
Model Difference description:	N/A
IMEI No.:	910021900344768/ 910021900344776
Frequency:	GSM 850MHz/1900MHz
Hardware Version:	A051-MB-V0.5
Software Version:	A051_7B_RAGE_PJ9225_V117
EUT2- Battery	
Description:	Lithium-ion Battery
Model Name:	RQ101
Brand Name:	RAGE
Manufacturer:	UNIVERSAL THROUGH ELECTRONIC LTD.
Capacitance:	1200 mAh
Rated Voltage:	3.7V
Charge Limit:	4.2V
EUT3 – Power Supply	
Description:	Travel Charger
Model Name:	RQ 101
Brand Name:	RAGE
Manufacturer:	Shenzhen RASO Technology Co., Ltd.
Rated Input:	AC 100-240V, 50/60HZ 200mA
Rated Output:	DC 5.2V, 500mA
Length USB cable:	1.00m

# NOTE:

- 1. The EUT is a model of GSM Portable Mobile Station (MS). It consists of **hand telephone set**, **Lithium battery**, **headphone**, **USB cable** 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.

# 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		Item	Result	Remarks
CC 47 CFR Part 15 Subpart B	§15.107	Conducted Emission	PASS	Meet Class B limit
(10-1-05 Edition)	§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 FACILITY

Test Site: Most Technology Service Co., ltd

Location: No.5, Langshan 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 and CISPR 16

requirements. The FCC Registration Number is 490827.

The CNAS Registration Number is CNAS L3573.

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 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.

# 4. SETUP OF EQUIPMENT UNDER TEST

# **4.1 SUPPORT EQUIPMENT**

Device Type	Brand	Model	FCC ID	Series No.	Data Cable	Power Cord
PC	Lenovo	X200		L3-AL1Z09/06		
Power Adapter	Lenovo	92P1158			2.5 m (shield)	
Bluetooth Earphone	N/A	JF2606B				

# 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.

# **4.2 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.

1         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           2         LLIS.N.         Rohde & Schwarz         ENV216         100093         2011/03/14           3         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           4         Terminator         Hubersuhner         50Ω         No.1         2011/03/14           5         RF Cable         SchwarzBeck         N/A         No.1         2011/03/14           6         Test Receiver         Rohde & Schwarz         ESPI         101202         2011/03/14           7         Bilog Antenna         Sunol         JB3         A121206         2011/03/14           8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.2         2011/03/14           11         Cable         Schwarzbeck         N/A         NO.2         2011/03/14           12         Cable         Schwarzbeck         N/A         NO.2         2011/03/14     <	No.	Equipment	Manufacturer	Model No.	S/N	Calculator due date
Coaxial Switch   Anritsu Corp   MP59B   6200283933   2011/03/14	1	Test Receiver	Rohde & Schwarz	ESCI	100492	2011/03/14
4         Terminator         Hubersuhner         50Ω         No.1         2011/03/14           5         RF Cable         SchwarzBeck         N/A         No.1         2011/03/14           6         Test Receiver         Rohde & Schwarz         ESPI         101202         2011/03/14           7         Bilog Antenna         Sunol         JB3         A121206         2011/03/14           8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14 </td <td>2</td> <td>L.I.S.N.</td> <td>Rohde &amp; Schwarz</td> <td>ENV216</td> <td>100093</td> <td>2011/03/14</td>	2	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2011/03/14
5         RF Cable         SchwarzBeck         N/A         No.1         2011/03/14           6         Test Receiver         Rohde & Schwarz         ESPI         101202         2011/03/14           7         Bilog Antenna         Sunol         JB3         A121206         2011/03/14           8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuOJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuOJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuOJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         20	3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2011/03/14
6         Test Receiver         Rohde & Schwarz         ESPI         101202         2011/03/14           7         Bilog Antenna         Sunol         JB3         A121206         2011/03/14           8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635 <t< td=""><td>4</td><td>Terminator</td><td>Hubersuhner</td><td>50Ω</td><td>No.1</td><td>2011/03/14</td></t<>	4	Terminator	Hubersuhner	50Ω	No.1	2011/03/14
7         Bilog Antenna         Sunol         JB3         A121206         2011/03/14           8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933	5	RF Cable	SchwarzBeck	N/A	No.1	2011/03/14
8         Test Antenna - Horn         Schwarzbeck         BBHA 9120C          2011/03/14           9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anrisu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         KHA1000         LM003232 <td>6</td> <td>Test Receiver</td> <td>Rohde &amp; Schwarz</td> <td>ESPI</td> <td>101202</td> <td>2011/03/14</td>	6	Test Receiver	Rohde & Schwarz	ESPI	101202	2011/03/14
9         Test Antenna - Bi-Log         Schwarzbeck         VULB 9163          2011/03/14           10         Cable         Resenberger         N/A         NO.1         2011/03/14           11         Cable         SchwarzBeck         N/A         NO.2         2011/03/14           12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         KHA1000         LM003720         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720	7	Bilog Antenna	Sunol	JB3	A121206	2011/03/14
10   Cable   Resenberger   N/A   NO.1   2011/03/14     11	8	Test Antenna - Horn	Schwarzbeck	BBHA 9120C		2011/03/14
11	9	Test Antenna - Bi-Log	Schwarzbeck	VULB 9163		2011/03/14
12         Cable         SchwarzBeck         N/A         NO.3         2011/03/14           13         DC Power Filter         DuoJi         DL2×30B         N/A         2011/03/14           14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         KES4021         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4	10	Cable	Resenberger	N/A	NO.1	2011/03/14
DC Power Filter   DuoJi   DL2×30B   N/A   2011/03/14	11	Cable	SchwarzBeck	N/A	NO.2	2011/03/14
14         Single Phase Power Line Filter         DuoJi         FNF 202B30         N/A         2011/03/14           15         3 Phase Power Line Filter         DuoJi         FNF 402B30         N/A         2011/03/14           16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R	12	Cable	SchwarzBeck	N/A	NO.3	2011/03/14
Filter   DuoJi   FNF 202B30   N/A   2011/03/14	13	DC Power Filter	DuoJi	DL2×30B	N/A	2011/03/14
16         Test Receiver         Rohde & Schwarz         ESCI         100492         2011/03/14           17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         <	14		DuoJi	FNF 202B30	N/A	2011/03/14
17         Absorbing Clamp         Luthi         MDS21         3635         2011/03/14           18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403	15	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2011/03/14
18         Coaxial Switch         Anritsu Corp         MP59B         6200283933         2011/03/14           19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2	16	Test Receiver	Rohde & Schwarz	ESCI	100492	2011/03/14
19         AC Power Source         Kikusui         AC40MA         LM003232         2011/03/14           20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         03047	17	Absorbing Clamp	Luthi	MDS21	3635	2011/03/14
20         Test Analyzer         Kikusui         KHA1000         LM003720         2011/03/14           21         Line Impendence Network         Kikusui         LIN40MA-PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	18	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2011/03/14
21         Line Impendence Network         Kikusui         LIN40MA-PCR-L PCR-L PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	19	AC Power Source	Kikusui	AC40MA	LM003232	2011/03/14
21         Line Impendence Network         Kikusui         PCR-L         LM002352         2011/03/14           22         ESD Tester         Kikusui         KES4021         LM003537         2011/03/14           23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	20	Test Analyzer	Kikusui	KHA1000	LM003720	2011/03/14
23         EMCPRO System         EM Test         UCS-500-M4         V0648102026         2011/03/14           24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	21	Line Impendence Network	Kikusui	_	LM002352	2011/03/14
24         Signal Generator         IFR         2032         203002/100         2011/03/14           25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	22	ESD Tester	Kikusui	KES4021	LM003537	2011/03/14
25         Amplifier         A&R         150W1000         301584         2011/03/14           26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	23	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2011/03/14
26         CDN         FCC         FCC-801-M2-25         47         2011/03/14           27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	24	Signal Generator	IFR	2032	203002/100	2011/03/14
27         CDN         FCC         FCC-801-M3-25         107         2011/03/14           28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	25	Amplifier	A&R	150W1000	301584	2011/03/14
28         EM Injection Clamp         FCC         F-203I-23mm         403         2011/03/14           29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	26	CDN	FCC	FCC-801-M2-25	47	2011/03/14
29         RF Cable         MIYAZAKI         N/A         No.1/No.2         2011/03/14           30         Universal Radio Communication Tester         ROHDE&SCHWARZ         CMU200         0304789         2011/03/14	27	CDN	FCC	FCC-801-M3-25	107	2011/03/14
30 Universal Radio Communication Tester ROHDE&SCHWARZ CMU200 0304789 2011/03/14	28	EM Injection Clamp	FCC	F-203I-23mm	403	2011/03/14
Communication Tester ROHDE&SCHWARZ CM0200 0304789 2011/03/14	29		MIYAZAKI	N/A	No.1/No.2	2011/03/14
31 Telecommunication Antenna European Antennas PSA 75301R/170 0304213 2011/03/14	30		ROHDE&SCHWARZ	CMU200	0304789	2011/03/14
	31	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2011/03/14

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**

Due to the different configuration and test, in this list only some worster mode. The worst test data of the worst mode is reported by this report.

### Mode 1: 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 2: 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 850/1900MHz mid ARFCN and maximum output power.

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

### Mode 3: 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 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** (Thinkpad X200, SN: R90GK93).

### Mode 5: GPRS Mode

During the test, the MS was playing the GPRS 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: Bluetooth Mode

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 EUT and the Bluetooth Earphone and a System Simulator (SS).

The MS operated at GSM 850/1900MHz mid and maximum output power.

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

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

### Mode 8: FM Mode

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

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

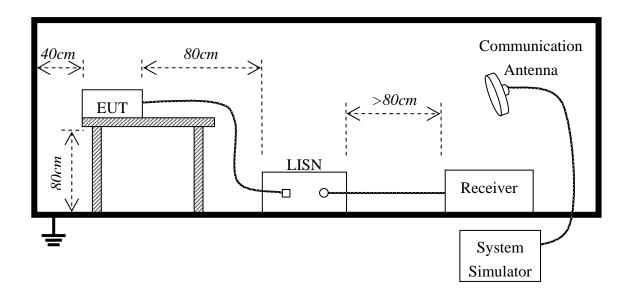
# 6. LINE CONDUCTED EMISSION TEST

# 6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

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

<sup>\*\*</sup>Note: 1. the lower limit shall apply at the transition frequency.

# 6.2. BLOCK DIAGRAM OF TEST SETUP



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

### 6.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

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:

	Prelim	ninary Conducted Em	nission Test				
Frequency Range In	vestigated	150KHz TO 30 MHz					
Mode of operation	Date	Report No.	Data#	Worst Mode			
Idle Mode	2010-06-02	STS100508F1	RQ101_1_(L, N)				
Call Mode	2010-06-02	STS100508F1	RQ101_2_(L, N)				
MP3/MP4 Mode	2010-06-02	STS100508F1	RQ101_3_(L, N)				
USB Mode	2010-06-02	STS100508F1	RQ101_4_(L, N)				
GPRS Mode	2010-06-02	STS100508F1	RQ101_5_(L, N)				
Camera Mode	2010-06-02	STS100508F1	RQ101_6_(L, N)				
Bluetooth Mode	2010-06-02	STS100508F1	RQ101_7_(L, N)	$\boxtimes$			
FM Mode	2010-06-02	STS100508F1	RQ101_8_(L, N)				

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.

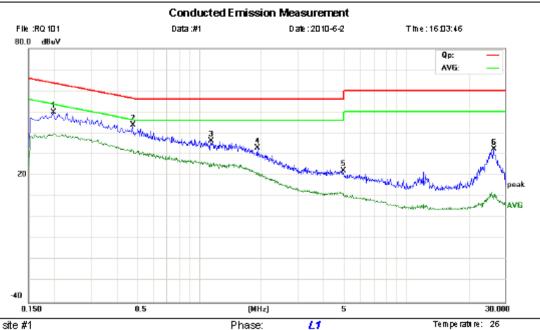
A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level 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



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamildby: 60 %

Site site #1 Limit: FCC Part15 BClass BQP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Idle Mode

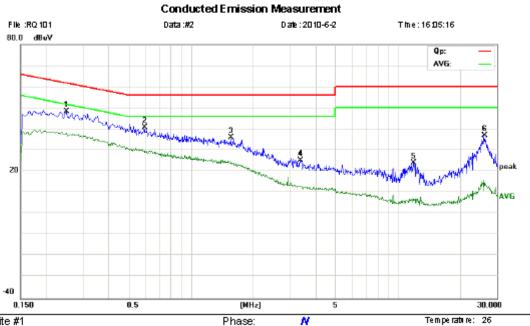
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHZ	dBŧV	dB	d8 • V	dBiV	dB	Defector	Comment
1	0.1980	37.86	11.88	49.74	63.69	-13.95	peak	
2 *	0.4780	33.68	10.15	43.83	56.37	-12.54	peak	
3	1.1380	26.62	9.86	36.48	56.00	-19.52	peak	
4	1.9140	24.02	9.09	33.11	56.00	-22.89	peak	
5	4.9420	10.35	11.94	22.29	56.00	-33.71	peak	
6 :	26.4540	23.34	9.00	32.34	60.00	-27.66	peak	

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamilaby: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101 Mode: Idle Mode

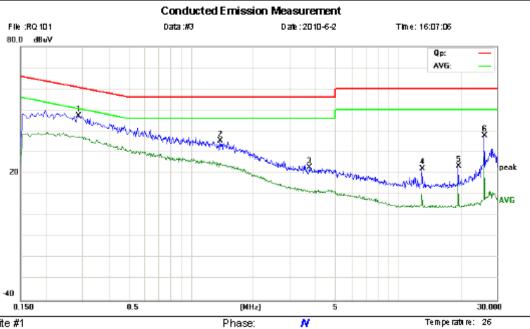
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHZ	dBqV	dB	dB∥V	dB (V	₫B	Defector	Comment
1	*	0.2500	36.83	11.67	48.50	61.76	-13.26	peak	
2		0.5940	30.91	10.00	40.91	56.00	-15.09	peak	
3		1.5540	26.57	9.45	36.02	56.00	-19.98	peak	
4		3.3500	14.95	10.35	25.30	56.00	-30.70	peak	
5		11.8540	14.95	9.00	23.95	60.00	-36.05	peak	
6		26.1220	28.06	9.00	37.06	60.00	-22.94	peak	

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Camera Mode

Note:

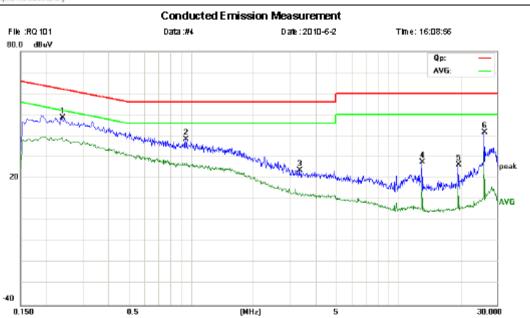
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBŧV	₫₿	dB «V	dBitV	dB	Defector	Comment
1	*	0.2860	35.68	11.43	47.11	60.64	-13.53	peak	
2		1.3780	25.70	9.62	35.32	56.00	-20.68	peak	
3		3.7060	12.12	10.71	22.83	56.00	-33.17	peak	
4		13.0140	13.39	9.00	22.39	60.00	-37.61	peak	
5		19.4980	14.33	9.00	23.33	60.00	-36.67	peak	
6		26.0020	28.95	9.00	37.95	60.00	-22.05	peak	

Ham lidiby: 60 %

<sup>\*:</sup>Maximum data x:Overlimit !:overmargin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China Tel: 0755-86170306 Fax 0755-86170310



Site site #1 Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Camera Mode

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHZ	dBeV	dB	dB∢V	dB (V	₫B	Defector	Comment
1	*	0.2380	37.00	11.75	48.75	62.17	-13.42	peak	
2		0.9420	28.36	10.00	38.36	56.00	-17.64	peak	
3		3.3300	13.43	10.33	23.76	56.00	-32.24	peak	
4		12.9980	18.52	9.00	27.52	60.00	-32.48	peak	
5		19.4980	17.47	9.00	26.47	60.00	-33.53	peak	
- 6		26.0020	32.71	9.00	41.71	60.00	-18.29	peak	

Phase:

Power: AC 120V/60Hz

L1

Temperature: 26

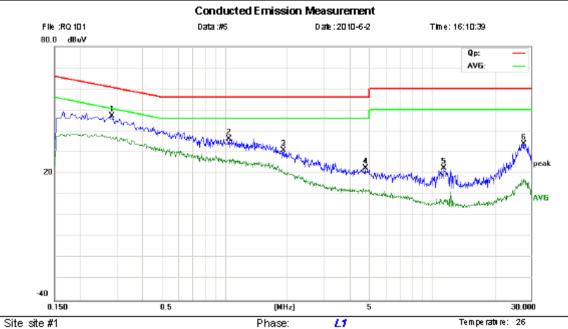
Ham lidiby: 60 %

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamilaby: 60 %

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Buletooth Mode

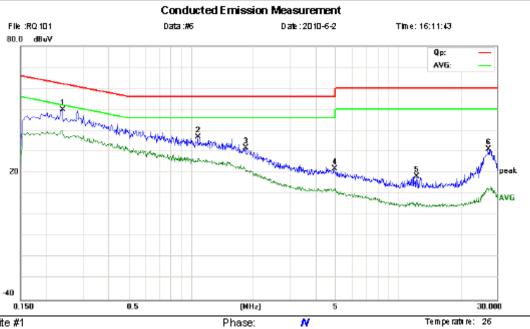
No. N	Иk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHZ	dBqV	dB	dB∥V	dB (V	dB	Defector	Comment
1 *	*	0.2820	35.81	11.45	47.26	60.76	-13.50	peak	
2		1.0420	26.45	9.96	36.41	56.00	-19.59	peak	
3		1.9180	21.76	9.08	30.84	56.00	-25.16	peak	
4		4.7660	10.93	11.77	22.70	56.00	-33.30	peak	
5		11.3740	13.50	9.00	22.50	60.00	-37.50	peak	
6		27.4340	25.06	9.00	34.06	60.00	-25.94	peak	

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamildity: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

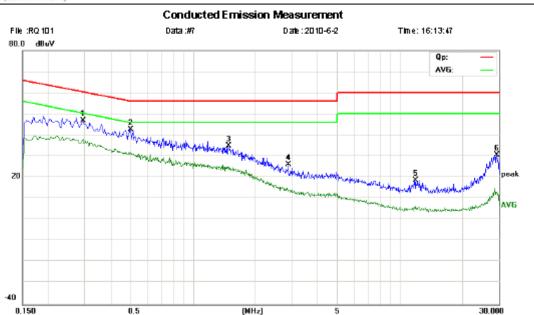
Mode: Buletooth Mode

No. N	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHZ	dBŧV	dB	dB∎V	dBiV	dB	Defector	Comment
1	*	0.2380	38.08	11.75	49.83	62.17	-12.34	peak	
2		1.0820	26.89	9.92	36.81	56.00	-19.19	peak	
3		1.8380	22.60	9.16	31.76	56.00	-24.24	peak	
4		4.9020	10.10	11.90	22.00	56.00	-34.00	peak	
5		12.2220	9.22	9.00	18.22	60.00	41.78	peak	
6		27.2700	22.37	9.00	31.37	60.00	-28.63	peak	

<sup>\*:</sup>Maximum data x:Overlimit !:overm.argin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China Tel: 0755-86170306 Fax 0755-86170310



Site site #1 Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101 Mode: Call Mode

Note:

Power: AC 120V/60Hz Hemidity: 60 %

Temperature: 26

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHZ	dBŧV	dB	dB (V	dBiV	dB	Defector	Comment
1	0.2940	35.52	11.37	46.89	60.41	-13.52	peak	
2 *	0.4980	32.75	10.01	42.76	56.03	-13.27	peak	
3	1.4780	25.48	9.52	35.00	56.00	-21.00	peak	
4	2.8820	16.13	9.88	26.01	56.00	-29.99	peak	
5 ′	11.7780	9.76	9.00	18.76	60.00	41.24	peak	
6 2	29.1380	21.75	9.00	30.75	60.00	-29.25	peak	

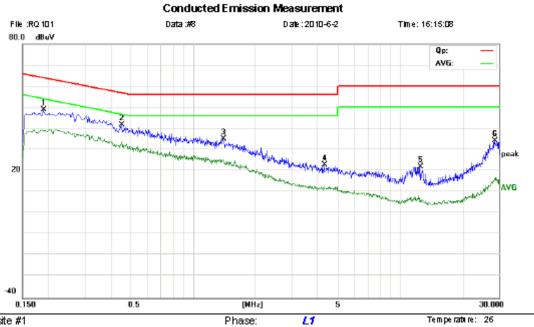
Phase:

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamildity: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101 Mode: Call Mode

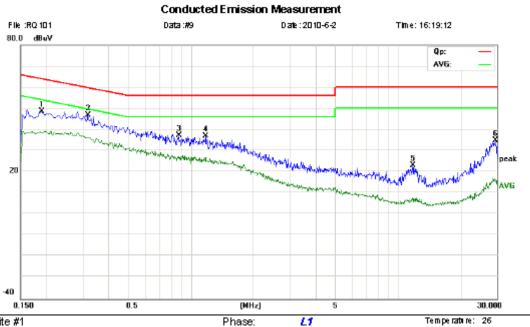
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBŧV	dB	d8 • V	dBiV	dB	Defector	Comment
1	0.1900	37.43	11.40	48.83	64.04	-15.21	peak	
2 *	0.4500	31.52	10.33	41.85	56.88	-15.03	peak	
3	1.3980	25.50	9.60	35.10	56.00	-20.90	peak	
4	4.2980	11.46	11.30	22.76	56.00	-33.24	peak	
5	12.4940	13.09	9.00	22.09	60.00	-37.91	peak	
6	28.5780	25.31	9.00	34.31	60.00	-25.69	peak	

x:Over limit !:over margin \*:Maximum data



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Ham lidiby: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: MP3/MP4 Mode

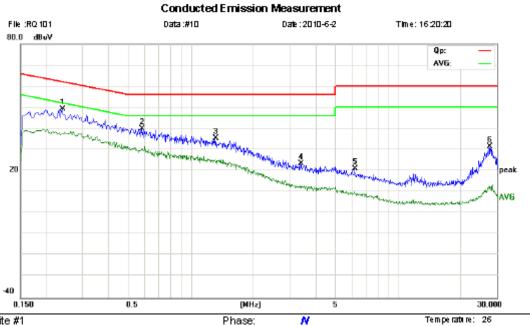
No. M	۸k.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHZ	dBeV	dB	dB∥V	dB∎V	₫B	Defector	Comment
1		0.1900	37.17	11.40	48.57	64.04	-15.47	peak	
2 *	:	0.3180	35.59	11.21	46.80	59.76	-12.96	peak	
3		0.8740	27.26	10.00	37.26	56.00	-18.74	peak	
4		1.1780	27.11	9.82	36.93	56.00	-19.07	peak	
5	-	11.6980	14.05	9.00	23.05	60.00	-36.95	peak	
6	- :	29.4980	25.79	9.00	34.79	60.00	-25.21	peak	

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Ham lidiby: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101

Mode: MP3/MP4 Mode

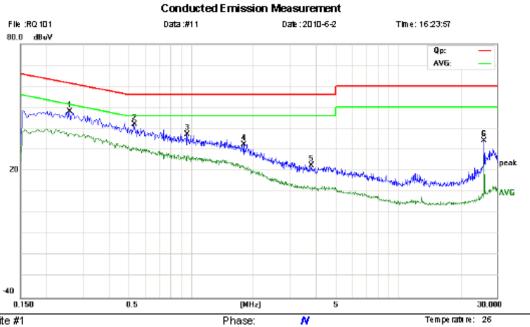
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHZ	dBŧV	dB	d8 €V	dBiV	₫B	Defector	Comment
1 *	0.2380	37.36	11.75	49.11	62.17	-13.06	peak	
2	0.5780	29.92	10.00	39.92	56.00	-16.08	peak	
3	1.3140	25.69	9.69	35.38	56.00	-20.62	peak	
4	3.3660	12.95	10.37	23.32	56.00	-32.68	peak	
5	6.1740	9.63	11.30	20.93	60.00	-39.07	peak	
6	27.4500	22.57	9.00	31.57	60.00	-28.43	peak	

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamildity: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101 Mode: GPRS Mode

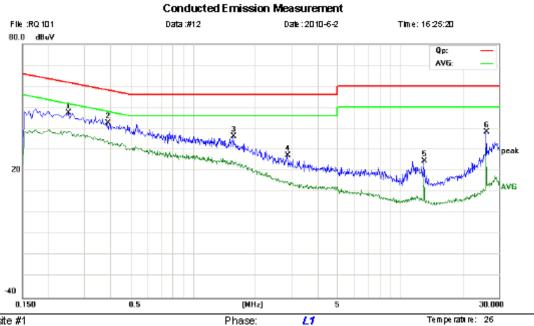
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBeV	₫₿	dB ŧV	dB (V	dB	Defector	Comment
1 *	0.2580	36.57	11.61	48.18	61.50	-13.32	peak	
2	0.5300	31.96	10.00	41.96	56.00	-14.04	peak	
3	0.9580	27.19	10.00	37.19	56.00	-18.81	peak	
4	1.7980	23.17	9.20	32.37	56.00	-23.63	peak	
5	3.7820	11.87	10.78	22.65	56.00	-33.35	peak	
6	25.9980	25.24	9.00	34.24	60.00	-25.76	peak	

x:Over limit !:over margin \*:Maximum data



Address: No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Power: AC 120V/60Hz

Hamildity: 60 %

Site site #1

Limit: FCC Part15 B Class B QP

EUT: GSM Mobile Phone

M/N: RQ101 Mode: GPRS Mode

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBqV	dB	dB «V	dB (V	dB	Defector	Comment
1	*	0.2500	35.74	11.67	47.41	61.76	-14.35	peak	
2		0.3860	31.86	10.76	42.62	58.15	-15.53	peak	
3		1.5660	27.05	9.43	36.48	56.00	-19.52	peak	
4		2.8420	17.41	9.84	27.25	56.00	-28.75	peak	
5		13.0020	15.63	9.00	24.63	60.00	-35.37	peak	
6		26.0020	29.32	9.00	38.32	60.00	-21.68	peak	

x:Over limit !:over margin \*:Maximum data

## 7. RADIATED EMISSION TEST

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

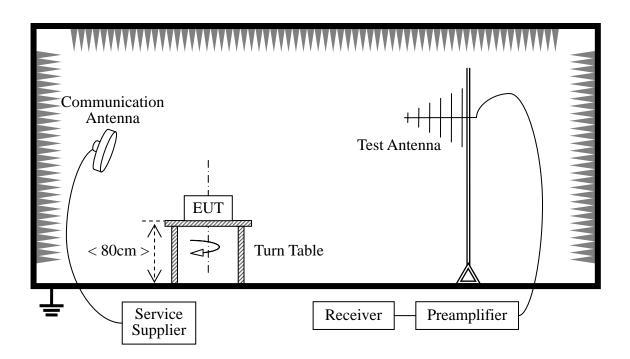
According to FCC section 15.109, except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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.

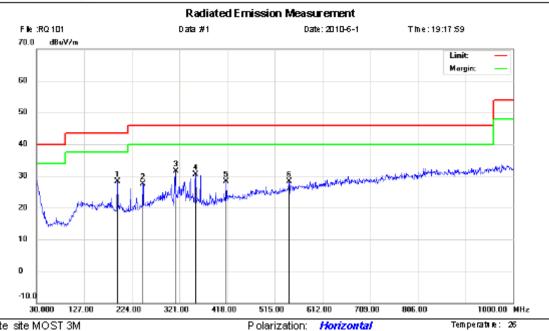
	Preliminary Radiated Emission Test											
Frequenc	y Range Invest	igated	30 MHz TO 100	0 MHz								
Mode of operation	Date	Report No.	Data#	Worst Mode								
Idle Mode	2010-06-01	STS100508F1	RQ101_1_(H, V)									
Call Mode	2010-06-01	STS100508F1	RQ101_2_(H, V)									
MP3/MP4 Mode	2010-06-01	STS100508F1	RQ101_3_(H, V)	$\boxtimes$								
USB Mode	2010-06-01	STS100508F1	RQ101_4_(H, V)									
GPRS Mode	2010-06-01	STS100508F1	RQ101_5_(H, V)									
Camera Mode	2010-06-01	STS100508F1	RQ101_6_(H, V)									
Bluetooth Mode	2010-06-01	STS100508F1	RQ101_7_(H, V)									
FM Mode	2010-06-01	STS100508F1	RQ101_8_(H, V)									

# 7.3 TEST RESULT



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101 Mode: Idle Mode

Note:

Plower: AC 120V60Hz

Ham ld fly:

6O %

Distance:

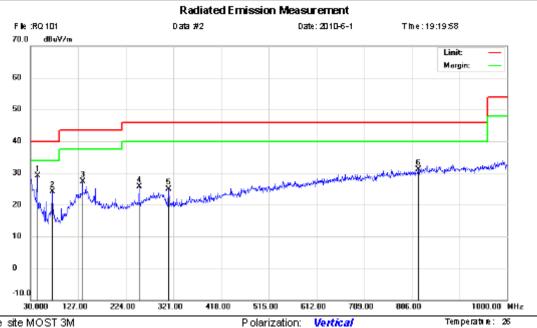
No. I	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	dB	dB+V/m	dBiV/m	dB	Defector	cm	degree	Commett
1	1	94,9000	11.41	16.85	28.26	43.50	-15.24	peak			
2	2	246,3100	10.11	17.40	27.51	46.00	-18.49	peak			
3	* 3	3122700	14.87	16.69	31.56	46.00	-14.44	peak			
4	3	353,9800	12.35	18.12	30.47	46.00	-15.53	peak			
5	4	16,0600	8.72	19.57	28.29	46.00	-17.71	peak			
- 6	5	44.1000	5.94	22.28	28.22	46.00	-17.78	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address: No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101 Mode: Idle Mode

Note:

Plower: AC 120W60Hz

Distance:

Ham ld fly:

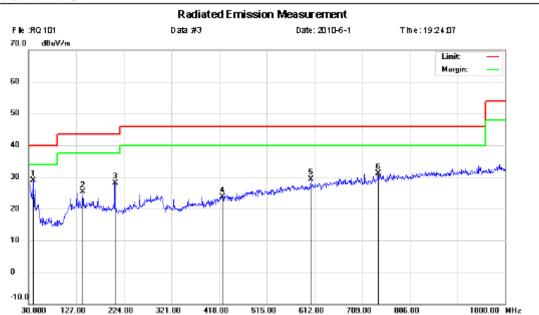
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	₫₿	d8+V/m	dBqV/m	dB	Defector	cm	degree	Comment
1	*	43.5800	14.52	14.51	29.03	40.00	-10.97	peak			
2		74.6200	12.49	11.65	24.14	40.00	-15.86	peak			
3		135.7300	9.83	17.42	27.25	43.50	-16.25	peak			
4		251.1600	8.35	17.40	25.75	46.00	-20.25	peak			
5		311.3000	8.35	16.65	25.00	46.00	-21.00	peak			
6	-	819.5800	4.55	26.47	31.02	46.00	-14.98	peak			

<sup>\*:</sup>Maximum data x:Over limit ::over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

Polarization: Vertical

Distance:

Temperature: 26

Plower: DC 3.7V

Ham kithy: 6O %

EUT: GSM Mobile Phone

M/N: RQ101

Mode: FM Mode

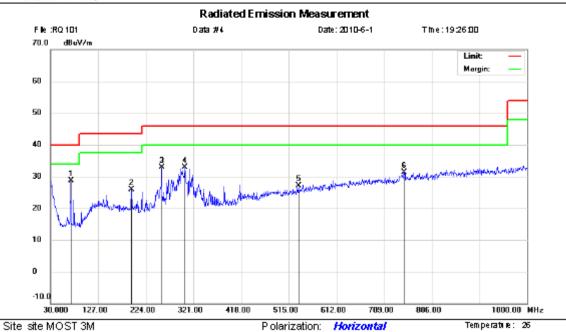
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBŧV	dB	dBiV/m	dB+V/m	dB	Defector	cm	degree	Commett
1	*	39.7000	11.79	17.05	28.84	40.00	-11.16	peak			
2		140.5800	8.05	17.17	25.22	43.50	-18.28	peak			
3		205.5700	11.17	17.01	28.18	43.50	-15.32	peak			
4		424.7900	3.42	20.29	23.71	46.00	-22.29	peak			
5		604 2400	6.19	23.17	29.36	46.00	-16.64	peak			
6		741.0100	5.54	25.56	31.10	46.00	-14.90	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101 Mode: FM Mode

Note:

Power: DC 3.7V Himidity:

Distanc

Distance:

**ឈ**%

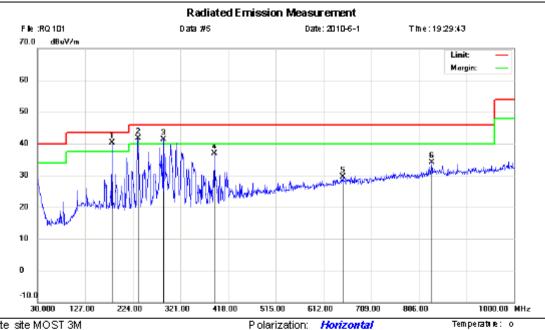
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBŧV	₫₿	dB+V/m	dB+V/m	dB	Detector	cm	degree	Commett
1	*	70.7400	17.03	11.69	28.72	40.00	-11.28	peak			
2		194,9000	8.98	16.85	25.83	43.50	-17.67	peak			
3		256,0100	15.48	17.44	32.92	46.00	-13.08	peak			
4		303.5400	14.64	18.34	32.98	46.00	-13.02	peak			
5		534,4000	4.86	22.23	27.09	46.00	-18.91	peak			
6		748.7700	5.52	25.80	31.32	46.00	-14.68	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101

Mode: MP3/MP4 Mode

Note:

Plowert AC 120V/60Hz

Distance:

Ham ld fly:

6D %

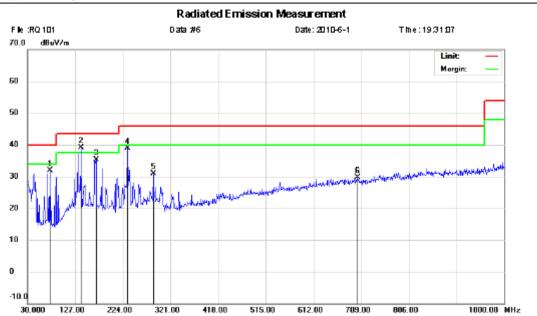
No. I	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	dB	dB+V/m	dB+V/m	dB	Defector	cm	degree	Commett
1	*	181.3200	23.54	16.67	40.21	43.50	-3.29	peak			
2	ļ	233,7000	24.91	16.76	41.67	46.00	4.33	peak			
3	ļ	286,0799	21.96	19.44	41.40	46.00	4.60	peak			
4		389,8700	18.61	18.30	36.91	46.00	-9.09	peak			
5		650,8000	5.41	24.12	29.53	46.00	-16.47	peak			
6		832.1900	7.10	27.04	34.14	46.00	-11.86	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101

Mode: MP3/MP4 Mode

Note:

Temperative: 26 Polarization: Vertical Plower: AC 120V60Hz Ham killiy:

Distance:

6D %

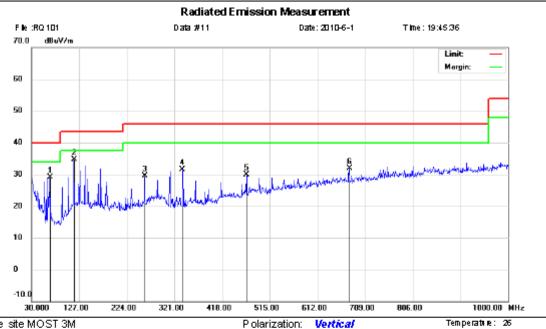
No.	М	c. Freq	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	dB	dB#V/m	dB+V/m	dB	Defector	cm	degree	Comment
1		75.5899	9 20.38	11.62	32.00	40.00	-8.00	peak			
2	*	139,6100	21.94	17.22	39.16	43.50	4.34	peak			
3		169,6799	9 18.16	17.20	35.36	43.50	-8.14	peak			
4		233,6999	9 22.07	16.76	38.83	46.00	-7.17	peak			
5		286,0799	9 11.56	19.44	31.00	46.00	-15.00	peak			
6		701 2400	5.01	24.69	29.70	46.00	-16.30	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address: No.5, Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Plower: AC 120V60Hz

Ham kithy:

Distance:

6D %

Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Camera Mode

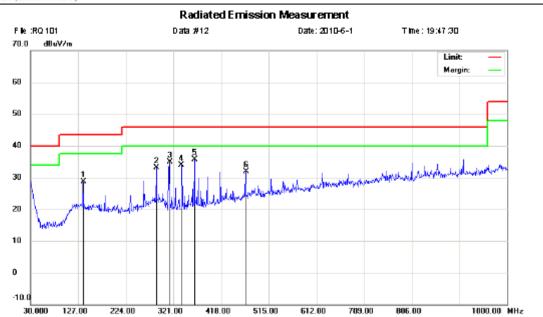
No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBeV	dB	dBiV/m	dB+V/m	₫₿	Defector	cm	degree	Commett
1		66.8600	17.64	11.45	29.09	40.00	-10.91	peak			
2	*	116,3300	17.62	17.13	34.75	43.50	-8.75	peak			
3		259,8900	11.90	17.60	29.50	46.00	-16.50	peak			
4		337.4900	14.34	17.07	31.41	46.00	-14.59	peak			
5		467.4700	8.78	21.07	29.85	46.00	-16.15	peak			
6		676,0200	7.42	24.54	31.96	46.00	-14.04	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Site site MOST 3M

Polarization: Horizontal

Temperature: 26

Limit: FCC Part15 B 3M Radiation EUT: GSM Mobile Phone Plower: AC 120V/60Hz

Distance:

Humidity: 60 %

M/N: RQ101

Mode: Camera Mode

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dB∢V	dB	d8+V/m	dB+V/m	₫B	Defector	cm	degree	Comment
1		136.7000	11.29	17.37	28.66	43.50	-14.84	peak			
2		286,0799	13.57	19.44	33.01	46.00	-12.99	peak			
3		3122700	18.21	16.69	34.90	46.00	-11.10	peak			
4		337.4900	16.91	17.07	33.98	46.00	-12.02	peak			
5	*	363,6800	17.51	18.26	35.77	46.00	-10.23	peak			
6		468.4400	10.81	21.12	31.93	46.00	-14.07	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



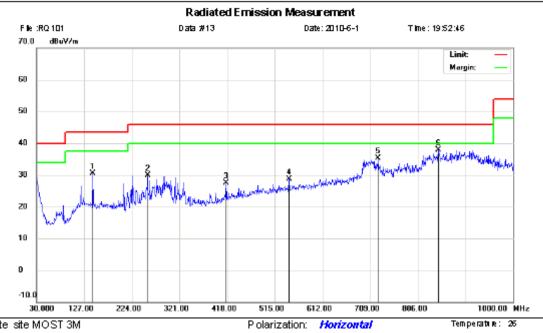
Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Ham ld fly:

Distance:

6O %

Tel: 0755-86170306 Fax 0755-86170310



Plower: AC 120W60Hz

Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Bluetooth Mode

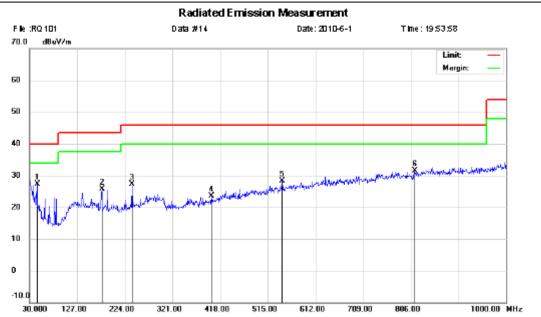
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	₫B	dBiV/m	dB+V/m	₫B	Detector	cm	degree	Comment
1		144.4600	13.55	16.93	30.48	43.50	-13.02	peak			
2		256,0100	12.55	17.44	29.99	46.00	-16.01	peak			
3		416,0600	7.91	19.57	27.48	46.00	-18.52	peak			
4		544.1000	6.36	22.28	28.64	46.00	-17.36	peak			
5		725,4900	10.53	24.76	35.29	46.00	-10.71	peak			
6	*	847.7100	10.82	27.13	37.95	46.00	-8.05	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin



Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park Guangdong ,China

Tel: 0755-86170306 Fax 0755-86170310



Polarization:

Plower: AC 120V60Hz

Vertical

Distance:

Temperative: 26

6D %

Ham ld fly:

Site site MOST 3M

Limit: FCC Part15 B 3M Radiation

EUT: GSM Mobile Phone

M/N: RQ101

Mode: Bluetooth Mode

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHZ	dBŧV	dB	dBiV/m	dB+V/m	dB	Detector	cm	degree	Comment
1	*	45.5200	14.03	13.36	27.39	40.00	-12.61	peak			
2		177.4400	8.82	16.83	25.65	43.50	-17.85	peak			
3		238,5500	10.29	17.10	27.39	46.00	-18.61	peak			
4		400.5400	4.70	18.71	23.41	46.00	-22.59	peak			
5		544.1000	6.01	22.28	28.29	46.00	-17.71	peak			
6		812.7900	5.40	26.04	31.44	46.00	-14.56	peak			

<sup>\*:</sup>Maximum data x:Over limit !:over margin

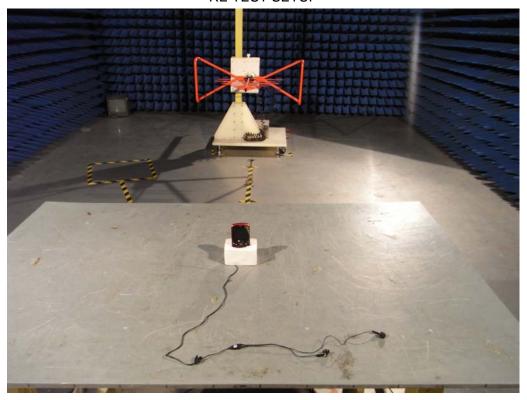
# APPENDIX 1 PHOTOGRAPHS OF TEST SETUP

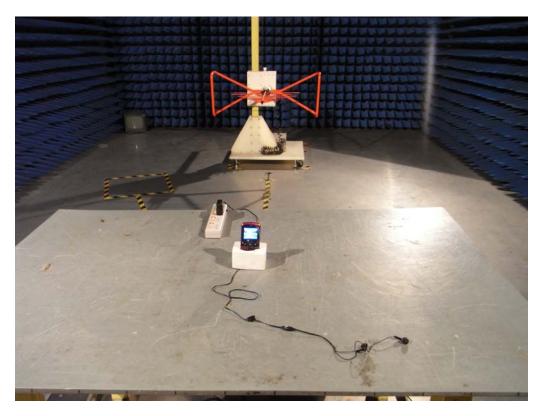






RE TEST SETUP









# APPENDIX 2 PHOTOGRAPHS OF EUT

FRONT VIEW OF SAMPLE



BACK VIEW OF SAMPLE



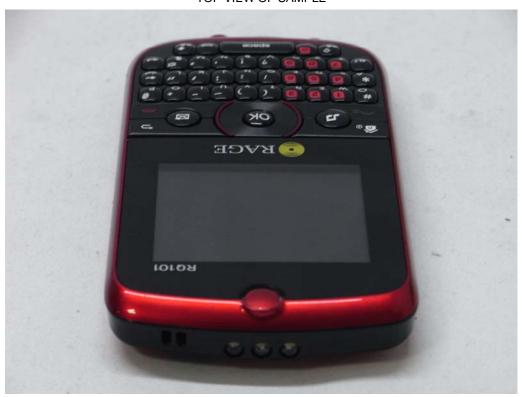
## LEFT VIEW OF SAMPLE



RIGHT VIEW OF SAMPLE



TOP VIEW OF SAMPLE



BOTTOM VIEW OF SAMPLE



PHOTO OF POWER SUPPLY



PHOTO OF USB CABLE



## PHOTO OF HEADPHONE



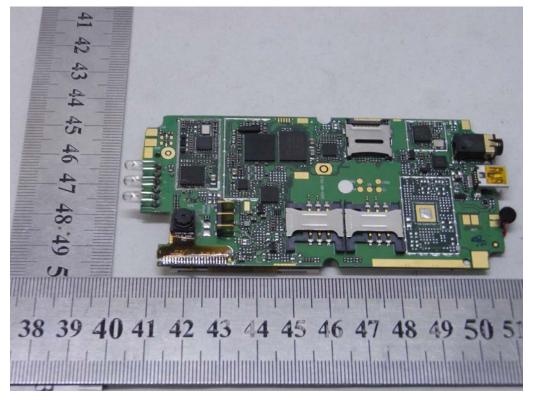
PHOTO OF BATTERY



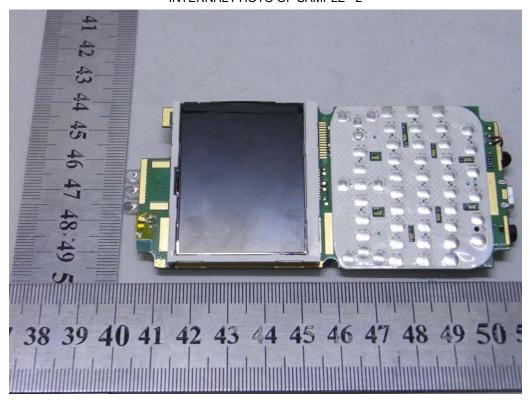
#### PHOTO OF THE ENTIRE SAMPLE



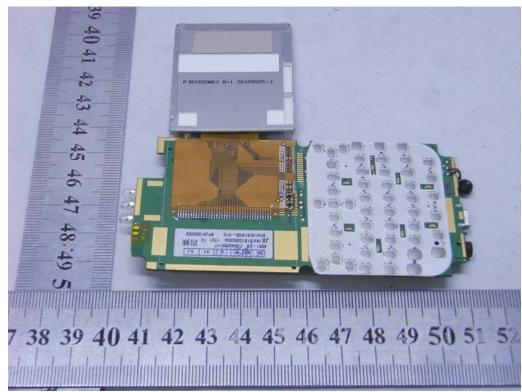
INTERNAL PHOTO OF SAMPLE - 1

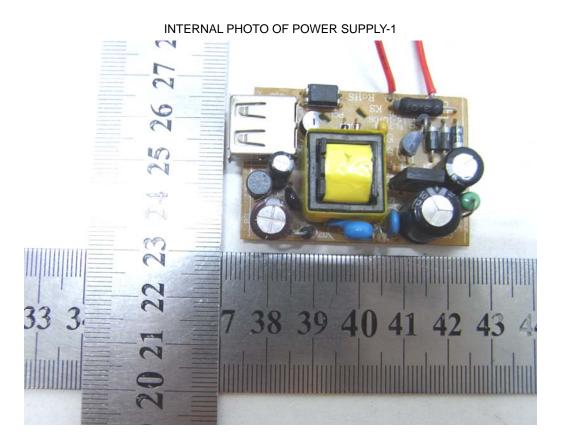


INTERNAL PHOTO OF SAMPLE -2

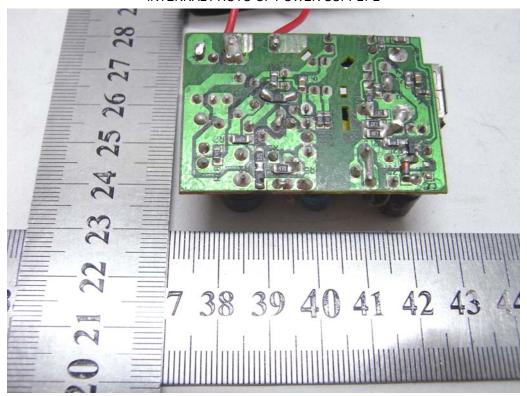


INTERNAL PHOTO OF SAMPLE -3





INTERNAL PHOTO OF POWER SUPPLY-2



#### FRONT VIEW OF SAMPLE-1



**BACK VIEW OF SAMPLE-2** 



LEFT VIEW OF SAMPLE-3



RIGHT VIEW OF SAMPLE-4



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