FCC 47 CFR PART 15 SUBPART B

TEST REPORT

For

Applicant: **Ambitio LLC, The Owner of unnecto ™°**

Address: **1315 N.W 98th ct Unit 11 United States**

Product Name: **3G Mobile Phone**

Model Name: **U-710-2**

Brand Name: **unnecto ™**

FCC ID: **ZU3UNNECTOQUA**

Report No.: **STS120308F1**

Date of Issue: **May 15, 2012**

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

Address: **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:	3G Mobile Phone
Brand Name:	unnecto ™
Model Number:	U-710-2
Series Model Name:	N/A
Series Model Difference description:	N/A
FCC ID:	ZU3UNNECTOQUA
Applicant:	Ambitio LLC, The Owner of unnecto ™°
	1315 N.W 98th ct Unit 11 United States
Manufacturer:	Shenzhen Xiangyue Perfect Digital Science & Technology Co., Ltd.
	Building A1, Jiujiutongxin Industrial Zone 11, Xinbu, Tongle, Longgang, Shenzhen, China
Technical Standards:	FCC Part 15 B
File Number:	STS120308F1
Date of test:	May 4,2012-- May 12, 2012
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): Zhang Ling

Zhang Ling May 15, 2012

Review by (+ signature): July Wen

July Wen May 15, 2012

Approved by (+ signature): Terry Yang

Terry Yang May 15, 2012

2. GENERAL INFORMATION

2.1 PRODUCT INFORMATION

EUT1- Mobile Phone	
Description:	3G Mobile Phone
Model Name:	U-710-2
Brand Name:	unnecto ™
Frequency:	GSM 850MHz/1900MHz
Hardware Version:	1MP000N2_V2.00_PCB
Software Version:	V900_USA_EN_SP_PO_1_09_1B21
EUT2- Battery	
Description:	Lithium-ion Battery
Model Name:	BU-710
Brand Name:	unnecto ™
Manufacturer:	Shenzhen EAST Electronics Co., Ltd.
Capacitance:	1400 mAh
Rated Voltage:	3.7V
Charge Limit:	4.2V
EUT3 – Power Supply	
Description:	Travel Charger
Model Name:	CU-710
Brand Name:	unnecto ™
Manufacturer:	Shenzhen ZhongTian Electronic Co., Ltd.
Rated Input:	AC 100-240V, 50/60Hz, 0.15A
Rated Output:	DC 5V, 0.5A
Length of USB cable:	1.0m

NOTE:

1. The EUT is a model of GSM Portable Mobile Station (MS). It consists of **hand telephone set**, **Lithium battery, USB cable, headphone** 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**
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: 15-35ºC
- 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.

4. 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	Calibration due date
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2013/03/14
2	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2013/03/14
3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2013/03/14
4	Terminator	Hubersuhner	50Ω	No.1	2013/03/14
5	RF Cable	SchwarzBeck	N/A	No.1	2013/03/14
6	Test Receiver	Rohde & Schwarz	ESPI	101202	2013/03/14
7	Bilog Antenna	Sunol	JB3	A121206	2013/03/14
8	Test Antenna - Horn	Schwarzbeck	BBHA 9120C	--	2013/03/14
9	Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	--	2013/03/14
10	Cable	Resenberger	N/A	NO.1	2013/03/14
11	Cable	SchwarzBeck	N/A	NO.2	2013/03/14
12	Cable	SchwarzBeck	N/A	NO.3	2013/03/14
13	DC Power Filter	DuoJi	DL2×30B	N/A	2013/03/14
14	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2013/03/14
15	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2013/03/14
16	Test Receiver	Rohde & Schwarz	ESCI	100492	2013/03/14
17	Absorbing Clamp	Luthi	MDS21	3635	2013/03/14
18	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2013/03/14
19	AC Power Source	Kikusui	AC40MA	LM003232	2013/03/14
20	Test Analyzer	Kikusui	KHA1000	LM003720	2013/03/14
21	Line Impendence Network	Kikusui	LIN40MA-PCR-L	LM002352	2013/03/14
22	ESD Tester	Kikusui	KES4021	LM003537	2013/03/14
23	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2013/03/14
24	Signal Generator	IFR	2032	203002/100	2013/03/14
25	Amplifier	A&R	150W1000	301584	2013/03/14
26	CDN	FCC	FCC-801-M2-25	47	2013/03/14
27	CDN	FCC	FCC-801-M3-25	107	2013/03/14
28	EM Injection Clamp	FCC	F-203I-23mm	403	2013/03/14
29	RF Cable	MIYAZAKI	N/A	No.1/No.2	2013/03/14
30	Universal Radio Communication Tester	ROHDE&SCHWARZ	CMU200	0304789	2013/03/14
31	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2013/03/14

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: 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.**

Mode 3: 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 4: 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 5: Wifi Mode

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

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

Mode 6: 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 7: 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 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.**

Mode 9: 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** (MSi-MS-1224).

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

6. LINE CONDUCTED EMISSION TEST

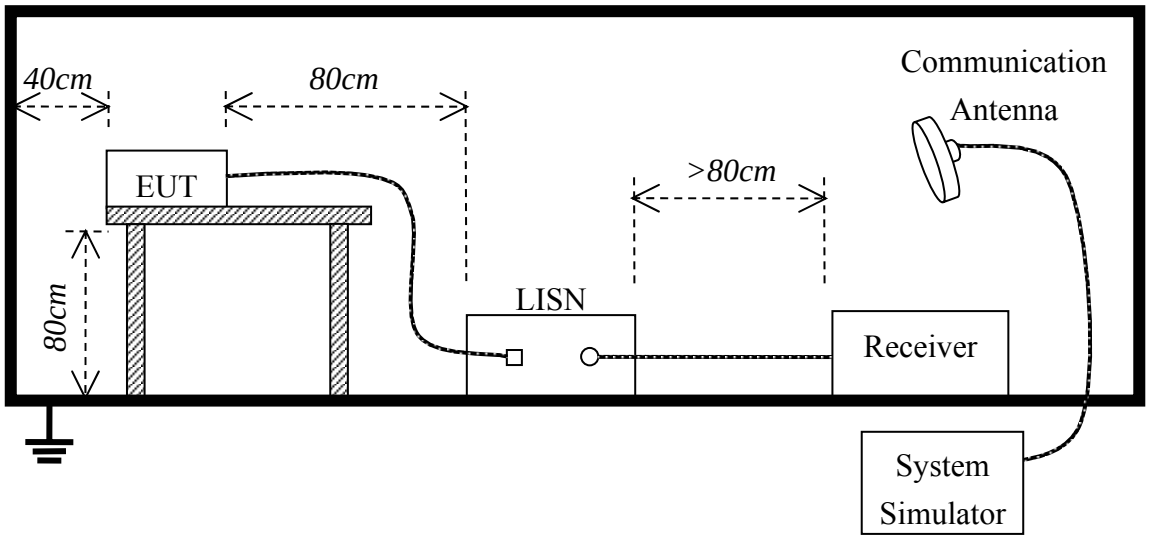
6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	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 DC 5V by AC/DC adapter or USB port of notebook which 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 Investigated		**150KHz TO 30 MHz**		
Mode of operation	**Date**	**Report No.**	**Data#**	**Worst Mode**
Idle Mode	2012-5-11	STS120308F1	U-710-2_0_(L, N)	☐
Call Mode	2012-5-11	STS120308F1	U-710-2_1_(L, N)	☐
GPRS Mode	2012-5-11	STS120308F1	U-710-2_2_(L, N)	☐
Bluetooth Mode	2012-5-11	STS120308F1	U-710-2_3_(L, N)	☐
Wifi Mode	2012-5-11	STS120308F1	U-710-2_4_(L, N)	☐
MP3/MP4 Mode	2012-5-11	STS120308F1	U-710-2_5_(L, N)	☐
Camera Mode	2012-5-11	STS120308F1	U-710-2_6_(L, N)	☐
FM Mode	2012-5-11	STS120308F1	U-710-2_7_(L, N)	☐
USB Mode	2012-5-11	STS120308F1	U-710-2_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.

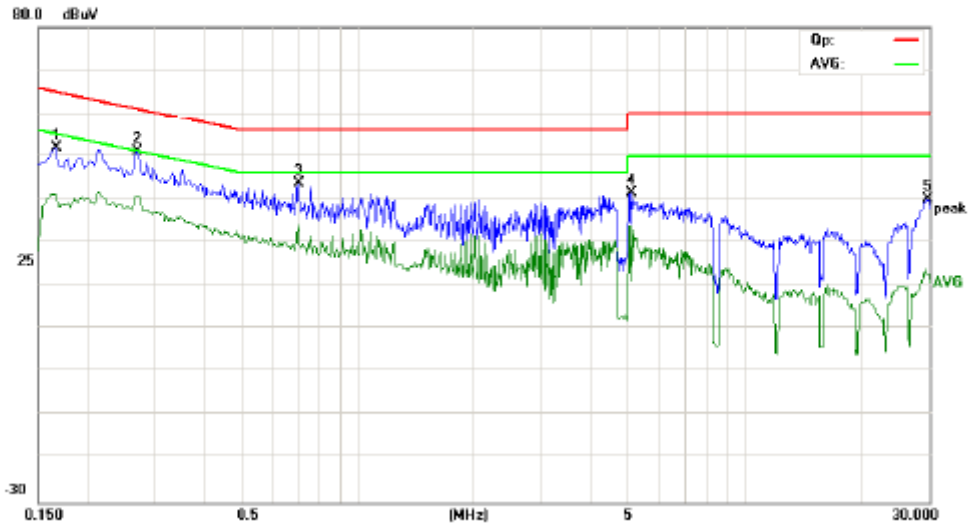
The test data of the worst case condition(s) was reported on the Summary Data page.

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

Conducted Emission Measurement

File :U-710-2 Data :#1 Date: 2012/05/11 Time: 11:37:15



Site site #1 Phase: L1 Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: CAMERA
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	41.87	9.96	51.83	65.16	-13.33	peak	
2	*	0.2700	39.59	11.53	51.12	61.12	-10.00	peak	
3		0.7020	33.43	10.00	43.43	56.00	-12.57	peak	
4		5.1100	29.35	11.93	41.28	60.00	-18.72	peak	
5		29.5580	31.03	9.00	40.03	60.00	-19.97	peak	

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

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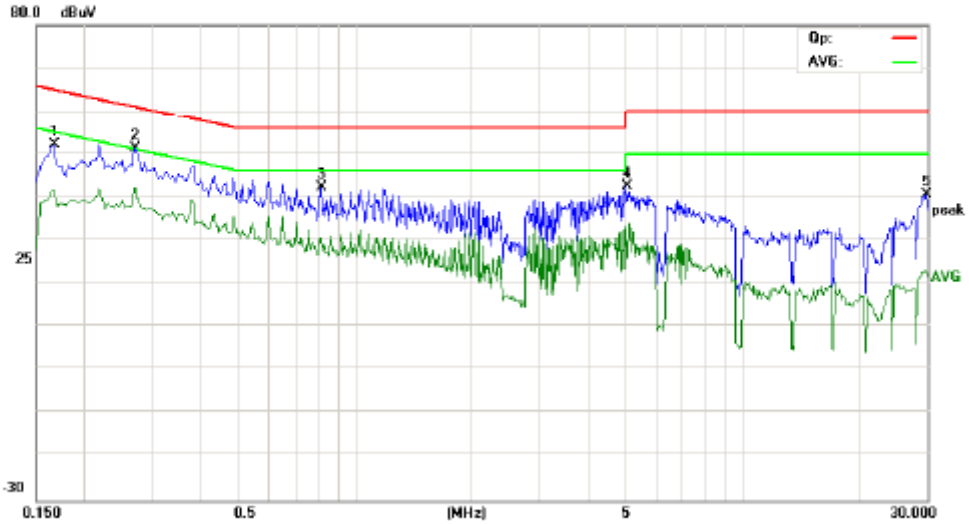
Conducted Emission Measurement

File :U-710-2 Data :#2 Date: 2012/05/11 Time: 11:38:59



Site site #1 Phase: N Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: CAMERA
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1660	42.26	9.96	52.22	65.16	-12.94	peak	
2	*	0.2700	39.81	11.53	51.34	61.12	-9.78	peak	
3		0.8140	32.08	10.00	42.08	56.00	-13.92	peak	
4		5.0260	30.35	11.98	42.33	60.00	-17.67	peak	
5		29.7460	31.47	9.00	40.47	60.00	-19.53	peak	

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

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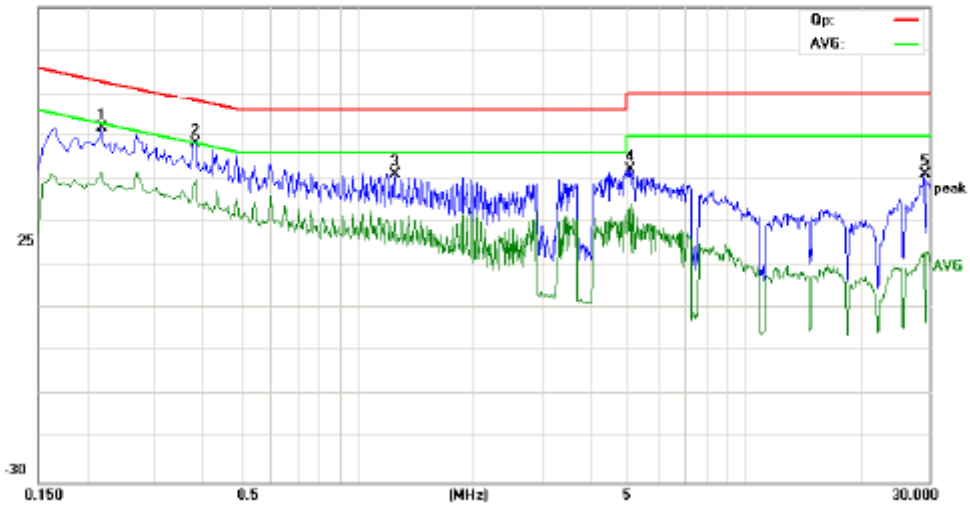
Conducted Emission Measurement

File :U-710-2 Data :#3 Date: 2012/05/11 Time: 11:40:55



Site site #1 Phase: N Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: CALL
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2180	39.83	11.88	51.71	62.89	-11.18	peak	
2	*	0.3820	37.40	10.79	48.19	58.24	-10.05	peak	
3		1.2460	31.23	9.75	40.98	56.00	-15.02	peak	
4		5.0340	30.28	11.98	42.26	60.00	-17.74	peak	
5		29.0620	32.09	9.00	41.09	60.00	-18.91	peak	

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

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Conducted Emission Measurement

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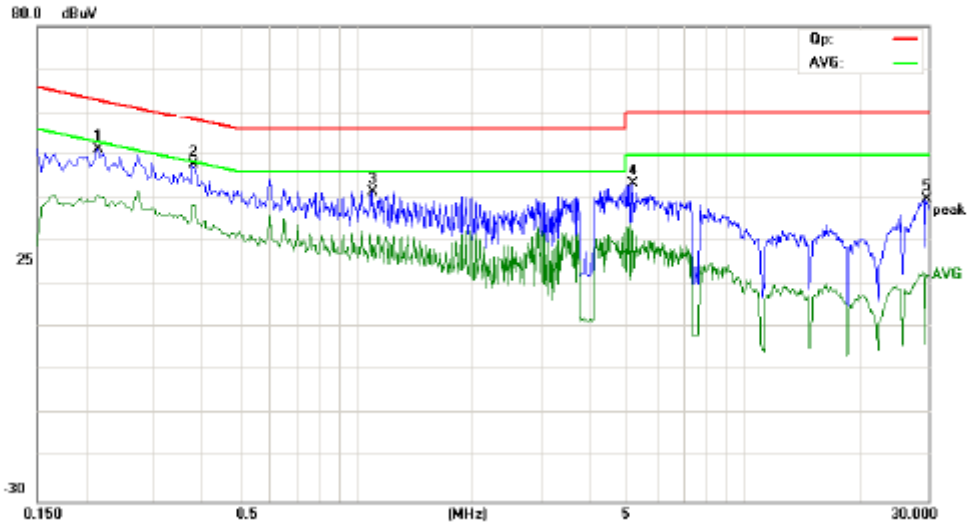

Site site #1 Phase: L1 Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: CALL
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2140	39.34	11.91	51.25	63.05	-11.80	peak	
2	*	0.3780	36.99	10.81	47.80	58.32	-10.52	peak	
3		1.0940	31.59	9.91	41.50	56.00	-14.50	peak	
4		5.1540	31.32	11.91	43.23	60.00	-16.77	peak	
5		29.6780	30.67	9.00	39.67	60.00	-20.33	peak	

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

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Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement

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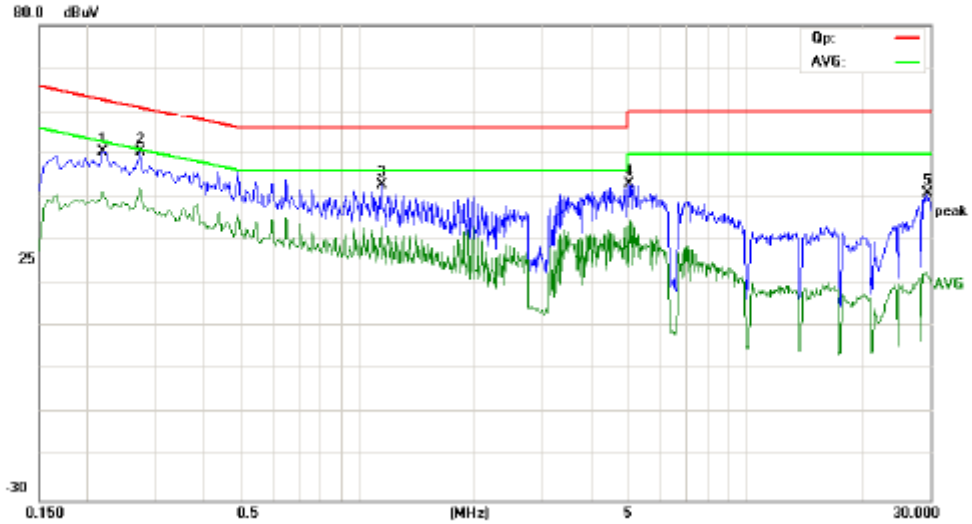

Site site #1 Phase: L1 Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: BLUETOOTH
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2180	38.53	11.88	50.41	62.89	-12.48	peak	
2	*	0.2740	38.85	11.51	50.36	61.00	-10.64	peak	
3		1.1420	32.97	9.86	42.83	56.00	-13.17	peak	
4		4.9980	30.95	12.00	42.95	56.00	-13.05	peak	
5		29.2380	31.82	9.00	40.82	60.00	-19.18	peak	

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

Compliance Laboratory
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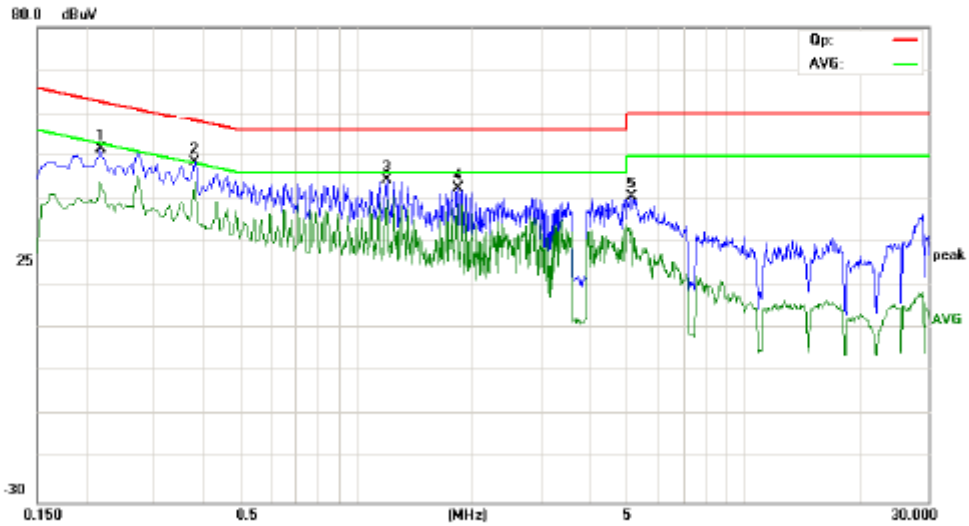
Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement

File :U-710-2 Data :#6 Date: 2012/05/11 Time: 11:46:32



Site site #1 Phase: N Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: BLUETOOTH
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2180	39.53	11.88	51.41	62.89	-11.48	peak	
2	*	0.3832	37.72	10.78	48.50	58.21	-9.71	peak	
3		1.1980	34.53	9.80	44.33	56.00	-11.67	peak	
4		1.8220	33.32	9.18	42.50	56.00	-13.50	peak	
5		5.1140	28.60	11.93	40.53	60.00	-19.47	peak	

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

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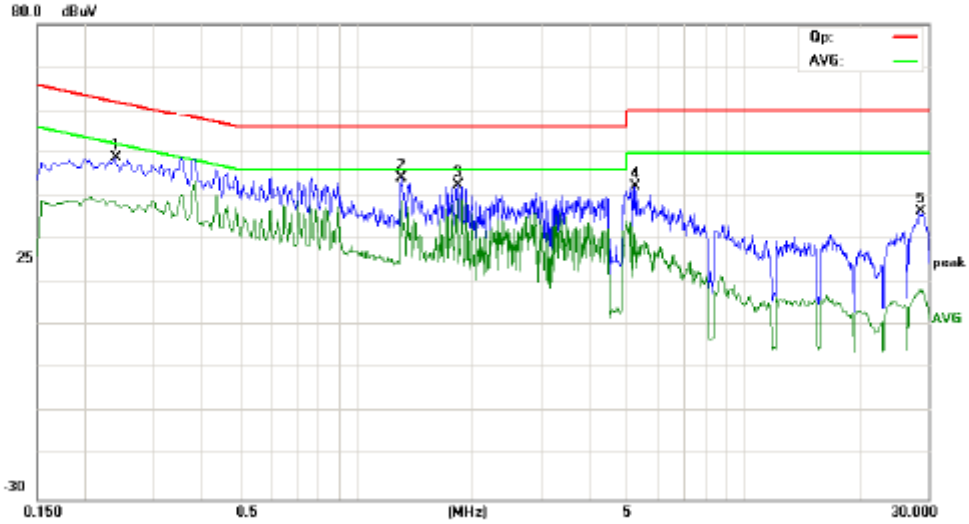
Conducted Emission Measurement

File :U-710-2 Data :#7 Date: 2012/05/11 Time: 11:48:14



Site site #1 Phase: N Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: WIFI
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2380	37.16	11.75	48.91	62.17	-13.26	peak	
2	*	1.3060	34.53	9.69	44.22	56.00	-11.78	peak	
3		1.8220	33.30	9.18	42.48	56.00	-13.52	peak	
4		5.2300	30.28	11.86	42.14	60.00	-17.86	peak	
5		28.5220	27.47	9.00	36.47	60.00	-23.53	peak	

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

Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park
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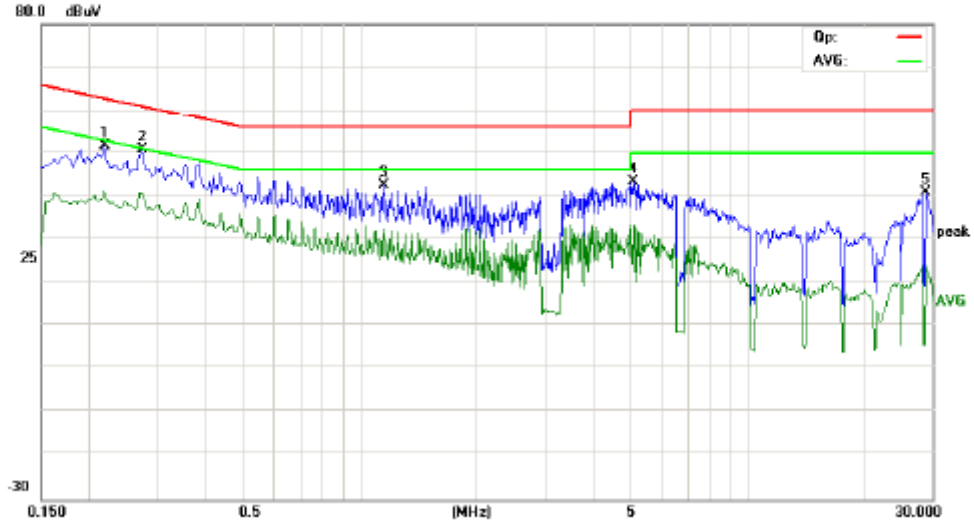
Conducted Emission Measurement

File :U-710-2 Data :#8 Date: 2012/05/11 Time: 11:50:01



Site site #1 Phase: L1 Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 3G Mobile Phone
M/N: U-710-2
Mode: WIFI
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2180	39.73	11.88	51.61	62.89	-11.28	peak	
2	*	0.2740	39.28	11.51	50.79	61.00	-10.21	peak	
3		1.1460	32.53	9.85	42.38	56.00	-13.62	peak	
4		5.0660	31.38	11.96	43.34	60.00	-16.66	peak	
5		28.8140	31.68	9.00	40.68	60.00	-19.32	peak	

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

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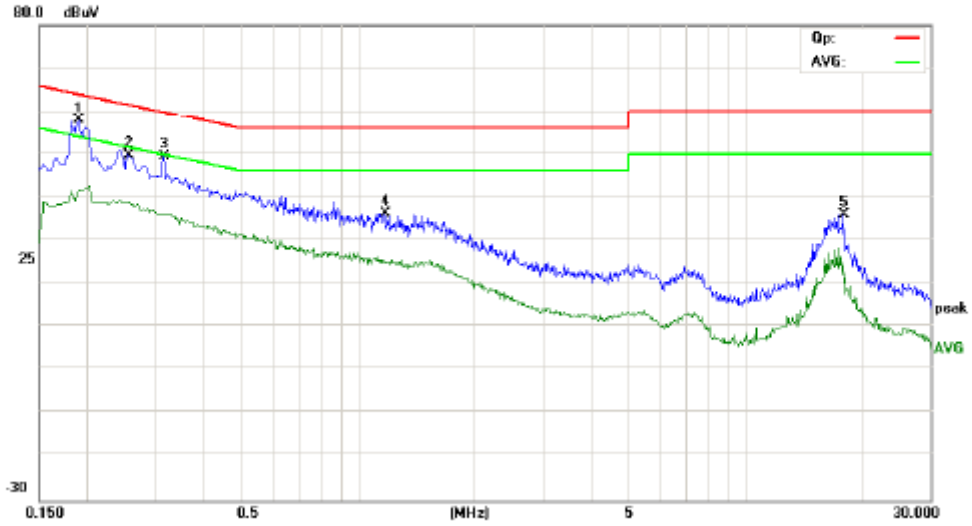
Conducted Emission Measurement

File :U-710-2 Data :#9 Date: 2012/05/11 Time: 11:57:30



Site site #1 Phase: L1 Temperature: 26

Limit: FCC Part15 B Class B QP Power: DC 5V From PC Input Ac120V/60Hz Humidity: 60 %

EUT: 3G Mobile Phone

M/N: U-710-2

Mode: USB

Note:

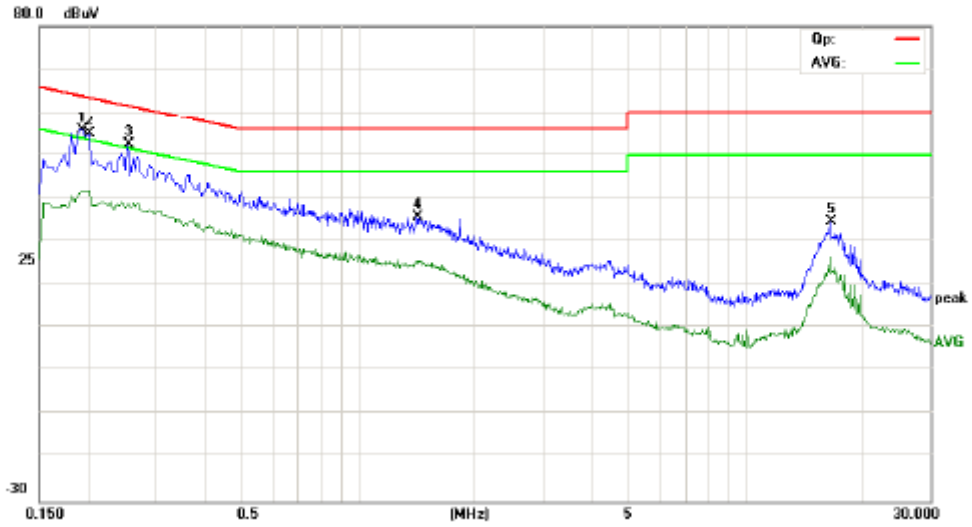
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1900	46.44	11.40	57.84	64.04	-6.20	peak	
2		0.2562	37.87	11.63	49.50	61.55	-12.05	peak	
3		0.3140	38.11	11.24	49.35	59.86	-10.51	peak	
4		1.1700	26.21	9.83	36.04	56.00	-19.96	peak	
5		17.8620	26.89	9.00	35.89	60.00	-24.11	peak	

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

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

Conducted Emission Measurement

File :U-710-2 Data :#10 Date: 2012/05/11 Time: 11:59:18



Site site #1 Phase: N Temperature: 26

Limit: FCC Part15 B Class B QP Power: DC 5V From PC Input Ac120V/60Hz Humidity: 60 %

EUT: 3G Mobile Phone

M/N: U-710-2

Mode: USB

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1940	43.95	11.64	55.59	63.86	-8.27	peak	
2		0.2020	42.78	11.99	54.77	63.53	-8.76	peak	
3		0.2540	40.77	11.64	52.41	61.63	-9.22	peak	
4		1.4180	26.02	9.58	35.60	56.00	-20.40	peak	
5		16.5140	25.36	9.00	34.36	60.00	-25.64	peak	

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

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:

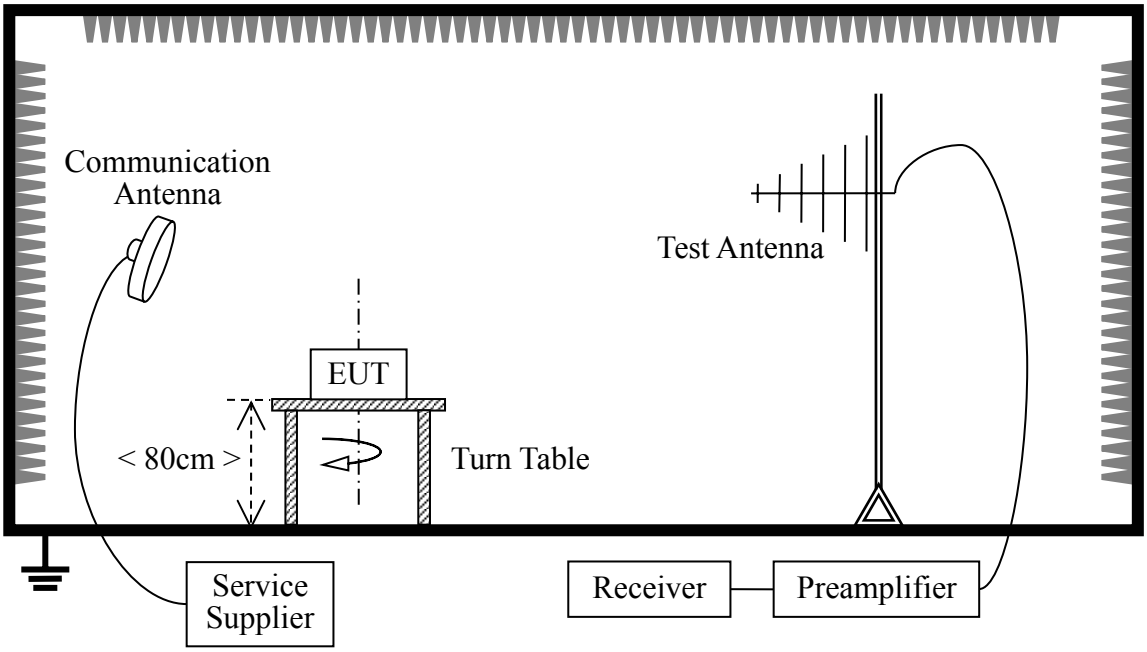
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

NOTE:

1. Field Strength (dBμV/m) = 20*log[Field Strength (μV/m)].
2. In the emission tables above, the tighter limit applies at the band edges.

7.2 TEST DESCRIPTION

Test Setup:



The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. 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				
Frequency Range Investigated			**30 MHz TO 1000 MHz**	
Mode of operation	**Date**	**Report No.**	**Data#**	**Worst Mode**
Idle Mode	2012-5-11	STS120308F1	U-710-2_0_(H, V)	☐
Call Mode	2012-5-11	STS120308F1	U-710-2_1_(H, V)	☐
GPRS Mode	2012-5-11	STS120308F1	U-710-2_2_(H, V)	☐
Bluetooth Mode	2012-5-11	STS120308F1	U-710-2_3_(H, V)	☐
Wifi Mode	2012-5-11	STS120308F1	U-710-2_4_(H, V)	☐
MP3/MP4 Mode	2012-5-11	STS120308F1	U-710-2_5_(H, V)	☐
Camera Mode	2012-5-11	STS120308F1	U-710-2_6_(H, V)	☐
FM Mode	2012-5-11	STS120308F1	U-710-2_7_(H, V)	☐
USB Mode	2012-5-11	STS120308F1	U-710-2_8_(H, V)	☒

7.3TESTRESULT

Form 9 KHz to 30MHz:

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)			
N/A	H								>20
N/A	V								>20

Note: No test data was detected in below 30MHz.

Form 30MHz to 1000MHz7.3

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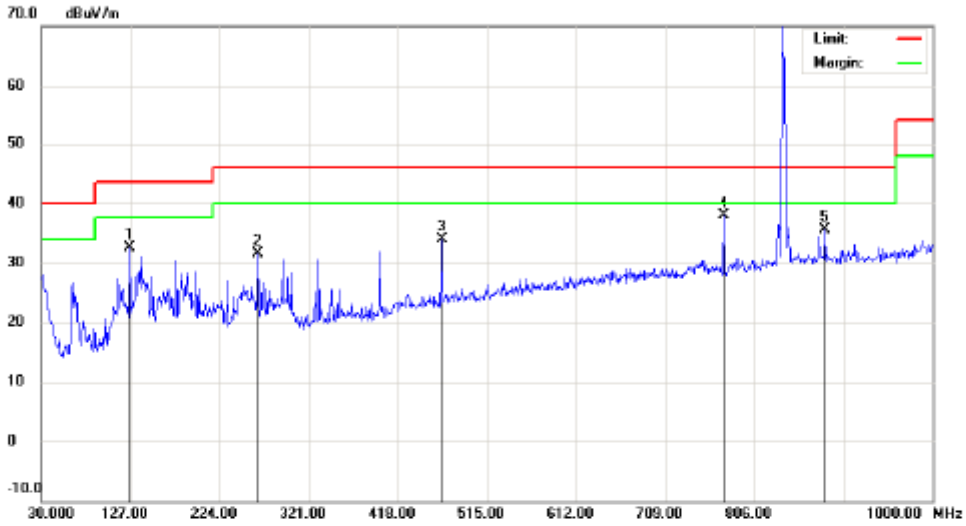
Radiated Emission Measurement

File :U-710-2 Data :#1 Date: 2012-5-11 Time: 1:50:42



Site site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: CALL
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		126.0300	14.87	17.70	32.57	43.50	-10.93	peak			
2		265.7099	13.20	18.35	31.55	46.00	-14.45	peak			
3		465.5299	12.85	20.98	33.83	46.00	-12.17	peak			
4	*	773.0198	11.86	25.99	37.85	46.00	-8.15	peak			
5		882.6299	8.42	27.13	35.55	46.00	-10.45	peak			

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

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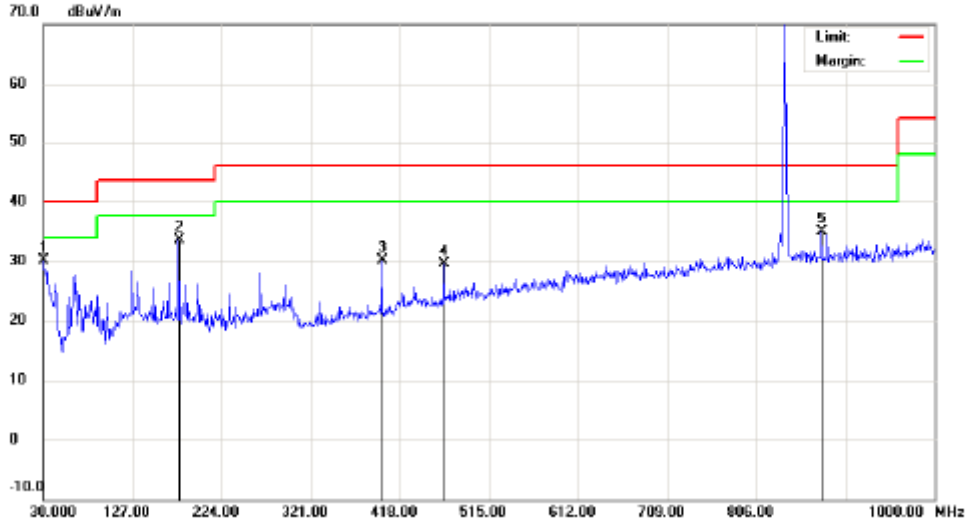
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File :U-710-2 Data :#2 Date: 2012-5-11 Time: 1:52:50



Site site #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: CALL
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	30.0000	5.26	24.80	30.06	40.00	-9.94	peak			
2		176.4700	16.63	16.88	33.51	43.50	-9.99	peak			
3		398.6000	11.39	18.66	30.05	46.00	-15.95	peak			
4		465.5300	8.43	20.98	29.41	46.00	-16.59	peak			
5		876.8100	7.93	27.04	34.97	46.00	-11.03	peak			

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

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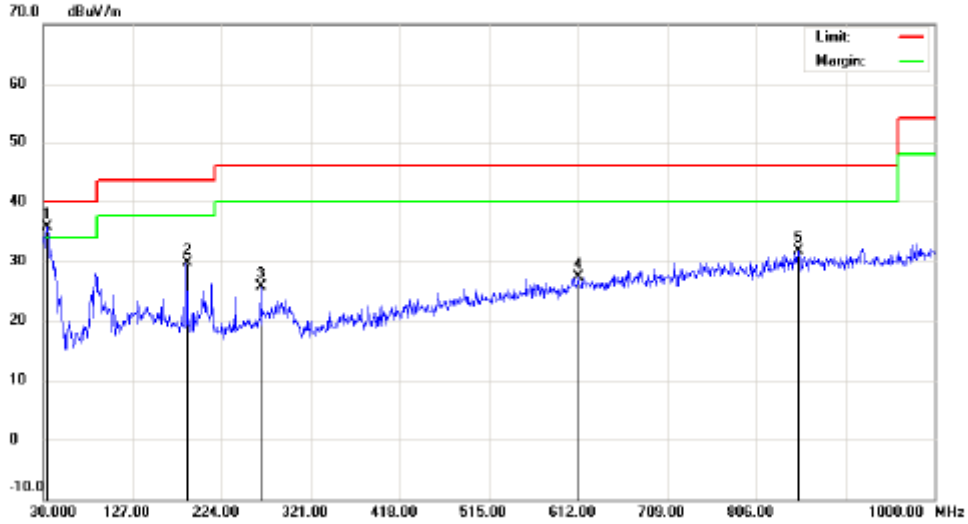
Radiated Emission Measurement

File :U-710-2 Data :#5 Date: 2012-5-11 Time: 2:04:54



Site site #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: bluetooth
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	34.8500	14.64	21.06	35.70	40.00	-4.30	peak			
2		186.1700	13.04	16.60	29.64	43.50	-13.86	peak			
3		266.6800	7.31	18.47	25.78	46.00	-20.22	peak			
4		612.0000	3.98	23.26	27.24	46.00	-18.76	peak			
5		851.5900	4.57	27.11	31.68	46.00	-14.32	peak			

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

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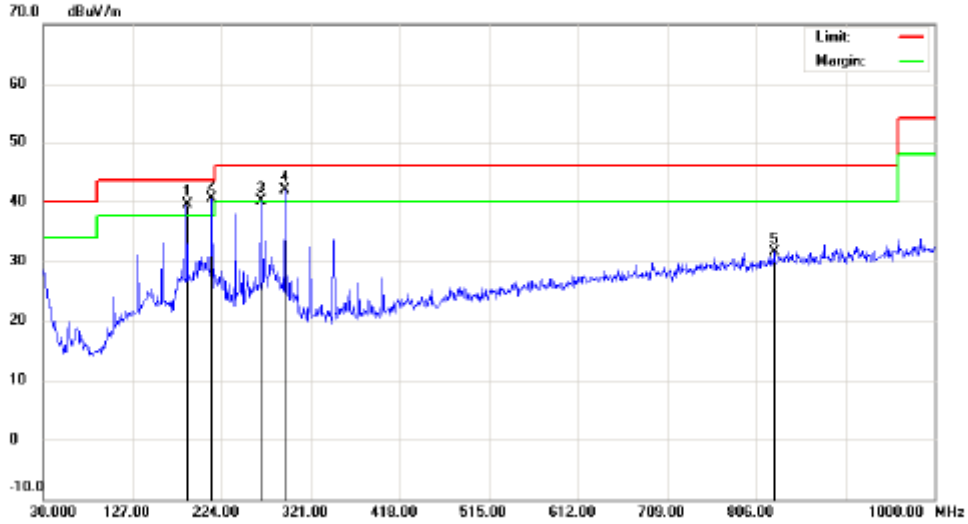
Radiated Emission Measurement

File :U-710-2 Data :#6 Date: 2012-5-11 Time: 2:05:53



Site site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: bluetooth
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	186.1700	22.87	16.60	39.47	43.50	-4.03	peak			
2	*	213.3300	24.45	16.04	40.49	43.50	-3.01	peak			
3	!	266.6800	21.59	18.47	40.06	46.00	-5.94	peak			
4	!	292.8700	22.64	19.34	41.98	46.00	-4.02	peak			
5		825.4000	4.78	26.82	31.60	46.00	-14.40	peak			

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

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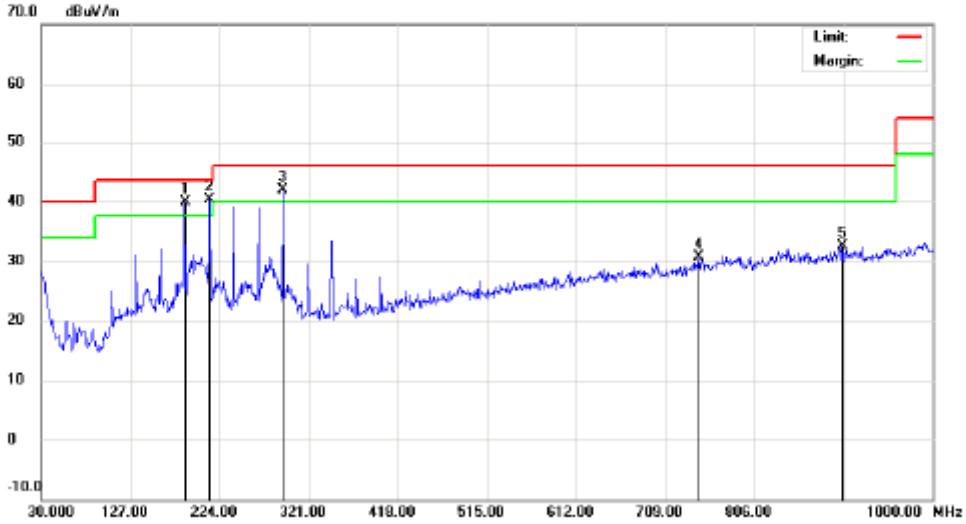
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File :U-710-2 Data :#7 Date: 2012-5-11 Time: 2:08:05



Site site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: camera
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	186.1700	23.30	16.60	39.90	43.50	-3.60	peak			
2	*	213.3300	24.35	16.04	40.39	43.50	-3.11	peak			
3	!	292.8700	22.60	19.34	41.94	46.00	-4.06	peak			
4		745.8600	4.92	25.80	30.72	46.00	-15.28	peak			
5		901.0600	4.99	27.42	32.41	46.00	-13.59	peak			

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

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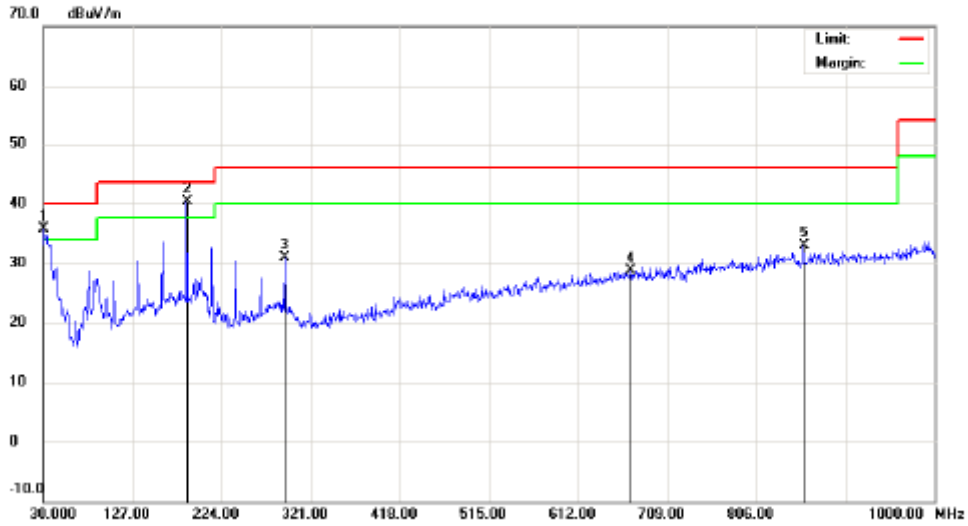
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File :U-710-2 Data :#8 Date: 2012-5-11 Time: 2:09:23



Site site #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: camera
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	!	30.0000	10.84	24.80	35.64	40.00	-4.36	peak			
2	*	186.1700	23.73	16.60	40.33	43.50	-3.17	peak			
3		292.8700	11.58	19.34	30.92	46.00	-15.08	peak			
4		669.2300	4.16	24.47	28.63	46.00	-17.37	peak			
5		857.4100	5.73	27.08	32.81	46.00	-13.19	peak			

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

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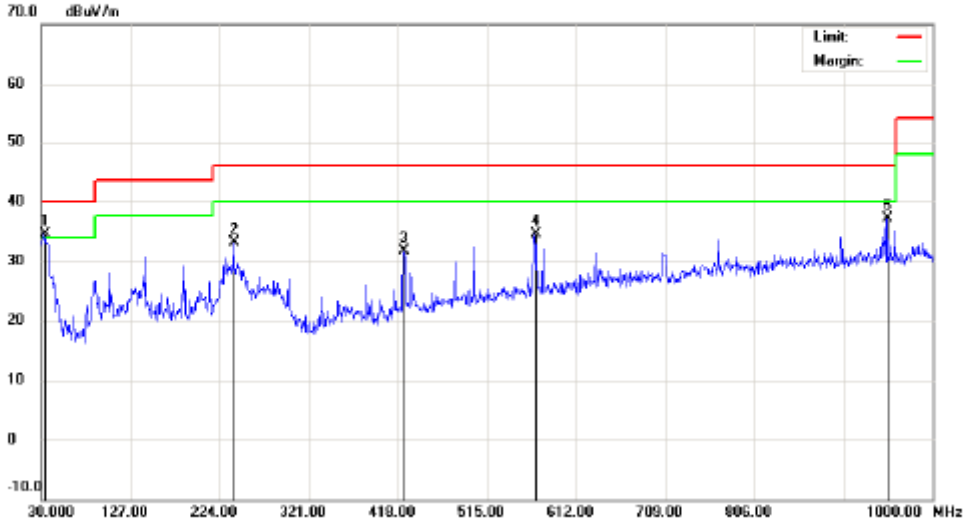
Radiated Emission Measurement

File :U-710-2 Data :#9 Date: 2012-5-11 Time: 2:10:37



Site site #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: DC 5V From PC Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: USB
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	32.9100	11.99	22.56	34.55	40.00	-5.45	peak			
2		239.5200	15.91	17.17	33.08	46.00	-12.92	peak			
3		423.8200	11.38	20.23	31.61	46.00	-14.39	peak			
4		567.3800	11.71	22.82	34.53	46.00	-11.47	peak			
5		950.5300	9.13	27.92	37.05	46.00	-8.95	peak			

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

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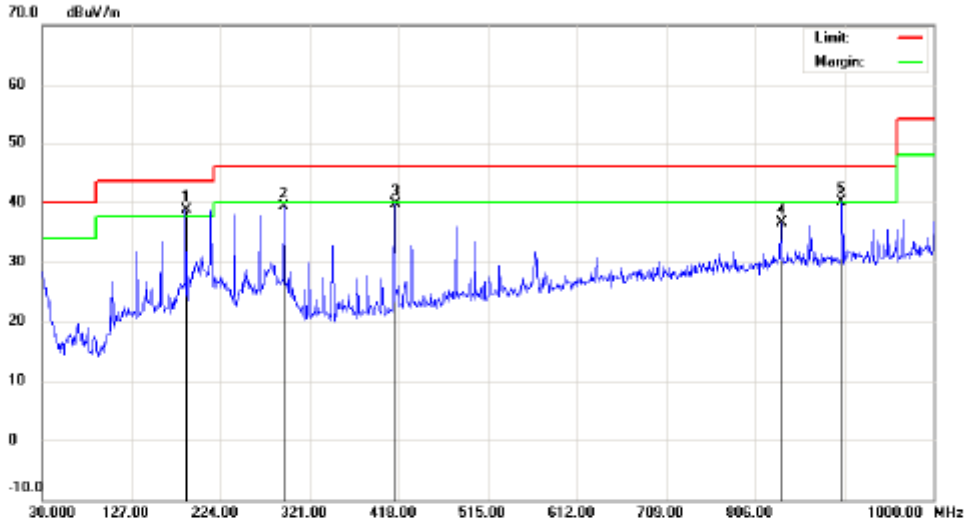
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File :U-710-2 Data :#10 Date: 2012-5-11 Time: 2:11:21



Site site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: DC 5V From PC Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: USB
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	186.1700	22.05	16.60	38.65	43.50	-4.85	peak			
2		292.8700	19.88	19.34	39.22	46.00	-6.78	peak			
3		413.1500	20.42	19.32	39.74	46.00	-6.26	peak			
4		834.1300	9.40	27.08	36.48	46.00	-9.52	peak			
5	!	900.0900	12.73	27.40	40.13	46.00	-5.87	peak			

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

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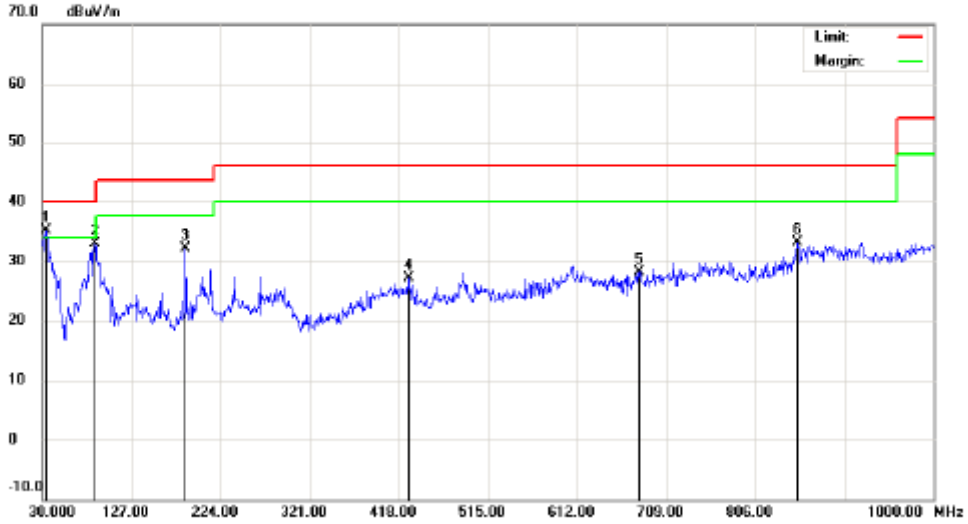
Radiated Emission Measurement

File :U-710-2 Data :#11 Date: 2012-5-11 Time: 2:04:54



Site site #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: wifi
Note:

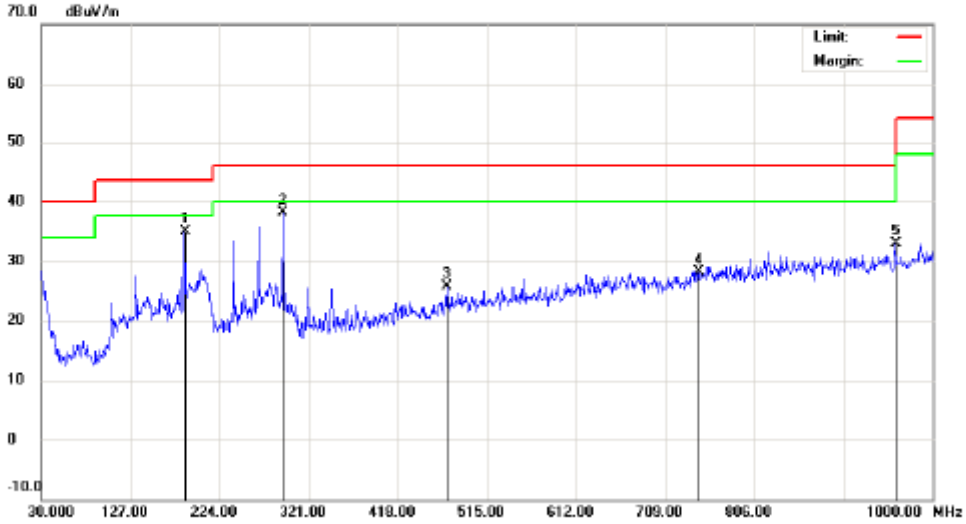
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	34.8500	14.14	21.06	35.20	40.00	-4.80	peak			
2		87.2300	21.58	11.34	32.92	40.00	-7.08	peak			
3		186.1699	15.54	16.60	32.14	43.50	-11.36	peak			
4		428.6700	6.71	20.30	27.01	46.00	-18.99	peak			
5		679.8999	3.59	24.50	28.09	46.00	-17.91	peak			
6		851.5900	6.07	27.11	33.18	46.00	-12.82	peak			

*: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

Radiated Emission Measurement

File :U-710-2 Data :#12 Date: 2012-5-11 Time: 2:02:56



Site site #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 3G Mobile Phone Distance:
M/N: U-710-2
Mode: wifi
Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		186.1700	18.35	16.60	34.95	43.50	-8.55	peak			
2	*	292.8700	18.68	19.34	38.02	46.00	-7.98	peak			
3		471.3500	4.44	21.25	25.69	46.00	-20.31	peak			
4		744.8900	2.28	25.79	28.07	46.00	-17.93	peak			
5		959.2600	4.83	28.00	32.83	46.00	-13.17	peak			

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

Notes: The spikes which exceed the limit should be ignored because they are MS and SS carrier frequency.

The worst test data above 1 GHz was showed as the follow:

Operation Mode:	CALL(850MHz)	**Test Date:**	May 11, 2012
Temperature:	24°C	**Tested by:**	Habby Guo
Humidity:	70 % RH	**Polarity:**	Ver. / Hor.

Freq. (MHz)	Ant. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant./CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Peak Margin (dB)	AV Margin (dB)
					Peak (dBuV/m)	AV (dBuV/m)				
1717.50	H	59.83	38.92	9.06	68.89	47.98	74.00	54.00	-5.11	-6.02
2765.50	H	56.22	35.54	9.09	65.31	44.63	74.00	54.00	-8.69	-9.37
N/A										>20
1717.50	V	56.88	36.03	9.06	65.94	45.09	74.00	54.00	-8.06	-8.91
2765.00	V	53.39	32.77	9.09	62.48	41.86	74.00	54.00	-11.52	-12.14
N/A										>20

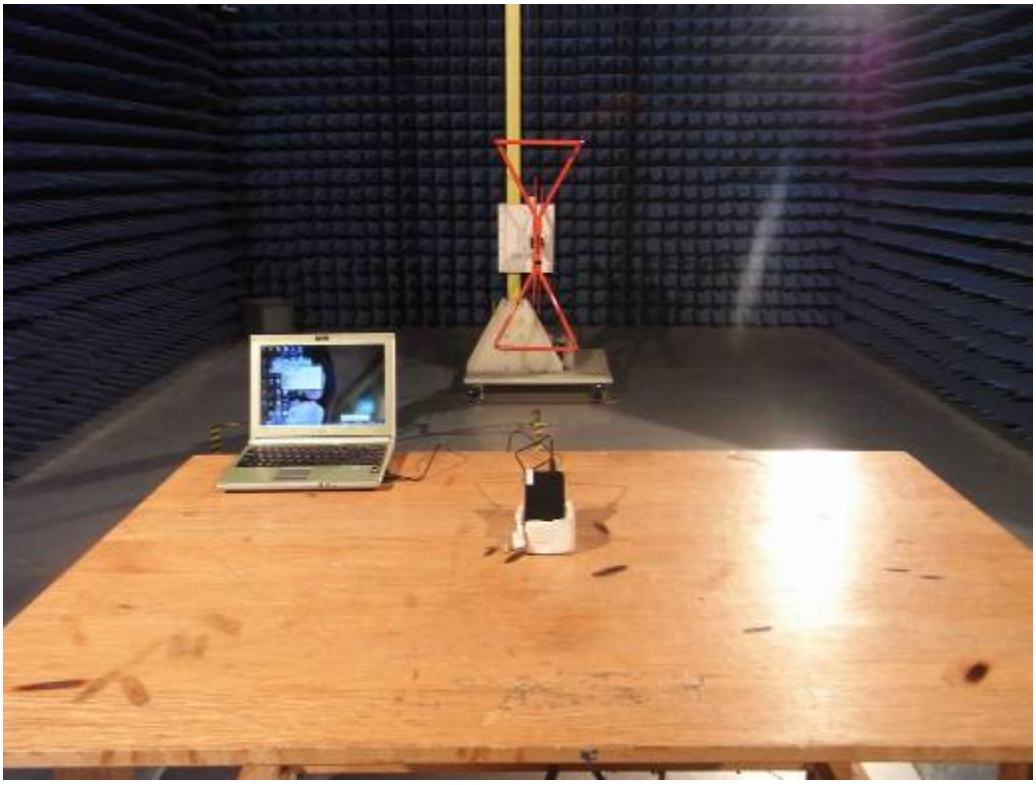
Notes:

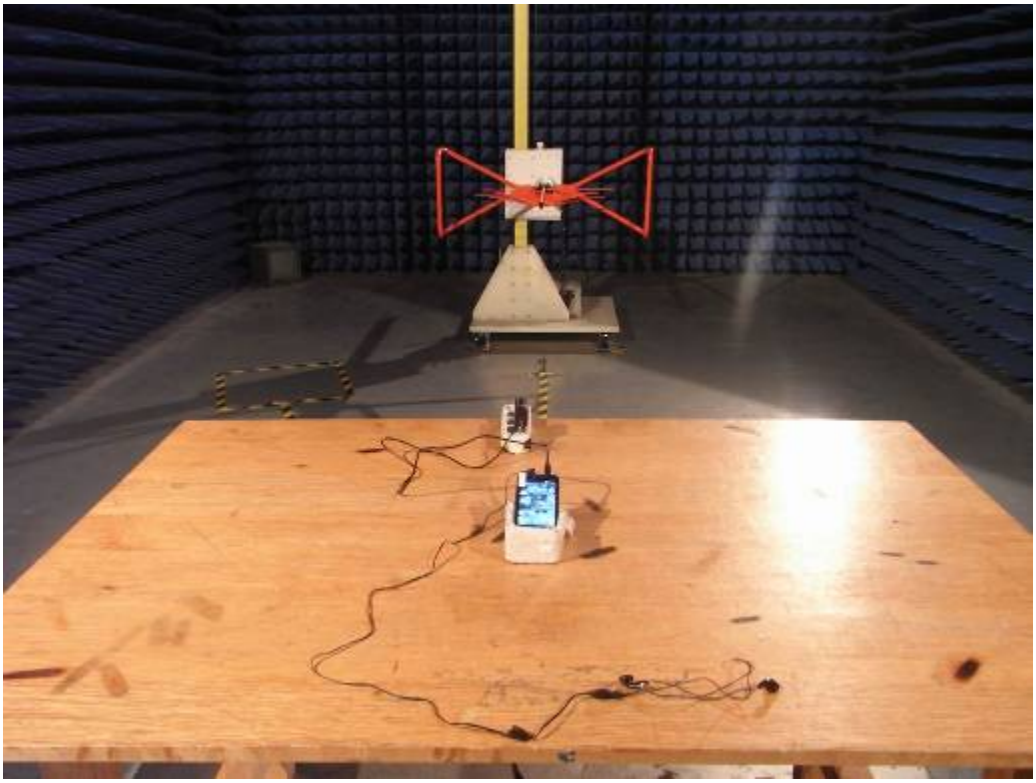
1. Measuring frequencies from 1 GHz to 6GHz.
2. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
3. The frequency that above 3GHz is mainly from the environment noise.

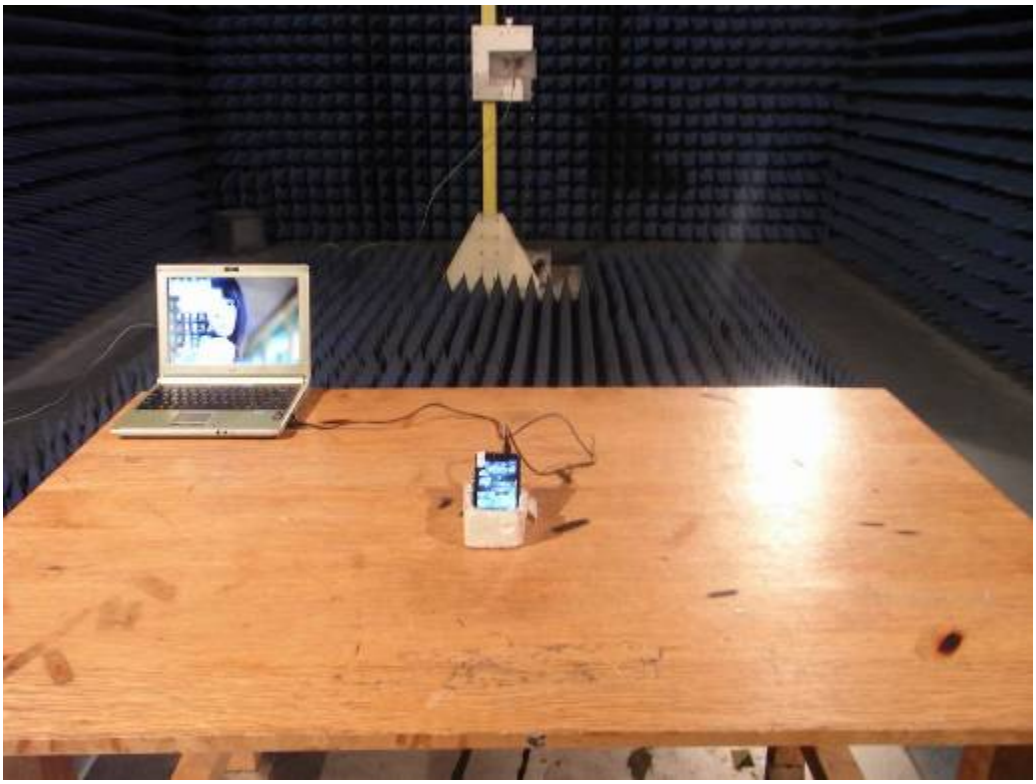
APPENDIX 1
PHOTOGRAPHS OF TEST SETUP

CE 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 EARPHONE

PHOTO OF USB CABLE

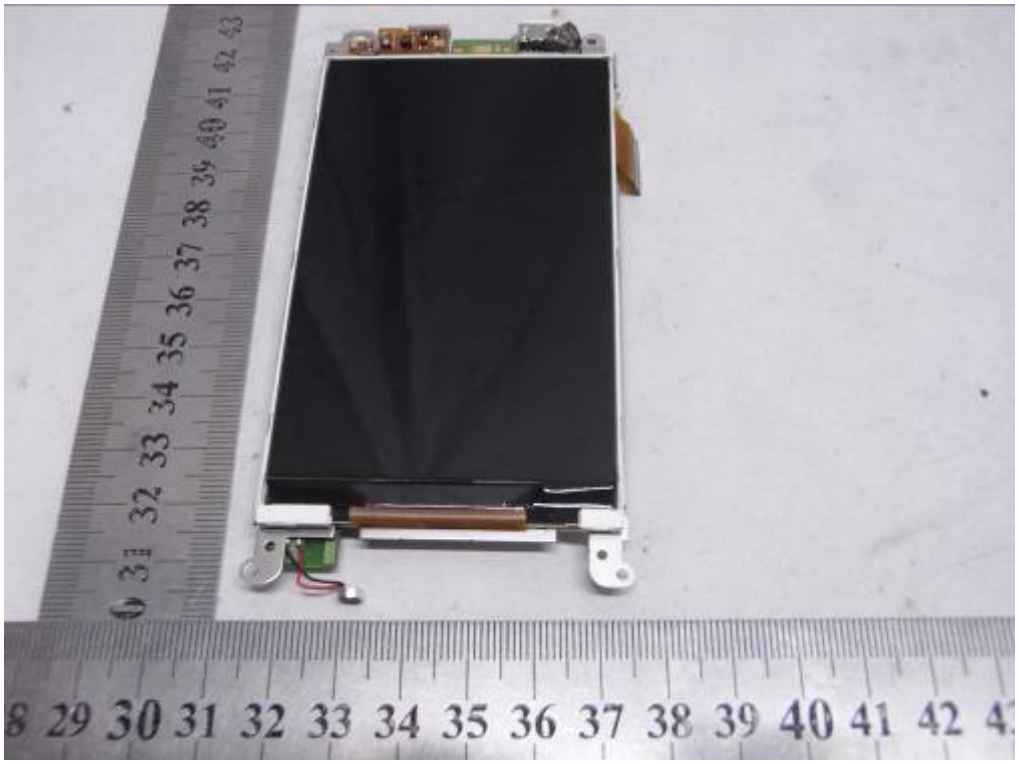
PHOTO OF POWER SUPPLY

PHOTO OF BATTERY

PHOTO OF THE ENTIRE SAMPLE

INTERNAL PHOTO OF SAMPLE – 1

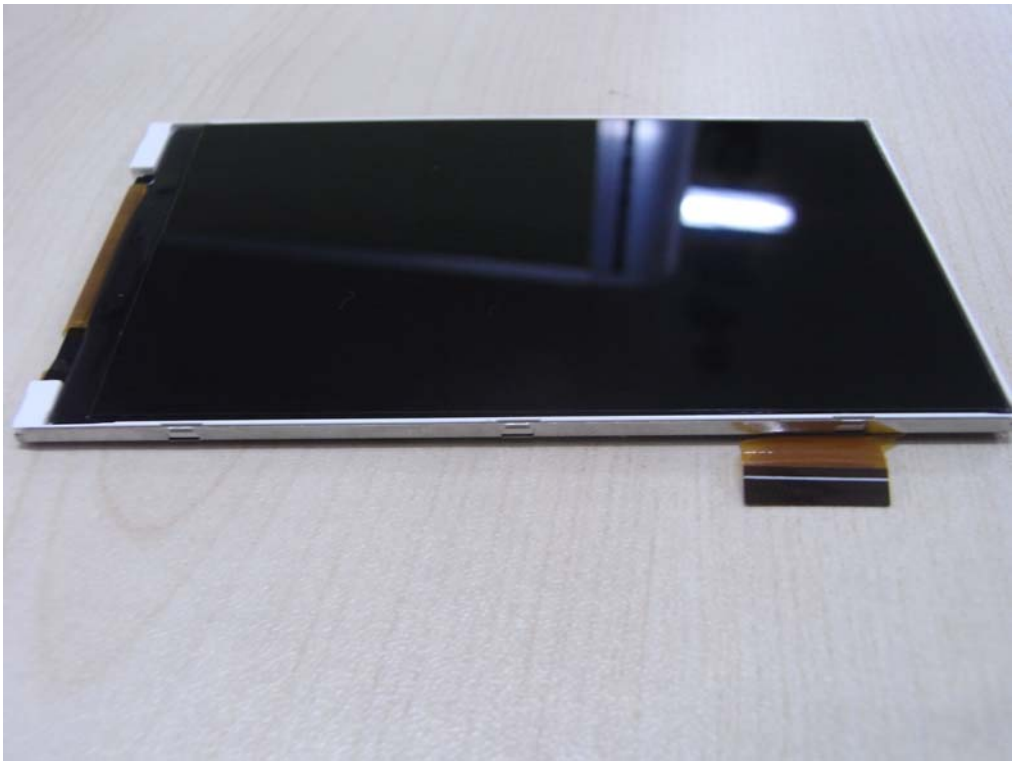
INTERNAL PHOTO OF SAMPLE –2



INTERNAL PHOTO OF SAMPLE –3

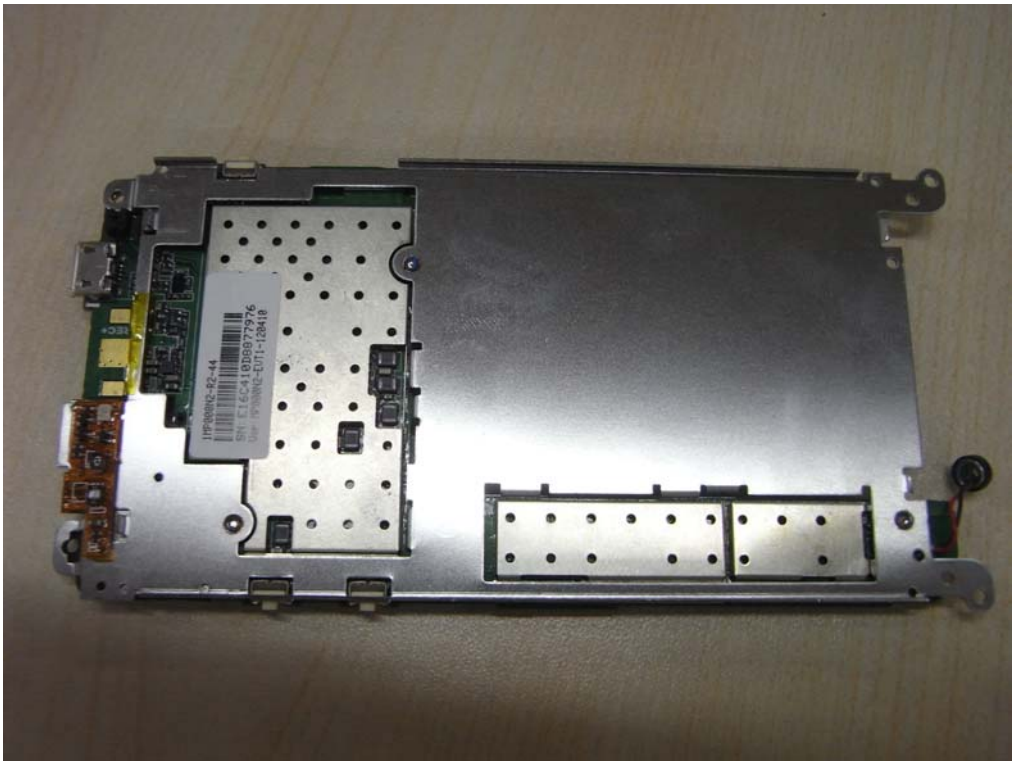
INTERNAL PHOTO OF SAMPLE –4

INTERNAL PHOTO OF SAMPLE –5

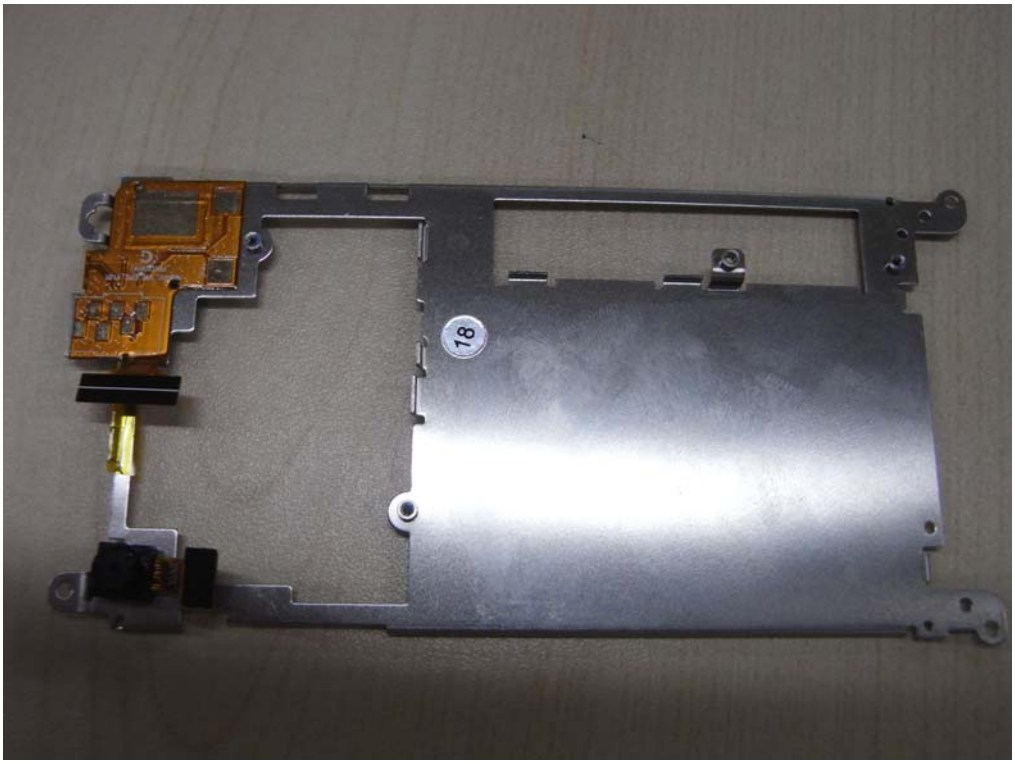


INTERNAL PHOTO OF SAMPLE –6

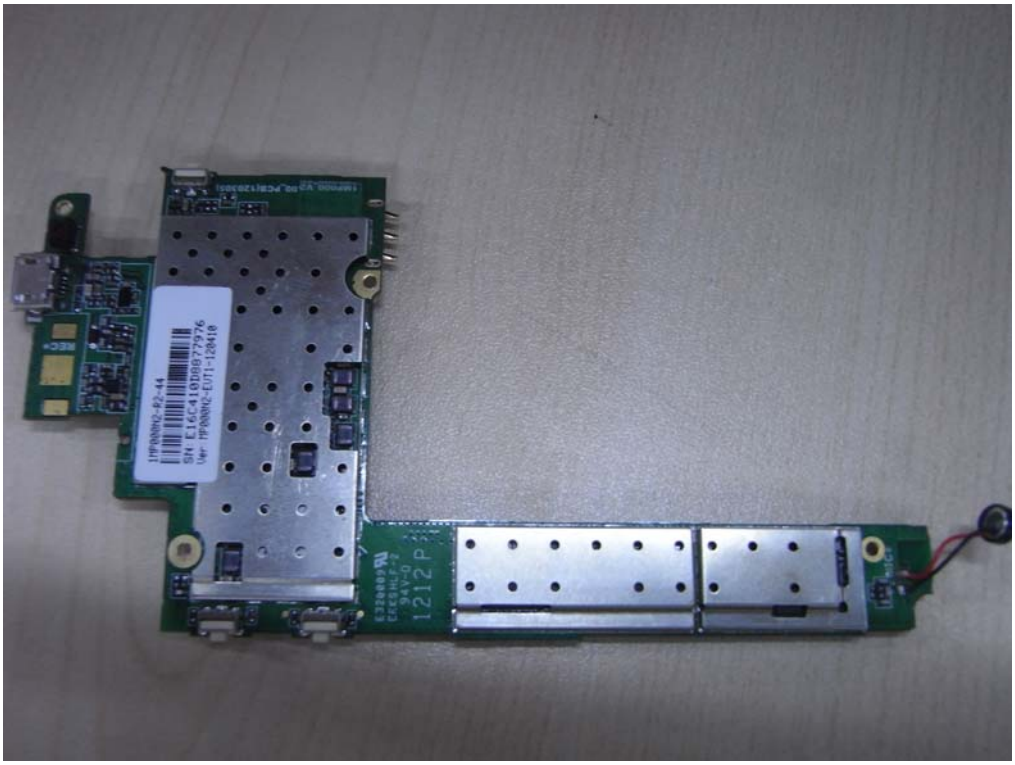
INTERNAL PHOTO OF SAMPLE –7



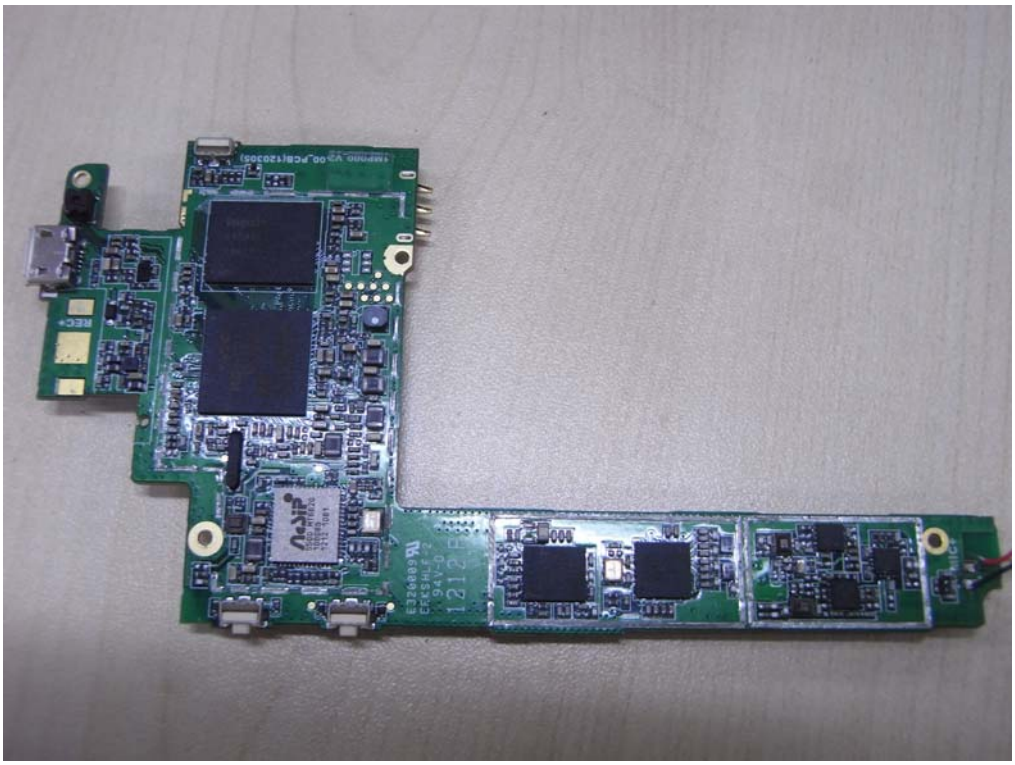
INTERNAL PHOTO OF SAMPLE –8



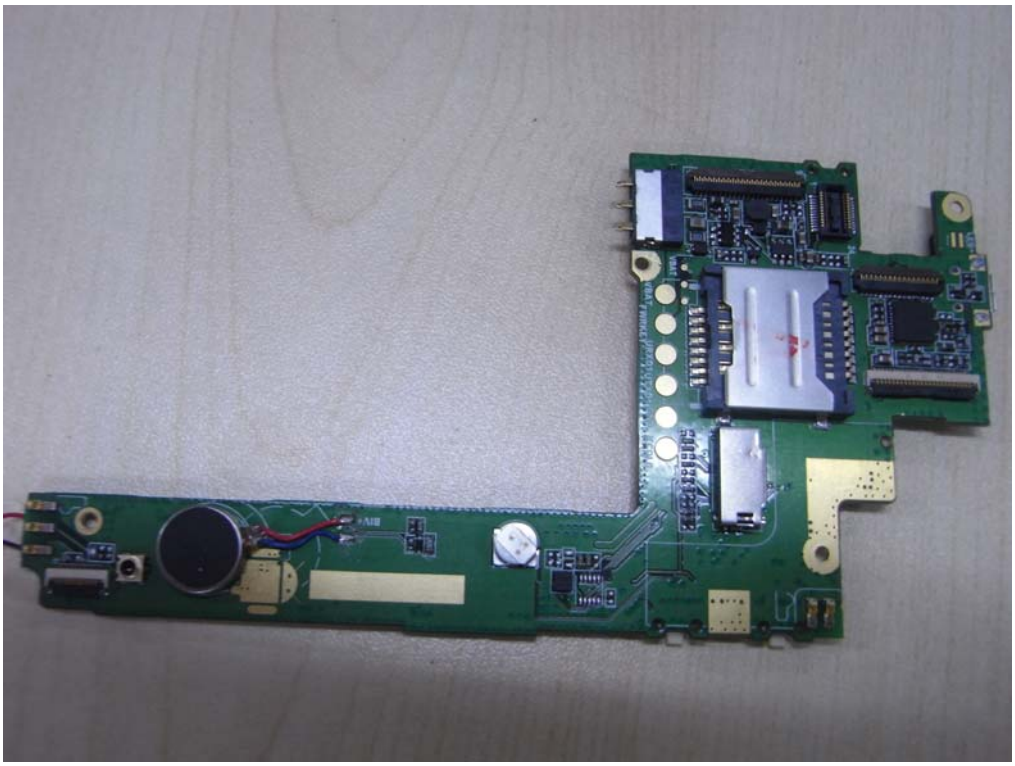
INTERNAL PHOTO OF SAMPLE –9



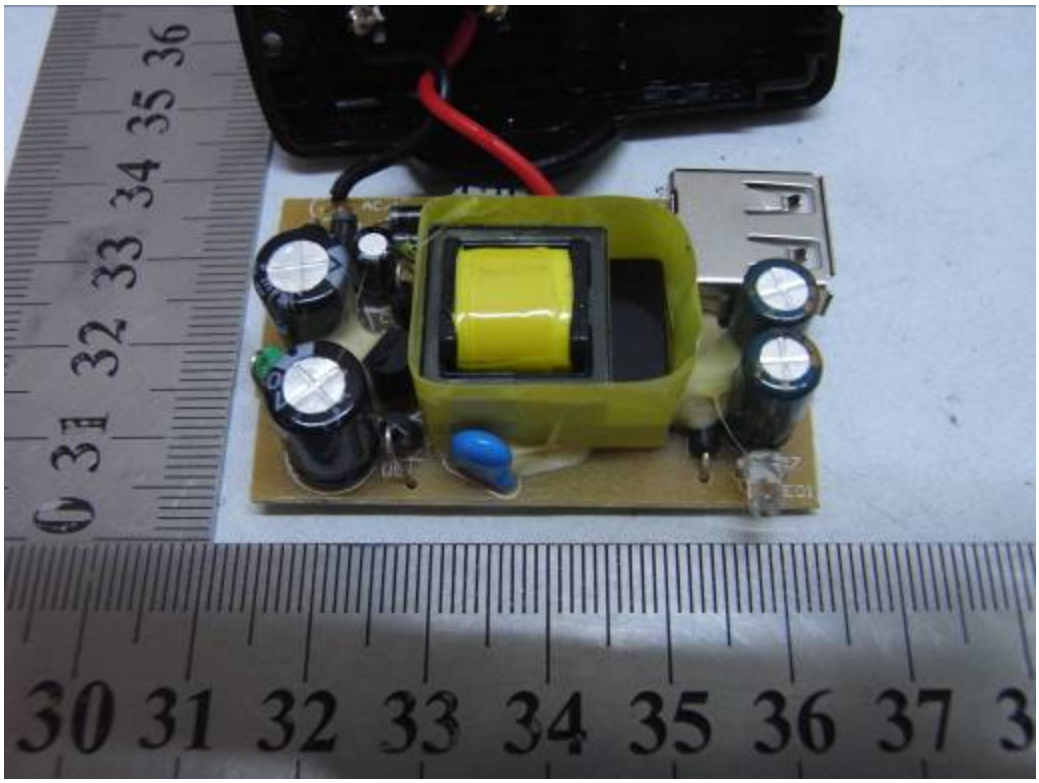
INTERNAL PHOTO OF SAMPLE –10



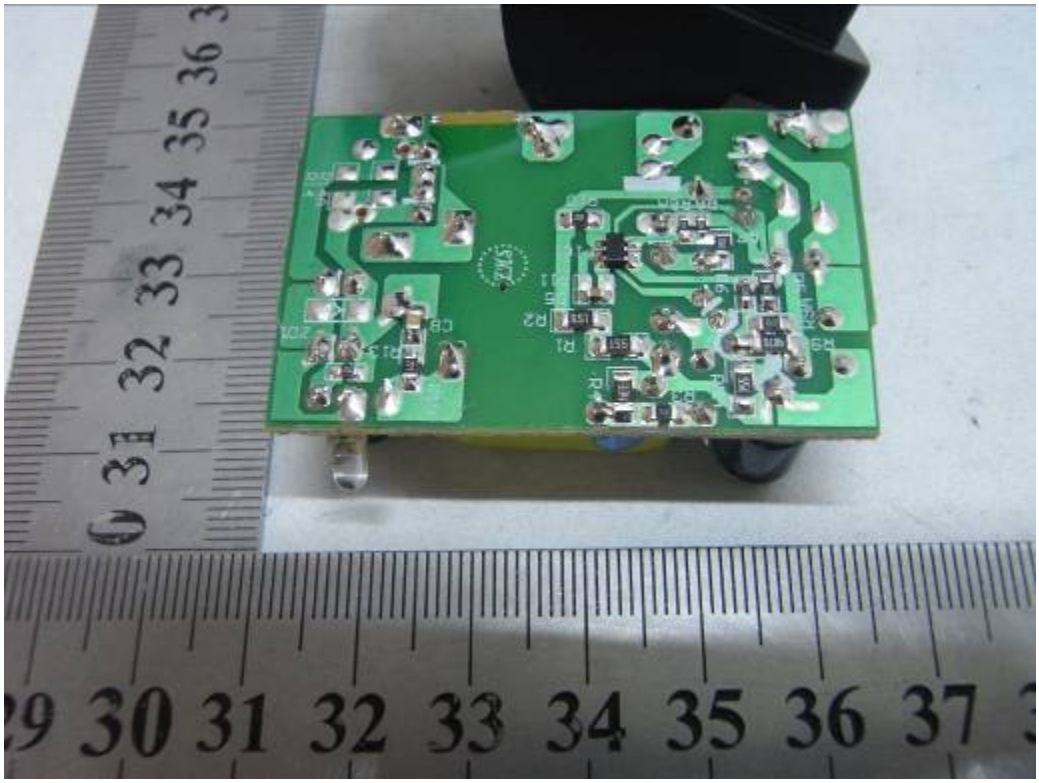
INTERNAL PHOTO OF SAMPLE –11



INTERNAL PHOTO OF POWER SUPPLY-1



INTERNAL PHOTO OF POWER SUPPLY-2



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