

TEST REPORT

For

Verykool USA Inc.

4350 Executive Dr., #100, San Diego, CA 92121, USA

FCC PART 15B

FCC ID: WA61725

Report Type: Original Report	Product Type: GSM/GPRS Quad-band Mobile Phone
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Note: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, or any agency of the Federal Government.

* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Verykool USA Inc's* product, model number: *i725 (FCC ID: WA6I725)* or the "EUT" as referred to in this report is a *GSM/GPRS Quad-band Mobile Phone*, which measures approximately: 10.8 cm (L) x 5.4 cm (W) x 1.0 cm (H), rated input voltage: DC 3.7 V battery.

Adapter Information:

Manufacturer: verykool;

Model: ASUC1-050050;

Input: 100-240V~50/60Hz 0.3A;

Output: 5.0V 0.5A

** All measurement and test data in this report was gathered from production sample serial number: 1105126 (Assigned by BACL, Shenzhen). The EUT was received on 2011-05-22.*

Objective

This Type approval report is prepared on behalf of *Verykool USA Inc* in accordance with Part 2, Subpart J, Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective of the manufacturer is to determine compliance with FCC Part 15 Class B.

Related Submittal(s)/Grant(s)

FCC Part 22H&24E PCE and Part 15.247 DSS submissions with FCC ID: WA6I725.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on December 06, 2010. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>.

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a manufacturer testing fashion.

EUT Exercise Software

N/A

Equipment Modifications

No modification was made to the unit tested.

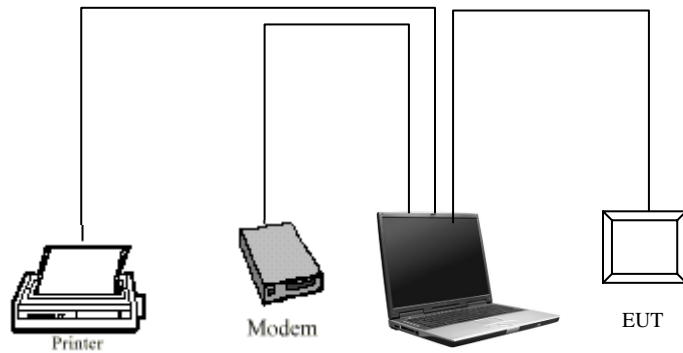
Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
DELL	Lapotp	1#	N/A
SAST	Modem	AEM-2100	0293
HP	Laser Jet5L	C3941A	JPTVOB2337

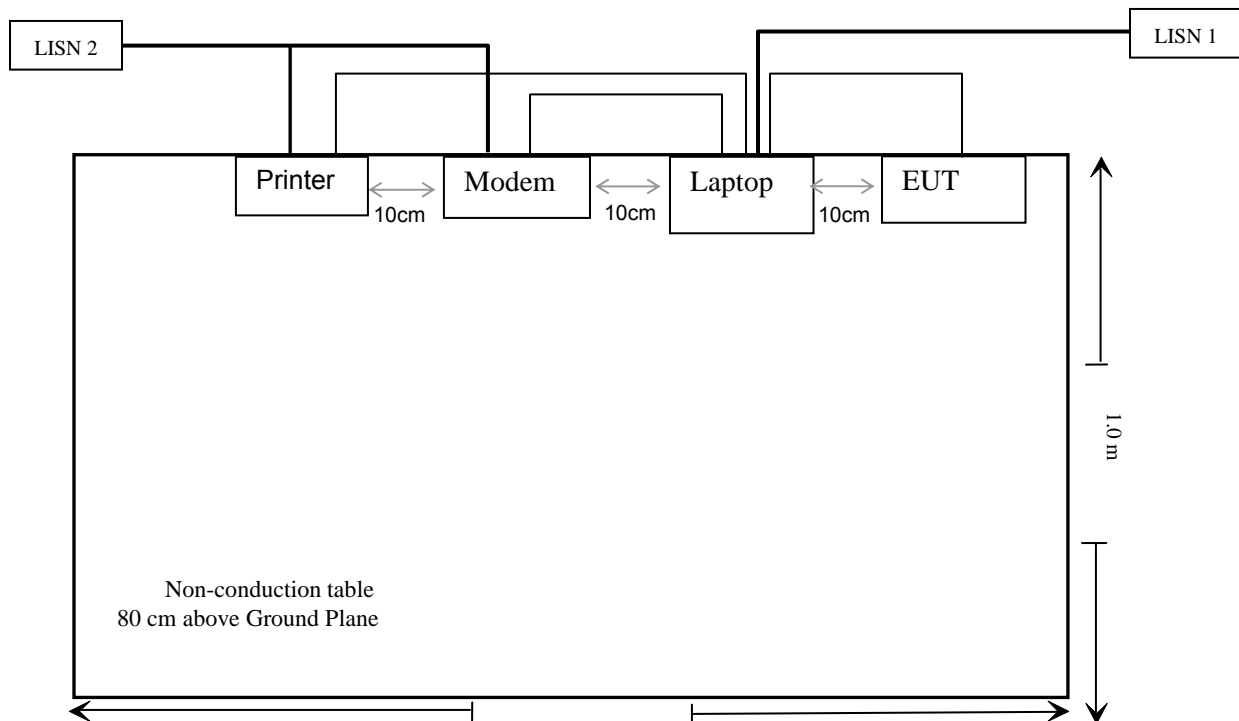
External I/O Cable

Cable Description	Length (M)	From/Port	To
Unshielded Detachable USB Cable	1.0	EUT	Adapter
Shielded Detachable Printer Cable	1.2	Parallel	Printer
Shielded Detachable Serial Cable	1.2	Serial Port/Host	Modem

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§15.107	AC Line Conducted Emissions	Compliance
§15.109	Radiated Spurious Emissions	Compliance

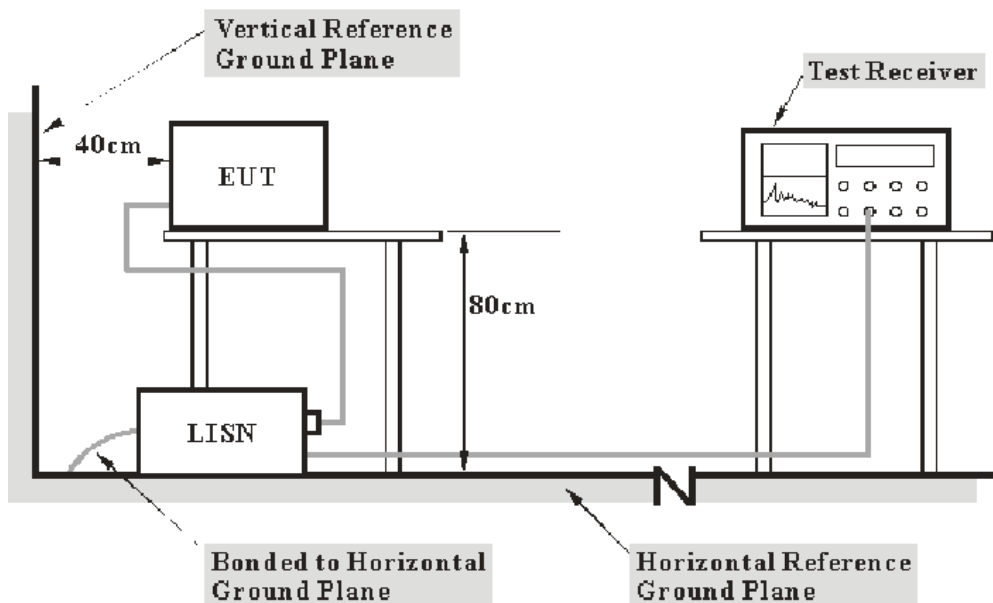
FCC §15.107 – AC LINE CONDUCTED EMISSIONS

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 2.4 dB.(k=2, 95% level of confidence)

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2009 measurement procedure. The specification used was with the FCC Part 15.107 Class B limits.

The spacing between the peripherals was 10 cm.

The adapter or Laptop were connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<u>Frequency Range</u>	<u>IF B/W</u>
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08

* **Statement of Traceability:** Bay Area Compliance Laboratory Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.107, with the worst margin reading of:

9.16 dB at 1.525 MHz in the **Neutral** conducted mode for Charging & Multimedia Playing Mode

8.14 dB at 1.265 MHz in the **Neutral** conducted mode for Downloading Mode

Test Data

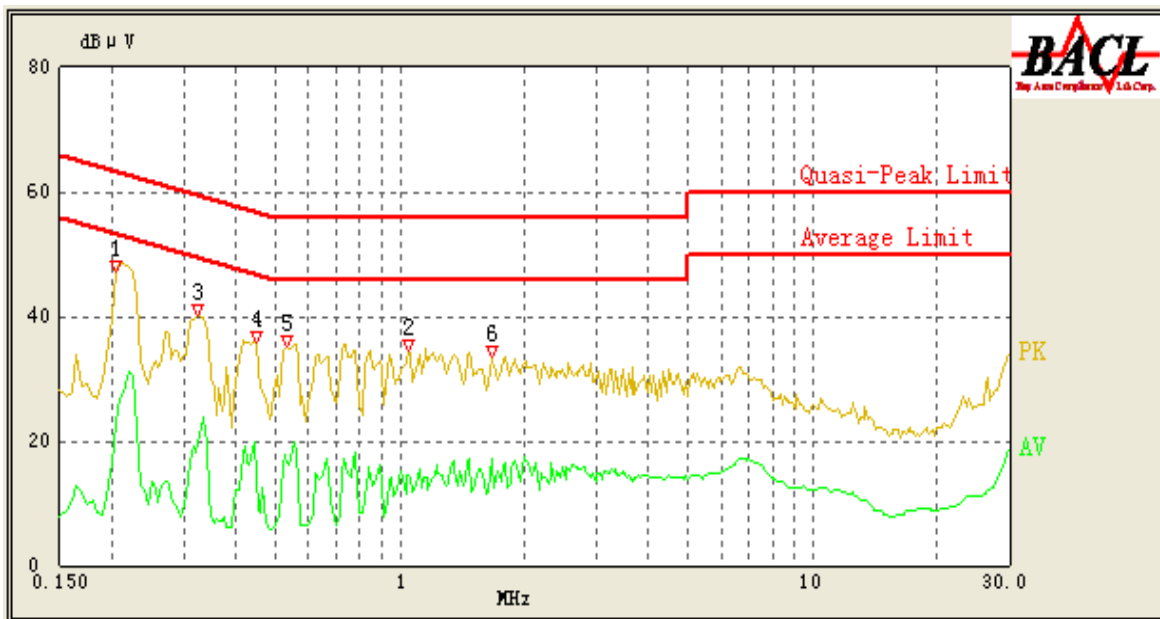
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Leon Chen on 2011-06-23.

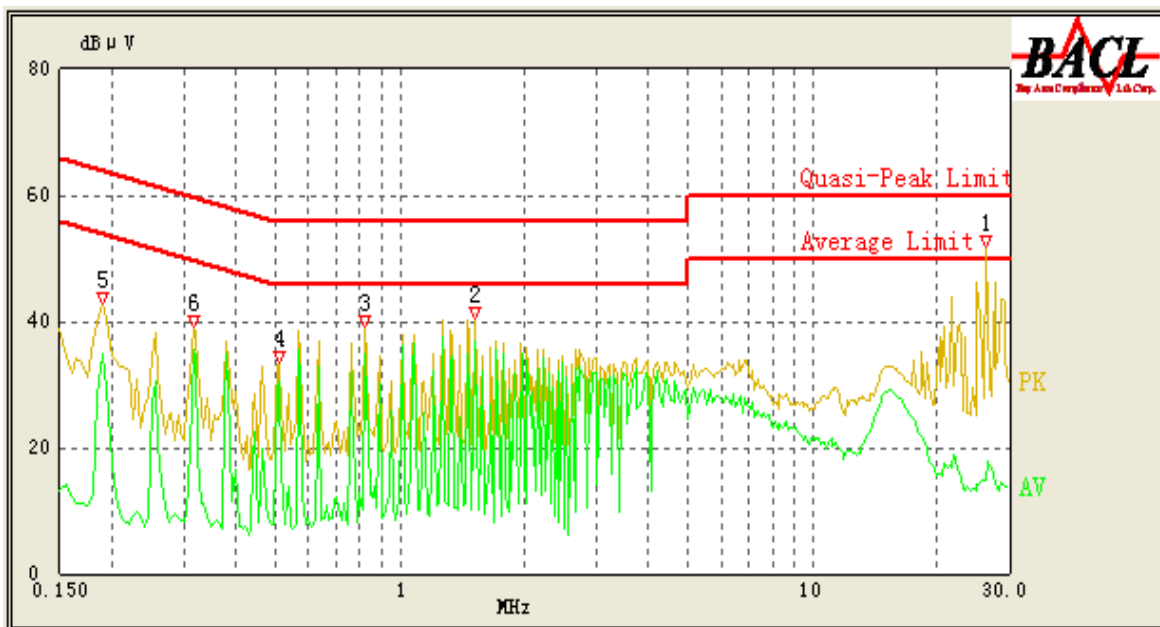
Test Mode: Charging & Multimedia Playing

AC 120V/60 Hz, Line



Conducted Emissions			FCC Part 15.107, Class B		
Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/ QP/Ave.)
0.445	19.99	10.10	47.57	27.58	Ave
0.450	29.04	10.10	57.43	28.39	QP
1.665	17.02	10.13	46.00	28.98	Ave
0.530	16.47	10.10	46.00	29.53	Ave
1.040	14.57	10.11	46.00	31.43	Ave
0.205	22.93	10.10	54.43	31.50	Ave
0.325	19.47	10.10	51.00	31.53	Ave
0.205	31.24	10.10	64.43	33.19	QP
1.665	20.92	10.13	56.00	35.08	QP
1.050	20.78	10.11	56.00	35.22	QP
0.530	20.13	10.10	56.00	35.87	QP
0.325	23.46	10.10	61.00	37.54	QP

AC 120V/60 Hz, Neutral



Conducted Emissions			FCC Part 15.107 Class B		
Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/ QP/Ave.)
1.525	36.84	10.12	46.00	9.16	Ave
0.825	34.80	10.11	46.00	11.20	Ave
0.510	30.38	10.10	46.00	15.62	Ave
0.315	35.43	10.10	51.29	15.86	Ave
0.825	38.39	10.11	56.00	17.61	QP
0.190	34.77	10.10	54.86	20.09	Ave
0.190	42.69	10.10	64.86	22.17	QP
0.315	38.61	10.10	61.29	22.68	QP
1.525	33.14	10.12	56.00	22.86	QP
0.510	30.68	10.10	56.00	25.32	QP
26.610	17.75	10.20	50.00	32.25	Ave
26.415	20.45	10.20	60.00	39.55	QP

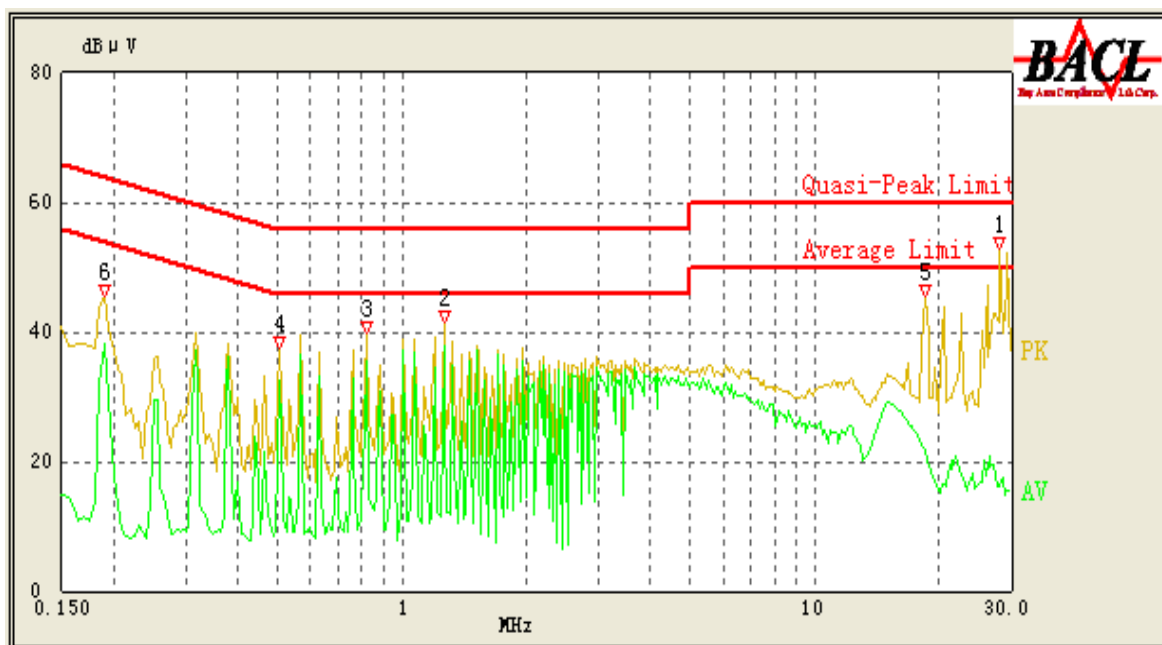
Test Mode: Downloading

AC 120V/60 Hz, Line



Conducted Emissions			FCC Part 15.107 Class B		
Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/ QP/Ave.)
1.265	36.83	10.12	46.00	9.17	Ave
0.570	36.02	10.10	46.00	9.98	Ave
0.825	34.26	10.11	46.00	11.74	Ave
1.265	38.66	10.12	56.00	17.34	QP
0.190	37.09	10.10	54.86	17.77	Ave
0.570	38.02	10.10	56.00	17.98	QP
0.190	43.86	10.10	64.86	21.00	QP
0.825	34.80	10.11	56.00	21.20	QP
27.430	16.37	10.20	50.00	33.63	Ave
28.870	16.02	10.20	50.00	33.98	Ave
27.430	22.24	10.20	60.00	37.76	QP
28.870	20.73	10.20	60.00	39.27	QP

AC 120V/60 Hz, Neutral



Conducted Emissions			FCC Part 15.107 Class B		
Frequency (MHz)	Corrected Result (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Remark (PK/ QP/Ave.)
1.265	37.86	10.12	46.00	8.14	Ave
0.820	35.66	10.11	46.00	10.34	Ave
0.505	32.61	10.10	46.00	13.39	Ave
0.190	38.16	10.10	54.86	16.70	Ave
0.820	38.77	10.11	56.00	17.23	QP
1.265	36.98	10.12	56.00	19.02	QP
0.190	44.21	10.10	64.86	20.65	QP
0.505	34.66	10.10	56.00	21.34	QP
18.445	21.82	10.20	50.00	28.18	Ave
28.130	16.28	10.20	50.00	33.72	Ave
28.130	19.39	10.20	60.00	40.61	QP
18.570	19.21	10.20	60.00	40.79	QP

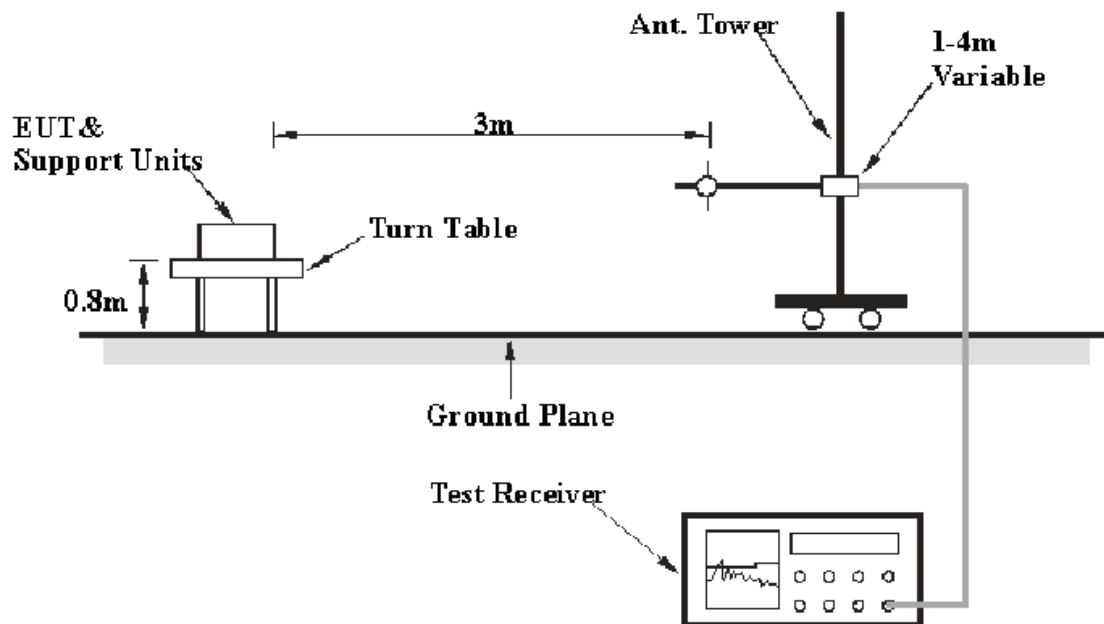
FCC §15.109 - RADIATED SPURIOUS EMISSIONS

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 4.0 dB. ($k=2$, 95% level of confidence)

EUT Setup



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.4-2009. The specification used was the FCC Part 15.109 Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 1000 MHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

<i>Frequency</i>	<i>RB/W</i>	<i>VB/W</i>	<i>IF B/W</i>	<i>Detection</i>
30 MHz-1 GHz	100 kHz	300 kHz	120 kHz	Quasi-peak

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447E	1937A01046	2010-08-02	2011-08-02
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2010-11-11	2011-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2010-07-05	2011-07-04

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp (Shenzhen). attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

For the radiated emissions test, the adapter or Laptop were connected to AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detection mode from 30 MHz to 1 GHz.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

According to the data in the following table, the EUT complied with the FCC §15.109 Class B, with the worst margin reading of:

8.6 dB at 41.274500 MHz in the **Vertical** polarization for Charging & Multimedia Playing Mode

0.9 dB at 283.943250 MHz in the **Horizontal** polarization for Downloading Mode

Test Data

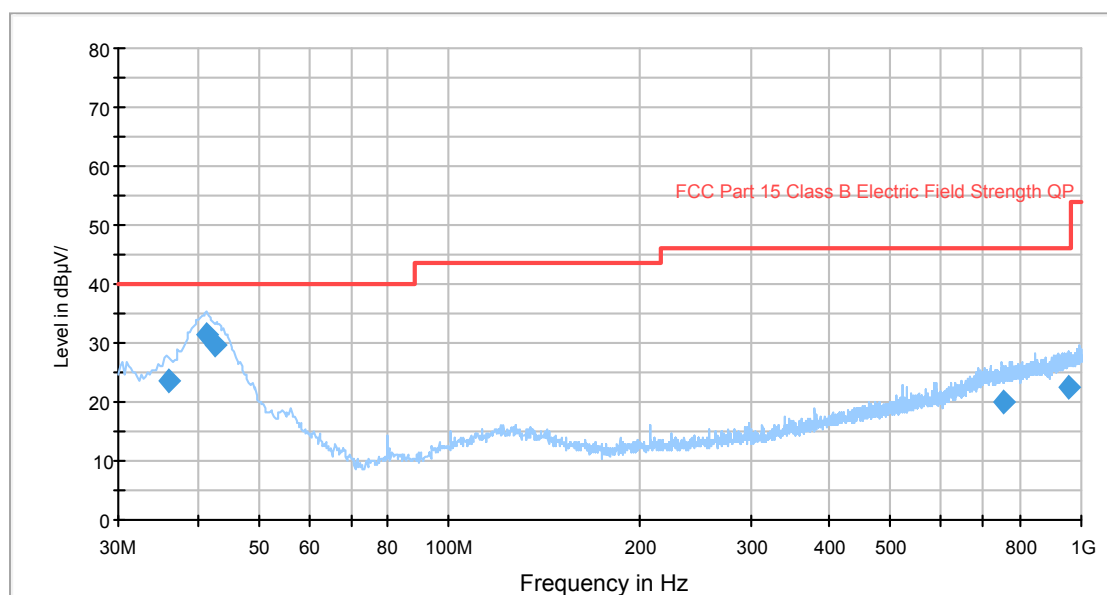
Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

The testing was performed by Leon Chen on 2011-06-23.

Test Mode: Charging & Multimedia Playing Mode

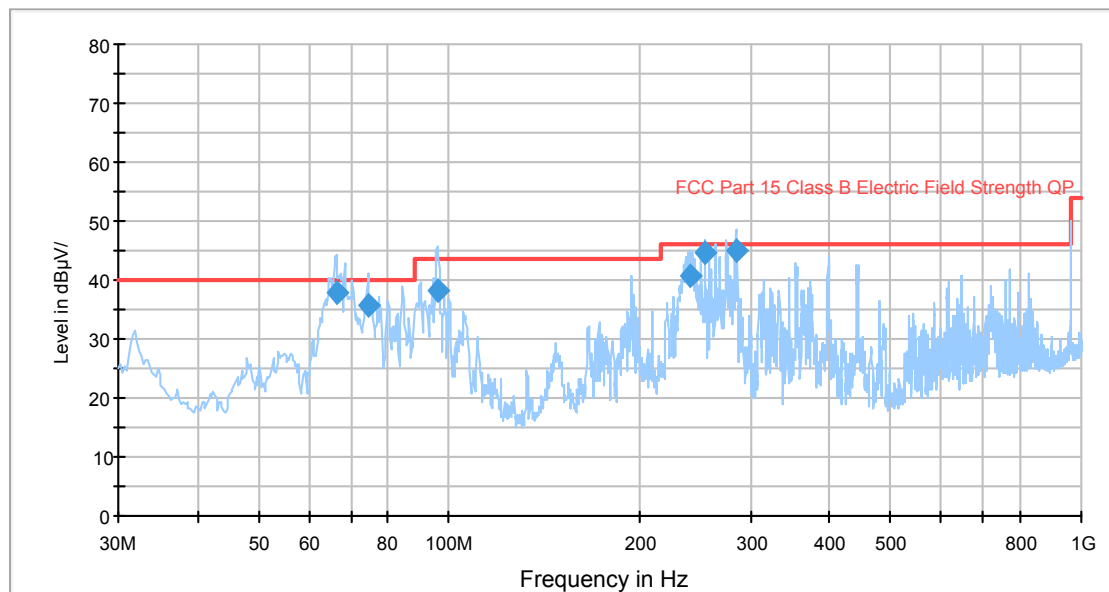
Auto Test(FCC 15 Class B)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Test Antenna		Turntable Position (degree)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
		Height (cm)	Polarity (H/V)				
41.274500	31.4	100.0	V	183.0	-12.9	40.0	8.6
42.644500	29.5	120.0	V	237.0	-13.7	40.0	10.5
36.007500	23.6	100.0	V	0.0	-9.5	40.0	16.4
955.427750	22.5	302.0	V	111.0	0.7	46.0	23.5
750.560000	19.9	283.0	H	315.0	-2.4	46.0	26.1

Test Mode: Downloading

Auto Test(FCC 15 Class B)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Test Antenna		Turntable Position (degree)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
		Height (cm)	Polarity (H/V)				
283.943250	45.1	121.0	H	247.0	-12.7	46.0	0.9*
254.401000	44.5	123.0	H	234.0	-13.4	46.0	1.5*
66.532750	37.8	102.0	V	316.0	-18.4	40.0	2.2*
74.555500	35.5	171.0	V	335.0	-18.2	40.0	4.5
95.780500	38.2	288.0	V	324.0	-15.8	43.5	5.3
240.569750	40.5	156.0	H	262.0	-13.7	46.0	5.5

*Within measurement uncertainty.

***** END OF REPORT *****