



FCC PART 15B, CLASS B

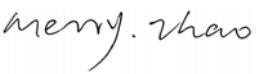
MEASUREMENT AND TEST REPORT

For

Verykool USA Inc.

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

FCC ID: WA6I125

Report Type: Original Report	Product Type: Mobile Phone
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Report Number: <u>RSZ110902001-00B</u>	
Report Date: <u>2011-09-13</u>	
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* 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: *I125 (FCC ID: WA6I125)*(the "EUT") in this report is a *Mobile Phone*, which was measured approximately: 10.5 cm (L) x 4.5 cm (W) x 1.0 cm (H), rated input voltage: DC 3.7 V battery or charging DC 5V from adapter .

Adapter information

Model: A361-0500500U
Input: 100-240VAC 50/60 Hz 0.2A
Output: 5.0VDC 500mA

** All measurement and test data in this report was gathered from production sample serial number: 1108077 (Assigned by BACL, Shenzhen). The EUT was received on 2011-09-02.*

Objective

This 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 the compliance of EUT with FCC Part 15B, Class B.

Related Submittal(s)/Grant(s)

FCC Part 22H&24E PCE and Part 15.247 DSS submissions with FCC ID: WA6I125

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp.(Shenzhen) to collect test data is located on 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

Description of Test Configuration

The system was configured for testing in a typical mode which is provided by manufacturer.

EUT Exercise Software

N/A

Equipment Modifications

No modification was made to the unit tested.

Local Support Equipment List and Details

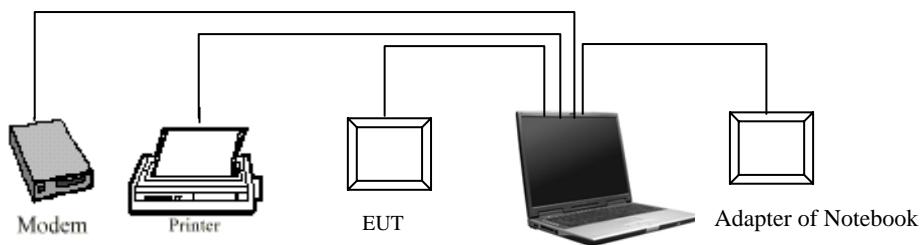
Manufacturer	Description	Model	Serial Number
DELL	Notebook	D600	85RF831
HP	Laser Jet5L	C3941A	JPTVOB2337
SAST	Modem	AEM-2100	0293

External I/O Cable

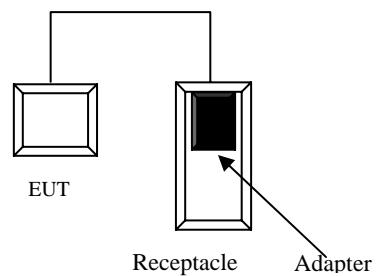
Cable Description	Length (m)	From/Port	To
Shielded Detachable Printer Cable	1.8	Parallel Port/Host	Printer
Shielded Detachable Serial Cable	1.8	Serial Port/Host	Modem
Shielded Detachable USB Cable	0.85	EUT	Notebook

Configuration of Test Setup

For downloading mode

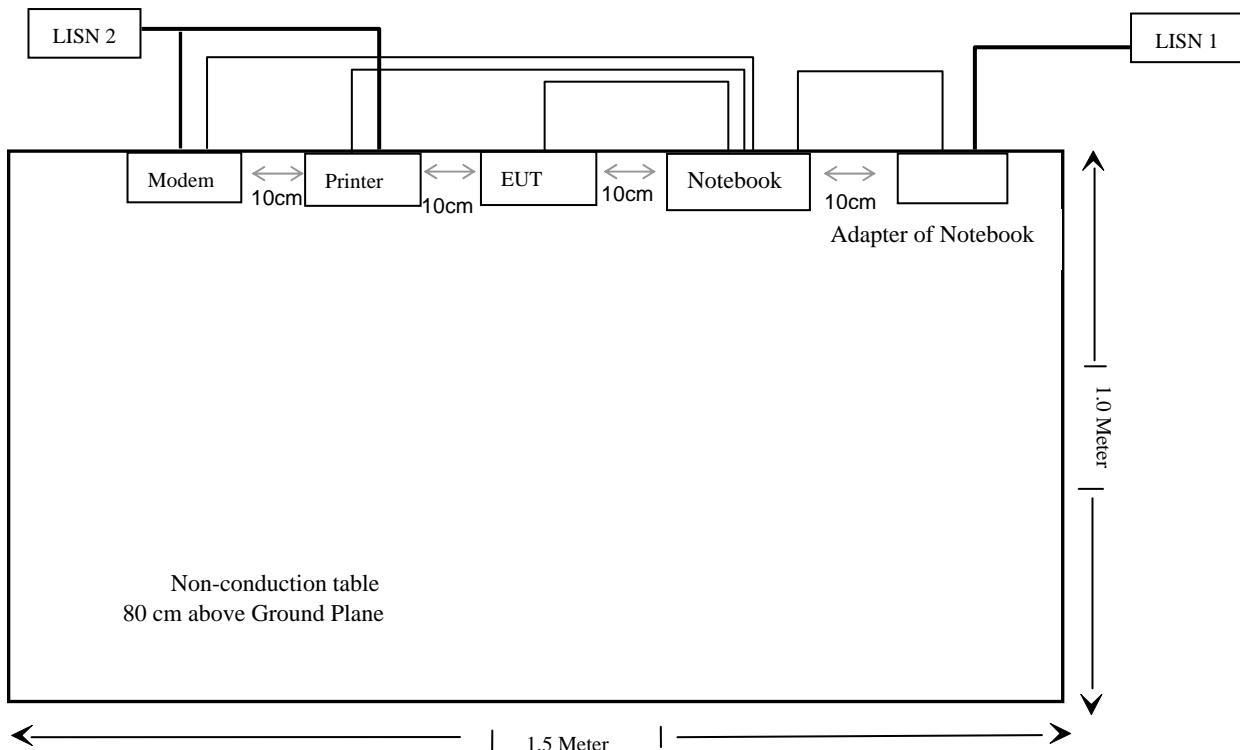


For Charging&multimedia playing mode

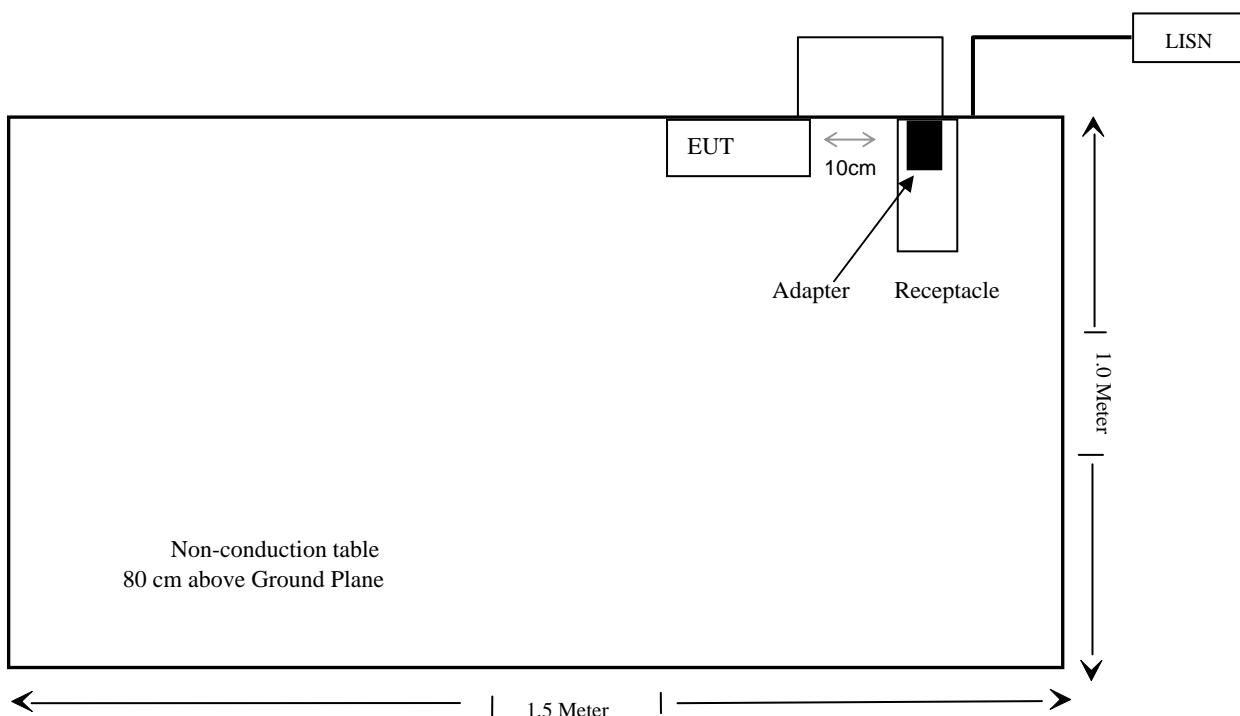


Block Diagram of Test Setup

For downloading mode



For Charging&multimedia playing mode



SUMMARY OF TEST RESULTS

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

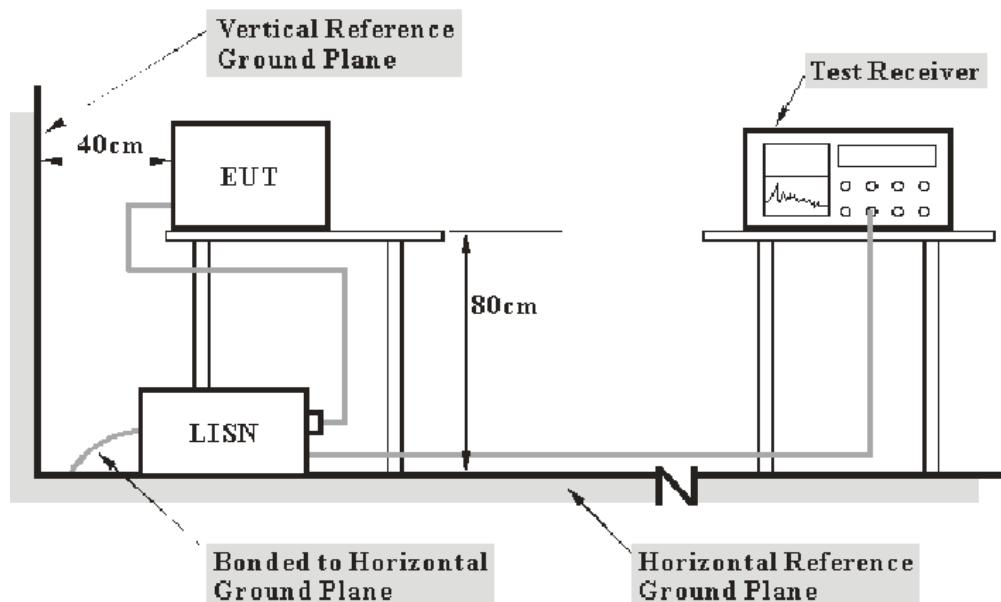
FCC §15.107 – AC LINE CONDUCTED EMISSIONS

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 of notebook was connected to a 120 VAC/60 Hz power source for downloading mode.

The adapter was connected to a 120 VAC/60 Hz power source for multimedia playing mode.

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:

Frequency Range	IF B/W
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, for downloading mode, the adapter of notebook was connected to the outlet of the first LISN and the other relevant support equipments were connected to the outlet of the second LISN. For multimedia playing mode, 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:

10.60 dB at 26.610 MHz in the Neutral conducted mode for downloading mode

Test Data

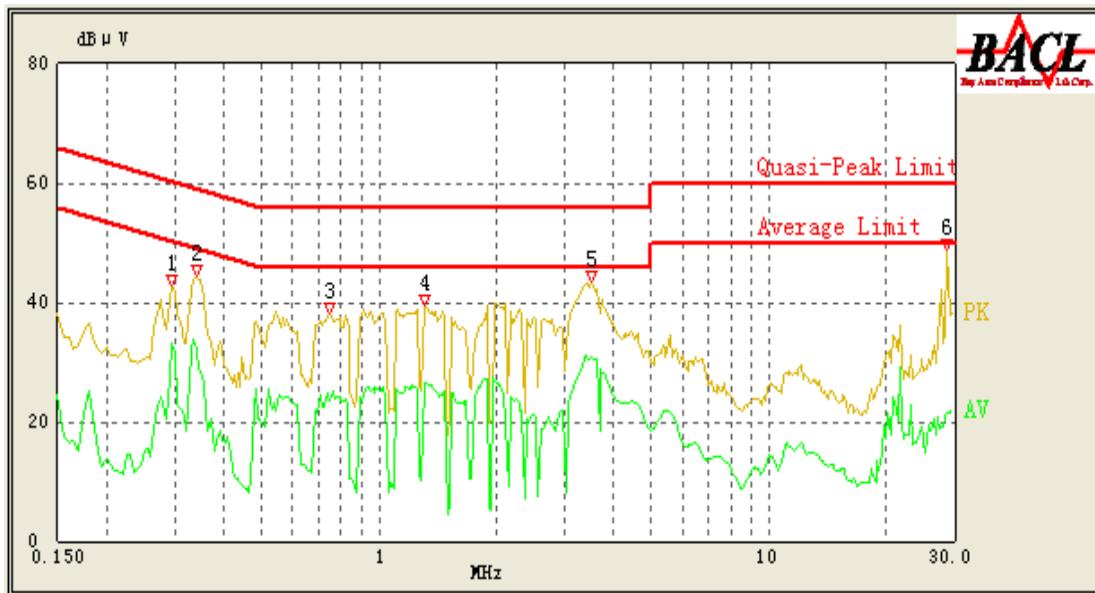
Environmental Conditions

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

The testing was performed by Sula Huang on 2011-09-06.

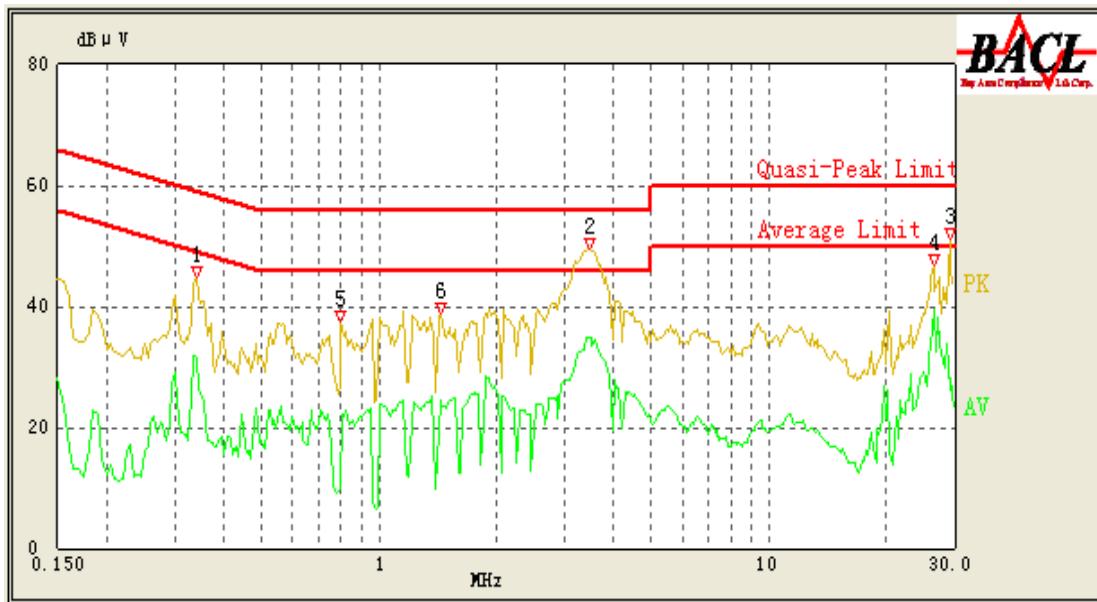
EUT Operation Mode: Downloading

AC 120V/60 Hz, Line



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/ QP/Ave.)
3.525	30.83	10.10	46.00	15.17	Ave.
0.340	32.06	10.10	50.57	18.51	Ave.
0.295	33.12	10.10	51.86	18.74	Ave.
3.515	36.57	10.10	56.00	19.43	QP
1.315	26.34	10.10	46.00	19.66	Ave.
0.340	40.44	10.10	60.57	20.13	QP
1.315	34.00	10.10	56.00	22.00	QP
0.745	23.56	10.10	46.00	22.44	Ave.
0.295	39.36	10.10	61.86	22.50	QP
0.750	31.91	10.10	56.00	24.09	QP
28.690	21.62	10.10	50.00	28.38	Ave.
28.550	22.03	10.10	60.00	37.97	QP

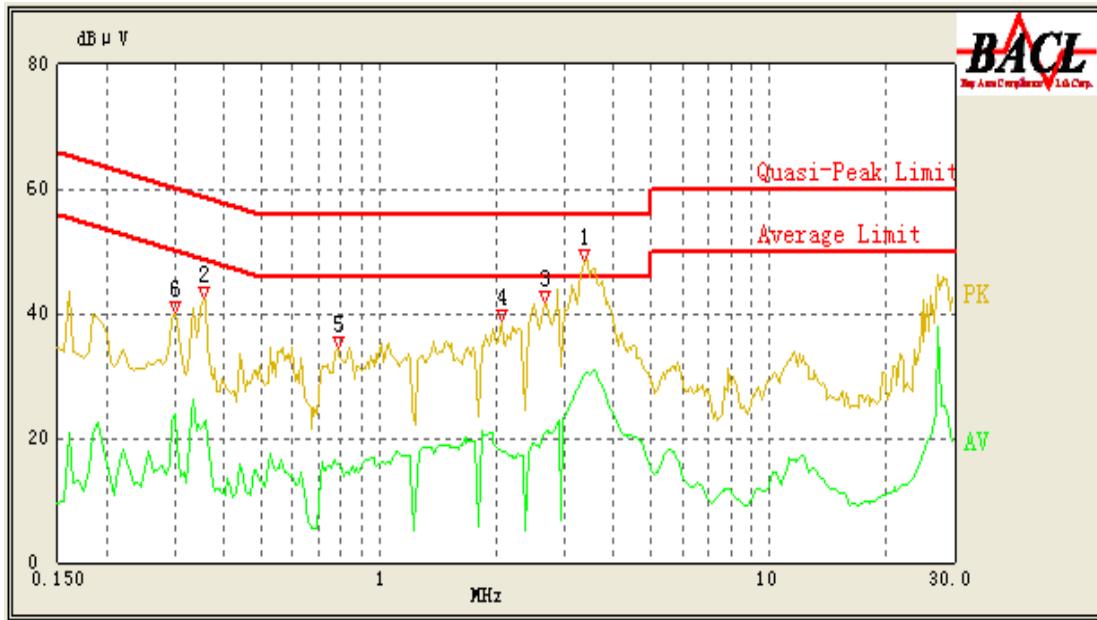
AC 120V/60 Hz, Neutral



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/ QP/Ave.)
26.610	39.40	10.10	50.00	10.60	Ave.
3.455	34.84	10.10	46.00	11.16	Ave.
3.455	42.69	10.10	56.00	13.31	QP
0.340	31.39	10.10	50.57	19.18	Ave.
1.440	24.35	10.10	46.00	21.65	Ave.
0.805	22.19	10.10	46.00	23.81	Ave.
29.110	26.10	10.10	50.00	23.90	Ave.
0.340	36.03	10.10	60.57	24.54	QP
1.435	31.19	10.10	56.00	24.81	QP
0.800	31.13	10.10	56.00	24.87	QP
26.610	28.47	10.10	60.00	31.53	QP
29.190	23.29	10.10	60.00	36.71	QP

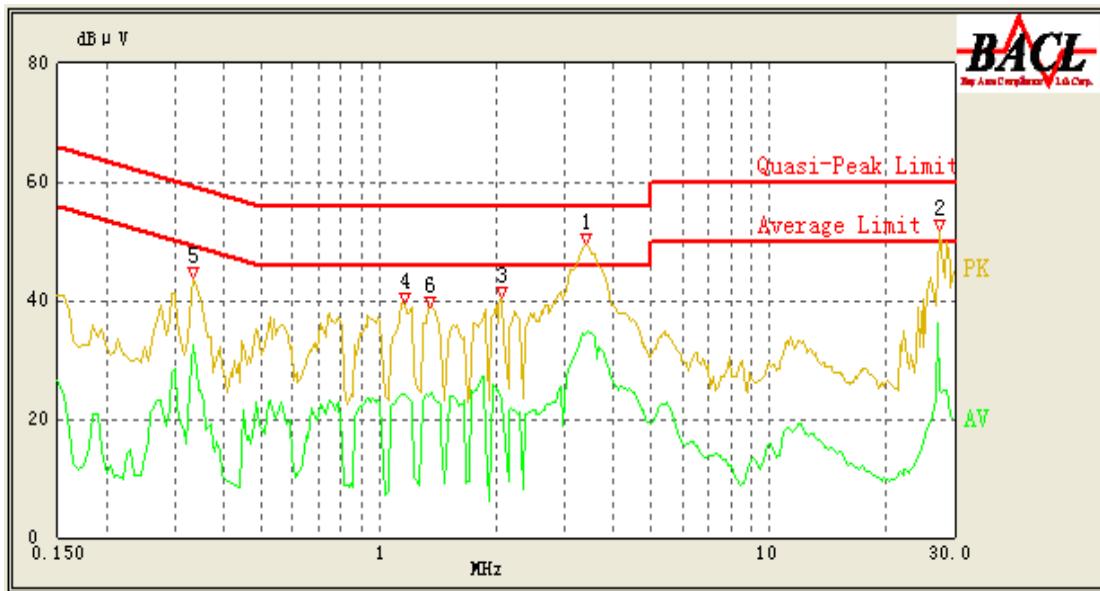
EUT Operation Mode: Charging & Multimedia playing

AC 120V/60 Hz, Line



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/ QP/Ave.)
3.375	41.05	10.10	56.00	14.95	QP
3.405	30.62	10.10	46.00	15.38	Ave.
2.655	32.65	10.10	56.00	23.35	QP
0.300	37.50	10.10	61.71	24.21	QP
2.060	30.84	10.10	56.00	25.16	QP
2.645	20.56	10.10	46.00	25.44	Ave.
0.355	22.28	10.10	50.14	27.86	Ave.
0.300	23.85	10.10	51.71	27.86	Ave.
2.025	18.08	10.10	46.00	27.92	Ave.
0.785	27.31	10.10	56.00	28.69	QP
0.355	30.59	10.10	60.14	29.55	QP
0.780	15.76	10.10	46.00	30.24	Ave.

AC 120V/60 Hz, Neutral



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/ QP/Ave.)
3.375	34.20	10.10	46.00	11.80	Ave.
3.385	42.95	10.10	56.00	13.05	QP
0.335	32.39	10.10	50.71	18.32	Ave.
1.360	24.34	10.10	46.00	21.66	Ave.
1.155	24.24	10.10	46.00	21.76	Ave.
0.335	38.21	10.10	60.71	22.50	QP
2.070	23.15	10.10	46.00	22.85	Ave.
1.355	31.14	10.10	56.00	24.86	QP
27.560	24.88	10.10	50.00	25.12	Ave.
1.160	30.56	10.10	56.00	25.44	QP
2.075	30.49	10.10	56.00	25.51	QP
27.510	30.15	10.10	60.00	29.85	QP

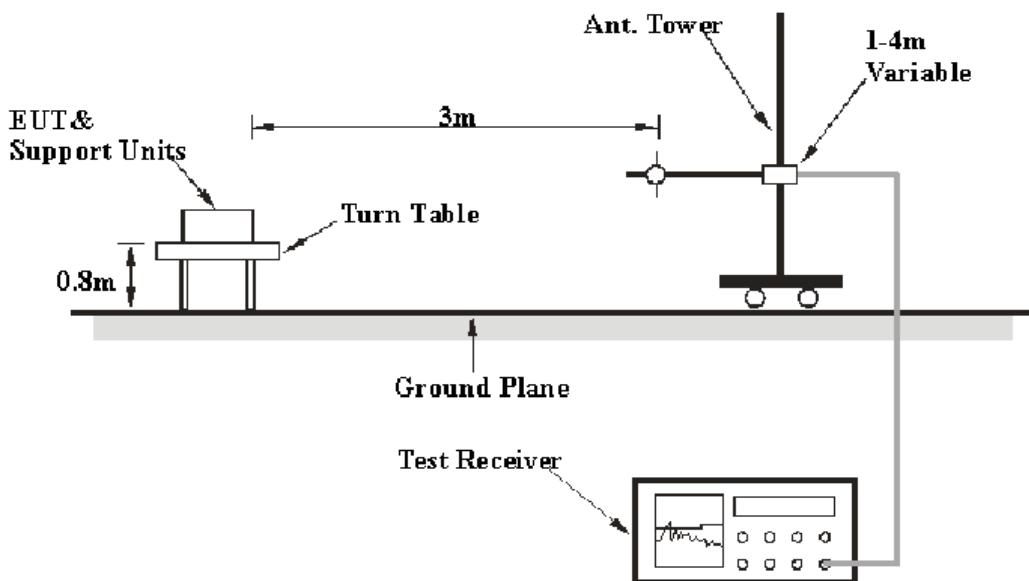
FCC §15.109 - RADIATED SPURIOUS EMISSIONS

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 B 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 of notebook was connected to a 120 VAC/60 Hz power source for downloading mode.

The adapter was connected to a 120 VAC/60 Hz power source for multimedia playing mode.

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 Procedure

During the radiated emissions test, for downloading mode, the adapter of notebook and all the other relevant equipments were connected to AC floor outlet. For multimedia playing mode, the adapter was connected to the 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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447E	1937A01046	2011-08-02	2012-08-02
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2010-11-11	2011-11-10
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2011-07-05	2012-07-04

* **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.

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 7dB means the emission is 7dB 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:

0.3 dB at 37.369750 MHz in the Vertical polarization for Charging&multimedia playing mode

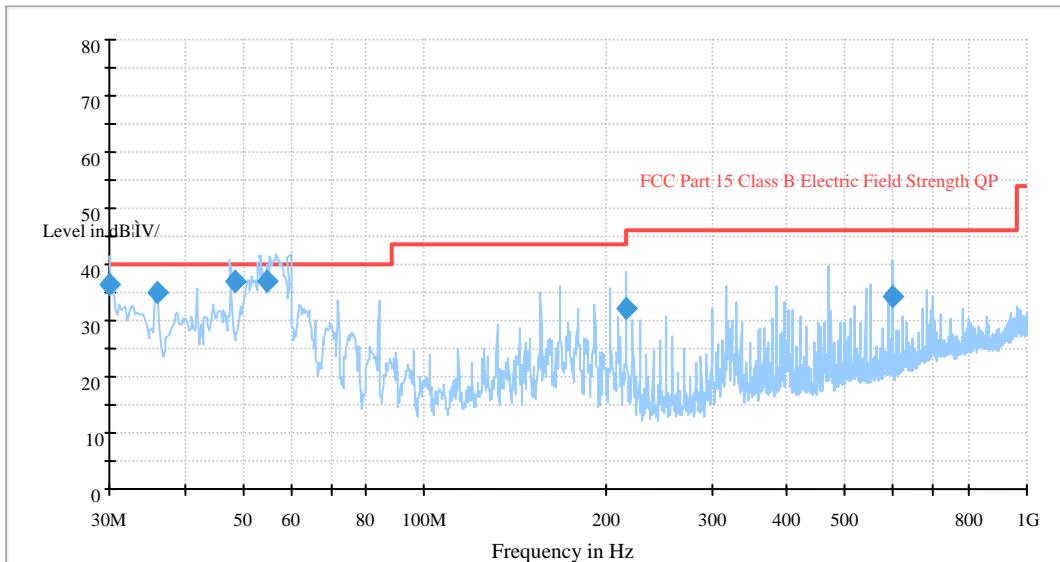
Test Data

Environmental Conditions

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

The testing was performed by Sula Huang on 2011-09-06.

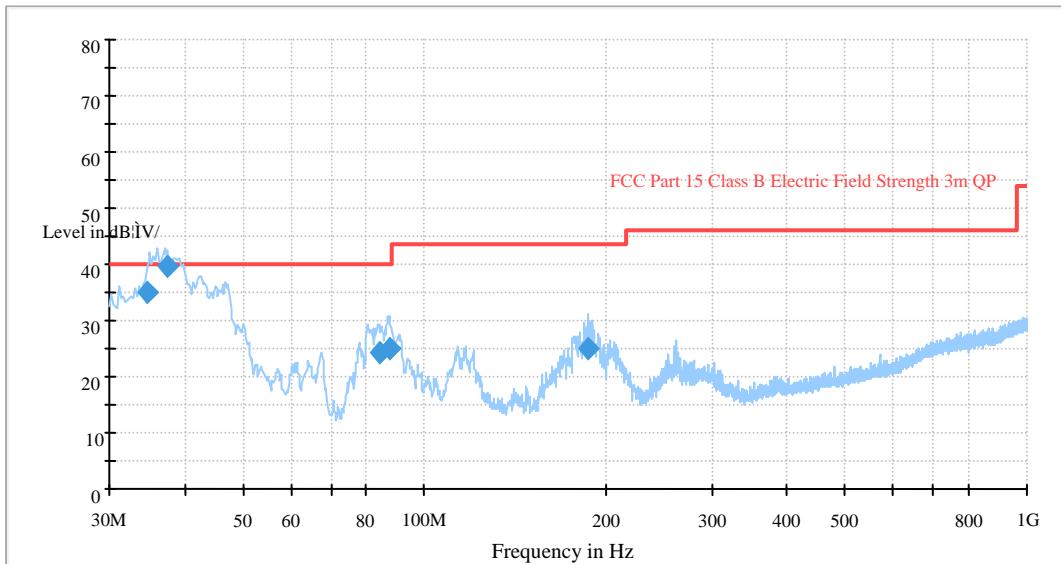
EUT Operation Mode: Downloading



Frequency (MHz)	Corrected Amplitude (dBµV/m)	Test Antenna		Turntable Position (degree)	Correction Factor (dB)	Limit (dBµV/m)	Margin (dB)
		Height (cm)	Polarity (H/V)				
54.005000	38.3	242.0	V	201.0	-17.9	40.0	1.7*
47.990500	38.2	102.0	V	64.0	-16.4	40.0	1.8*
30.041125	36.3	107.0	V	154.0	-5.4	40.0	3.7*
35.980750	35.2	107.0	V	145.0	-9.5	40.0	4.8
599.960750	34.4	122.0	H	11.0	-6.6	46.0	11.6
216.003000	32.2	143.0	H	77.0	-14.1	46.0	13.8

*Within measurement uncertainty!

EUT Operation Mode: Charging&Multimedia playing



Frequency (MHz)	Corrected Amplitude (dB μ V/m)	Test Antenna		Turntable Position (degree)	Correction Factor (dB)	Limit (dB μ V/m)	Margin (dB)
		Height (cm)	Polarity (H/V)				
37.369750	39.7	104.0	V	164.0	-10.4	40.0	0.3*
34.721000	35.1	103.0	V	162.0	-8.6	40.0	4.9
87.642000	25.1	206.0	H	191.0	-17.7	40.0	14.9
187.215250	24.9	102.0	V	184.0	-14.9	40.0	15.1
84.210500	24.4	400.0	H	191.0	-17.9	40.0	15.6

*Within measurement uncertainty!

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