
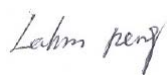



FCC PART 15B
MEASUREMENT AND TEST REPORT
FOR

Amelia World Corporation

11601 Biscayne Blvd.unit 200A, Miami, Florida, 33181, USA

FCC ID: ZNY0610LSYT

Report Concerns: Original Report	Equipment Type: MID
Model:	<u>X-10HD</u>
Report No.:	<u>STR11068106I-2</u>
Test Date:	<u>2011-06-11 to 2011-06-25</u>
Issue Date:	<u>2011-06-28</u>
Tested By:	<u>Jason Chen / Engineer</u> 
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Note: This test report is limited to the above client company and the product model only. It may not be duplicated without prior permitted by SEM.Test Compliance Service Co., Ltd.

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Amelia World Corporation
Address of applicant: 11601 Biscayne Blvd.unit 200A, Miami, Florida, 33181, USA

Manufacturer: Shenzhen StarWorth Manufacturing Co., Ltd
Address of manufacturer: Building No.27, ChenTian Industrial Estate, XiXiang, Bao'an, Shenzhen, China

General Description of E.U.T

Items	Description
EUT Description:	MID
Trade Name:	X-10HD
Model No.:	LINSAY
Rated Voltage:	Battery 7.4V, DC 9V adapter
Rated Current:	2A
For more information refer to the circuit diagram form and the user's manual.	

The test data is gathered from a production sample, provided by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the Amelia World Corporation in accordance with Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15.107, and 15.109 rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which results in lowering the emission/immunity, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

The equipment under test (EUT) was configured to measure its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Test Facility

- **FCC – Registration No.: 994117**

SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**

The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**

Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Exercise Software

The EUT exercise program used during radiated and conducted testing was designed to exercise the system components. The test software, provided by the customer, is started while the EUT is on to simulate the normal work. under the Windows XP terminal.

1.6 Accessories Equipment List and Details

Description	Manufacturer	Model	Serial Number
Earphone	PHILIPS	SHM1500	N/A
USB Disk	CRUZER FREEDOM	256M	N/A
SD CARD	HC	4GB	N/A

1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Power Cable	1	Unshielded	Without Core
Earphone Cable	1.5	Unshielded	Without Core

2. SUMMARY OF TEST RESULTS

Description of Test	Result
§15.107 (a) Conducted Emission	Compliant
§15.109(a) Radiated Emission	Compliant

3. §15.107 (a)- CONDUCTED EMISSION

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2010-12-20	2011-12-19
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2010-12-20	2011-12-19
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2010-12-20	2011-12-19

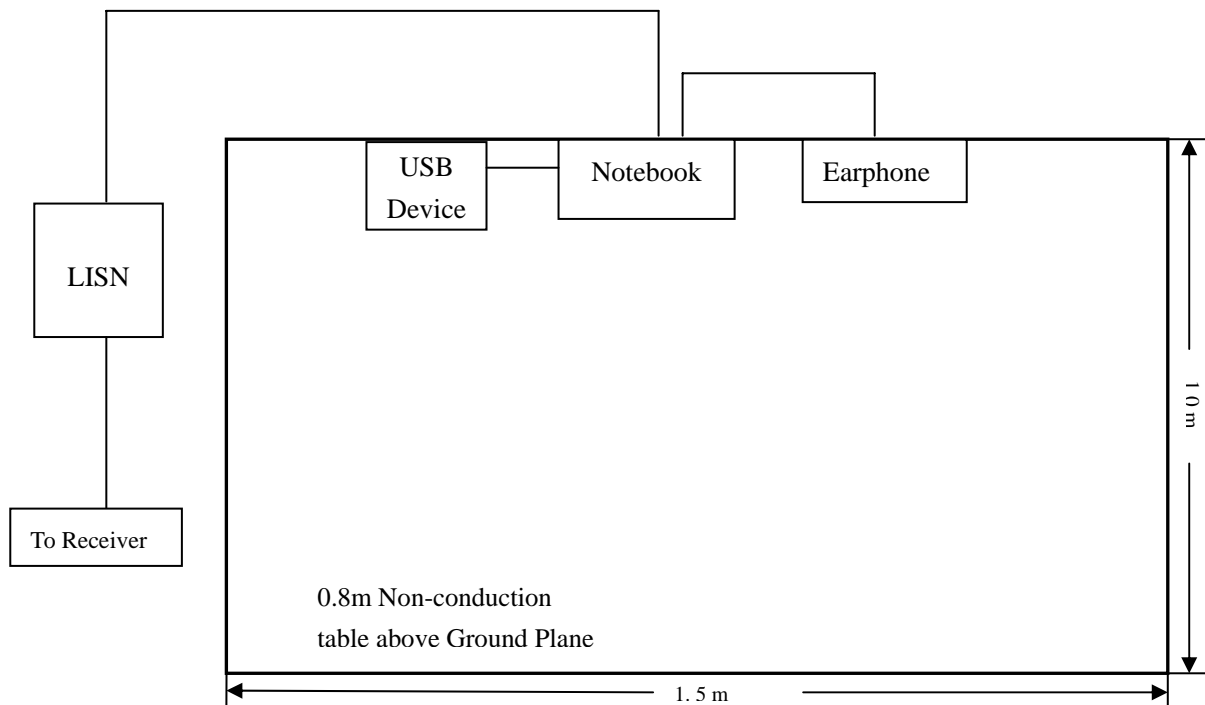
3.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.107 Limit.

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.

3.4 Basic Test Setup Block Diagram



3.5 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

3.6 Test Receiver Setup

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

Start Frequency 150 kHz
 Stop Frequency..... 30 MHz
 Sweep Speed Auto
 IF Bandwidth..... 10 kHz
 Quasi-Peak Adapter Bandwidth 9 kHz
 Quasi-Peak Adapter Mode Normal

3.7 Summary of Test Results/Plots

According to the data in section 3.8, the EUT complied with the FCC Part 15B Conducted margin for a Class B device, with the *worst* margin reading of:

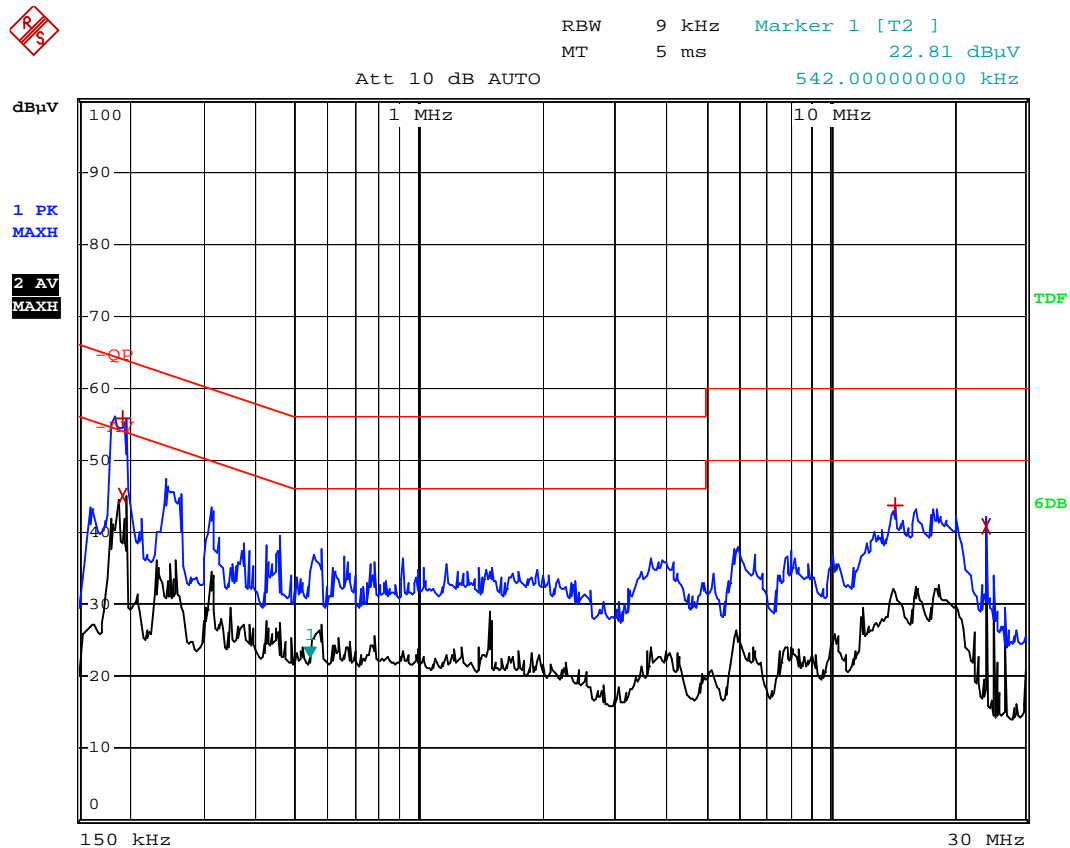
-7.76 dB μ V at 0.182MHz in the Neutral mode, Pk detector, 0.15-30MHz

3.8 Conducted Emissions Test Data

LINE CONDUCTED EMISSIONS				FCC 15 CLASS B	
Frequency	Amplitude	Detector	Phase	Limit	Margin
MHz	dB μ V	QP/Ave/Pk	Line/Neutral	dB μ V	dB
0.182	56.62	Pk	Neutral	64.38	-7.76
0.194	55.75	Pk	Line	63.86	-8.11
0.194	45.07	Ave	Line	53.86	-8.79
0.190	45.13	Ave	Neutral	54.02	-8.89
23.986	40.9	Ave	Line	49.99	-9.09
23.986	39.49	Ave	Neutral	50.0	-10.51
19.146	44.71	Pk	Neutral	59.99	-15.28
14.466	43.57	Pk	Line	59.99	-16.42

Comment: AC 120V/60Hz.

Date: 23.JUN.2011 16:43:14

Plot of Conducted Emissions Test Data*Conducted Disturbance**EUT: MID**M/N: X-10HD**Operating Condition: Running with Program and Connect Network**Test Specification: L**Comment: AC 120V/60Hz*

Date: 23.JUN.2011 16:41:59

4. §15.109(a)- RADIATED EMISSION

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

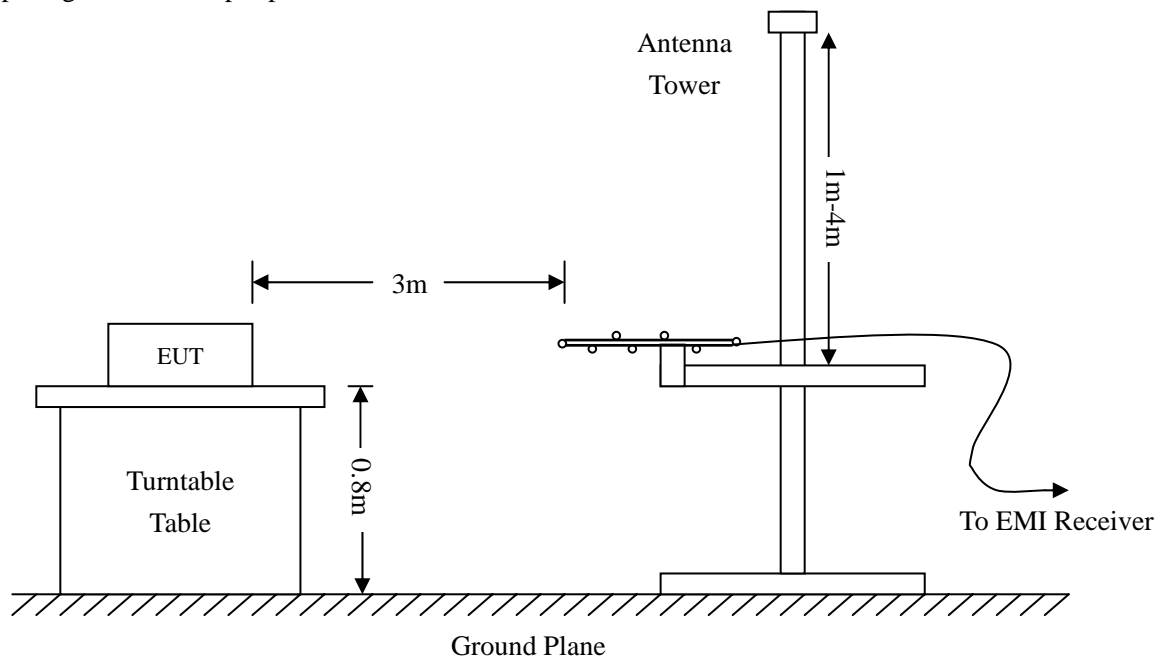
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2010-12-20	2011-12-19
EMI Test Receiver	R&S	ESVB	825471/005	2010-12-20	2011-12-19
Positioning Controller	C&C	CC-C-1F	N/A	2010-12-20	2011-12-19
RF Switch	EM	EMSW18	SW060023	2010-12-20	2011-12-19
Pre-amplifier	Agilent	8447F	3113A06717	2010-12-20	2011-12-19
Pre-amplifier	Compliance Direction	PAP-0118	24002	2010-12-20	2011-12-19
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2011-01-09	2012-01-08
Horn Antenna	ETS	3117	00086197	2011-01-09	2012-01-08

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 and FCC Part 15.109 Limit.

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.



4.4 Test Receiver Setup

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

Start Frequency 30 MHz
Stop Frequency..... 1000 MHz
Sweep Speed Auto
IF Bandwidth..... 100 kHz
Quasi-Peak Adapter Bandwidth 120 kHz
Quasi-Peak Adapter Mode Normal

4.5 Corrected Amplitude & Margin Calculation

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

$$\text{Corr. Ampl.} = \text{Indicated Reading} - \text{Corr. Factor}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15B Limit}$$

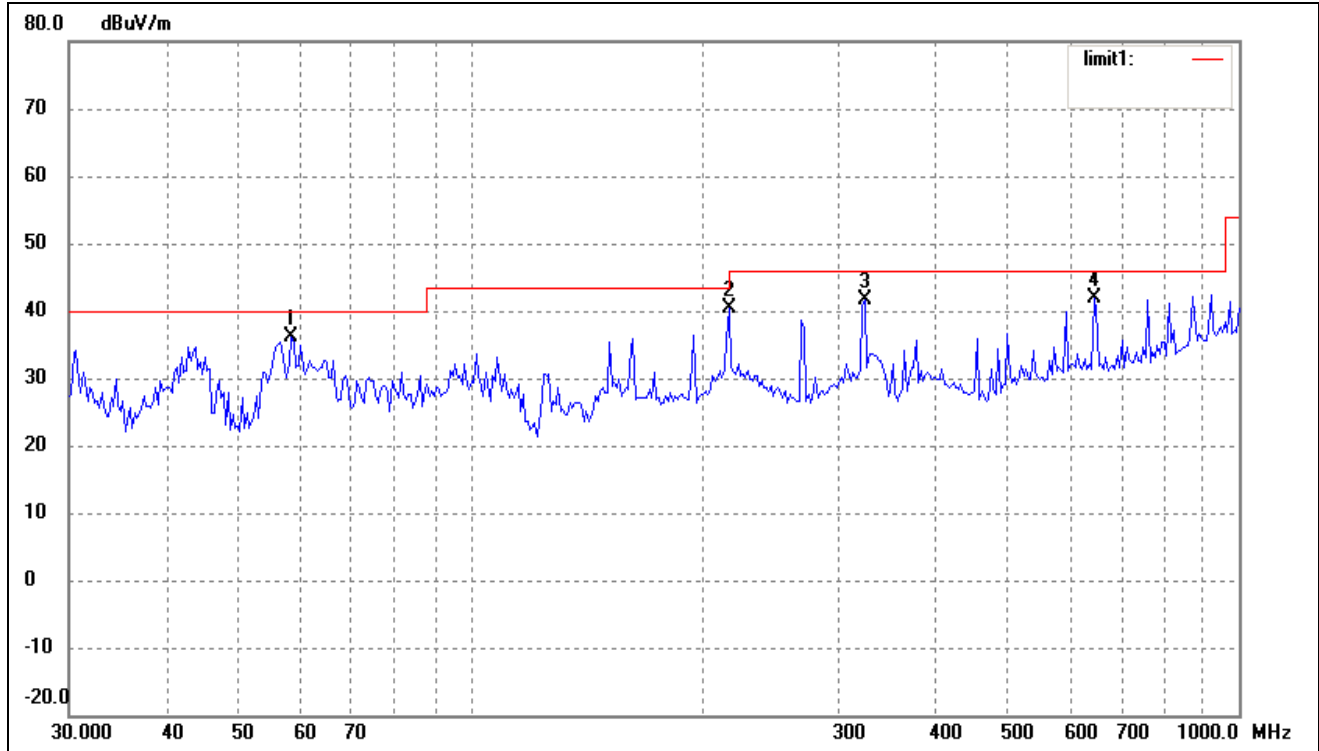
4.6 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

4.7 Summary of Test Results/Plots

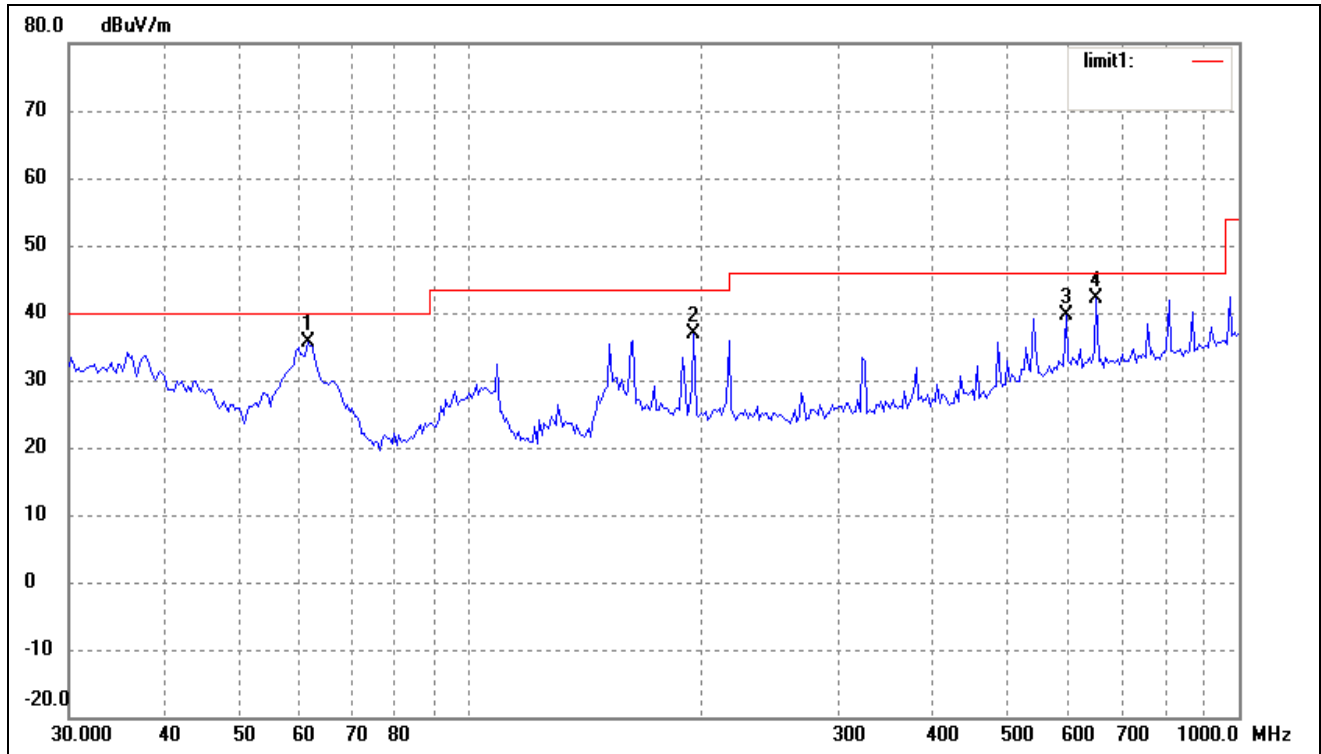
According to the data, the EUT complied with the FCC Part 15B Class B standards, and had the worst margin of:

-3.78 dB μ V at 651.9417MHz in the Vertical polarization, 30 MHz to 1 GHz, 3Meters

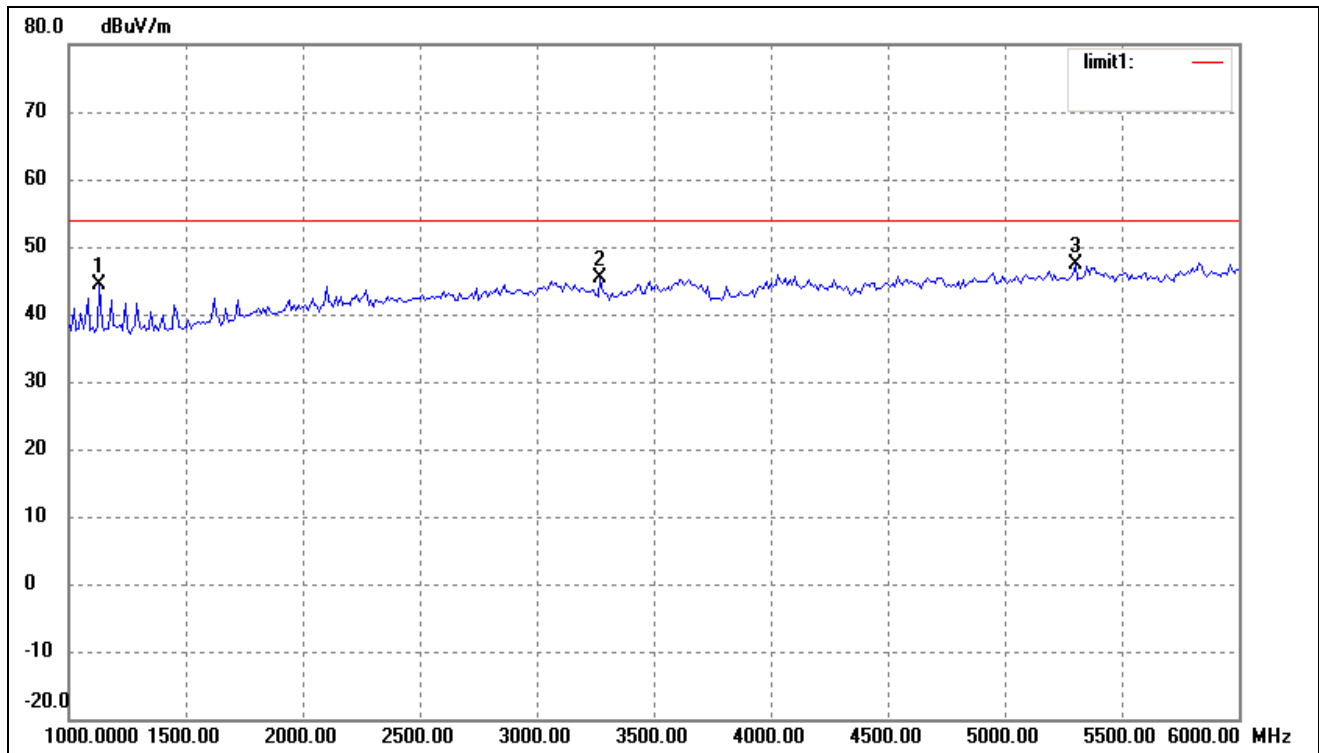
Plot of Radiation Emissions Test Data*Radiated Disturbance**EUT: MID**M/N: X-10HD**Operating Condition: Running with Program and Connect Network**Test Specification: Horizontal & Vertical**Comment: AC 120V/60Hz***Horizontal**

No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	58.4074	28.57	7.60	36.17	40.00	-3.83	226	200	QP
2	216.7828	33.21	7.17	40.38	46.00	-5.62	162	150	QP
3	325.5958	31.45	10.11	41.56	46.00	-4.44	119	100	QP
4	647.3856	24.75	17.07	41.82	46.00	-4.18	203	120	QP

Vertical

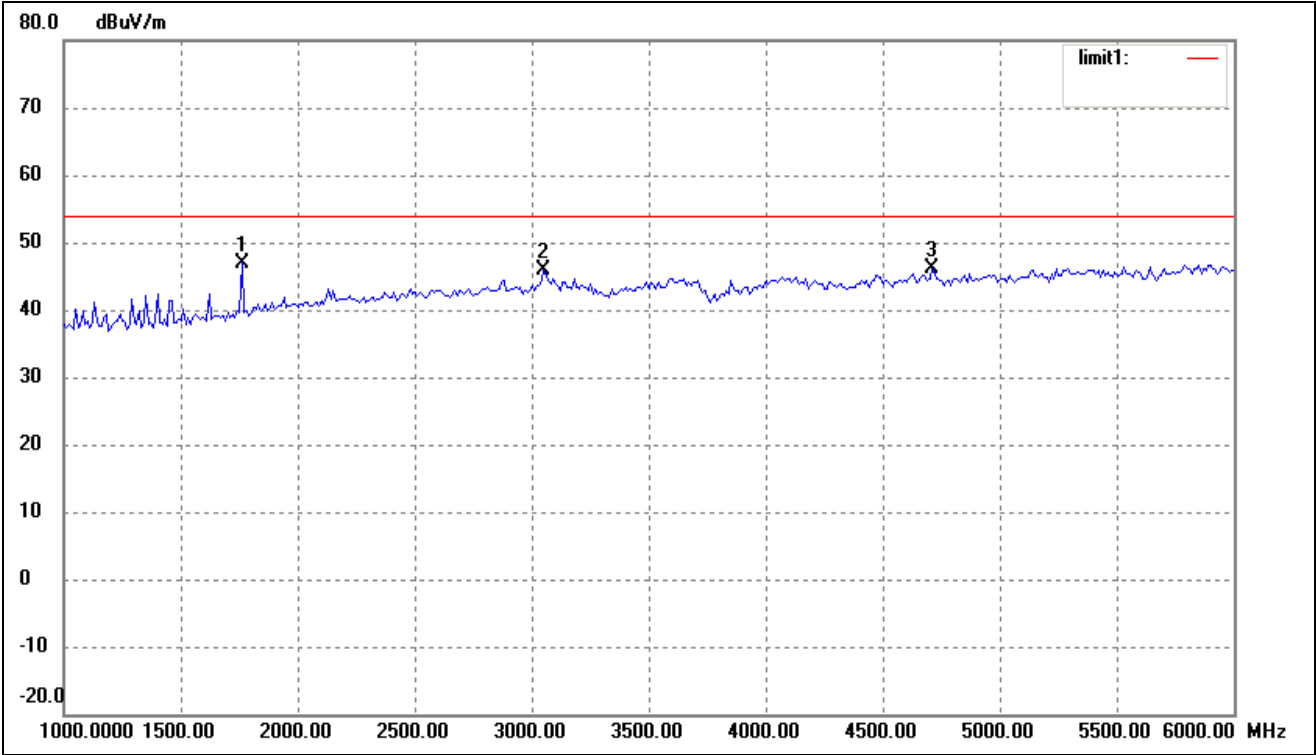


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	61.3463	28.71	7.00	35.71	40.00	-4.29	305	136	QP
2	195.1365	30.21	6.56	36.77	43.50	-6.73	360	100	peak
3	595.1329	23.14	16.55	39.69	46.00	-6.31	0	200	peak
4	651.9417	25.11	17.11	42.22	46.00	-3.78	208	117	QP

Plot of Radiation Emissions Test Data (1-6GHz)*Radiated Disturbance**EUT: MID**M/N: X-10HD**Operating Condition: Running with Program and Connect Network**Test Specification: Horizontal & Vertical**Comment: AC 120V/60Hz**Horizontal*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	1130.000	56.13	-11.80	44.33	54.00	-9.67	360	200	peak
2	3270.000	51.53	-6.06	45.47	54.00	-8.53	0	100	peak
3	5300.000	51.62	-4.21	47.41	54.00	-6.59	360	200	peak

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	1760.000	56.66	-9.66	47.00	54.00	-7.00	0	100	peak
2	3050.000	52.07	-6.21	45.86	54.00	-8.14	0	100	peak
3	4710.000	50.76	-4.73	46.03	54.00	-7.97	360	200	peak

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