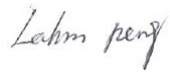



**FCC PART 15B**  
**MEASUREMENT AND TEST REPORT**  
**FOR**

**Amelia World Corporation**

**11601 Biscayne Blvd. Unit 200A, Miami, Florida, 33181, USA**

**FCC ID: ZNYV-5HD**

<b>Report Concerns:</b> Original Report	<b>Equipment Type:</b> MID
<b>Model:</b>	<u>V-5HD</u>
<b>Report No.:</b>	<u>STR11108219I-2</u>
<b>Test Date:</b>	<u>2011-10-27 to 2011-11-16</u>
<b>Issue Date:</b>	<u>2011-11-17</u>
<b>Tested By:</b>	<u>Jason Jiang / Engineer</u> 
<b>Reviewed By:</b>	<u>Lahm Peng / EMC Manager</u> 
<b>Approved &amp; Authorized By:</b>	<u>Jandy so / PSQ Manager</u> 
<b>Prepared By:</b>	<b>SEM.Test Compliance Service Co., Ltd</b> 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C. (518101) Tel.: +86-755-33663308 Fax.: +86-755-33663309 Website: <a href="http://www.semtest.com.cn">www.semtest.com.cn</a>

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.

**TABLE OF CONTENTS**

<b>1. GENERAL INFORMATION.....</b>	<b>3</b>
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT).....	3
1.2 TEST STANDARDS.....	3
1.3 TEST METHODOLOGY.....	3
1.4 TEST FACILITY .....	4
1.5 EUT EXERCISE SOFTWARE .....	4
1.6 ACCESSORIES EQUIPMENT LIST AND DETAILS .....	4
1.7 EUT CABLE LIST AND DETAILS .....	4
<b>2. SUMMARY OF TEST RESULTS .....</b>	<b>5</b>
<b>3. §15.107 (A)- CONDUCTED EMISSION .....</b>	<b>6</b>
3.1 MEASUREMENT UNCERTAINTY .....	6
3.2 TEST EQUIPMENT LIST AND DETAILS .....	6
3.3 TEST PROCEDURE.....	6
3.4 BASIC TEST SETUP BLOCK DIAGRAM.....	6
3.5 ENVIRONMENTAL CONDITIONS .....	7
3.6 TEST RECEIVER SETUP .....	7
3.7 SUMMARY OF TEST RESULTS/PLOTS .....	7
3.8 CONDUCTED EMISSIONS TEST DATA.....	7
<b>4. §15.109(A)- RADIATED EMISSION .....</b>	<b>10</b>
4.1 MEASUREMENT UNCERTAINTY .....	10
4.2 TEST EQUIPMENT LIST AND DETAILS .....	10
4.3 TEST PROCEDURE.....	10
4.4 CORRECTED AMPLITUDE & MARGIN CALCULATION.....	11
4.5 ENVIRONMENTAL CONDITIONS .....	11
4.6 SUMMARY OF TEST RESULTS/PLOTS .....	11

## 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:	LINSAY
Model No.:	V-5HD
Rated Voltage:	Battery DC 3.7V with DC 5V power adapter
Rated Current:	1A
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.

## 1.6 Accessories Equipment List and Details

Description	Manufacturer	Model	Serial Number
Notebook	IBM	R51e	74N0AS297138
/	/	/	/

## 1.7 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	0.5	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  $\pm 2.88$  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

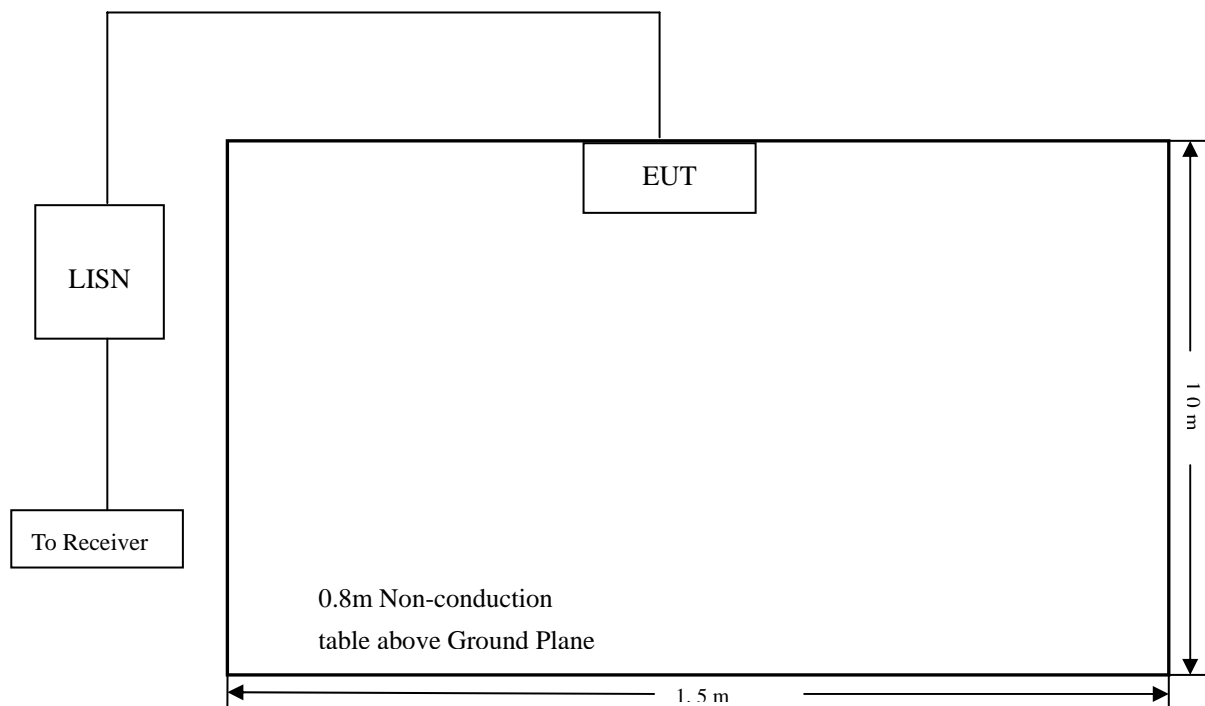
#### 3.3 Test Procedure

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

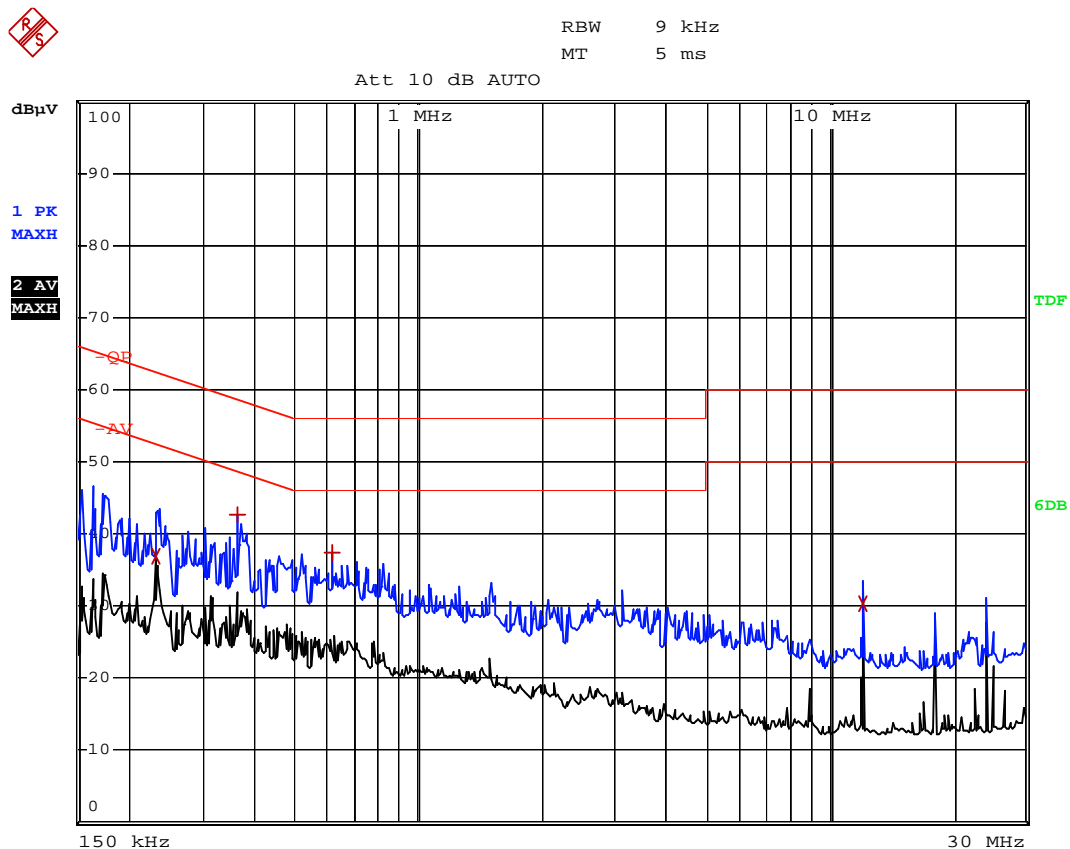
According to the data in section 3.8, the EUT complied with the FCC Part 15B Conducted margin for a Class B device, with the *worst* margin reading of:

**-15.32 dBμV at 0.554 MHz in the Line mode, Average detector, 0.15-30MHz**

### 3.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

Conducted Disturbance  
EUT: MID  
M/N: V-5HD  
Operating Condition:Charging  
Test Specification: N  
Comment: AC 120V/60Hz connect to Adapter 5V



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
2 Average	230 kHz	36.91	-15.53
1 Max Peak	362 kHz	42.57	-16.10
1 Max Peak	618 kHz	37.37	-18.62
2 Average	11.994 MHz	30.19	-19.80



Plot of Conducted Emissions Test Data

Conducted Disturbance

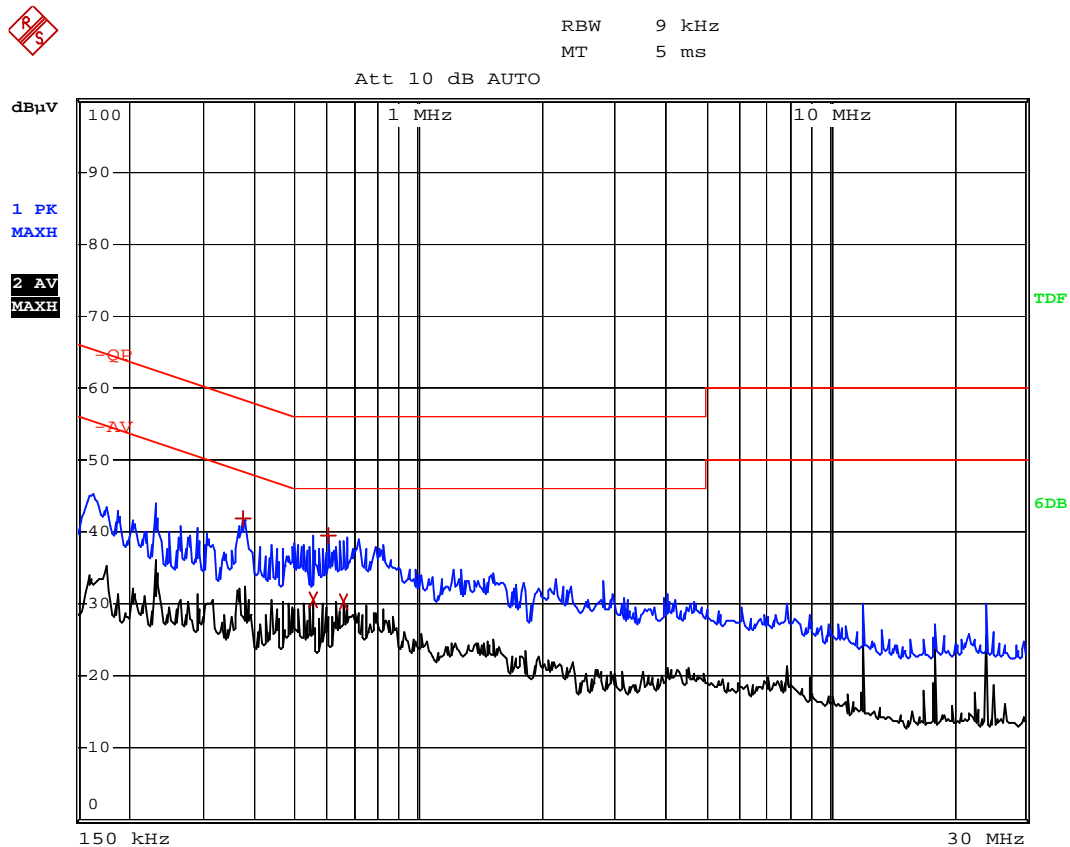
EUT: MID

M/N: V-5HD

Operating Condition:Charging

Test Specification: L

Comment: AC 120V/60Hz connect to Adapter 5V



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	374 kHz	41.94	-16.46
2 Average	554 kHz	30.67	-15.32
1 Max Peak	602 kHz	39.56	-16.44
2 Average	658 kHz	30.33	-15.66

## 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  $\pm 5.10$  dB.

### 4.2 Test Equipment List and Details

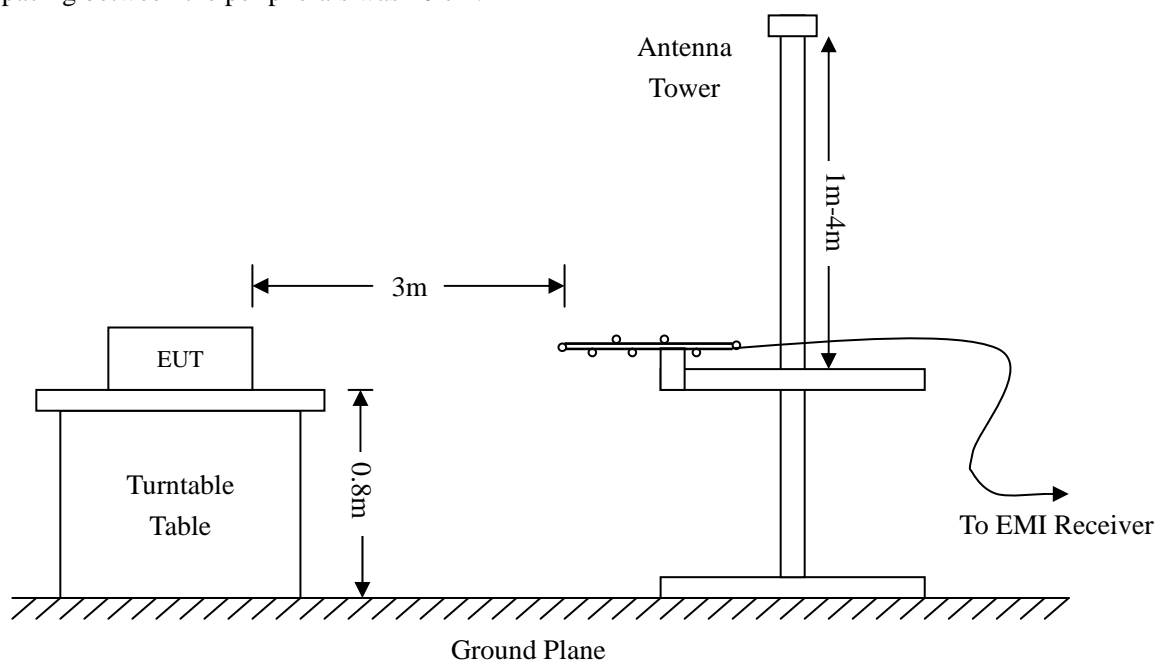
Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2010-12-20	2011-12-19
EMI Test Receiver	R&S	ESVB	825471/005	2010-12-20	2011-12-19
Positioning Controller	C&C	CC-C-1F	N/A	2010-12-20	2011-12-19
RF Switch	EM	EMSW18	SW060023	2010-12-20	2011-12-19
Pre-amplifier	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
Loop Antenna	SCHWARZECK	HFRA 5165	9365	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 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 -6dBμV means the emission is 6dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:

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

#### 4.5 Environmental Conditions

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

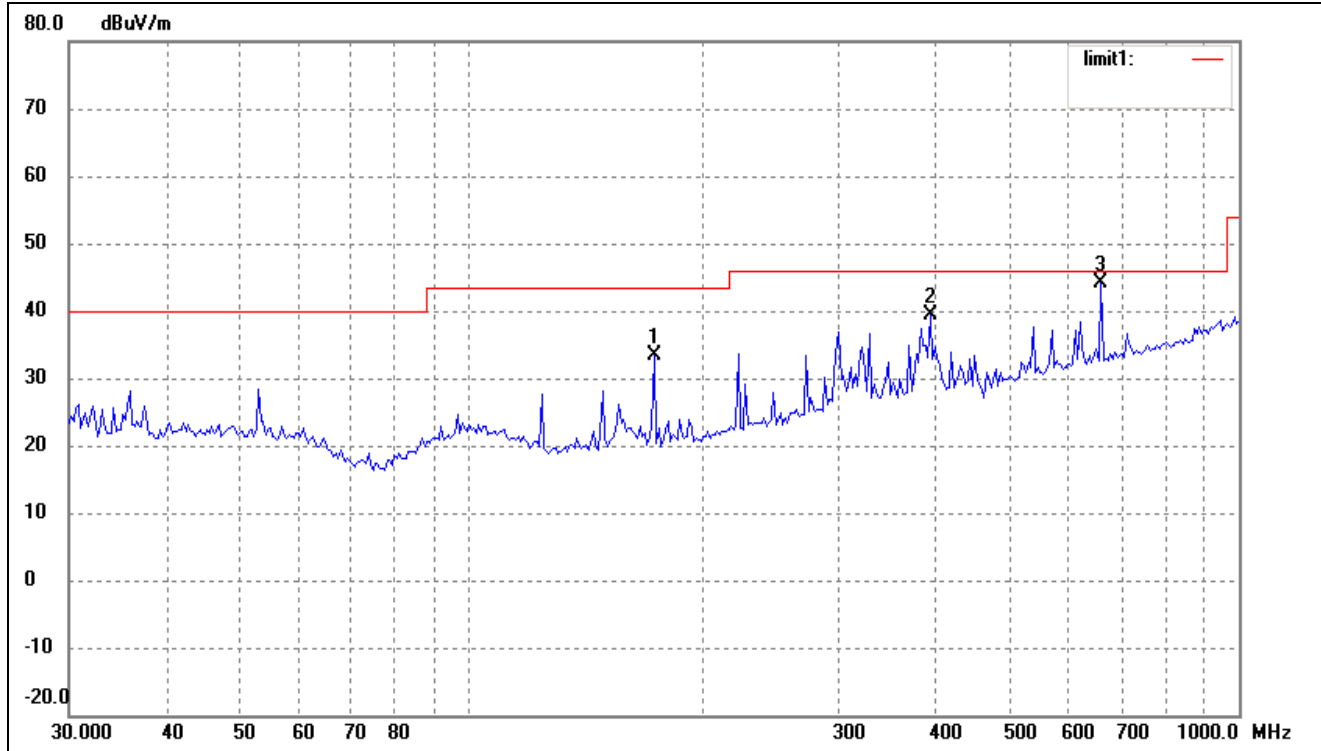
#### 4.6 Summary of Test Results/Plots

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

*Note: The emission limit in this paragraph is based on measurement instrumentation employing an average detector above 1GHz. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.*

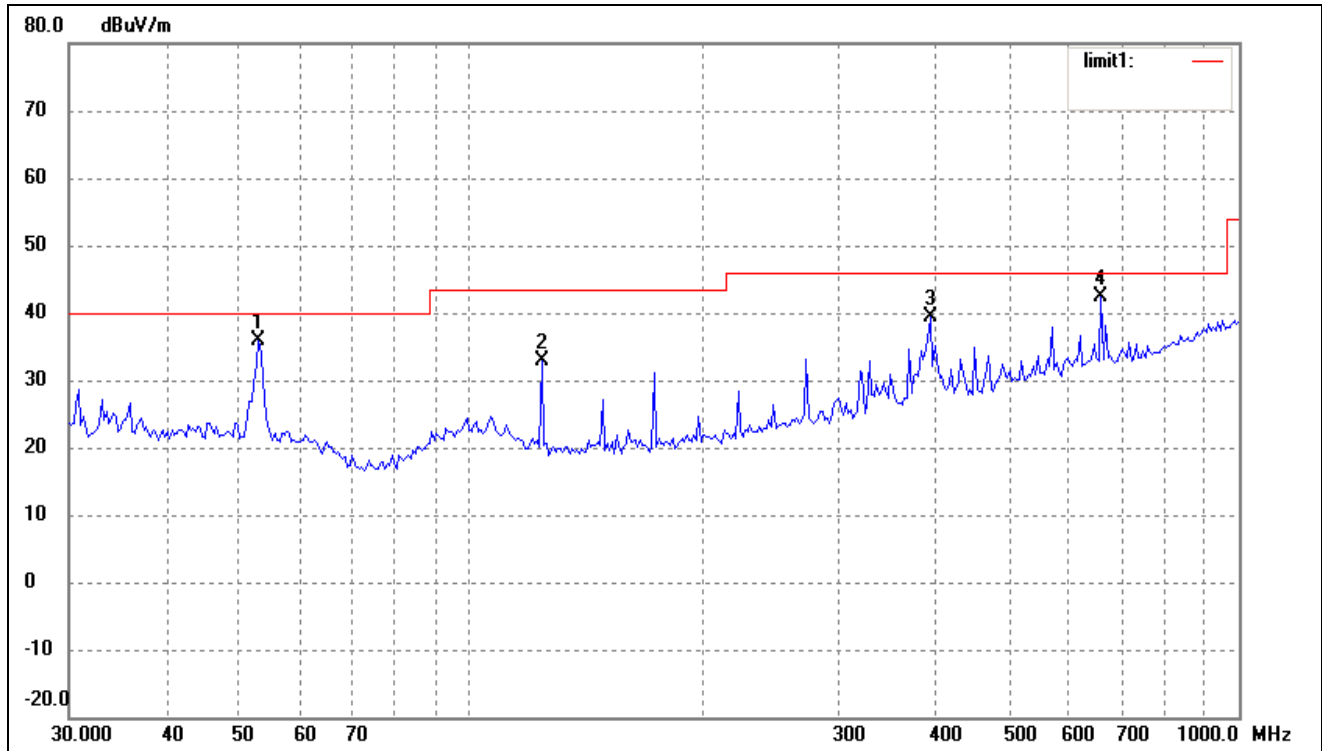
**-1.95 dBμV at 661.1505MHz in the Horizontal polarization, Charging&Playing Mode 9 kHz to 6 GHz, 3Meters**

**-3.00 dBμV at 906.4824MHz in the Vertical polarization, Connect to PC Mode 9 kHz to 6 GHz, 3Meters**

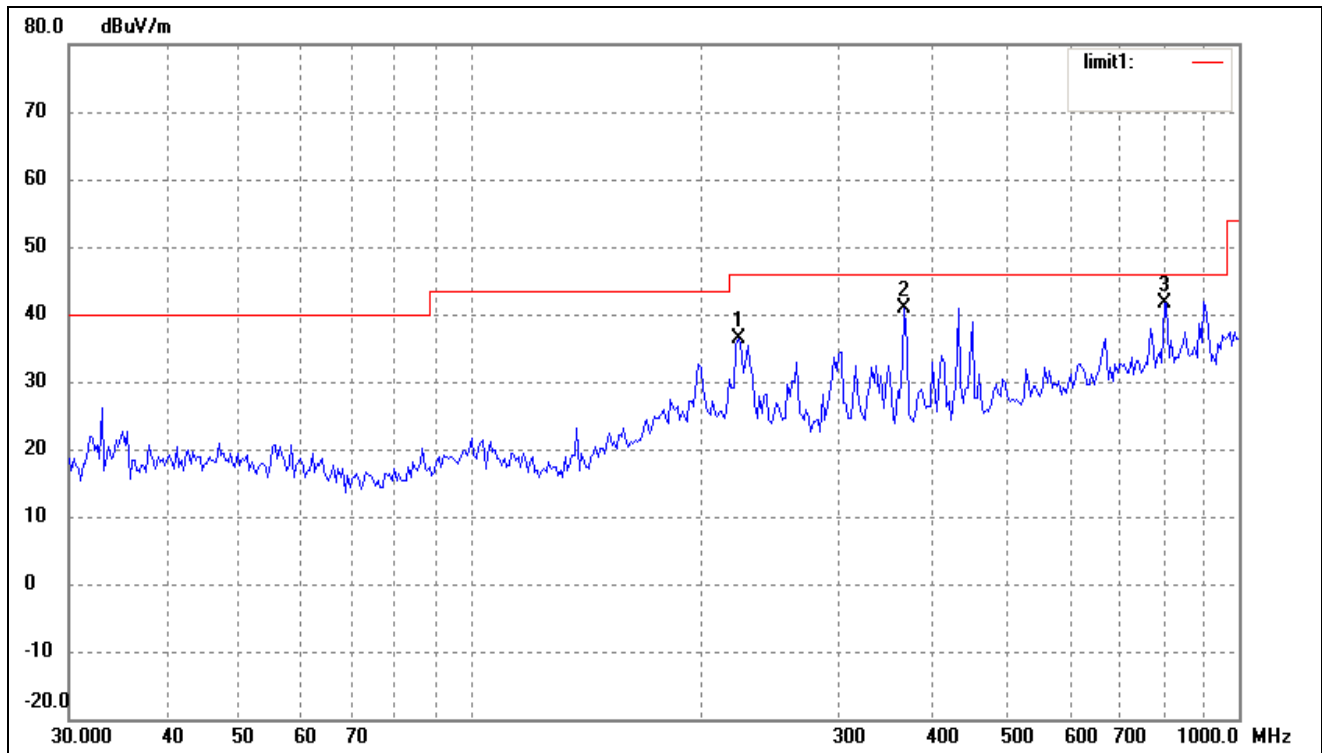
**Plot of Radiation Emissions Test Data***Radiated Disturbance**EUT: MID**M/N: V-5HD**Operating Condition:Charging&Playing**Test Specification: Horizontal & Vertical**Comment: AC 120V/60Hz connect to Adapter 5V**Horizontal*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	173.2051	28.36	5.13	33.49	43.50	-10.01	231	114	peak
2	396.2415	27.92	11.37	39.29	46.00	-6.71	360	100	peak
3	661.1505	26.87	17.18	44.05	46.00	-1.95	0	100	peak

## Vertical

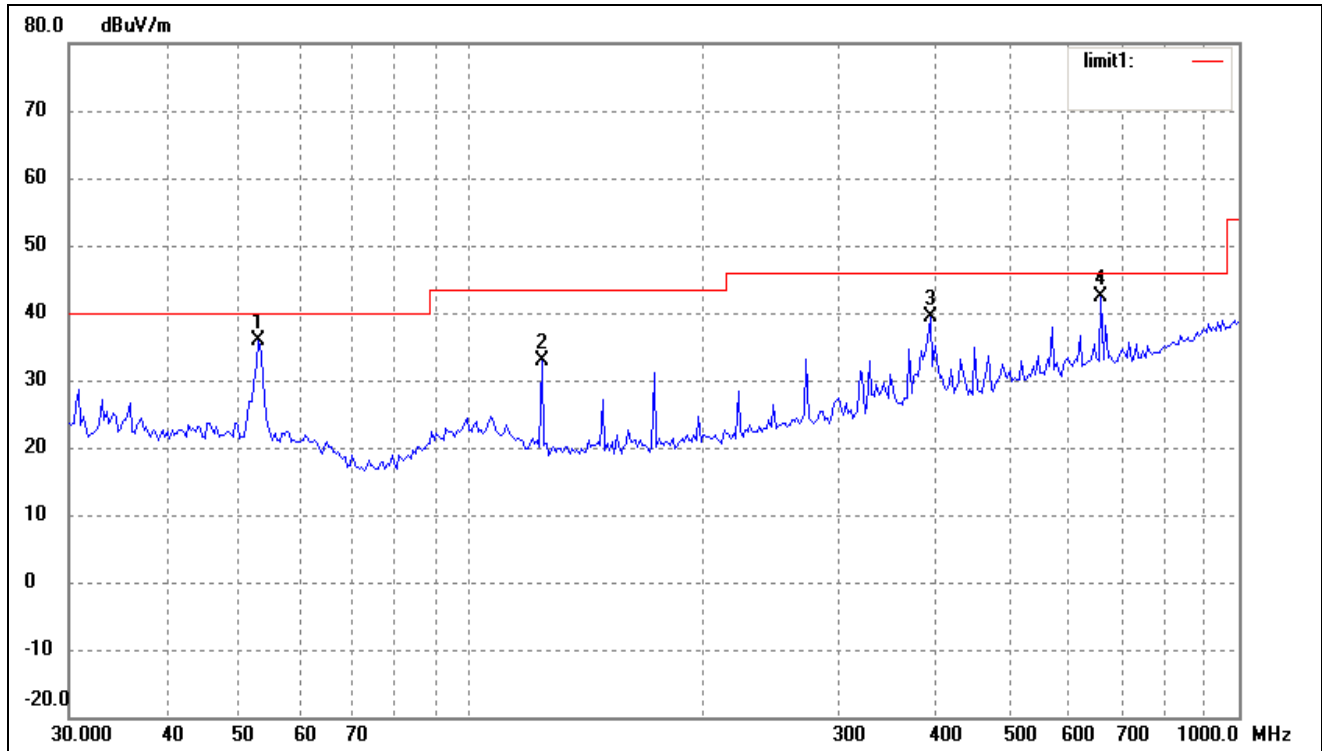


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	52.9453	27.97	7.85	35.82	40.00	-4.18	360	100	peak
2	123.6985	27.43	5.44	32.87	43.50	-10.63	0	200	peak
3	396.2415	28.02	11.37	39.39	46.00	-6.61	0	200	peak
4	661.1505	25.09	17.18	42.27	46.00	-3.73	360	100	peak

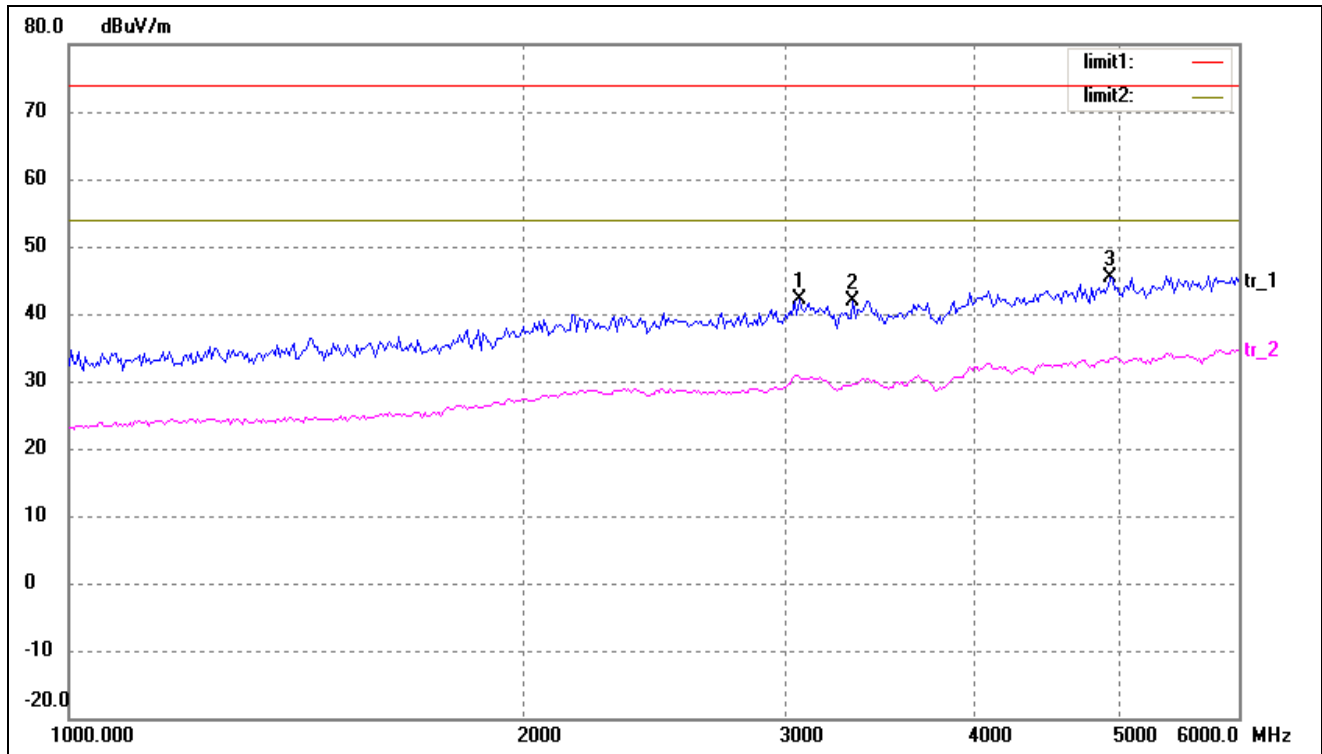
**Plot of Radiation Emissions Test Data***Radiated Disturbance**EUT: MID**M/N: V-5HD**Operating Condition: Connect to PC**Test Specification: Horizontal & Vertical**Comment: AC 120V/60Hz connect to Adapter 5V**Horizontal*

No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	222.9502	29.04	7.46	36.50	46.00	-9.50	23	104	peak
2	366.8231	29.81	10.99	40.80	46.00	-5.20	30	100	peak
3	798.9797	22.75	18.99	41.74	46.00	-4.26	1000	100	peak

Vertical



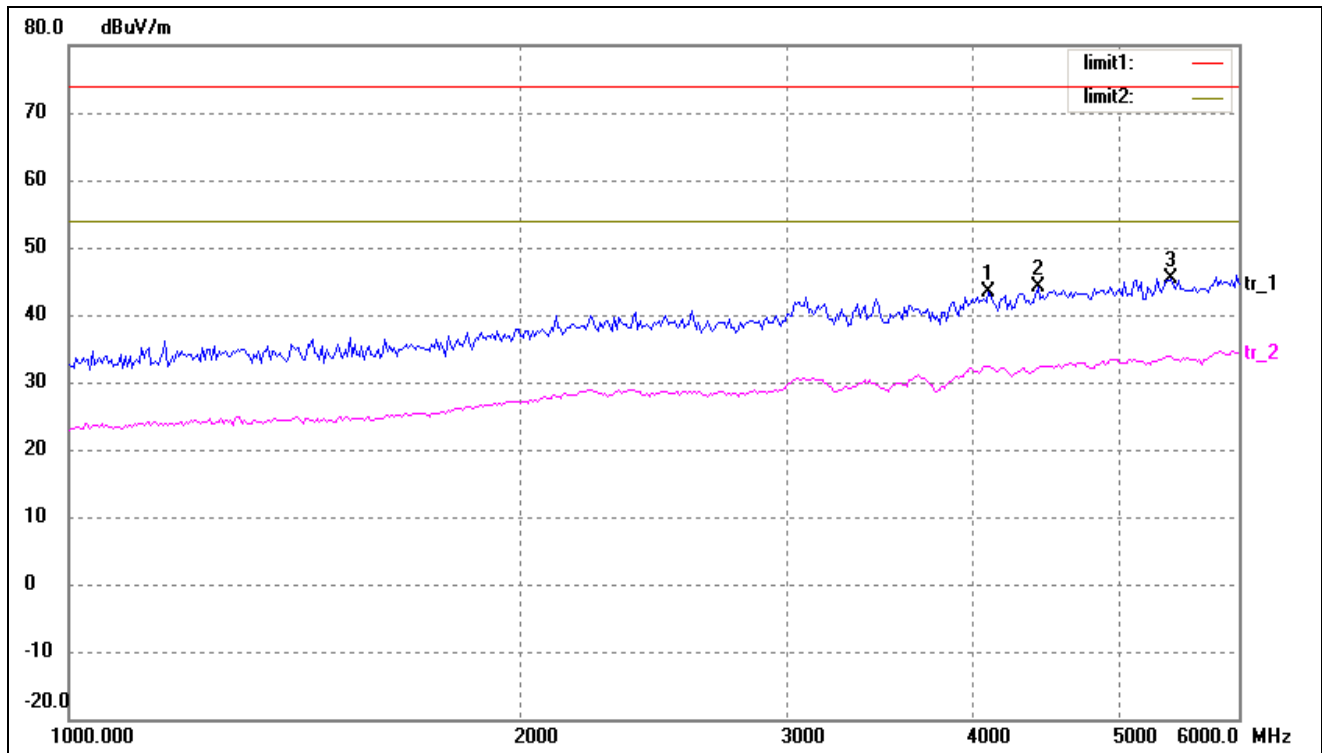
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	224.5193	28.76	7.55	36.31	46.00	-9.69	36	100	peak
2	661.1505	25.24	17.18	42.42	46.00	-3.58	1000	200	peak
3	798.9797	23.39	18.99	42.38	46.00	-3.62	120	200	peak
4	906.4824	21.98	21.02	43.00	46.00	-3.00	30	100	peak

**Plot of Radiation Emissions Test Data (1-6GHz)***Radiated Disturbance**EUT: MID**M/N: V-5HD**Operating Condition: Charging&Playing**Test Specification: Horizontal & Vertical**Comment: AC 120V/60Hz connect to Adapter 5V**Horizontal*

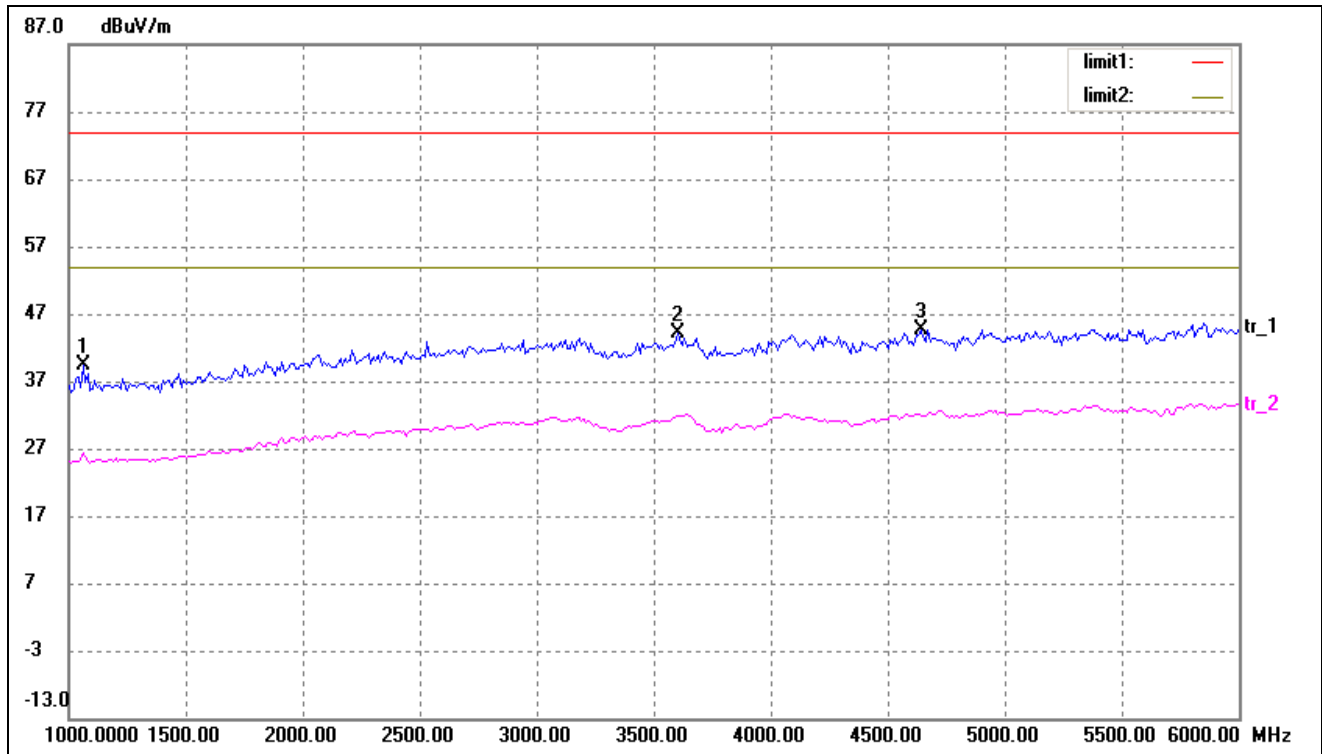
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	3058.908	48.26	-6.20	42.06	74.00	-31.94	30	100	peak
2	3321.707	48.03	-6.03	42.00	74.00	-32.00	100	200	peak
3	4926.683	49.96	-4.54	45.42	74.00	-28.58	130	200	peak



Vertical

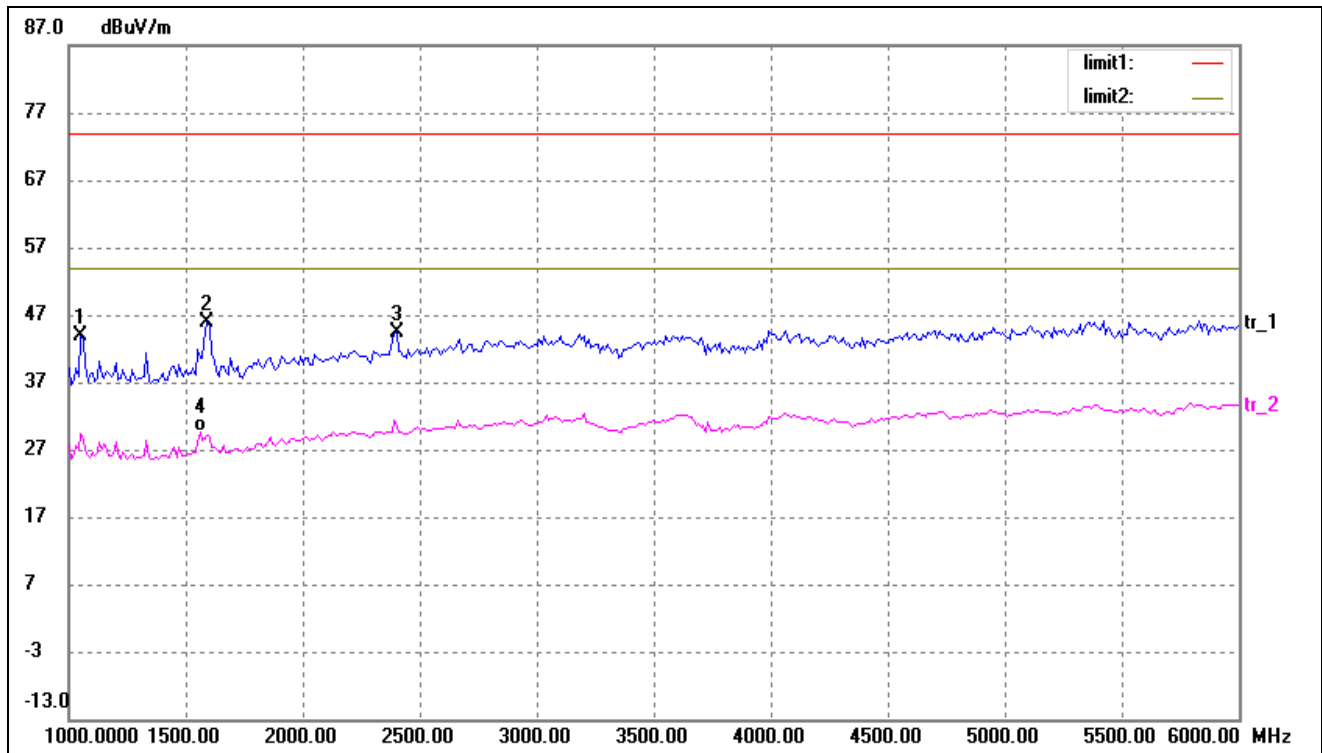


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	4089.092	48.70	-5.28	43.42	74.00	-30.58	360	120	peak
2	4408.687	49.09	-5.00	44.09	74.00	-29.91	140	200	peak
3	5407.773	49.55	-4.11	45.44	74.00	-28.56	130	100	peak

**Plot of Radiation Emissions Test Data (1-6GHz)***Radiated Disturbance**EUT: MID**M/N: V-5HD**Operating Condition: Connect to PC**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	1060.000	51.30	-11.91	39.39	74.00	-34.61	360	100	peak
2	3600.000	49.92	-5.79	44.13	74.00	-29.87	100	200	peak
3	4640.000	49.45	-4.79	44.66	74.00	-29.34	120	200	peak

Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( ° )	Height (cm)	Remark
1	1050.000	55.78	-11.92	43.86	74.00	-30.14	260	120	peak
2	1590.000	56.63	-10.70	45.93	74.00	-28.07	120	200	peak
3	2400.000	51.68	-7.31	44.37	74.00	-29.63	130	100	peak
4	1560.000	40.40	-10.88	29.52	54.00	-24.48	60	100	AVG

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5<sup>th</sup> Harmonics is close to the noise base even antenna close up to 1meter distance according the measurement of ANSI C63.4.

The measurements greater than 20dB below the limit from 9kHz to 30MHz..

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