FCC PART 15.109

MEASUREMENT AND TEST REPORT

FOR

DynaPoint (Dong Guan) INC.

The Sixth Industrial Park, Shangsha, South Area ChangAn, DongGuan,

GuangDong, China

FCC ID: RYLH3A3KB3

Report Concerns: Original Report	**Equipment Type:** Mouse
Model:	H3A3KB3
Report No.:	STR09078016I
Test/Witness Engineer:	Susan Su
Test Date:	2009-07-03 to 2009-07-06
Issue Date:	2009-07-12
Prepared By:	**SEM.Test Compliance Service Co., Ltd.** 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C. (518101)
Approved & Authorized By:	Jandy So / PSQ Manager

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

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	DynaPoint (Dong Guan) INC.
Address of applicant:	The Sixth Industrial Park, Shangsha, South Area ChangAn, DongGuan, GuangDong, China
Manufacturer:	DynaPoint (Dong Guan) INC.
Address of manufacturer:	The Sixth Industrial Park, Shangsha, South Area ChangAn, DongGuan, GuangDong, China

General Description of E.U.T

Items	Description
EUT Description:	Mouse
Trade Name:	/
Model No.:	H3A3KB3
Rated Voltage:	DC 5V
Packaging Size:	9.5X5.1X2.8 cm
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 DynaPoint (Dong Guan) INC. 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 Related Submittal(s)/Grant(s)

No Related Submittal(s).

1.4 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.

1.5 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.

1.6 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.

1.7 Accessories Equipment List and Details

Manufacturer	Description	Model	Serial Number
IBM	Notebook	T22	LV14893
TP-LINK	Modem	TM-EC5658V	KT99CTQC-508
Lenovo	Printer	3110	OD65133711480

1.8 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	0.83	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 ± 1.5 dB.

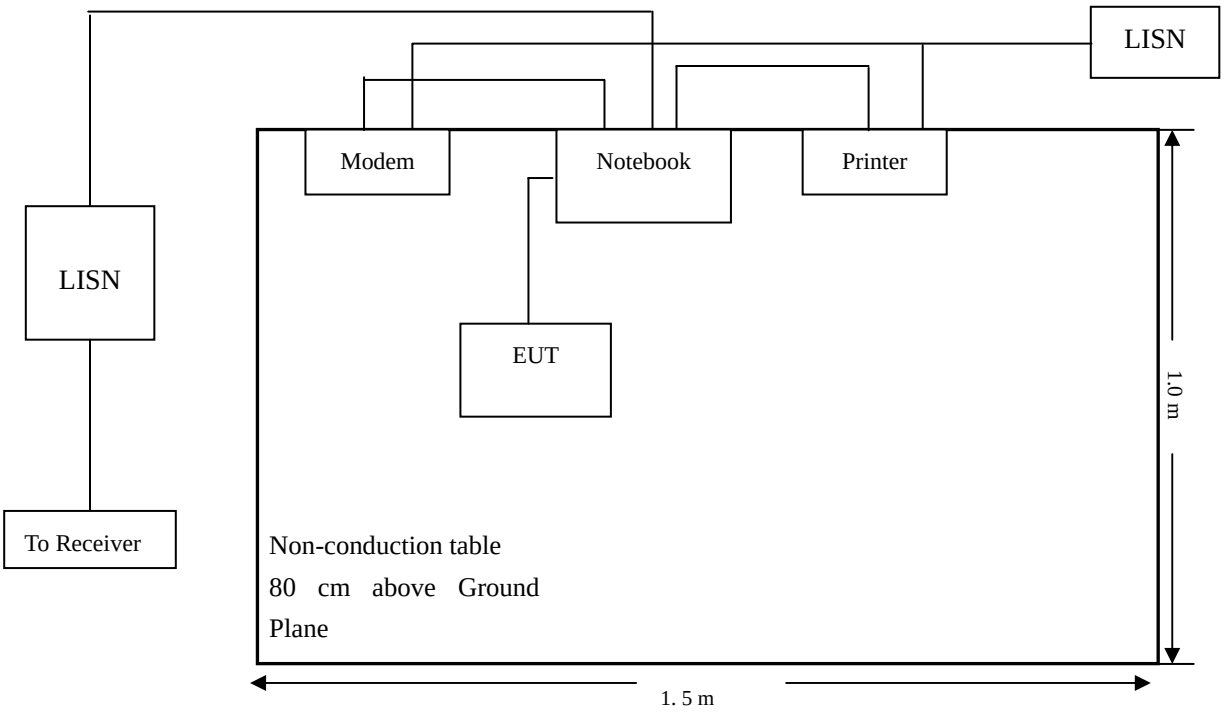
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2008-07-08	2009-07-07
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2008-07-08	2009-07-07
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2008-07-08	2009-07-07
AMN	Rohde & Schwarz	ESH3-Z5	828304/014	2008-07-08	2009-07-07

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 15B Conducted margin for a Class B device, with the *worst* margin reading of:

-3.92 dBμV at **0.154 MHz** in the **Line**, **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	dBμV	QP/Ave/Pk	Line/Neutral	dBμV	dB
0.154	61.85	Pk	Line	65.77	-3.92
0.214	49.00	Ave	Neutral	53.04	-4.04
0.158	61.10	Pk	Neutral	65.56	-4.46
0.214	48.09	Ave	Line	53.04	-4.95
0.638	35.74	Ave	Line	45.99	-10.25
0.634	35.07	Ave	Neutral	45.99	-10.92
4.866	34.91	Ave	Line	45.99	-11.08
4.870	34.43	Ave	Neutral	45.99	-11.56
0.990	33.20	Ave	Line	45.99	-12.79
0.990	33.13	Ave	Neutral	45.99	-12.86
0.386	43.86	Pk	Neutral	58.14	-14.28
6.422	35.62	Ave	Neutral	49.99	-14.37
6.418	35.46	Ave	Line	49.99	-14.53
0.494	41.19	Pk	Line	55.99	-14.90

Emission attenuated more than 20dB below the limit is not reported.

Plot of Conducted Emissions Test Data

Conducted Disturbance

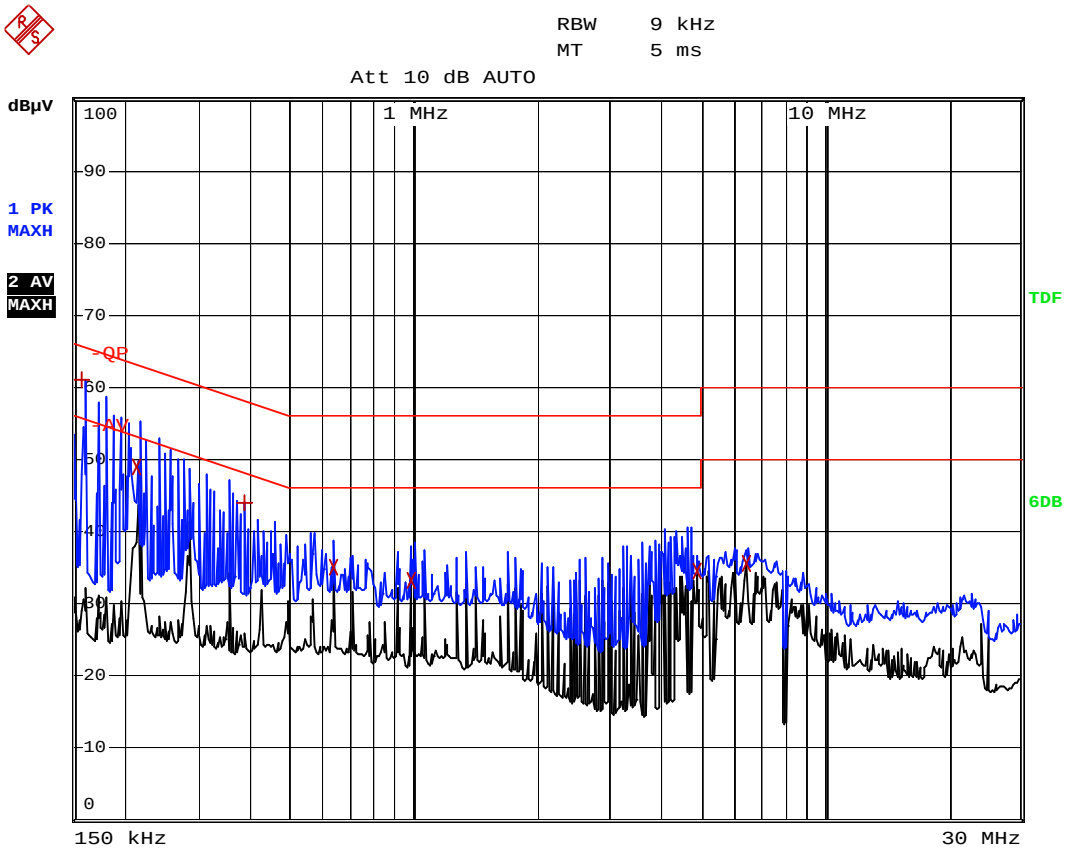
EUT: Mouse

M/N: H3A3KB3

Operating Condition: Running with Program

Test Specification: N

Comment: AC 120V/60Hz connect to PC, USB 5V



Plot of Conducted Emissions Test Data

Conducted Disturbance

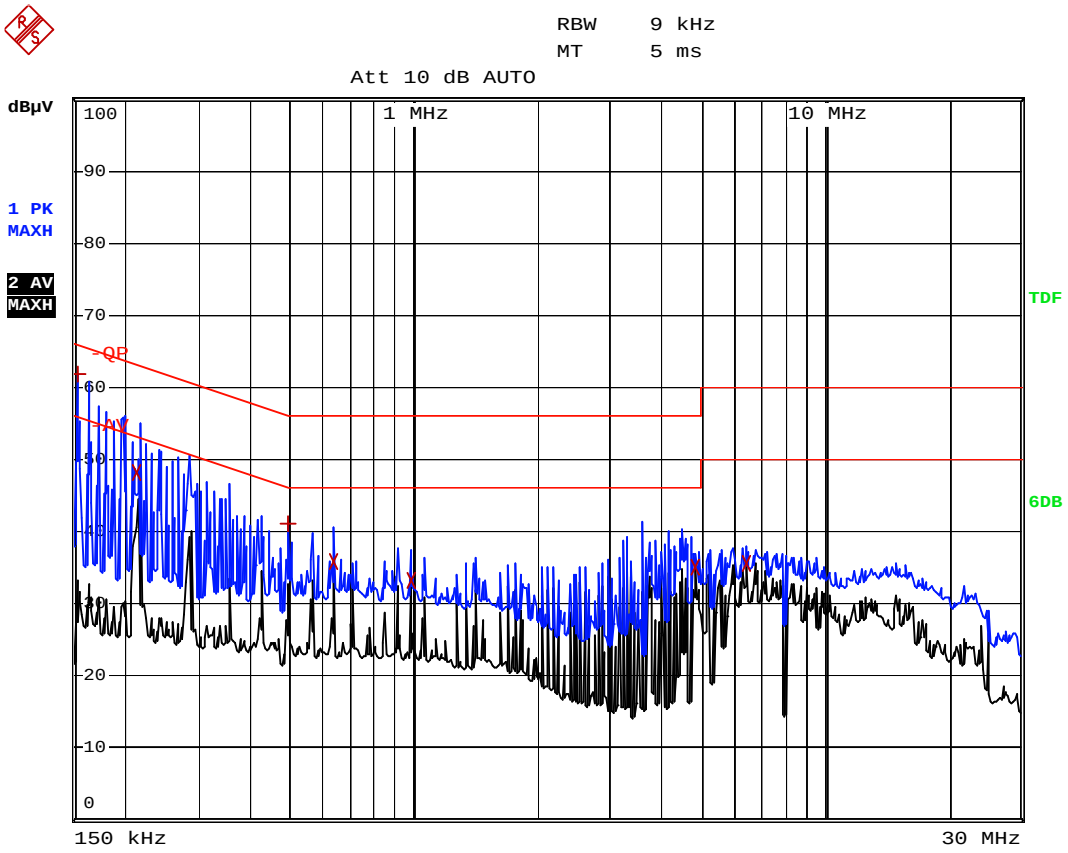
EUT: Mouse

M/N: H3A3KB3

Operating Condition: Running with Program

Test Specification: L

Comment: AC 120V/60Hz connect to PC, USB 5V



4. §15.109(a)- RADIATED EMISSION

4.1 Measurement Uncertainty

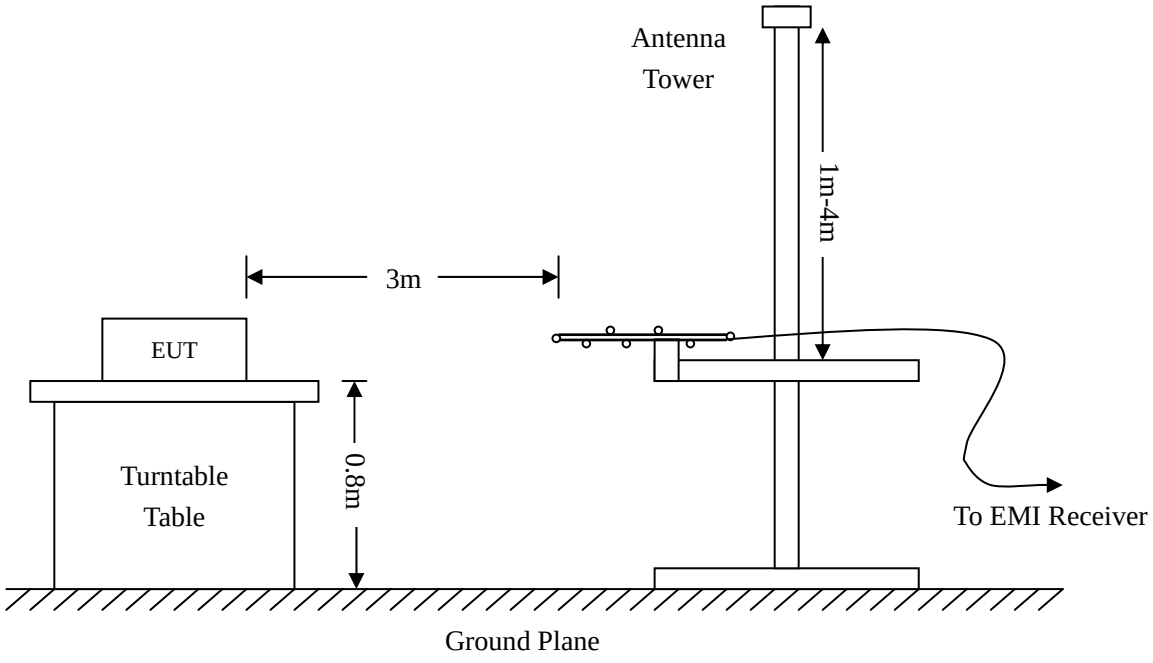
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 3.0 dB.

4.2 Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	ROHDE&SCHWARZ	FSEA20	DE25181	2008-07-08	2009-07-07
Positioning Controller	C&C	CC-C-1F	N/A	2008-07-08	2009-07-07
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2008-07-08	2009-07-07
Horn Antenna	SCHWARZBECK	BBHX 9120	9120-426	2008-07-08	2009-07-07
RF Switch	EM	EMSW18	SW060023	2008-07-08	2009-07-07
Amplifier	Agilent	8447F	3113A06717	2008-07-08	2009-07-07
Coaxial Cable	SCHWARZBECK	AK9513	9513-10	2008-07-08	2009-07-07
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	25498514	2008-07-08	2009-07-07

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

Start Frequency ..... 30 MHz
Stop Frequency..... 1000 MHz
Sweep Speed ..... Auto
IF Bandwidth..... 10 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:

Corr. Ampl. = Indicated Reading – 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:

Margin = Corr. Ampl. – FCC Part 15B Limit

4.6 Environmental Conditions

Temperature:	23 °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 15B Class B standards, and had the worst margin of:

-5.86 dBμV at **72.2111 MHz** in the **Vertical** polarization, **30 MHz to 1 GHz, 3Meters**

Plot of Radiation Emissions Test Data

Radiated Disturbance

EUT: Mouse

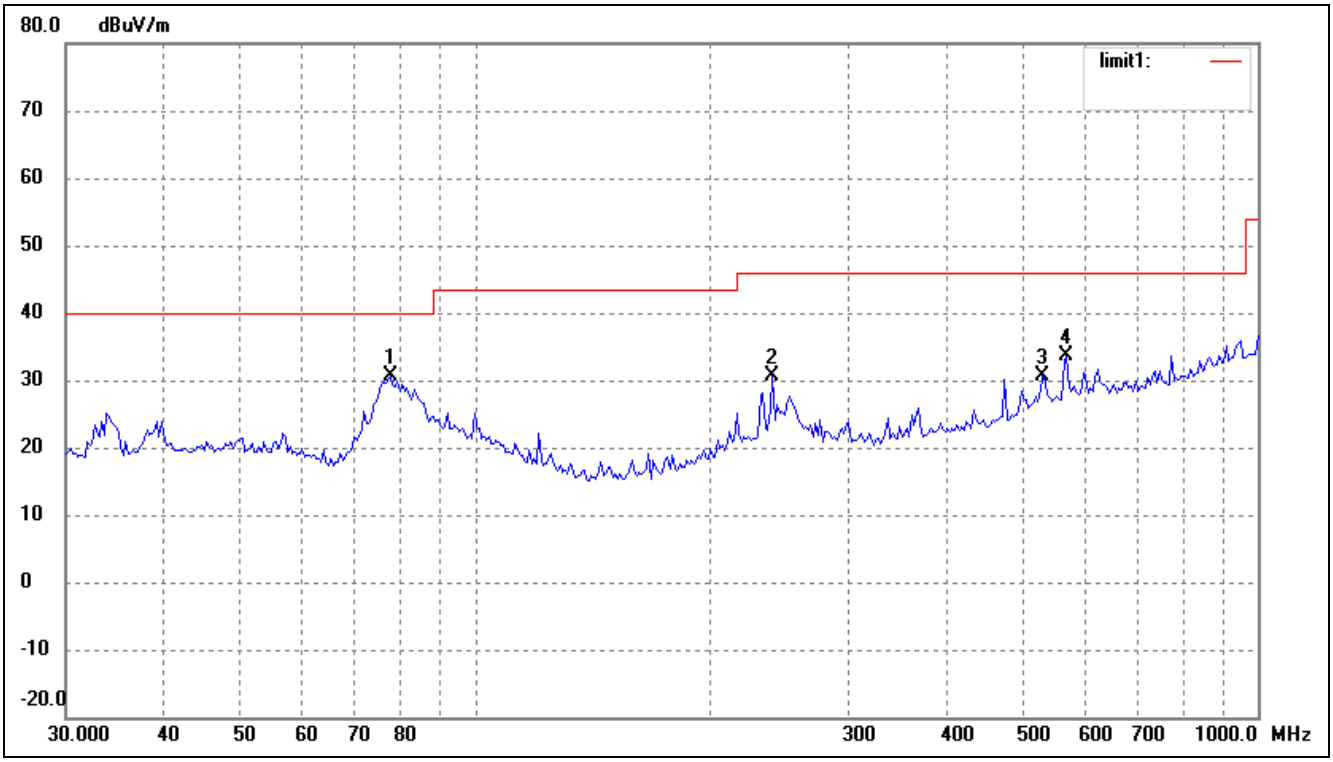
M/N: H3A3KB3

Operating Condition: Running with Program

Test Specification: Horizontal & Vertical

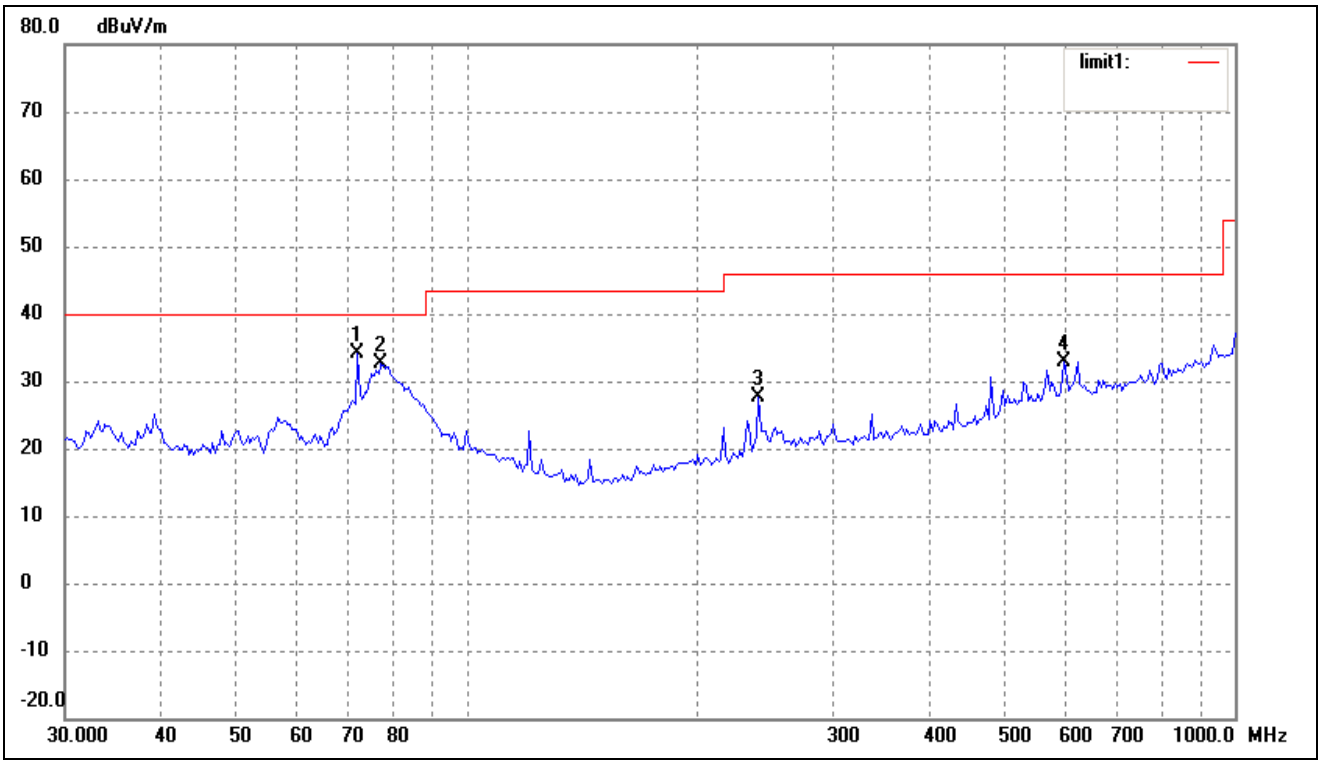
Comment: AC 120V/60Hz connect to PC, USB 5V

Horizontal:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	78.0143	27.75	2.85	30.60	40.00	-9.40	305	100	peak
2	240.1442	23.16	7.44	30.60	46.00	-15.40	145	100	peak
3	531.2910	17.05	13.59	30.64	46.00	-15.36	17	100	peak
4	569.9688	19.25	14.39	33.64	46.00	-12.36	316	100	peak

Vertical:



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	72.2111	31.30	2.84	34.14	40.00	-5.86	31	100	QP
2	77.4680	29.75	2.77	32.52	40.00	-7.48	54	100	peak
3	240.1442	20.18	7.44	27.62	46.00	-18.38	96	100	peak
4	598.7067	17.96	14.99	32.95	46.00	-13.05	279	100	peak

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