FCC PART 15B

MEASUREMENT AND TEST REPORT

FOR

KEEN HIGH MEDIATECH (SHENZHEN) LTD.

Room 1118,11th floor, In-long Development Center, Number 6025, Shennan Ave,

FutianDist., Shenzhen, China

FCC ID: YKWKMP51100

Report Concerns: Original Report	**Equipment Type:** Internet TV/Radio

Model:	KMP511
Report No.:	STR10078131I-2
Test Date:	2010-07-22 to 2010-07-31
Issue Date:	2010-08-09
Test Engineer:	John Zhi
Reviewed By:	Lahm Peng
Approved & Authorized By:	Jandy so/PSQ Manager

Prepared By:

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: KEEN HIGH MEDIATECH (HSNEHZNE) LTD.
Address of applicant: Room 1118, 11th floor, In-long Development center, Number 6025, Shennan Ave, FutianDist., Shenzhen, China

Manufacturer: KEEN HIGH MEDIATECH(HSNEHZNE) LTD.
Address of manufacturer: Room 1118, 11th floor, In-long Development center, Number 6025, Shennan Ave, FutianDist., Shenzhen, China

General Description of E.U.T

Items	Description
EUT Description:	Internet TV/Radio
Trade Name:	/
Model No.:	KMP511
Add Model:	KMP510
Rated Voltage:	DC 5V
Rated Current:	1A
Packaging Size:	20.0X8.1X8.5cm
For more information refer to the circuit diagram form and the user's manual.	

Note: The test data is gathered from a production sample, provided by the manufacture. The others models listed in the report have different appearance only of KMP511 without circuit and electronic construction changed, declared by the manufacturer.

1.2 Test Standards

The following report is prepared on behalf of the KEEN HIGH MEDIATECH (HSNEHZNE) LTD. 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 C63.4-2009, 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 design 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

Description	Manufacturer	Model	Serial Number
Wireless AP	Tenda	WAP320	/
ASUS	Notebook	XR52	15G10N365600

1.8 EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
Power Cable	1.3	Unshielded	With 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.

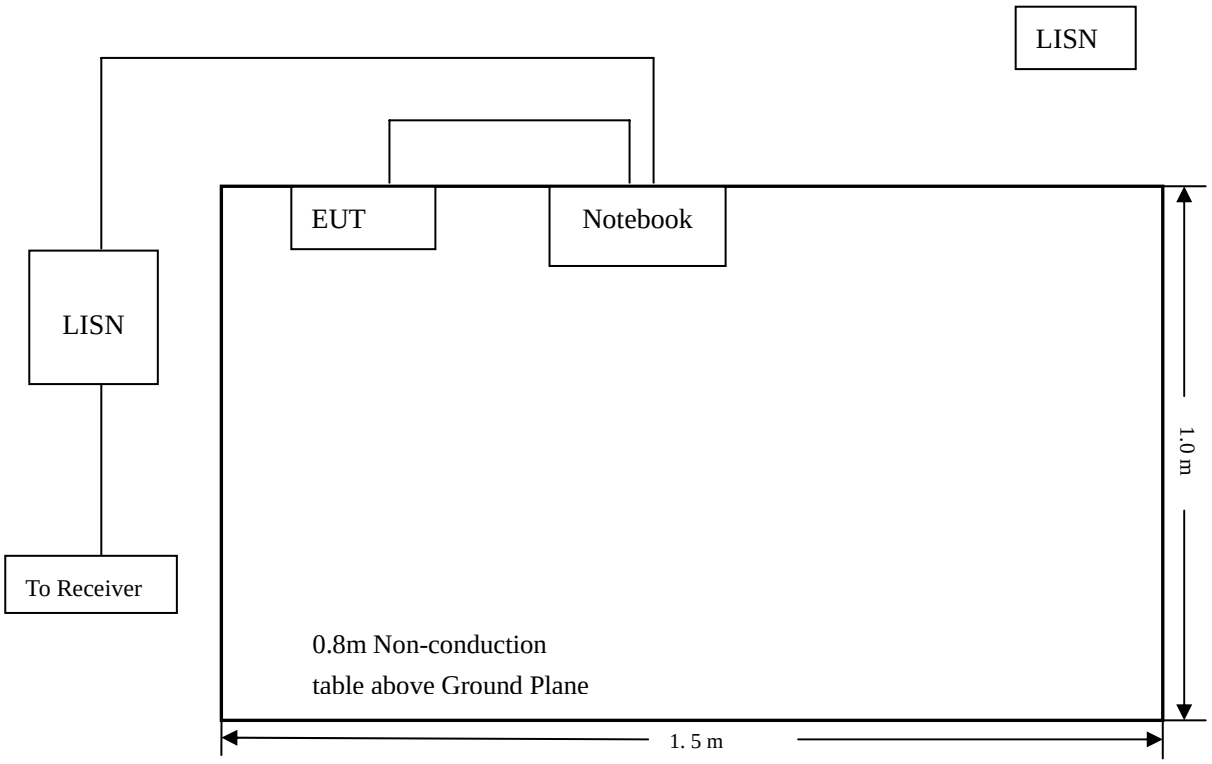
3.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Test Receiver	Rohde & Schwarz	ESPI	101611	2009-08-12	2010-08-11
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2009-08-12	2010-08-11
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2009-08-12	2010-08-11

3.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2009 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:

-2.6 dBμV at 0.21 MHz in the **Line** mode**, QP** detector, **Downloading** Mode **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
0.21	60.6	QP	Line	63.21	-2.6
0.20	60.6	QP	Neutral	63.61	-3.0
0.20	48.7	AV	Neutral	53.61	-4.9
5.95	41.5	AV	Neutral	50	-8.5
4.99	36.2	AV	Line	46	-9.8
5.81	39.9	AV	Line	50	-10.1
0.21	42.8	AV	Line	53.21	-10.4
0.41	42.7	QP	Neutral	57.65	-15.0
0.41	32.6	AV	Neutral	47.65	-15.0
4.99	36.9	QP	Line	56	-19.1
4.92	35.6	QP	Neutral	56	-20.4
0.41	31.8	QP	Line	57.65	-25.8

Plot of Conducted Emissions Test Data

Conducted Disturbance

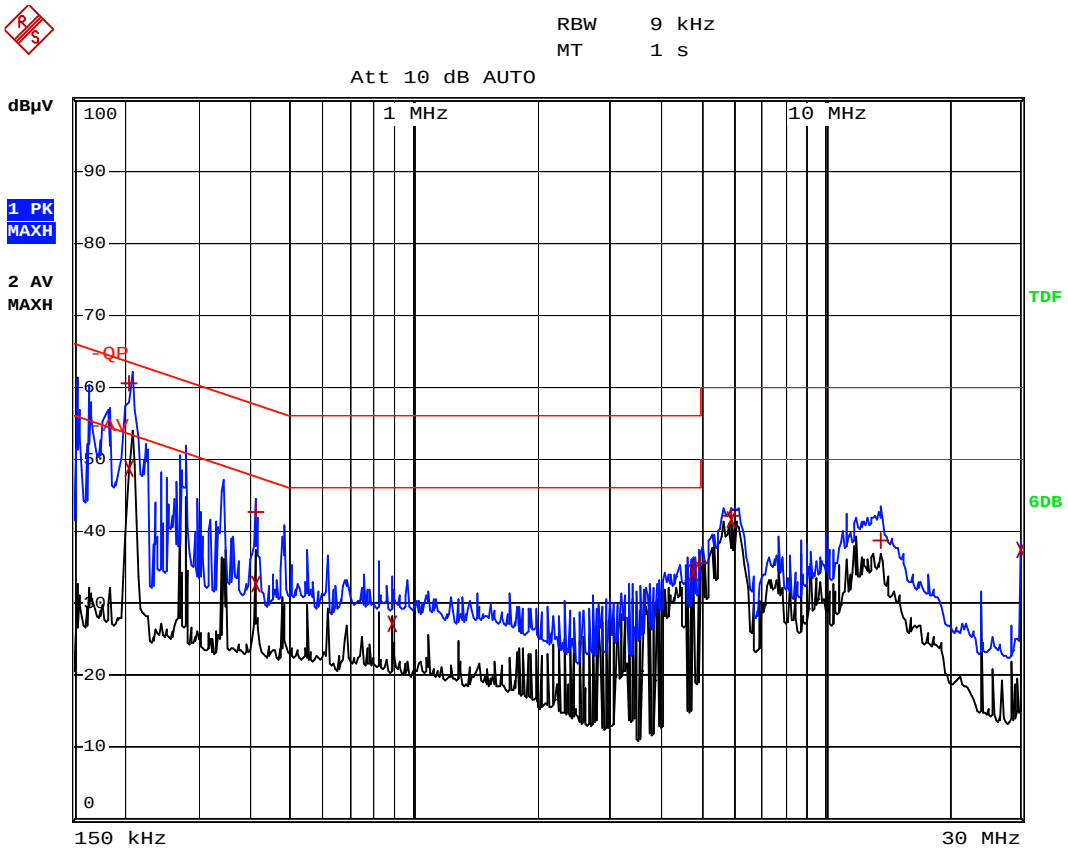
EUT: Internet TV/Radio

M/N: KMP511

Operating Condition: Downloading

Test Specification: N

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



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EDIT PEAK LIST (Final Measurement Results)

Trace1: -QP
Trace2: -AV
Trace3: ---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	206 kHz	60.60	-2.76
2 Average	206 kHz	48.68	-4.68
1 Quasi Peak	410 kHz	42.75	-14.89
2 Average	410 kHz	32.64	-15.00
2 Average	890 kHz	27.28	-18.71
2 Average	4.79 MHz	34.29	-11.70
1 Quasi Peak	4.926 MHz	35.62	-20.37
1 Quasi Peak	5.954 MHz	42.06	-17.93
2 Average	5.954 MHz	41.49	-8.50
1 Quasi Peak	13.69 MHz	38.79	-21.20
2 Average	29.978 MHz	37.28	-12.71

Date: 30.JUL.2010 09:17:47

Plot of Conducted Emissions Test Data

Conducted Disturbance

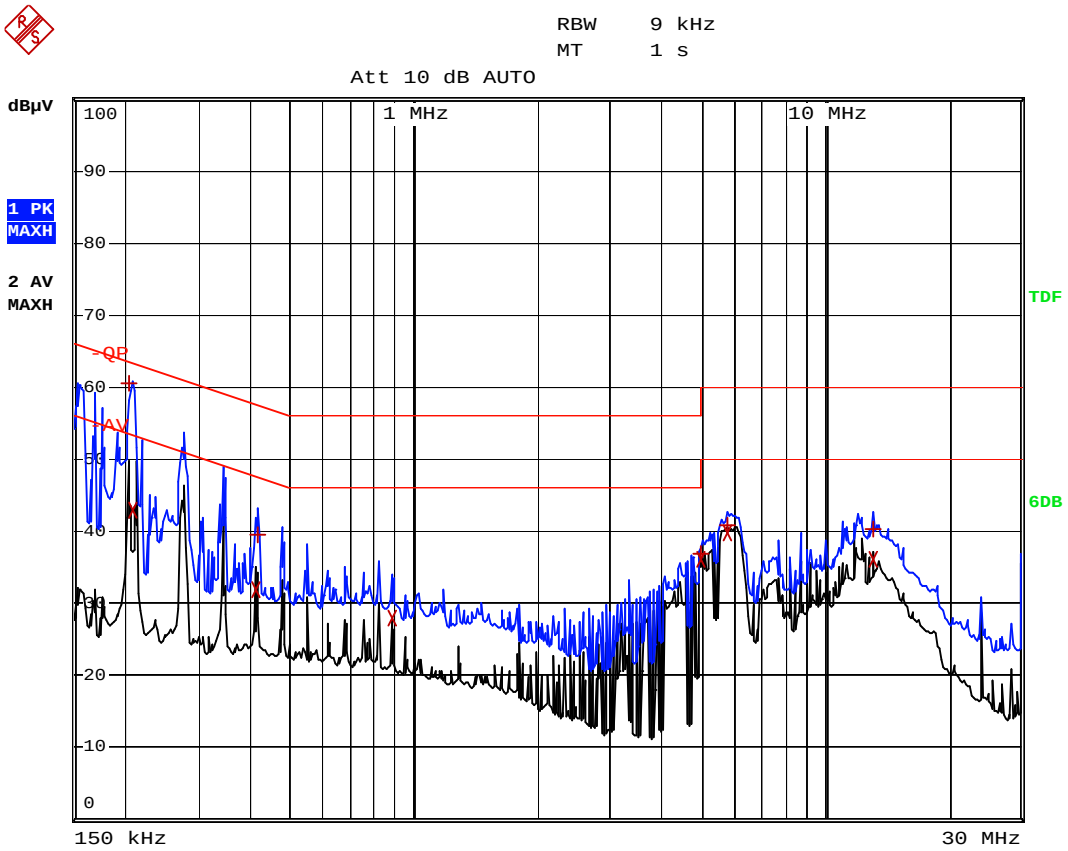
EUT: Internet TV/Radio

M/N: KMP511

Operating Condition: Downloading

Test Specification: L

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



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EDIT PEAK LIST (Final Measurement Results)

Trace1: -QP
Trace2: -AV
Trace3: ---

TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Quasi Peak	206 kHz	60.59	-2.77
2 Average	210 kHz	42.81	-10.39
2 Average	410 kHz	31.84	-15.80
1 Quasi Peak	414 kHz	39.38	-18.18
2 Average	890 kHz	27.98	-18.01
1 Quasi Peak	4.998 MHz	36.88	-19.11
2 Average	4.998 MHz	36.18	-9.81
1 Quasi Peak	5.818 MHz	40.72	-19.27
2 Average	5.818 MHz	39.87	-10.12
1 Quasi Peak	13.146 MHz	40.36	-19.63
2 Average	13.154 MHz	36.02	-13.97

Date: 30.JUL.2010 09:19:18

4. §15.109(a)- RADIATED EMISSION

4.1 Measurement Uncertainty

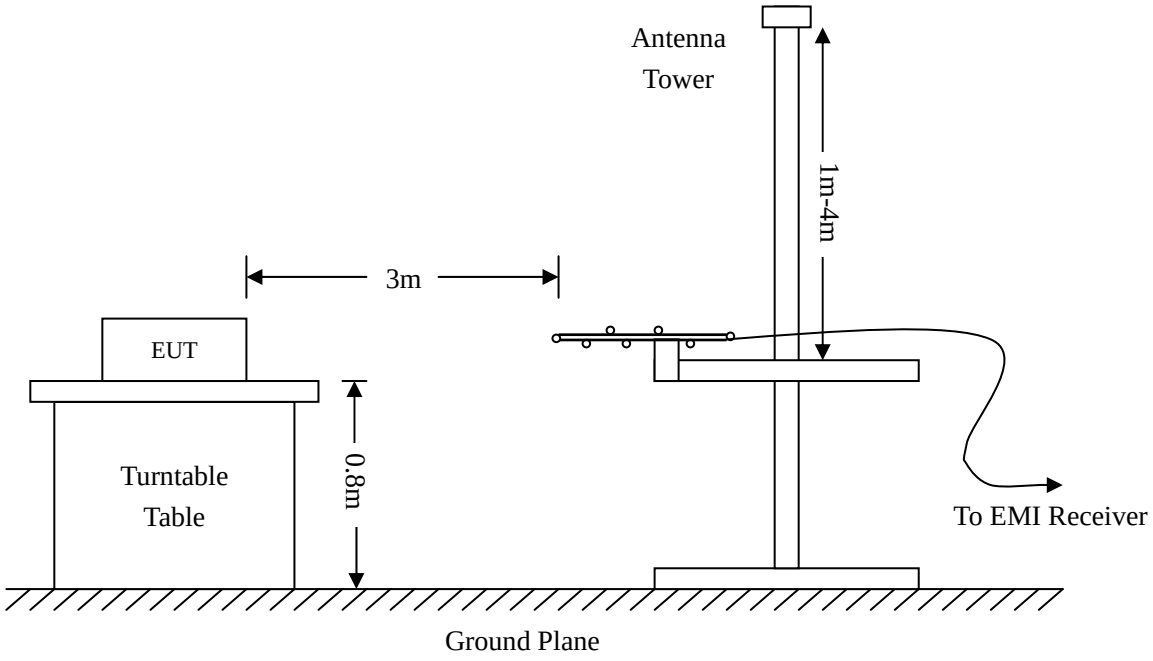
Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 5.10 dB.

4.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	ROHDE&SCHWARZ	FSEA20	DE25181	2009-08-12	2010-08-11
Positioning Controller	C&C	CC-C-1F	N/A	2009-08-12	2010-08-11
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2010-07-21	2011-07-20
Horn Antenna	SCHWARZBECK	BBHX 9120	9120-426	2010-07-21	2011-07-20
RF Switch	EM	EMSW18	SW060023	2009-08-12	2010-08-11
Amplifier	Agilent	8447F	3113A06717	2009-08-12	2010-08-11
Coaxial Cable	SCHWARZBECK	AK9513	9513-10	2009-08-12	2010-08-11
Spectrum Analyzer	ROHDE&SCHWARZ	FSP	836079/035	2010-04-16	2011-04-15

4.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2009 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:	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 15B Class B standards, and had the worst margin of:

-1.31 dBμV at **704.2261MHz** in the **Vertical** polarization, **Downloading** mode, **30 MHz to 1 GHz, 3Meters**

Plot of Radiation Emissions Test Data

Radiated Disturbance

EUT: Internet TV/Radio

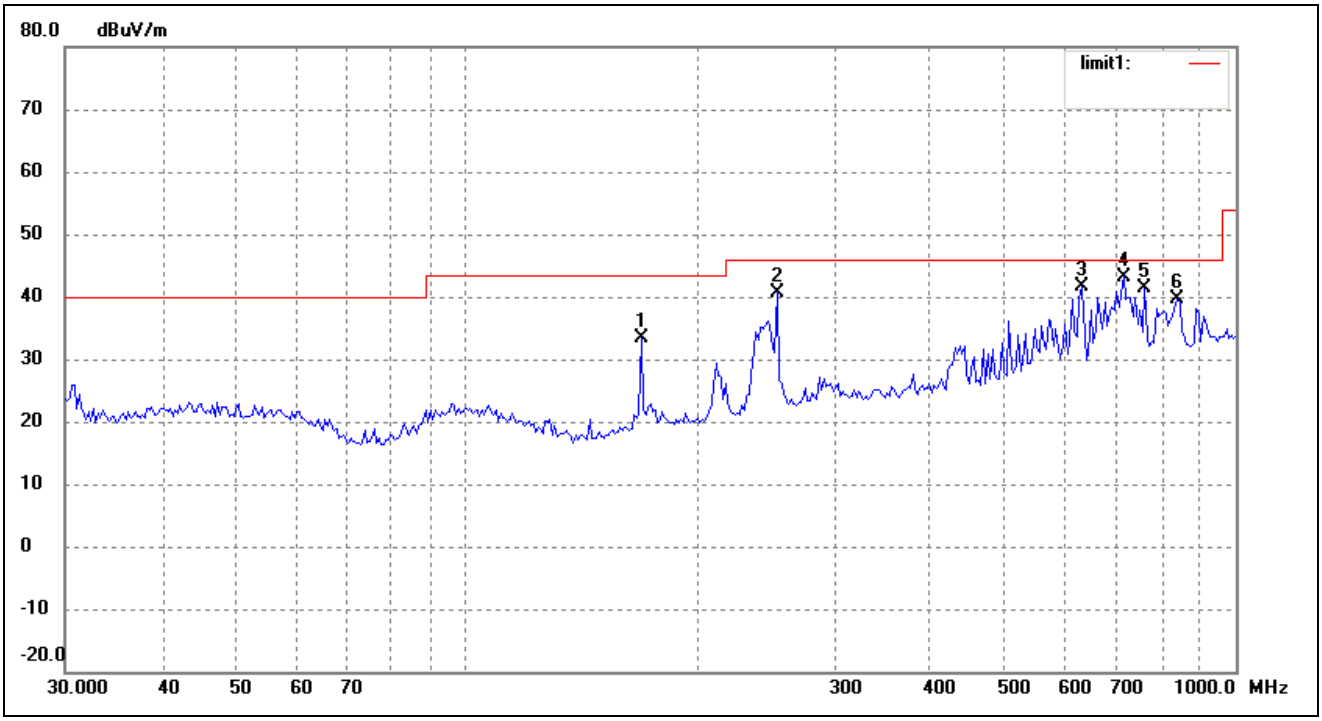
M/N: KMP511

Operating Condition: Downloading

Test Specification: Horizontal & Vertical

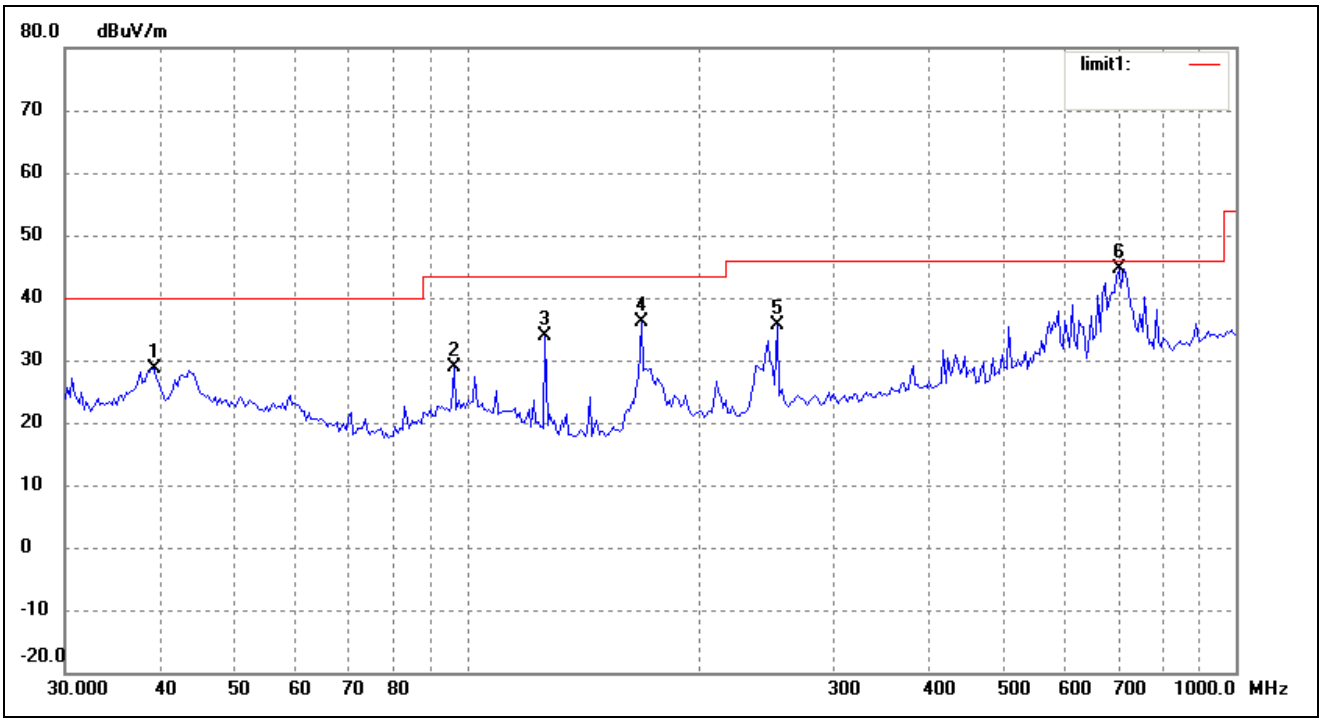
Comment: AC 120V/60Hz connect to PC, USB 5V

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	168.4138	29.48	4.01	33.49	43.50	-10.01	223	200	QP
2	252.9482	33.00	7.75	40.75	46.00	-5.25	360	200	QP
3	629.4772	27.44	14.27	41.71	46.00	-4.29	205	100	QP
4	714.1734	28.61	14.64	43.25	46.00	-2.75	201	100	QP
5	760.7036	26.21	15.12	41.33	46.00	-4.67	360	100	QP
6	839.1818	23.66	16.06	39.72	46.00	-6.28	0	100	QP

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	39.1616	20.95	7.71	28.66	40.00	-11.34	220	100	Peak
2	96.0986	21.26	7.54	28.80	43.50	-14.70	360	400	Peak
3	126.3286	29.50	4.37	33.87	43.50	-9.63	20	100	QP
4	168.4138	32.06	4.01	36.07	43.50	-7.43	11	100	QP
5	252.9482	27.98	7.75	35.73	46.00	-10.27	360	100	Peak
6	704.2261	30.15	14.54	44.69	46.00	-1.31	21	100	QP

Plot of Radiation Emissions Test Data

Radiated Disturbance

EUT: Internet TV/Radio

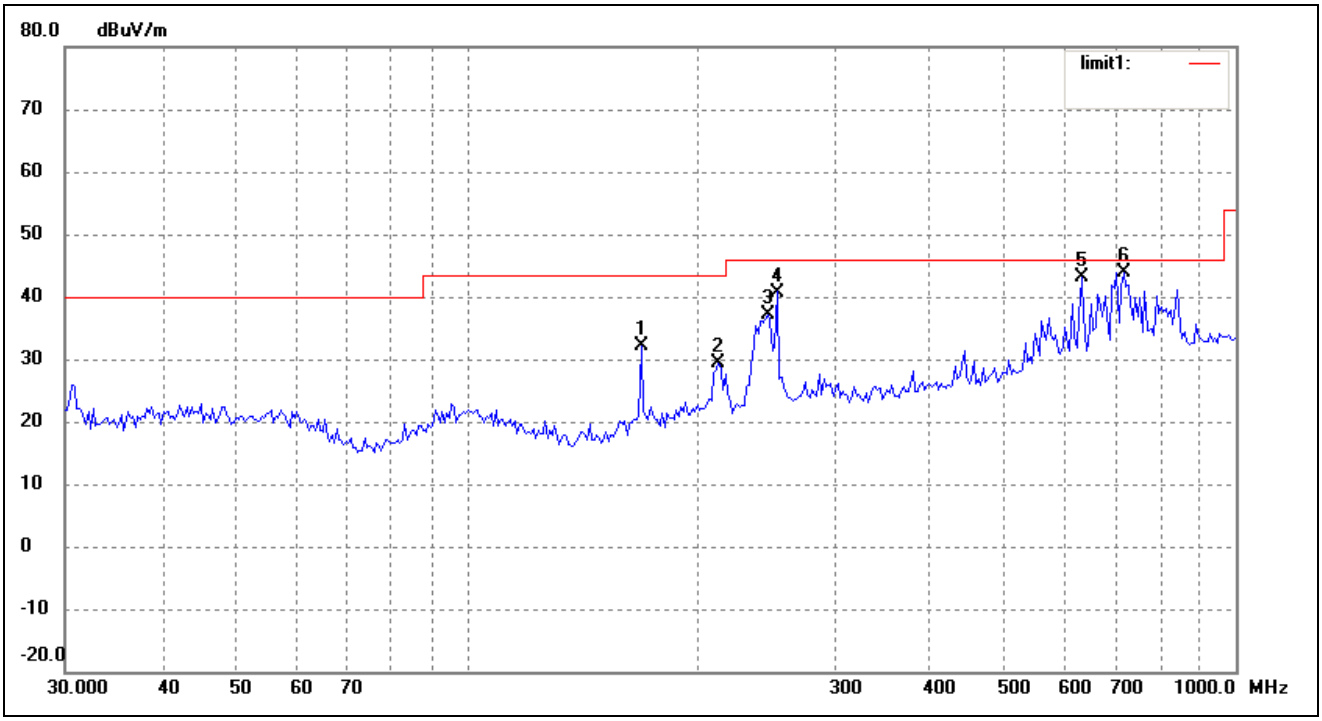
M/N: KMP511

Operating Condition: Playing

Test Specification: Horizontal & Vertical

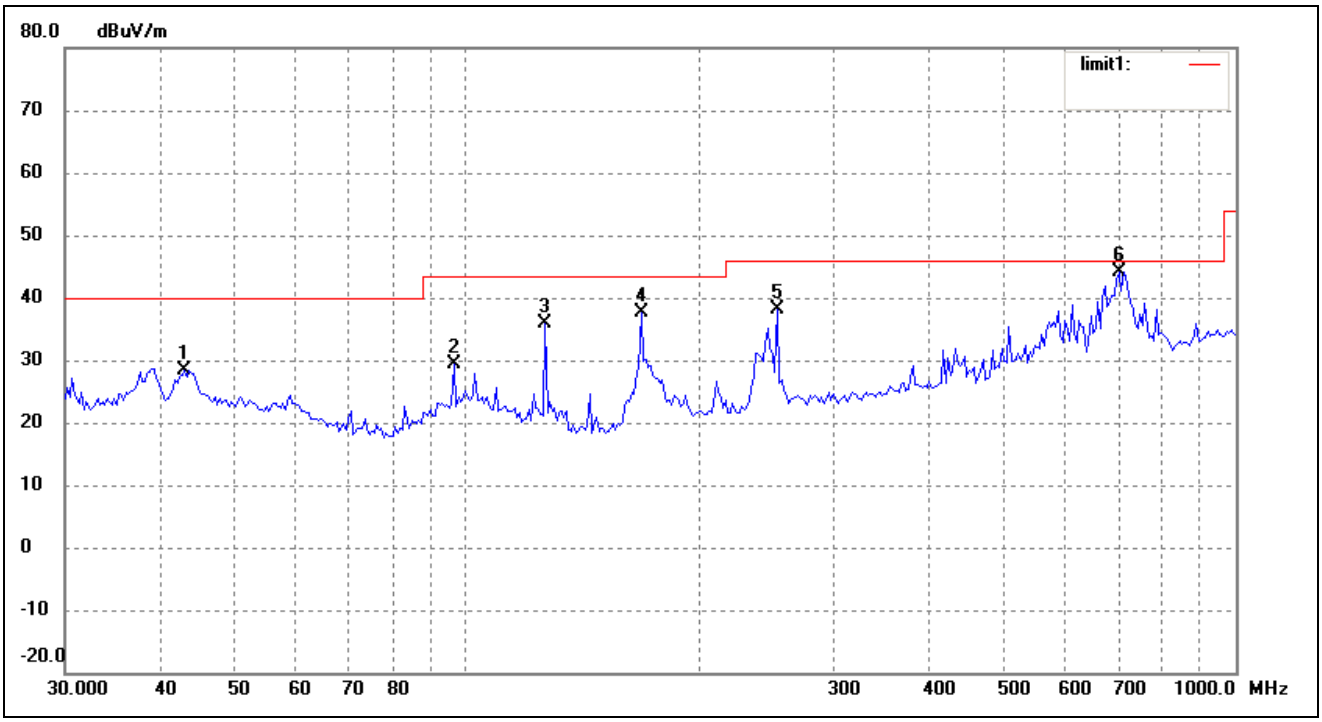
Comment: AC 120V/60Hz connect to PC, USB 5V

Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	168.4138	28.06	4.01	32.07	43.50	-11.43	23	200	QP
2	212.2695	23.38	6.08	29.46	43.50	-14.04	36	200	QP
3	245.9509	29.49	7.58	37.07	46.00	-8.93	20	100	QP
4	252.9482	33.00	7.75	40.75	46.00	-5.25	21	100	QP
5	629.4772	28.94	14.27	43.21	46.00	-2.79	36	100	QP
6	714.1734	29.23	14.64	43.87	46.00	-2.13	20	100	QP

Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	42.8998	20.37	7.97	28.34	40.00	-11.66	20	100	Peak
2	96.0986	21.76	7.54	29.30	43.50	-14.20	36	400	Peak
3	126.3286	31.50	4.37	35.87	43.50	-7.63	60	100	QP
4	168.4138	33.56	4.01	37.57	43.50	-5.93	41	100	QP
5	252.9482	30.35	7.75	38.10	46.00	-7.90	320	100	Peak
6	704.2261	29.65	14.54	44.19	46.00	-1.81	211	100	QP

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