EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 47LN5700-UH
Order No.	: 1301-00102
Date of receipt	: 2013-01-10
Test duration	: 2013-01-15 ~ 2013-01-16
Use of report	: FCC CoC Marking
Date of Issue	: 2013-01-21

Applicant : LG Electronics Inc.
19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

Test laboratory : Digital EMC Co., Ltd.
683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

Test specification : ANSI C 63.4:2003
FCC Part 15 Subpart B
(Type of Device : Class B Personal Computers and Peripherals (JBP))

Test environment : Temperature : (18 ~ 21) °C,
Humidity : (39 ~ 40) % R.H.

Test result : ☒ Comply ☐ Not Comply

The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose.
This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:

Manager
HyunSuk Ko

Reviewed by:

Manager
MyungJin Song

PRESIDENT OF DIGITAL EMC CO., LTD.

CONTENTS

1. General Remarks

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

Address : 683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

http://www.digitalemc.com

Tel: +82-31-321-2664 Fax: +82-31-321-1664

2. Test Laboratory

Digital EMC Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Mark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
Site Filing	USA	FCC	101842 678747	Test Facility list & NSA Data
	Canada	IC	5740A-1 5740A-2	Test Facility list & NSA Data
	Japan	VCCI	C-1427 R-1364, R-3385 T-1442, G-338	Test Facility list & NSA Data
Certification	Korea	KC	KR0034	Test Facility list & NSA Data
	Germany	TUV	ROK1221C	ISO/IEC 17025

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the “General requirements for the competent of calibration and testing laboratory”.

3. General Information of EUT

Model No.	47LN5700-UH
Add Model No.	None
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ47LN5700UH
Type of Sample Tested	Pre-Production
High Frequency	790 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.3 A
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 350	31.468	70.09
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1152 x 864	54.348	60.053
1360 x 768	47.712	60.015
1280 x 1024	63.981	60.020
1920 x 1080	67.5	60.00

4. Test Summary

4.1 Applied standards and test results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4:2003	**C**
Radiated Disturbance	ANSI C63.4:2003	**C**
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

4.2 Test environment and conditions

Test Items	Test date (MM-DD)	Temp (℃)	Humidity (% R.H.)
Conducted Disturbance	01-15	21	40
Radiated Disturbance	01-16	18	39

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
0.15013	**N**	**59.9**	Quasi-Peak	**66.0**	**6.1**

(2) Radiated Emission (USB MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
593.961	**H**	**41.8**	Quasi-Peak	**46.0**	**4.2**

5. Test Set-up and operation mode

5.1 Principle of Configuration Selection

Emission : The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

5.2 Test Operation Mode

- HDMI MODE : 'H' Pattern mode, 1920x1080 Resolution
- USB MODE : USB recorded file play

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
PC	VOSTRO430	8K77SBX	DELL	POWER HDMI USB USB USB	1.8 1.8 1.8 1.8 1.8	Not use Not use Not use Not use	Non-shield Shield Shield Shield Shield	Plastic	DOC
KEYBOARD	SKG-3000UB	TAKB601233M	SAMSUNG	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	1094	X817158-002	MICROSOFT	USB	1.8	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	POWER AV	1.8 1.6	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	Cruzer Z37	N/A	Sandisk	USB	-	-	-	-	DOC
PRINTER	EPSON Aculaser M1200	LWTZ180522	EPSON	POWER USB	1.8 1.8	Not use Not use	Non-shield Non-shield	Plastic	DOC
Headset	COV903	N/A	COSY	STEREO	1.8	Not use	Non-shield	Plastic	DOC
Remote control	AKB73756542	N/A	OHSUNG Electronics Co., Ltd.	-	-	-	-	-	-

6. Test Results : Emission

6.1 Conducted Disturbance

6.1.1 Measurement Procedure

In the range of 0.15 MHz to 30 MHz, the conducted disturbance was measured and set-up was made accordance with **ANSI C63.4.**

If the EUT is table top equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 0.4 m from the conducting wall of the shielded room.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Connect the EUT's power source lines to the appropriate power mains / peripherals through the LISN. All the other peripherals are connected to the 2nd LISN, if any.

Unused measuring port of the LISN was resistively terminated by 50 ohm terminator.

The measuring port of the LISN for EUT was connected to spectrum analyzer.

Using conducted emission test software, the emissions were scanned with peak detector mode.

After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and Average detector.

By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.

For further description of the configuration refer to the picture of the test set-up.

6.1.2 Limit for Conducted Disturbance

(1) Conducted disturbance at mains ports.

Frequency range (MHz)	Limits dB(μV)			
	Quasi-peak		Average	
	Class A	Class B	Class A	Class B
0.15 to 0.50	79	66 to 56	66	56 to 46
0.50 to 5	73	56	60	46
5 to 30		60		50
Note 1 The lower limit shall apply at the transition frequencies. Note 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Note) 1. Emission Level = Reading Value + Correction Factor.
2. Correction Factor = Cable Loss + Insertion Loss of LISN
3. Margin = Limit - Emission level

Test Result

< HDMI MODE >

Digital EMC

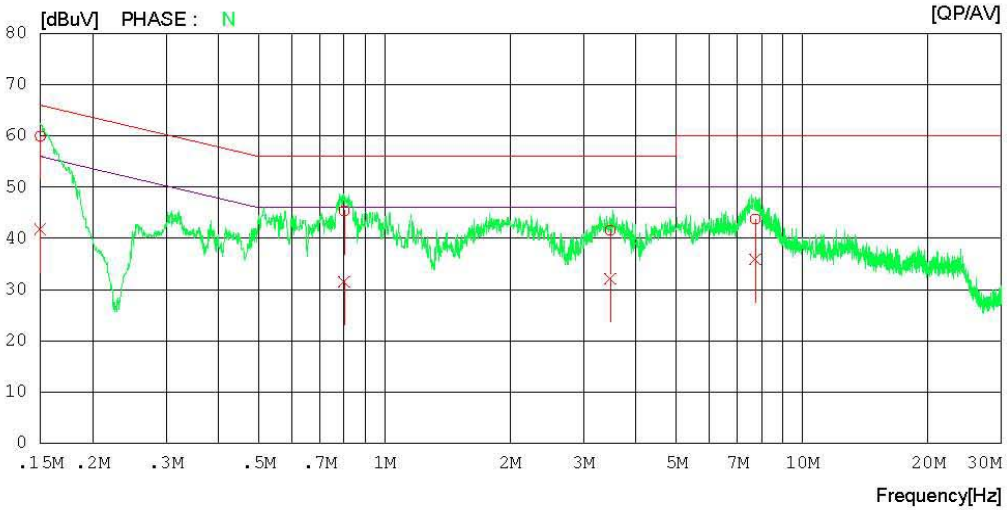
Results of Conducted Emission

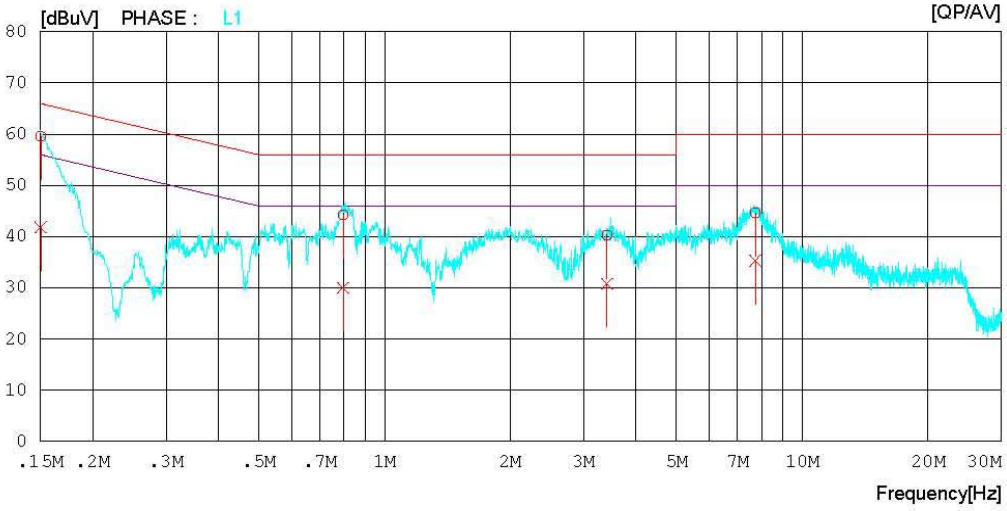
Digital EMC
Date : 2013-01-15

Model No.	:	47LN5700-UH	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-01-15

Model No.	:	47LN5700-UH	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.15000	59.7	41.5	0.2	59.9	41.7	66.0	56.0	6.1	14.3	N
2	0.80074	45.2	31.3	0.2	45.4	31.5	56.0	46.0	10.6	14.5	N
3	3.47450	41.3	31.8	0.3	41.6	32.1	56.0	46.0	14.4	13.9	N
4	7.72100	43.2	35.4	0.5	43.7	35.9	60.0	50.0	16.3	14.1	N
5	0.15035	59.3	41.6	0.2	59.5	41.8	66.0	56.0	6.5	14.2	L1
6	0.79663	44.1	29.8	0.2	44.3	30.0	56.0	46.0	11.7	16.0	L1
7	3.40900	40.0	30.5	0.3	40.3	30.8	56.0	46.0	15.7	15.2	L1
8	7.72050	44.1	34.8	0.5	44.6	35.3	60.0	50.0	15.4	14.7	L1

< USB MODE >

Digital EMC

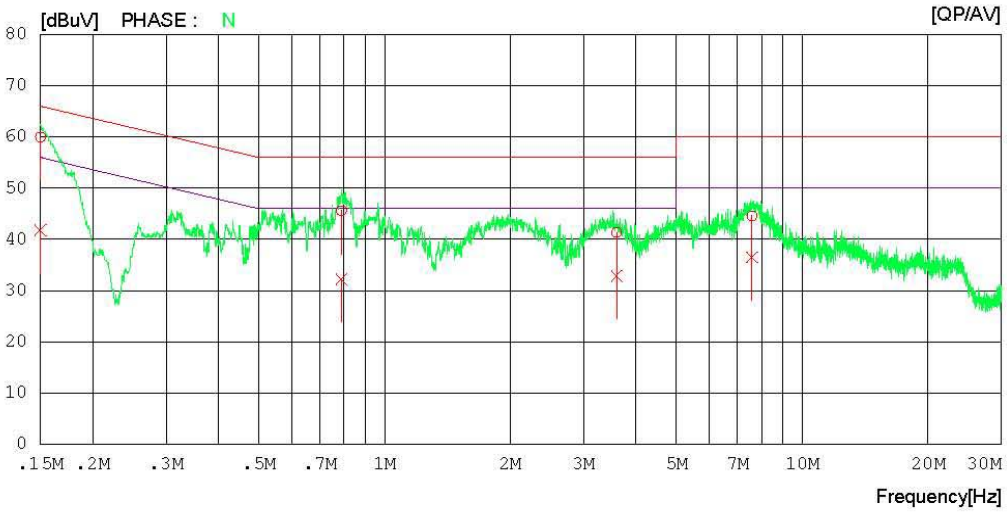
Results of Conducted Emission

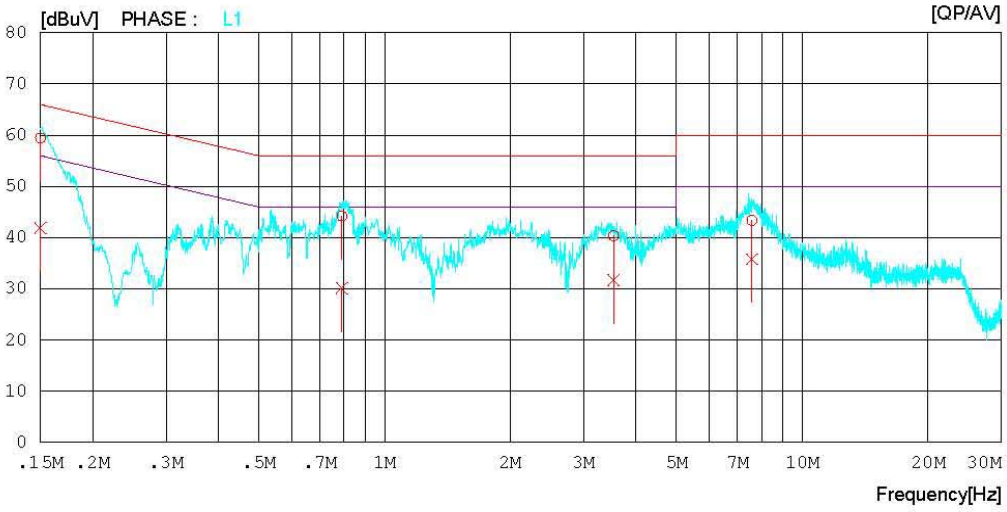
Digital EMC
Date : 2013-01-15

Model No.	:	47LN5700-UH	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-01-15

Model No.	:	47LN5700-UH	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP [dBuV]	READING AV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT AV [dBuV]	LIMIT QP [dBuV]	LIMIT AV [dBuV]	MARGIN QP [dBuV]	MARGIN AV [dBuV]	PHASE
	[MHz]										
1	0.15013	59.7	41.6	0.2	59.9	41.8	66.0	56.0	6.1	14.2	N
2	0.78908	45.4	32.1	0.2	45.6	32.3	56.0	46.0	10.4	13.7	N
3	3.59900	41.0	32.6	0.3	41.3	32.9	56.0	46.0	14.7	13.1	N
4	7.58500	44.1	36.0	0.5	44.6	36.5	60.0	50.0	15.4	13.5	N
5	0.15009	59.3	41.7	0.2	59.5	41.9	66.0	56.0	6.5	14.1	L1
6	0.79070	44.0	29.9	0.2	44.2	30.1	56.0	46.0	11.8	15.9	L1
7	3.53450	40.0	31.4	0.3	40.3	31.7	56.0	46.0	15.7	14.3	L1
8	7.58300	42.8	35.3	0.5	43.3	35.8	60.0	50.0	16.7	14.2	L1

6.2 Radiated Disturbance

6.2.1 Measurement Procedure

The radiated disturbance was measured and set-up was made accordance with **ANSI C63.4.**
If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 3 m or 10 m away from the interference receiving antenna in the **10m semi-anechoic chamber.**
Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.
Rotate the EUT from (0 - 360)° and position the receiving antenna at heights from (1 - 4) m above the reference ground plane continuously to determine associated with higher emission levels and record them.
The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report.
For below 1 GHz frequency range, Quasi-Peak detector with 120 kHz RBW was used.
Also Peak and Average detector with 1 MHz RBW were used for above 1 GHz frequency range.
For further description of the configuration refer to the picture of the test set-up.

6.2.2 Limit for Radiated Disturbance

- The test frequency range of Radiated Disturbance measurements are listed below.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 108	1 000
108 – 500	2 000
500 – 1 000	5 000
Above 1 000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

(1) Limit for Radiated Emission below 1 000MHz

Frequency range (MHz)	Class A Equipment (10 m distance)	Class B Equipment (3 m distance)
	Quasi-peak (dBμV/m)	Quasi-peak (dBμV/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1 000	49.5	54
Note 1 The lower limit shall apply at the transition frequency. Note 2 Additional provisions may be required for cases where interference occurs. Note 3 According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards(CISPR), Pub. 22 shown as below.		
Frequency range (MHz)	**Class A Equipment (10 m distance)**	**Class B Equipment (10 m distance)**
	Quasi-peak (dBμV/m)	**Quasi-peak (dBμV/m)**
30 to 230	40	30
230 to 1 000	47	37

(2) Limits for Radiated Emission above 1 000MHz at a measuring distance of 3 m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)
1 to 40	80	60	74	54

Note) 1. Emission Level = Reading Value + Correction Factor.
2. Correction Factor = Cable loss - Amp gain + Antenna Factor
3. Margin = Limit - Emission level

Test Result

< HDMI MODE_30 MHz ~ 1 GHz >

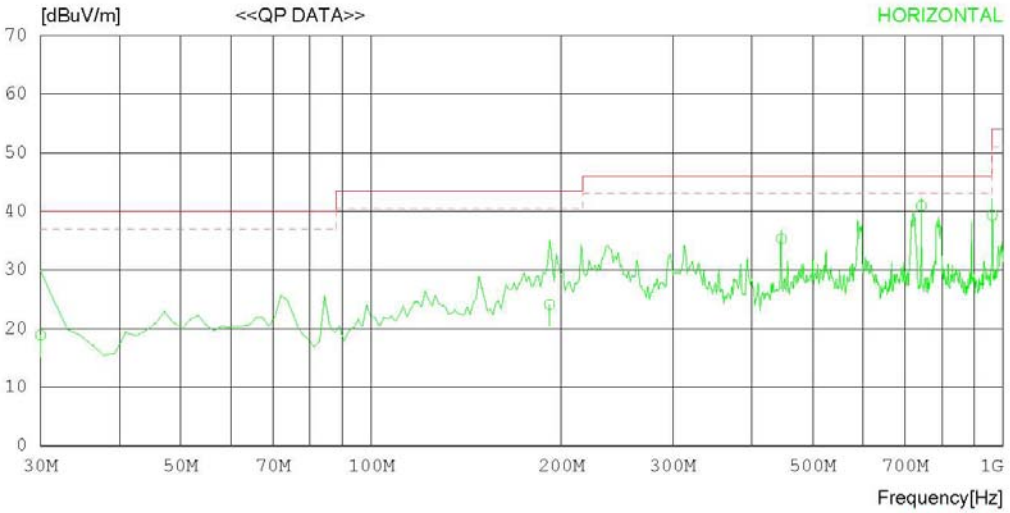
RADIATED EMISSION

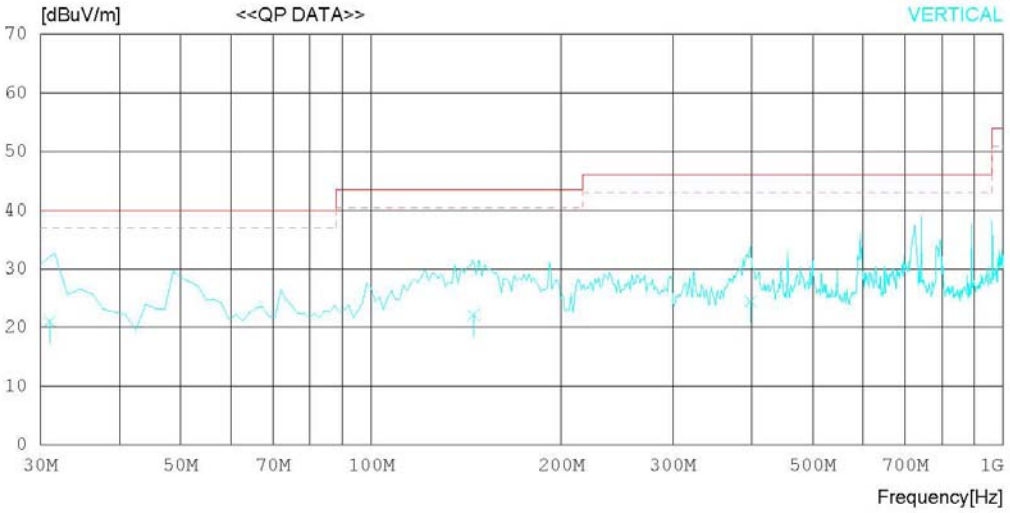
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	30.000	24.0	17.9	0.8	23.8	18.9	40.0	21.1	100	195
2	191.483	36.2	9.7	2.2	24.0	24.1	43.5	19.4	100	0
3	445.617	38.5	16.6	3.5	23.3	35.3	46.0	10.7	100	74
4	742.149	40.8	19.2	4.6	23.7	40.9	46.0	5.1	400	352
5	960.995	35.1	21.7	5.4	22.9	39.3	54.0	14.7	400	360
----- Vertical ------										
6	31.014	26.7	17.3	0.9	23.8	21.1	40.0	18.9	100	251
7	145.263	34.0	10.7	1.7	24.2	22.2	43.5	21.3	100	0
8	398.709	28.5	16.0	3.5	23.5	24.5	46.0	21.5	100	200

< HDMI MODE _ (1 ~ 6) GHz _ Peak >

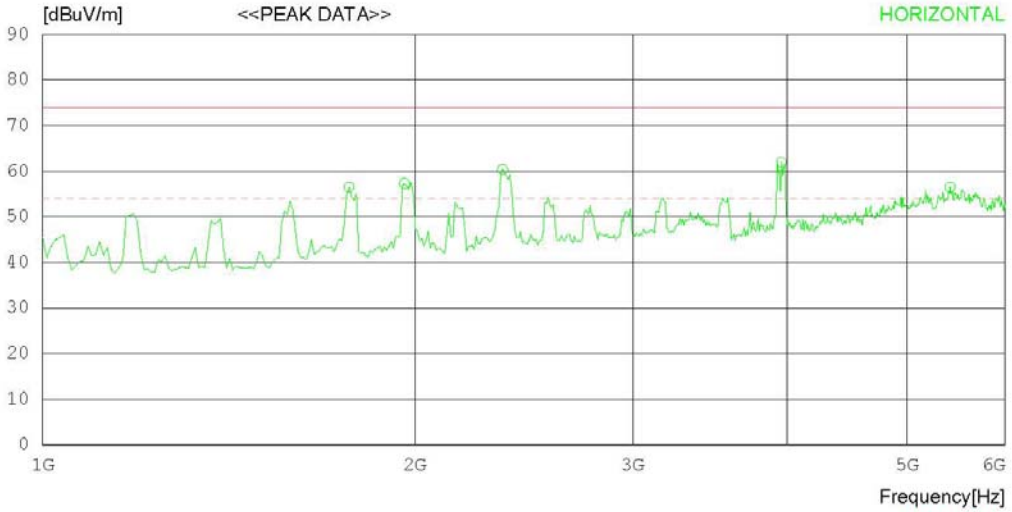
RADIATED EMISSION

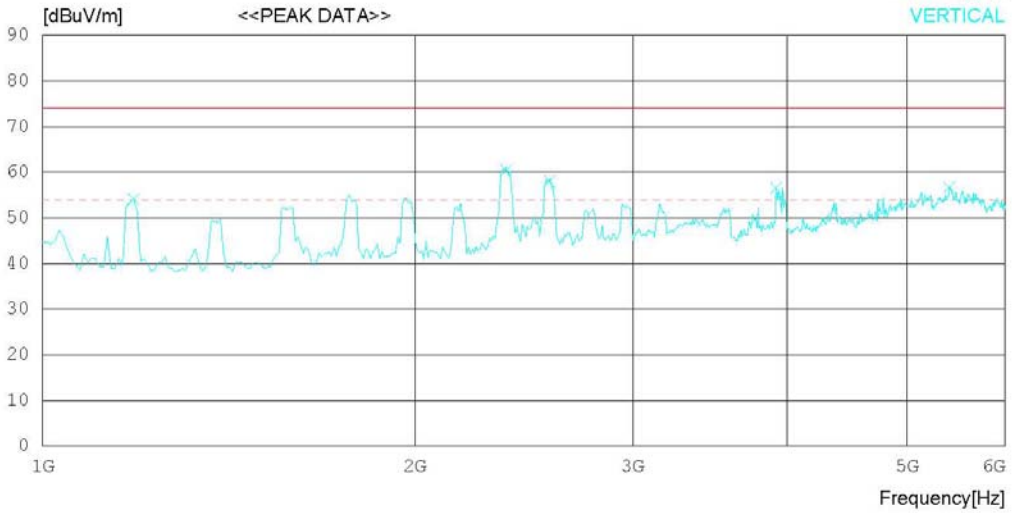
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1769.230	52.4	24.6	8.0	28.5	56.5	74.0	17.5	100	358
2	1961.538	52.8	24.6	8.4	28.5	57.3	74.0	16.7	100	358
3	2354.171	53.1	26.6	9.2	28.5	60.4	74.0	13.6	100	358
4	3956.759	47.5	30.0	12.8	28.3	62.0	74.0	12	100	214
5	5415.074	35.1	34.6	14.9	28.1	56.5	74.0	17.5	100	248
----- Vertical ------										
6	1184.295	52.0	24.2	6.4	28.5	54.1	74.0	19.9	100	1
7	2370.197	53.8	26.7	8.4	28.5	60.4	74.0	13.6	100	227
8	2570.520	49.6	27.7	9.3	28.5	58.1	74.0	15.9	100	1
9	3916.694	42.3	29.9	12.7	28.3	56.6	74.0	17.4	100	223
10	5407.061	35.1	34.6	15.0	28.1	56.6	74.0	17.4	100	1

< HDMI MODE _ (1 ~ 6) GHz _ Average >

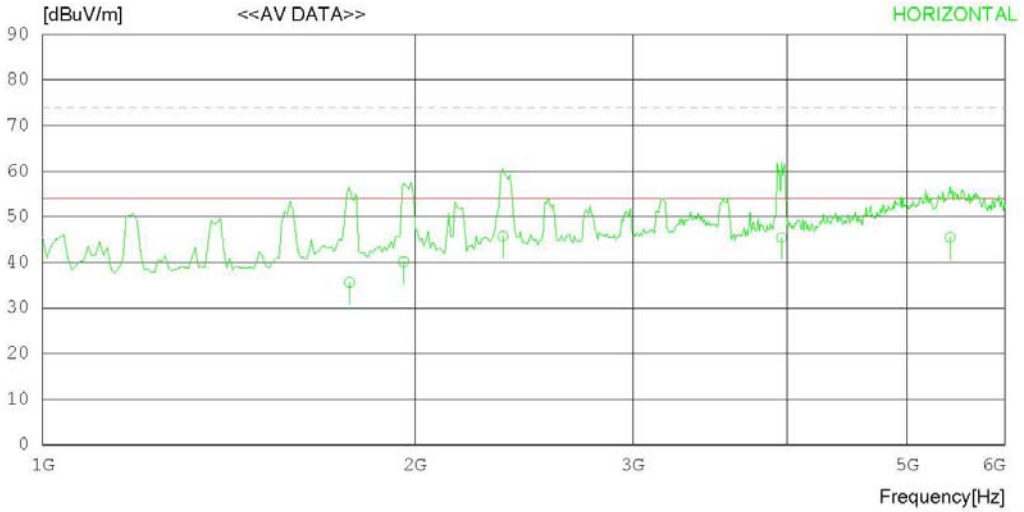
RADIATED EMISSION

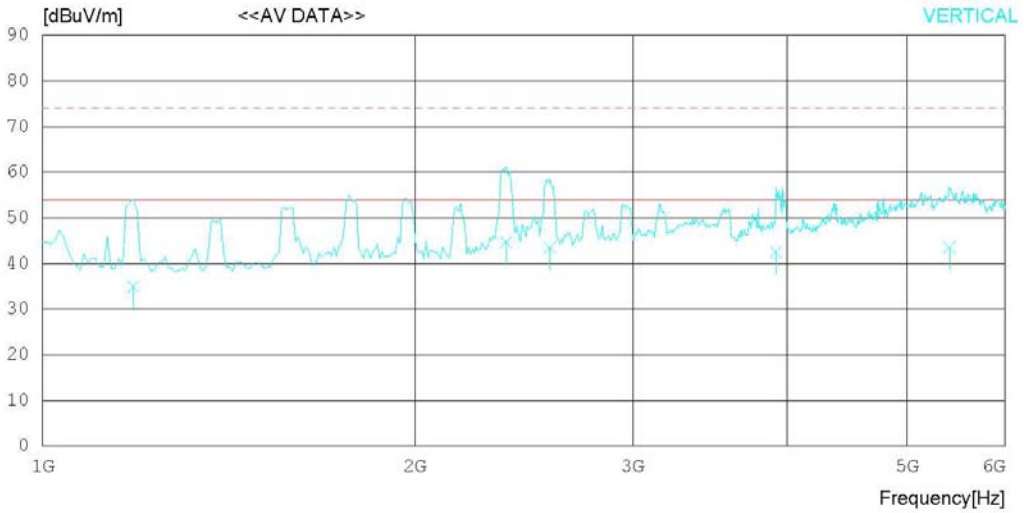
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1770.034	31.5	24.6	8.0	28.5	35.6	54.0	18.4	100	360
2	1958.791	35.7	24.6	8.4	28.5	40.2	54.0	13.8	100	0
3	2354.998	38.4	26.6	9.2	28.5	45.7	54.0	8.3	100	358
4	3956.759	30.9	30.0	12.8	28.3	45.4	54.0	8.6	100	209
5	5414.992	24.1	34.6	14.9	28.1	45.5	54.0	8.5	100	251
----- Vertical ------										
6	1184.265	32.8	24.2	6.4	28.5	34.9	54.0	19.1	100	0
7	2370.197	37.1	26.7	9.3	28.5	44.6	54.0	9.4	100	238
8	2570.891	34.5	27.7	9.7	28.4	43.5	54.0	10.5	100	360
9	3916.416	28.2	29.9	12.7	28.3	42.5	54.0	11.5	100	214
10	5407.739	22.0	34.6	15.0	28.1	43.5	54.0	10.5	100	360

< USB MODE_30 MHz ~ 1 GHz >

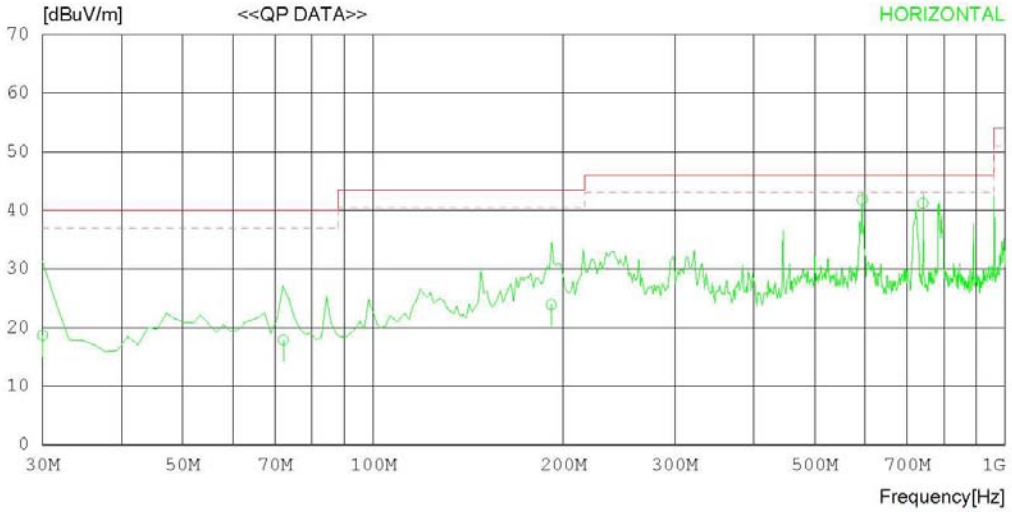
RADIATED EMISSION

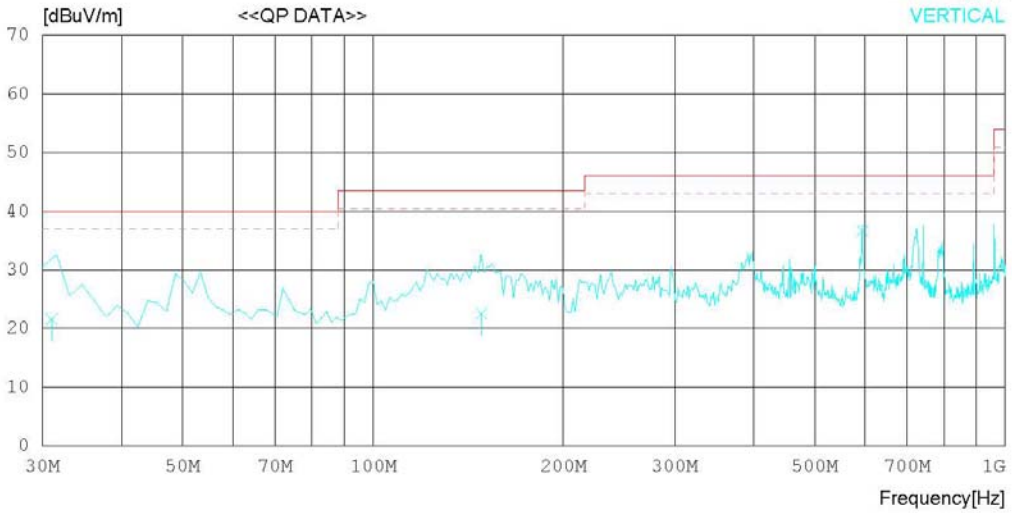
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	30.000	23.8	17.9	0.8	23.8	18.7	40.0	21.3	100	0
2	72.083	34.1	6.5	1.7	24.4	17.9	40.0	22.1	400	75
3	191.240	36.0	9.7	2.2	24.0	23.9	43.5	19.6	100	92
4	593.961	42.5	18.6	4.1	23.4	41.8	46.0	4.2	300	187
5	740.815	41.2	19.1	4.6	23.7	41.2	46.0	4.8	100	159
----- Vertical ------										
6	30.998	27.1	17.4	0.9	23.8	21.6	40.0	18.4	100	360
7	148.514	34.6	10.5	1.7	24.2	22.6	43.5	20.9	100	0
8	594.609	37.4	18.6	4.1	23.4	36.7	46.0	9.3	100	100

< USB MODE _ (1 ~ 6) GHz _ Peak >

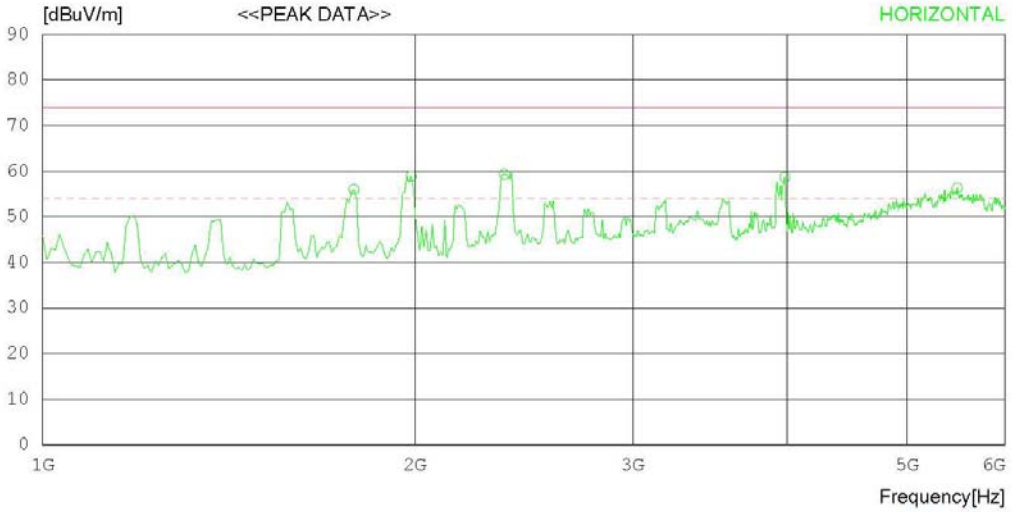
RADIATED EMISSION

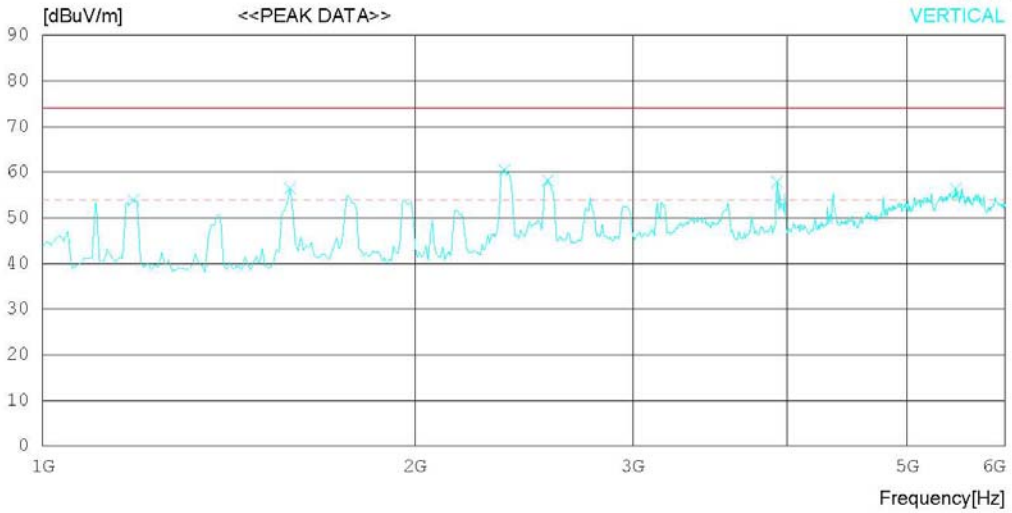
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1785.256	51.9	24.6	8.0	28.5	56.0	74.0	18	100	358
2	1985.577	54.4	24.6	8.4	28.5	58.9	74.0	15.1	100	358
3	2362.184	51.9	26.7	9.2	28.5	59.3	74.0	14.7	100	198
4	3980.798	44.0	30.1	12.9	28.3	58.7	74.0	15.3	100	358
5	5487.188	34.5	35.0	14.9	28.1	56.3	74.0	17.7	100	358
----- Vertical ------										
6	1184.295	51.8	24.2	6.4	28.5	53.9	74.0	20.1	100	230
7	1584.936	52.7	24.6	7.7	28.5	56.5	74.0	17.5	100	220
8	2362.184	53.1	26.7	9.2	28.5	60.5	74.0	13.5	100	1
9	2562.507	49.3	27.6	9.7	28.4	58.2	74.0	15.8	100	202
10	3924.707	43.3	30.0	12.8	28.3	57.8	74.0	16.2	100	1
11	5471.163	34.7	34.9	14.9	28.1	56.4	74.0	17.6	100	352

< USB MODE _ (1 ~ 6) GHz _ Average >

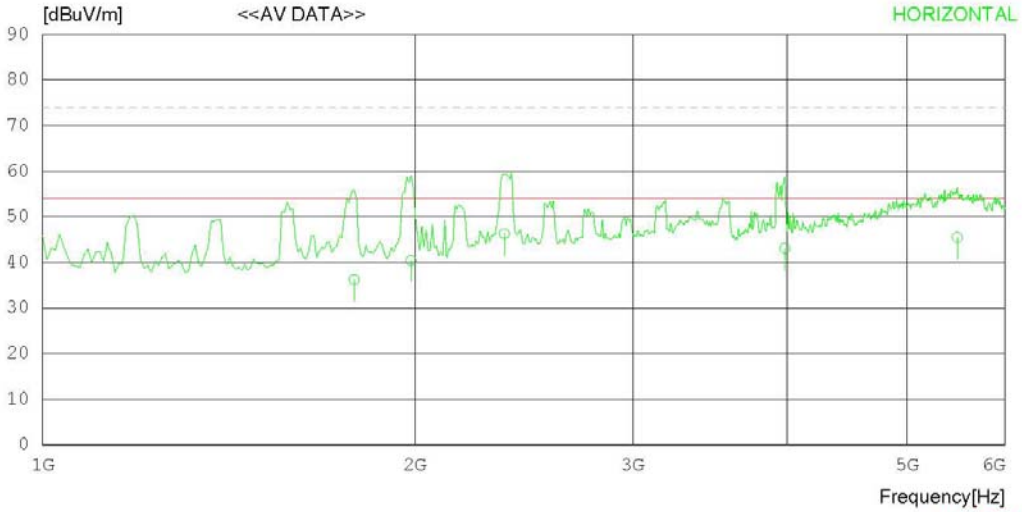
RADIATED EMISSION

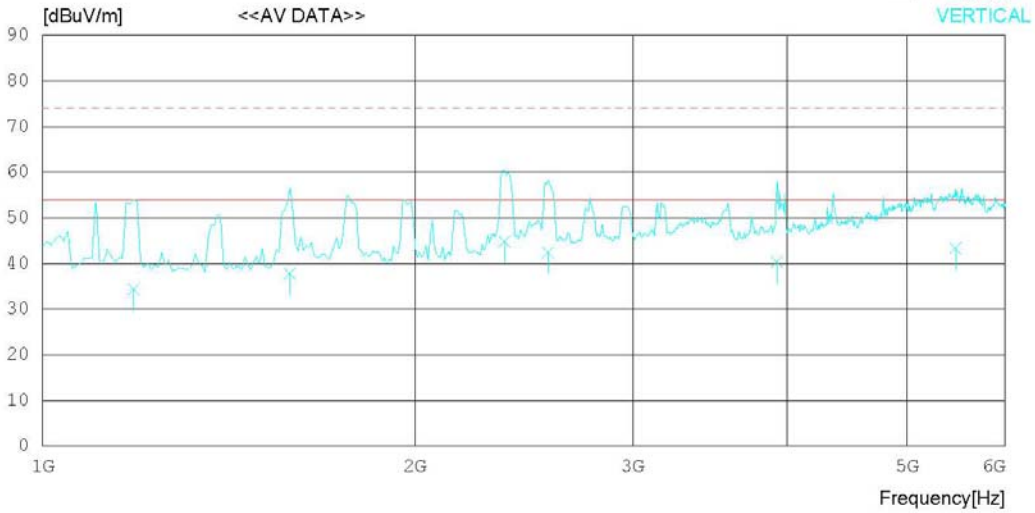
Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)





RADIATED EMISSION

Date : 2013-01-16

Model Name	:	47LN5700-UH	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	18 'C 39 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal ------										
1	1785.994	32.1	24.6	8.0	28.5	36.2	54.0	17.8	100	351
2	1985.128	35.9	24.6	8.4	28.5	40.4	54.0	13.6	100	360
3	2361.997	39.0	26.6	9.2	28.5	46.3	54.0	7.7	100	193
4	3980.295	28.4	30.1	12.9	28.3	43.1	54.0	10.9	100	347
5	5486.861	23.7	35.0	14.9	28.1	45.5	54.0	8.5	100	0
----- Vertical ------										
6	1184.741	32.2	24.2	6.4	28.5	34.3	54.0	19.7	100	228
7	1585.029	34.0	24.6	7.7	28.5	37.8	54.0	16.2	100	216
8	2362.562	37.4	26.7	9.2	28.5	44.8	54.0	9.2	100	360
9	2562.386	33.5	27.6	9.7	28.4	42.4	54.0	11.6	100	194
10	3924.134	25.9	30.0	12.8	28.3	40.4	54.0	13.6	100	0
11	5470.890	21.7	34.9	14.9	28.1	43.4	54.0	10.6	100	343

Appendix 1

List of Test and Measurement Instruments

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment is identified by the Test Laboratory.

1. Conducted Disturbance

Name of Instrument		Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☐	SPECTRUM ANALYZER	8591E	H/P	3649A05889	2012.03.05	2013.03.05
☐	RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2012.07.02	2013.07.02
☐	LISN	KNW-407	KYORITSU	8-317-8	2013.01.08	2014.01.08
☐	LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.07.25	2013.07.25
☐	50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08
☒	EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
☒	LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
☒	LISN	LISN1600	TTI	197204	2012.07.02	2013.07.02
☒	50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08

2. Radiated Disturbance

Name of Instrument		Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☒	EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2013.01.08	2014.01.08
☐	BILOG ANTENNA	CBL6112D	SCHAFFNER	22609	2011.12.21	2012.12.21
☒	HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒	AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒	AMPLIFIER	MLA-00108-B02-36	TSJ	1518831	2013.01.08	2014.01.08
☐	SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
☐	AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
☒	BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.03.22	2014.03.22
☐	EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
☐	BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
☐	LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
☐	BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
☐	LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
☐	AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2012.03.05	2013.03.05

Appendix 2

Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	N/A	N/A