

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 39LN5700-UH
Order No. : DEMC1301-00381
Date of receipt : 2013-01-29
Test duration : 2013-02-07
Use of report : FCC CoC Marking
Date of Issue : 2013-02-12

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 : (20 ~ 21) °C,
Humidity : (38 ~ 41) % 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:

Reviewed by:



Engineer
SeHyun Kim



General Manager
ChangHo Lee

PRESIDENT OF DIGITAL EMC CO., LTD.

CONTENTS

1. General Remarks	3
2. Test Laboratory	3
3. General Information of EUT	4
4. Test Summary	5
4.1 Applied standards and test results	5
4.2 Test environment and conditions	5
4.3 Test result Summary	5
5. Test Set-up and operation mode	6
5.1 Principle of Configuration Selection	6
5.2 Test Operation Mode	6
5.3 Support Equipment Used	6
6. Test Results : Emission	7
6.1 Conducted Disturbance	7
6.2 Radiated Disturbance	12
Appendix 1	26
List of Test and Measurement Instruments	26
Appendix 2	28
Report Revision History	28

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.	39LN5700-UH
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ39LN5700UH
Type of Sample Tested	Pre-Production
High Frequency	Max 800 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.5 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 (°C)	Humidity (% R.H.)
Conducted Disturbance	02-07	21	41
Radiated Disturbance	02-07	20	38

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15704	L1	47.7	Average	55.6	7.9

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
595.994	H	42.4	Quasi-Peak	46.0	3.6

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 : 1920x1080 Resolution (Worst case)
- USB MODE : USB record 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	9K77SBX	DELL	POWER	1.8	Not use	Non-shield	Plastic	DOC
				HDMI	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
KEYBOARD	SKG-2000UB	TAKB40142 5B	MONITERY INTERNATIONAL CORP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	1094	X817158- 002	MICROSOFT CORPORATION	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	SRP-770	SRP770080 60035	BICSOLON	POWER USB	1.8 1.8	Not use Not use	Non-shield	Plastic	DOC
Remote Control	AKB73756542	N/A	OHSUNG ELECTRONIC	-	-	-	-	-	-
Headset	COV903	N/A	COSY	STEREO	1.5	Not use	Non-shield	Plastic	DOC

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 >



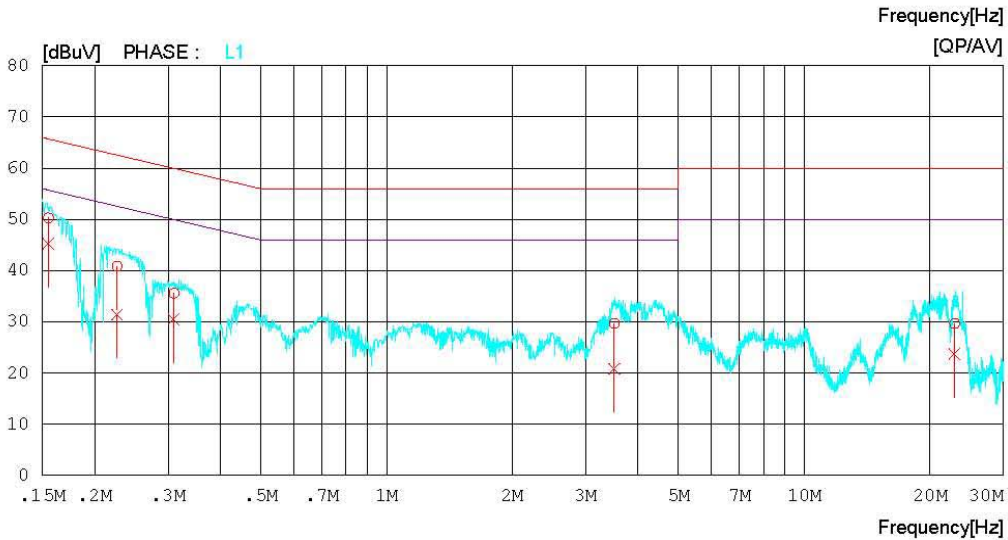
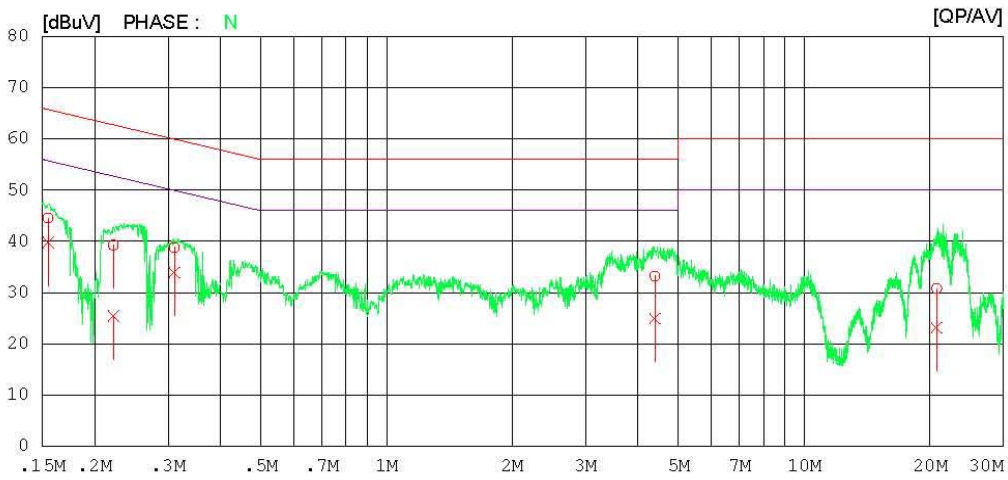
Results of Conducted Emission

Digital EMC
Date : 2013-02-07

Model No. : 39LN5700-UH
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 41 % R.H.
Operator :

Memo :
LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2013-02-07

Model No. : 39LN5700-UH
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120 V 60 Hz
 Temp/Humi. : 21 °C 41 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.15494	44.3	39.6	0.2	44.5	39.8	65.7	55.7	21.2	15.9	N
2	0.22185	39.1	25.2	0.2	39.3	25.4	62.7	52.7	23.4	27.3	N
3	0.31071	38.6	33.7	0.2	38.8	33.9	60.0	50.0	21.2	16.1	N
4	4.39500	32.9	24.6	0.3	33.2	24.9	56.0	46.0	22.8	21.1	N
5	20.77100	29.9	22.2	0.9	30.8	23.1	60.0	50.0	29.2	26.9	N
6	0.15511	50.1	45.0	0.2	50.3	45.2	65.7	55.7	15.4	10.5	L1
7	0.22639	40.7	31.2	0.2	40.9	31.4	62.6	52.6	21.7	21.2	L1
8	0.30995	35.4	30.3	0.2	35.6	30.5	60.0	50.0	24.4	19.5	L1
9	3.50850	29.4	20.5	0.3	29.7	20.8	56.0	46.0	26.3	25.2	L1
10	22.93000	28.7	22.7	1.0	29.7	23.7	60.0	50.0	30.3	26.3	L1

< USB MODE >



Results of Conducted Emission

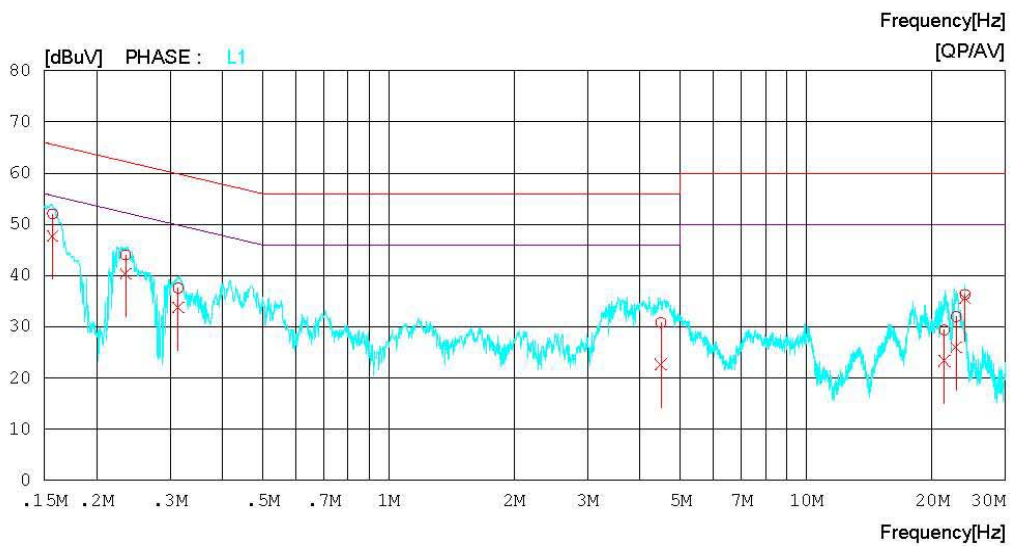
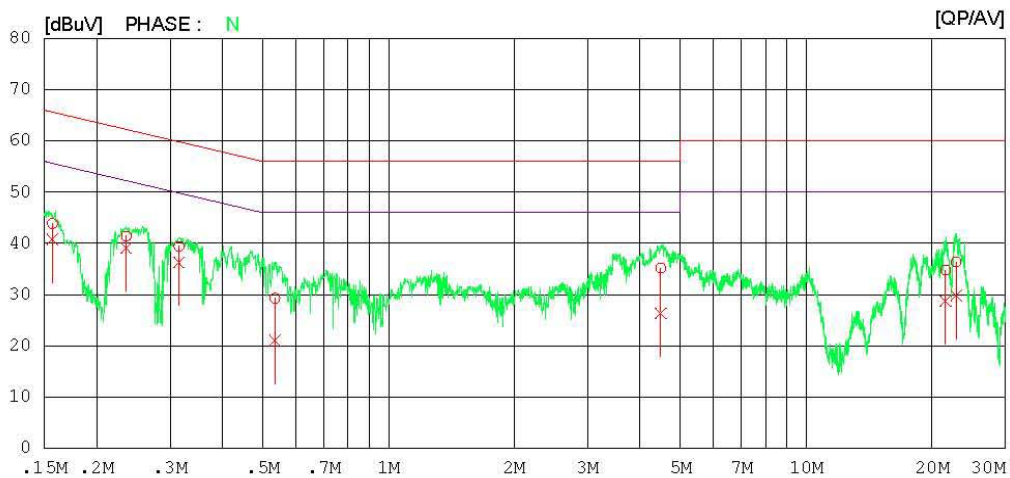
Digital EMC
Date : 2013-02-07

Model No. : 39LN5700-UH
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 41 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2013-02-07

Model No. : 39LN5700-UH
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120 V 60 Hz
 Temp/Humi. : 21 °C 41 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	
1	0.15698	43.6	40.6	0.2	43.8	40.8	65.6	55.6	21.8	14.8	N
2	0.23568	41.2	38.8	0.2	41.4	39.0	62.2	52.2	20.8	13.2	N
3	0.31506	39.2	36.0	0.2	39.4	36.2	59.8	49.8	20.4	13.6	N
4	0.53488	29.1	20.8	0.2	29.3	21.0	56.0	46.0	26.7	25.0	N
5	4.48350	34.9	26.0	0.3	35.2	26.3	56.0	46.0	20.8	19.7	N
6	21.55500	33.9	27.9	0.9	34.8	28.8	60.0	50.0	25.2	21.2	N
7	22.86800	35.4	28.8	1.0	36.4	29.8	60.0	50.0	23.6	20.2	N
8	0.15704	51.8	47.5	0.2	52.0	47.7	65.6	55.6	13.6	7.9	L1
9	0.23488	43.9	40.2	0.2	44.1	40.4	62.3	52.3	18.2	11.9	L1
10	0.31396	37.4	33.6	0.2	37.6	33.8	59.9	49.9	22.3	16.1	L1
11	4.48900	30.5	22.4	0.3	30.8	22.7	56.0	46.0	25.2	23.3	L1
12	21.42550	28.5	22.5	0.9	29.4	23.4	60.0	50.0	30.6	26.6	L1
13	22.87300	31.0	25.0	1.0	32.0	26.0	60.0	50.0	28.0	24.0	L1
14	23.99550	35.3	34.6	1.0	36.3	35.6	60.0	50.0	23.7	14.4	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	5 th 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 (dB μ V/m)	Quasi-peak (dB μ V/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 (dB μ V/m)	Quasi-peak (dB μ V/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 (dB μ V/m)	Average (dB μ V/m)	Peak (dB μ V/m)	Average (dB μ V/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

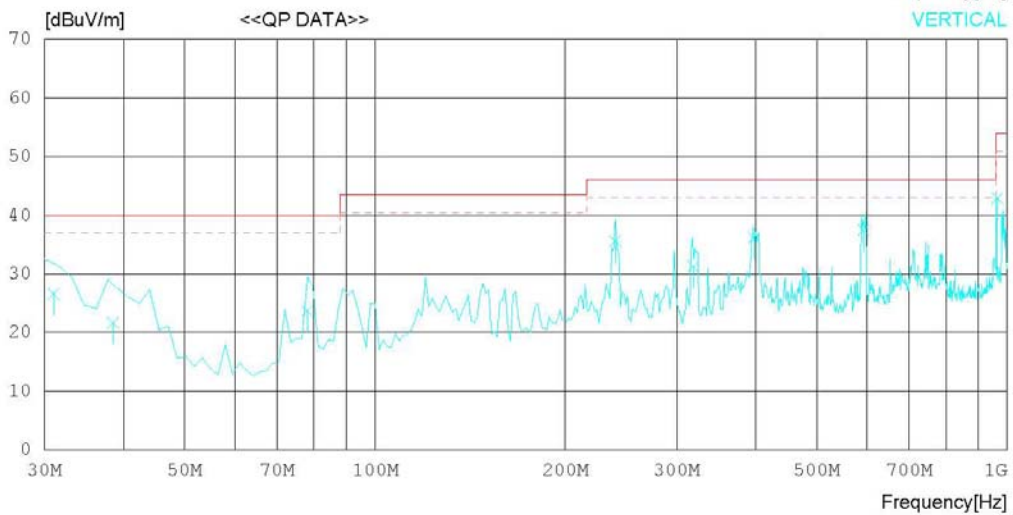
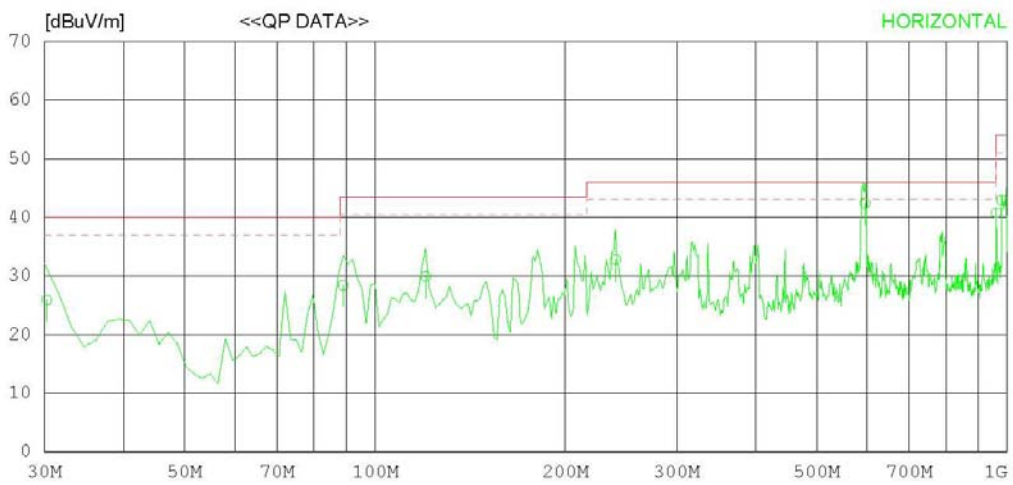
Date : 2013-02-07

Model Name : 39LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 38 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	30.261	31.1	17.7	0.9	23.8	25.9	40.0	14.1	201	143
2	89.017	42.3	8.8	1.5	24.2	28.4	43.5	15.1	201	147
3	120.169	40.8	11.6	1.6	24.1	29.9	43.5	13.6	100	138
4	240.039	42.0	12.1	2.5	23.8	32.8	46.0	13.2	100	142
5	595.994	43.1	18.6	4.1	23.4	42.4	46.0	3.6	100	146
6	961.144	36.6	21.7	5.4	22.9	40.8	54.0	13.2	400	133
7	979.306	38.4	21.9	5.4	22.8	42.9	54.0	11.1	400	150
----- Vertical -----										
8	31.047	32.2	17.3	0.9	23.8	26.6	40.0	13.4	100	133
9	38.515	31.1	13.6	1.1	24.1	21.7	40.0	18.3	199	136
10	78.184	39.4	7.0	1.6	24.3	23.7	40.0	16.3	400	146
11	239.998	44.8	12.1	2.5	23.8	35.6	46.0	10.4	100	144
12	318.546	37.7	14.2	3.0	23.6	31.3	46.0	14.7	100	145
13	397.516	40.2	16.0	3.5	23.5	36.2	46.0	9.8	100	151
14	592.387	38.2	18.6	4.1	23.4	37.5	46.0	8.5	400	148
15	965.577	38.6	21.7	5.4	22.8	42.9	54.0	11.1	100	138

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

RADIATED EMISSION

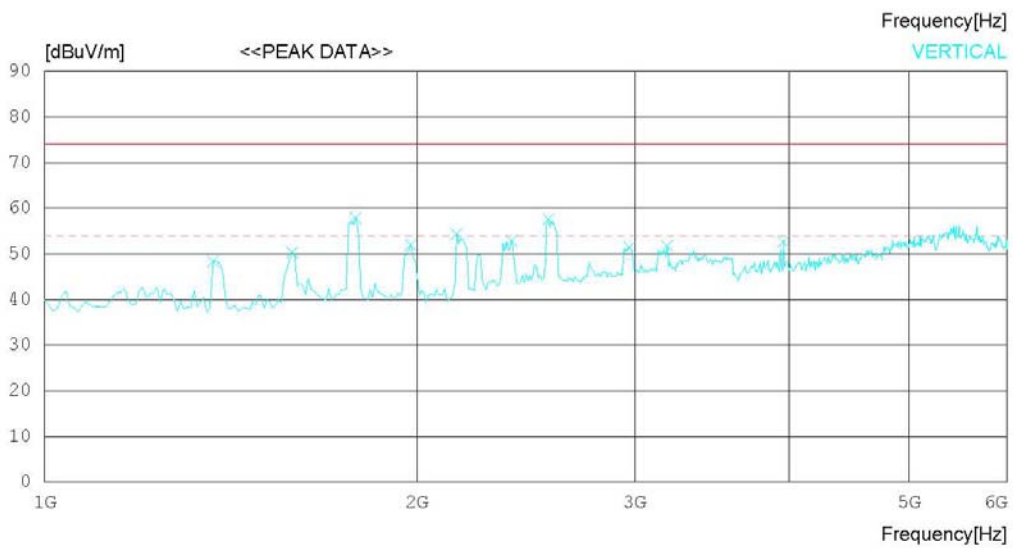
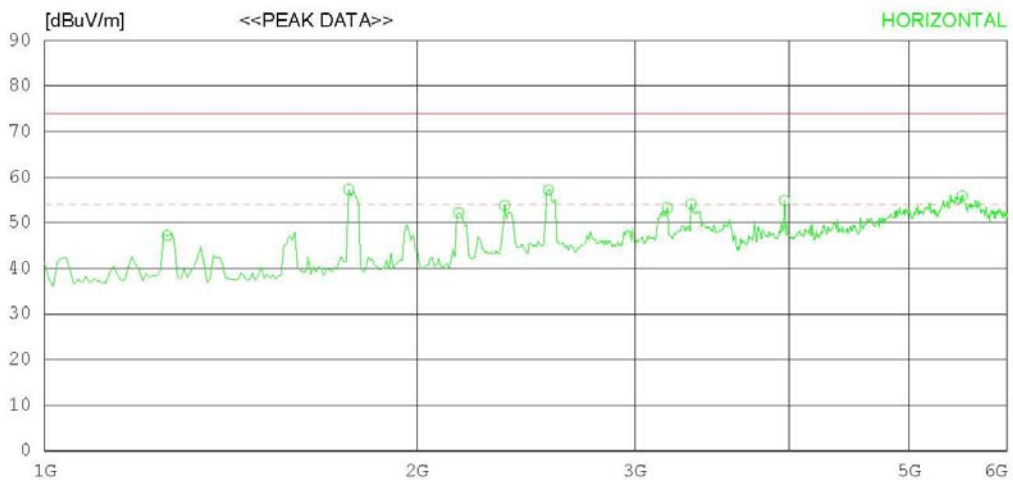
Date : 2013-02-07

Model Name : 39LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 38 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	1256.410	44.8	24.3	6.6	28.5	47.2	74.0	26.8	100	157
2	1761.218	53.2	24.6	8.0	28.5	57.3	74.0	16.7	100	146
3	2161.860	46.4	25.5	8.8	28.5	52.2	74.0	21.8	100	157
4	2354.171	46.5	26.6	9.2	28.5	53.8	74.0	20.2	100	123
5	2554.494	48.4	27.6	9.6	28.4	57.2	74.0	16.8	100	157
6	3187.517	41.8	28.9	11.0	28.4	53.3	74.0	20.7	100	125
7	3331.750	42.3	28.9	11.3	28.4	54.1	74.0	19.9	100	157
8	3964.772	40.2	30.1	12.9	28.3	54.9	74.0	19.1	100	151
9	5519.239	34.2	35.0	14.9	28.2	55.9	74.0	18.1	100	32
----- Vertical -----										
10	1368.590	45.5	24.4	7.0	28.5	48.4	74.0	25.6	100	163
11	1584.936	46.5	24.6	7.7	28.5	50.3	74.0	23.7	100	163
12	1785.256	53.7	24.6	8.0	28.5	57.8	74.0	16.2	100	133
13	1977.564	47.4	24.6	8.4	28.5	51.9	74.0	22.1	100	163
14	2153.847	48.7	25.4	8.8	28.5	54.4	74.0	19.6	100	163
15	2386.223	45.3	26.8	9.3	28.5	52.9	74.0	21.1	100	163
16	2554.494	48.8	27.6	9.6	28.4	57.6	74.0	16.4	100	163
17	2971.167	40.4	28.9	10.5	28.4	51.4	74.0	22.6	100	163
18	3187.517	40.2	28.9	11.0	28.4	51.7	74.0	22.3	100	163
19	3956.759	38.2	30.0	12.8	28.3	52.7	74.0	21.3	100	146

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

RADIATED EMISSION

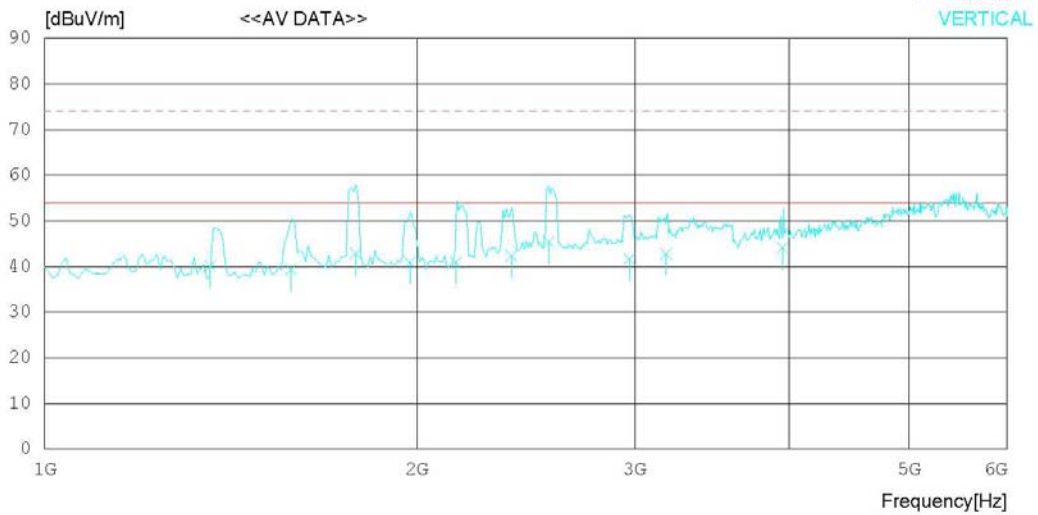
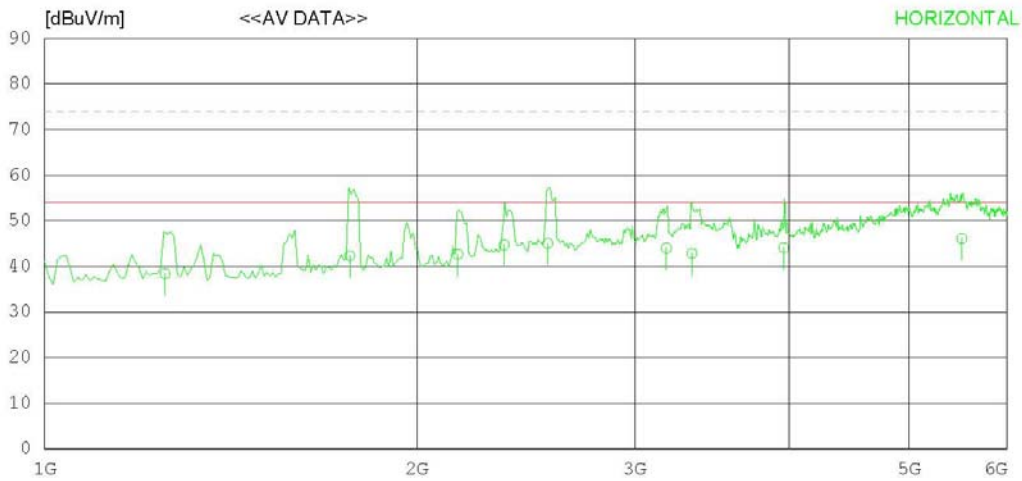
Date : 2013-02-07

Model Name : 39LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 38 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	1251.512	36.0	24.3	6.6	28.5	38.4	54.0	15.6	100	141
2	1764.968	38.2	24.6	8.0	28.5	42.3	54.0	11.7	100	135
3	2158.300	36.9	25.5	8.8	28.5	42.7	54.0	11.3	100	129
4	2351.894	37.4	26.6	9.2	28.5	44.7	54.0	9.3	100	144
5	2550.911	36.2	27.6	9.6	28.4	45.0	54.0	9.0	100	136
6	3181.417	32.6	28.9	10.9	28.4	44.0	54.0	10.0	100	147
7	3336.401	31.1	28.9	11.3	28.4	42.9	54.0	11.1	100	150
8	3959.352	29.6	30.0	12.8	28.3	44.1	54.0	9.9	100	149
9	5514.195	24.4	35.0	14.9	28.2	46.1	54.0	7.9	100	139
----- Vertical -----										
10	1361.468	37.2	24.4	7.0	28.5	40.1	54.0	13.9	100	136
11	1582.251	35.6	24.6	7.7	28.5	39.4	54.0	14.6	100	147
12	1784.719	38.8	24.6	8.0	28.5	42.9	54.0	11.1	100	135
13	1974.525	36.4	24.6	8.4	28.5	40.9	54.0	13.1	100	142
14	2150.369	35.2	25.4	8.8	28.5	40.9	54.0	13.1	100	158
15	2384.171	34.7	26.8	9.3	28.5	42.3	54.0	11.7	100	149
16	2556.339	36.6	27.6	9.6	28.4	45.4	54.0	8.6	100	151
17	2968.566	30.7	28.9	10.4	28.4	41.6	54.0	12.4	100	143
18	3181.132	31.4	28.9	10.9	28.4	42.8	54.0	11.2	100	147
19	3951.740	29.6	30.0	12.8	28.3	44.1	54.0	9.9	100	138

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

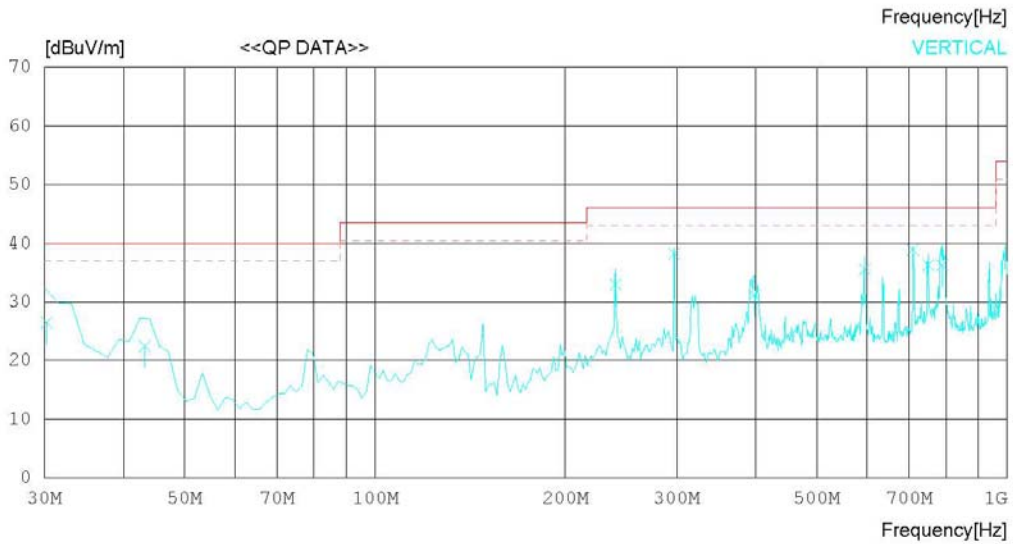
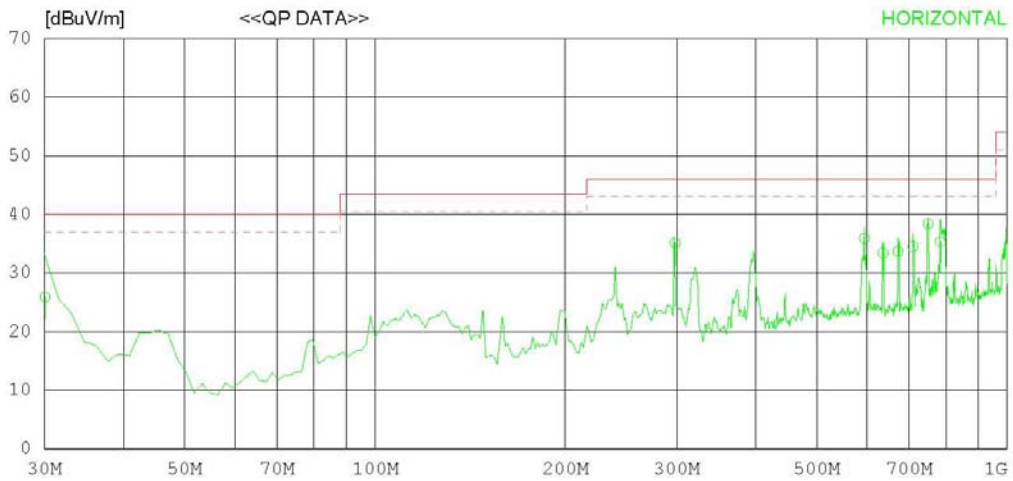
Date : 2013-02-07

Model Name : 39LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 38 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	30.074	31.1	17.8	0.8	23.8	25.9	40.0	14.1	100	129
2	298.372	42.2	13.7	2.8	23.6	35.1	46.0	10.9	100	138
3	594.274	36.6	18.6	4.1	23.4	35.9	46.0	10.1	100	133
4	636.326	34.2	18.6	4.2	23.6	33.4	46.0	12.6	201	136
5	672.047	34.4	18.6	4.4	23.7	33.7	46.0	12.3	400	147
6	709.441	35.0	18.7	4.6	23.8	34.5	46.0	11.5	100	151
7	749.728	38.1	19.3	4.6	23.6	38.4	46.0	7.6	201	124
8	783.914	34.2	19.8	4.8	23.5	35.3	46.0	10.7	400	141
----- Vertical -----										
9	30.226	31.6	17.8	0.9	23.8	26.5	40.0	13.5	199	150
10	43.269	32.1	13.5	1.1	24.2	22.5	40.0	17.5	199	144
11	240.138	42.2	12.1	2.5	23.8	33.0	46.0	13.0	400	150
12	297.374	45.3	13.7	2.8	23.6	38.2	46.0	7.8	100	139
13	398.410	35.2	16.0	3.5	23.5	31.2	46.0	14.8	100	142
14	595.299	36.3	18.6	4.1	23.4	35.6	46.0	10.4	100	128
15	709.347	39.4	18.7	4.6	23.8	38.9	46.0	7.1	199	141
16	750.069	36.0	19.3	4.6	23.6	36.3	46.0	9.7	100	139
17	790.144	35.2	19.8	4.8	23.5	36.3	46.0	9.7	100	142

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

RADIATED EMISSION

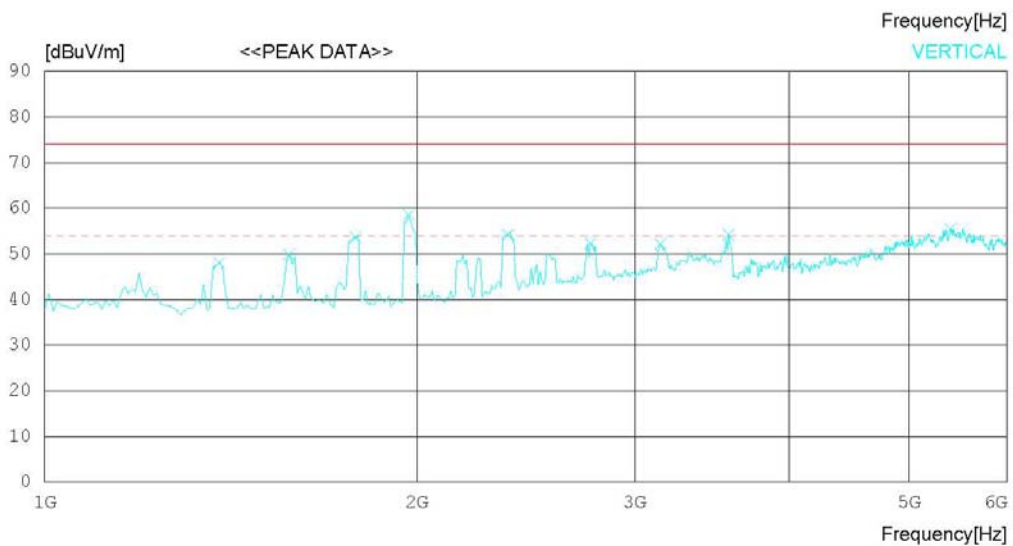
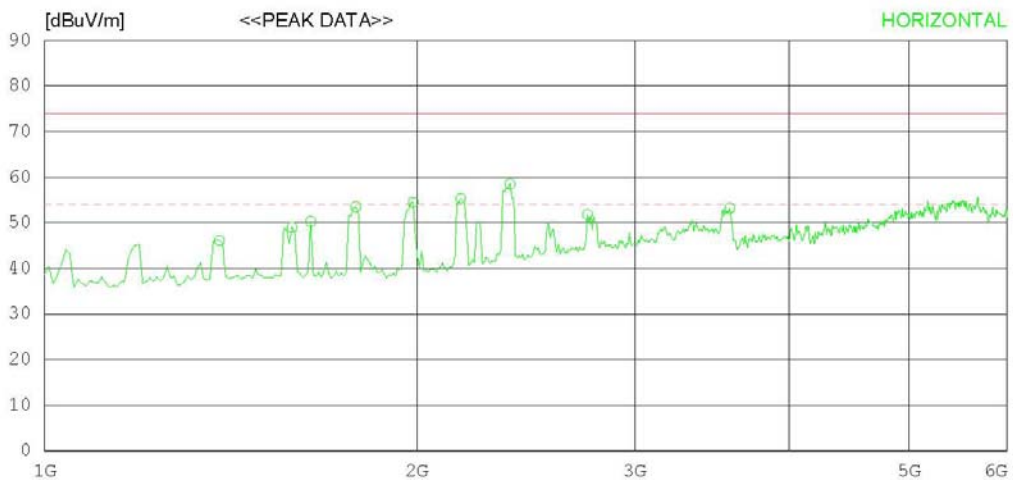
Date : 2013-02-07

Model Name : 39LN5700-UH
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120 V 60 Hz
 Temp/Humi : 20 °C 38 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	1384.615	43.0	24.5	7.1	28.5	46.1	74.0	27.9	100	259
2	1584.936	45.2	24.6	7.7	28.5	49.0	74.0	25	100	261
3	1641.025	46.4	24.6	7.8	28.5	50.3	74.0	23.7	100	349
4	1785.256	49.4	24.6	8.0	28.5	53.5	74.0	20.5	100	259
5	1985.577	50.0	24.6	8.4	28.5	54.5	74.0	19.5	100	261
6	2169.873	49.5	25.5	8.8	28.5	55.3	74.0	18.7	100	259
7	2378.210	51.0	26.7	9.3	28.5	58.5	74.0	15.5	100	259
8	2746.805	42.0	28.2	10.0	28.4	51.8	74.0	22.2	100	274
9	3580.151	40.5	29.1	11.9	28.3	53.2	74.0	20.8	100	259
----- Vertical -----										
10	1384.615	44.9	24.5	7.1	28.5	48.0	74.0	26	100	139
11	1576.923	46.1	24.6	7.6	28.5	49.8	74.0	24.2	100	139
12	1785.256	49.5	24.6	8.0	28.5	53.6	74.0	20.4	100	146
13	1969.551	54.0	24.6	8.4	28.5	58.5	74.0	15.5	100	146
14	2370.197	46.7	26.7	9.3	28.5	54.2	74.0	19.8	100	146
15	2762.831	42.4	28.3	10.0	28.4	52.3	74.0	21.7	100	146
16	3147.452	40.7	29.0	10.9	28.4	52.2	74.0	21.8	100	142
17	3572.138	41.6	29.1	11.9	28.3	54.3	74.0	19.7	100	144
18	5399.048	34.0	34.6	15.0	28.1	55.5	74.0	18.5	100	49

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

RADIATED EMISSION

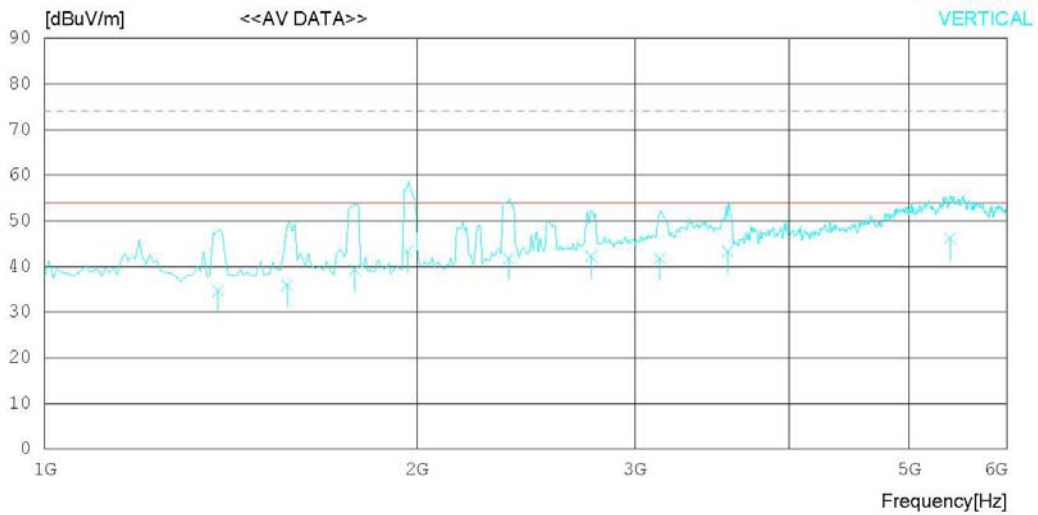
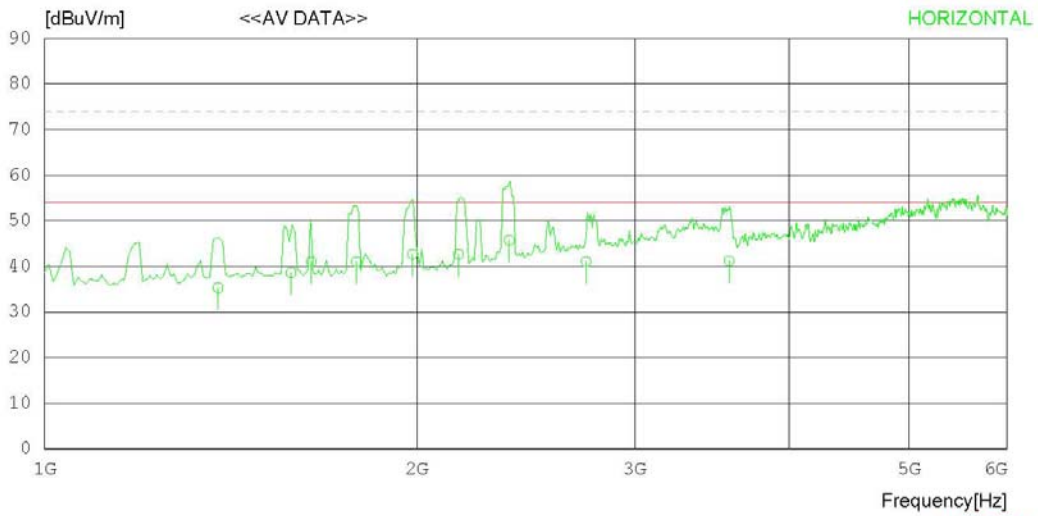
Date : 2013-02-07

Model Name : 39LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 38 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-02-07

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 20 °C 38 % 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	1381.621	32.2	24.5	7.1	28.5	35.3	54.0	18.7	100	134
2	1582.399	34.8	24.6	7.7	28.5	38.6	54.0	15.4	100	139
3	1642.701	37.1	24.6	7.8	28.5	41.0	54.0	13.0	100	147
4	1786.958	36.9	24.6	8.0	28.5	41.0	54.0	13.0	100	151
5	1984.117	38.2	24.6	8.4	28.5	42.7	54.0	11.3	100	149
6	2161.029	36.9	25.5	8.8	28.5	42.7	54.0	11.3	100	139
7	2374.658	38.2	26.7	9.3	28.5	45.7	54.0	8.3	100	144
8	2740.747	31.2	28.2	10.0	28.4	41.0	54.0	13.0	100	136
9	3575.136	28.5	29.1	11.9	28.3	41.2	54.0	12.8	100	152
----- Vertical -----										
10	1381.658	31.5	24.5	7.1	28.5	34.6	54.0	19.4	100	142
11	1570.369	32.2	24.6	7.6	28.5	35.9	54.0	18.1	100	133
12	1781.718	35.2	24.6	8.0	28.5	39.3	54.0	14.7	100	142
13	1964.519	38.9	24.6	8.4	28.5	43.4	54.0	10.6	100	151
14	2372.216	34.2	26.7	9.3	28.5	41.7	54.0	12.3	100	149
15	2766.206	32.2	28.3	10.1	28.4	42.2	54.0	11.8	100	136
16	3144.099	30.2	29.0	10.9	28.4	41.7	54.0	12.3	100	134
17	3566.958	30.7	29.1	11.9	28.3	43.4	54.0	10.6	100	149
18	5394.147	24.8	34.5	15.0	28.1	46.2	54.0	7.8	100	148

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
<input type="checkbox"/> SPECTRUM ANALYZER	8591E	H/P	3649A05889	2012.03.05	2013.03.05
<input type="checkbox"/> RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2012.07.02	2013.07.02
<input type="checkbox"/> LISN	KNW-407	KYORITSU	8-317-8	2013.01.08	2014.01.08
<input type="checkbox"/> LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.07.25	2013.07.25
<input type="checkbox"/> 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
<input checked="" type="checkbox"/> LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
<input checked="" type="checkbox"/> LISN	LISN1600	TTI	197204	2012.07.02	2013.07.02
<input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.11.06	2014.11.06
<input checked="" type="checkbox"/> HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
<input checked="" type="checkbox"/> AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> AMPLIFIER	MLA-100M18-B01-25	TSJ	1719458	2012.06.04	2013.06.04
<input type="checkbox"/> SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
<input type="checkbox"/> AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
<input type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
<input type="checkbox"/> 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