

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 39LN5700-UH
Order No. : DEMC1303-01073
Date of receipt : 2013-03-20
Test duration : 2013-03-22 ~ 2013-03-25
Use of report : FCC CoC Marking
Date of Issue : 2013-03-29

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 ~ 20) °C,
Humidity : (34 ~ 37) % 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.

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Tested by:



Manager
DaeHwa Eun

Reviewed by:



Technical Manager
ChangHo Lee

PRESIDENT OF DIGITAL EMC CO., LTD.

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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	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

RGB (PC), HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 350	31.46	70.09
720 x 400	31.46	70.08
640 x 480	31.46	59.94
800 x 600	37.87	60.31
1024 x 768	48.36	60.00
1152 x 864	54.38	60.05
1360 x 768	47.71	60.01
1280 x 1024	63.98	60.02
1920 x 1080	67.50	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	03-22	20	34
Radiated Disturbance	03-23	19	37
	03-25	18	35

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
21.19950	N	30.0	Average	50.0	20.0

(2) Radiated Emission (USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
500.000	V	39.0	Quasi-Peak	46.0	7.0

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	VOSTRO 460	6L7JXBX	DELL INC.	POWER	1.6	Not use	Non-shield	Plastic	DOC
				USB	1.7	Not use	Non-shield		
				USB	1.6	Not use	Non-shield		
				USB	1.6	Not use	Non-shield		
				HDMI	1.8	Not use	Shield		
KEYBOARD	SKG-3000UB	TAKB601235V	MONITEREY INTERNATIONAL CORP.	USB	1.7	Not use	Non-shield	Plastic	DOC
MOUSE	MS111-L	N/A	DELL	USB	1.6	Not use	Non-shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2001499	SONY EMCS	POWER	1.7	Not use	Non-shield	Plastic	VER
				AV	1.8	Not use	Non-shield		
USB MEMORY	SDCZ37-004G	N/A	SANDISK	USB	-	Not use	-	-	DOC
PRINTER	Aculaser M1200	LWTZ181070	EPSON	POWER	1.8	Not use	Non-shield	Plastic	DOC
				USB	2.0	Not use	Non-shield		
Remote controller	AKB73756542	N/A	HANSUNG ELECTRONIC	-	-	Not use	-	-	-
HEADSET	COV903	N/A	COSY	STEREO	2.0	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 >



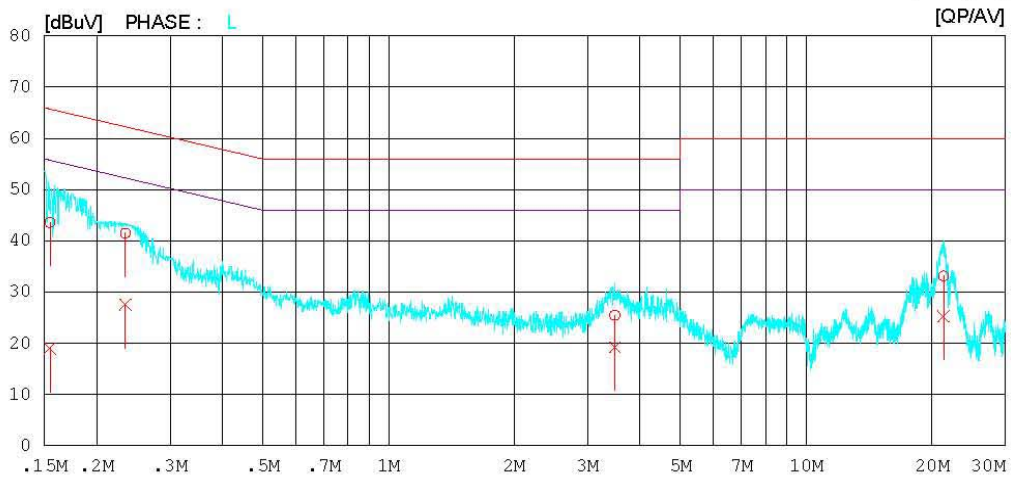
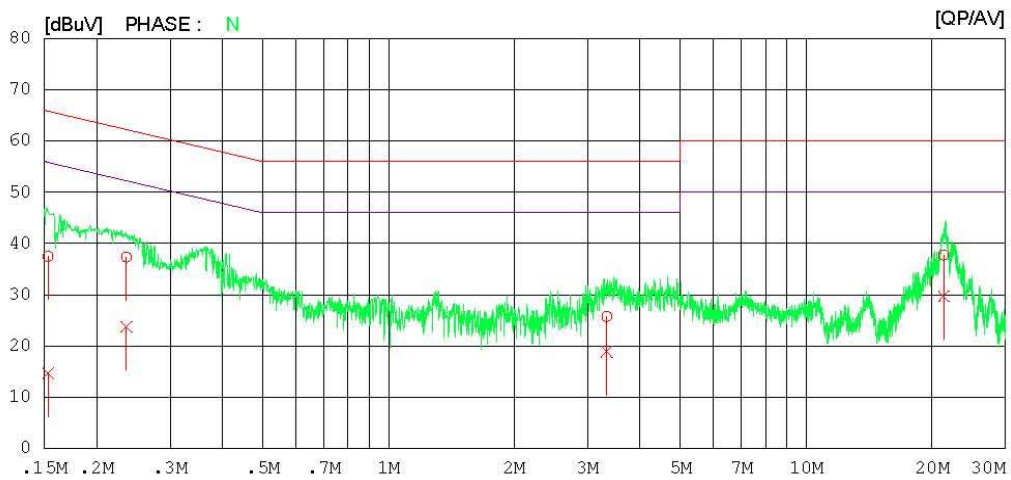
Results of Conducted Emission

Digital EMC
Date : 2013-03-22

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

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 20 °C 34 % R.H.
Operator :

Memo :
LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2013-03-22

Model No.	: 39LN5700-UH	Reference No.	:
Type	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi.	: 20 °C 34 % R.H.
Test Condition	: HDMI	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]			
1	0.15313	37.4	14.5	0.1	37.5	14.6	65.8	55.8	28.3	41.2	N
2	0.23598	37.2	23.6	0.1	37.3	23.7	62.2	52.2	24.9	28.5	N
3	3.33450	25.6	18.8	0.1	25.7	18.9	56.0	46.0	30.3	27.1	N
4	21.34700	37.3	29.3	0.4	37.7	29.7	60.0	50.0	22.3	20.3	N
5	0.15464	43.5	18.9	0.1	43.6	19.0	65.7	55.7	22.1	36.7	L
6	0.23446	41.4	27.5	0.1	41.5	27.6	62.3	52.3	20.8	24.7	L
7	3.48150	25.4	19.2	0.1	25.5	19.3	56.0	46.0	30.5	26.7	L
8	21.32500	32.8	24.9	0.4	33.2	25.3	60.0	50.0	26.8	24.7	L

< USB MODE >



Results of Conducted Emission

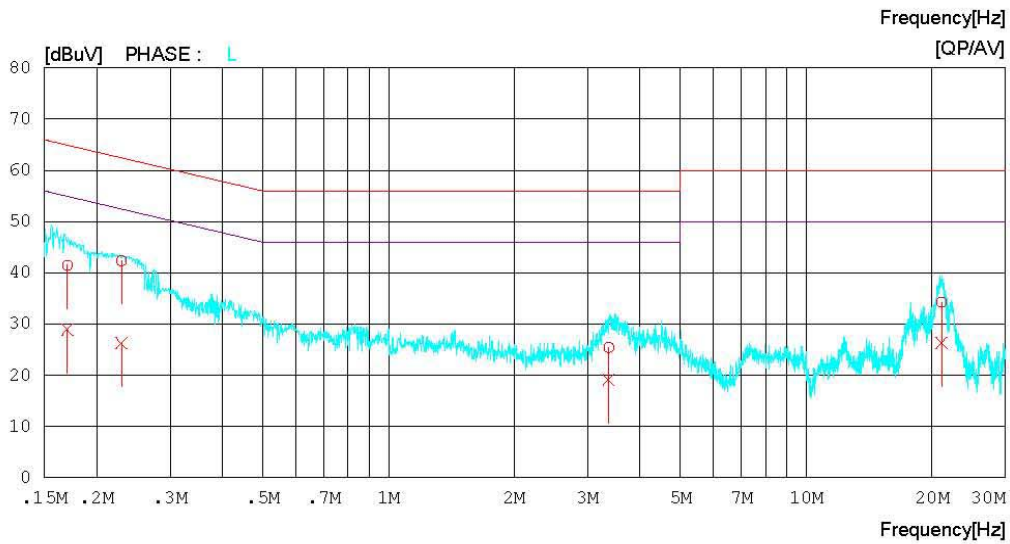
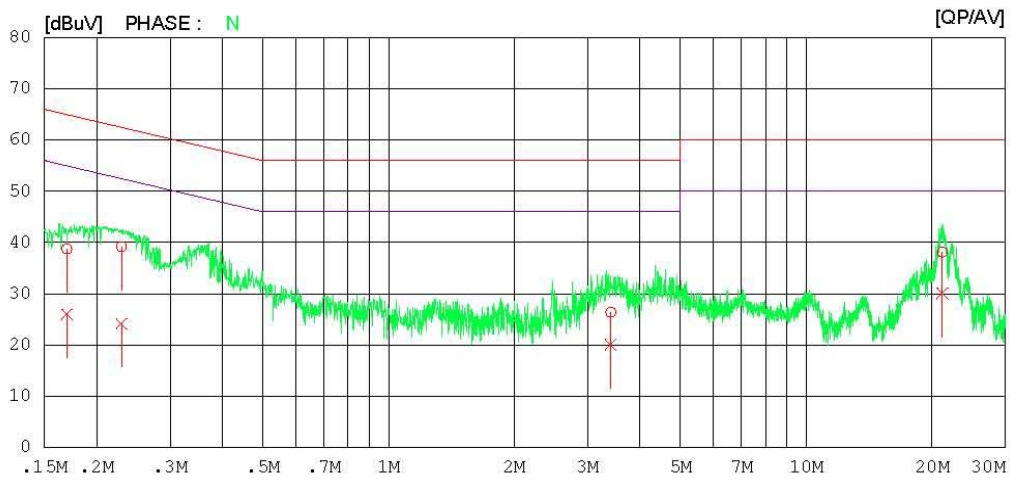
Digital EMC
Date : 2013-03-22

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

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 20 °C 34 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2013-03-22

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

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 20 °C 34 % 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	0.16991	38.6	25.8	0.1	38.7	25.9	65.0	55.0	26.3	29.1	N
2	0.22966	39.1	24.0	0.1	39.2	24.1	62.5	52.5	23.3	28.4	N
3	3.40500	26.3	19.9	0.1	26.4	20.0	56.0	46.0	29.6	26.0	N
4	21.19950	37.7	29.6	0.4	38.1	30.0	60.0	50.0	21.9	20.0	N
5	0.17039	41.4	28.8	0.1	41.5	28.9	64.9	54.9	23.4	26.0	L
6	0.22949	42.3	26.2	0.1	42.4	26.3	62.5	52.5	20.1	26.2	L
7	3.36900	25.4	19.1	0.1	25.5	19.2	56.0	46.0	30.5	26.8	L
8	21.09300	33.9	25.9	0.4	34.3	26.3	60.0	50.0	25.7	23.7	L

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 >

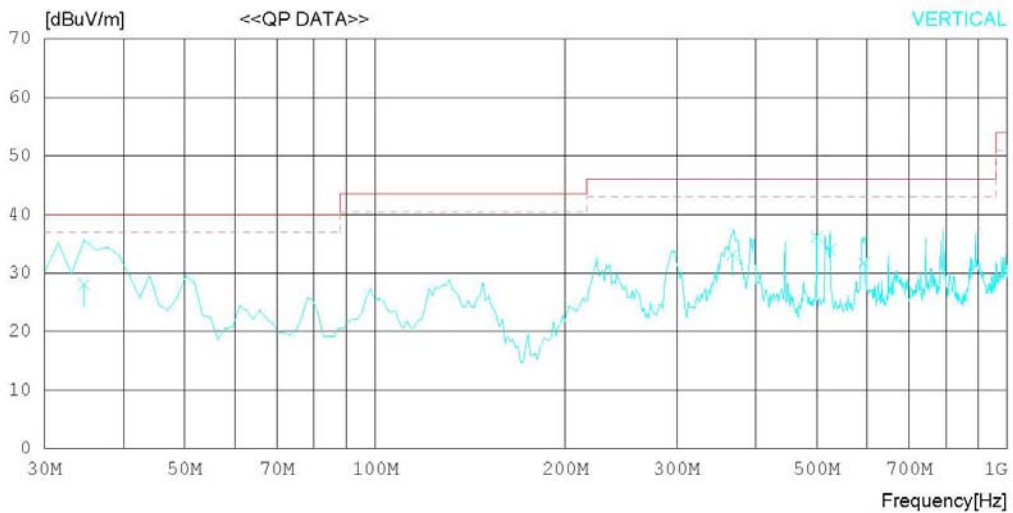
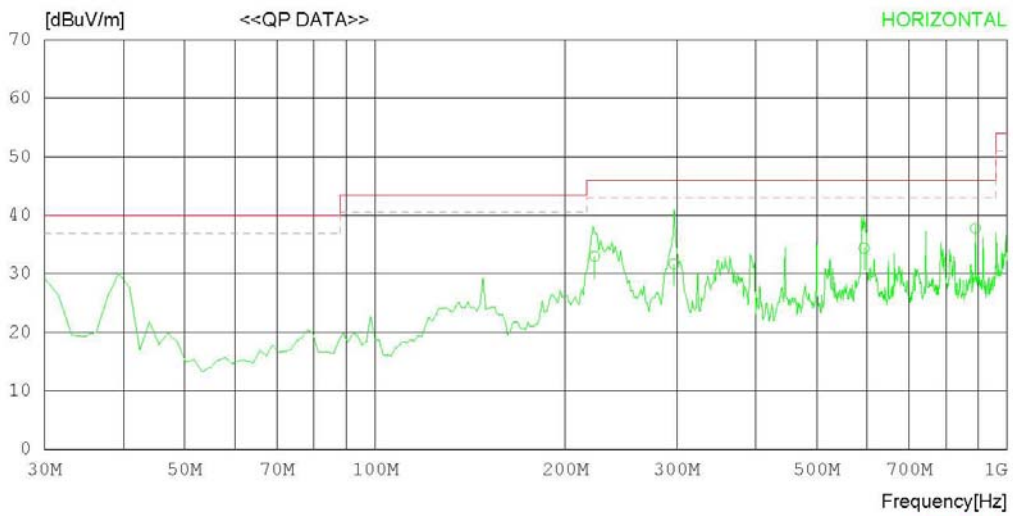
RADIATED EMISSION

Date : 2013-03-23

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 19 °C 37 % R.H.
Test Condition	: HDMI	Operator	:

Memo :

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



RADIATED EMISSION

Date : 2013-03-23

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °C 37 % 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	222.513	43.5	11.0	2.4	23.9	33.0	46.0	13.0	100	275
2	297.103	38.8	13.7	2.8	23.6	31.7	46.0	14.3	100	231
3	593.991	35.1	18.6	4.1	23.4	34.4	46.0	11.6	100	206
4	891.009	35.0	20.7	5.2	23.1	37.8	46.0	8.2	100	154
----- Vertical -----										
5	34.663	35.4	15.4	1.1	23.9	28.0	40.0	12.0	100	195
6	367.423	38.1	15.3	3.4	23.6	33.2	46.0	12.8	100	313
7	500.000	38.0	17.3	3.9	23.0	36.2	46.0	9.8	100	159
8	524.638	35.5	17.7	3.9	23.1	34.0	46.0	12.0	100	282
9	593.984	32.4	18.6	4.1	23.4	31.7	46.0	14.3	100	201

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

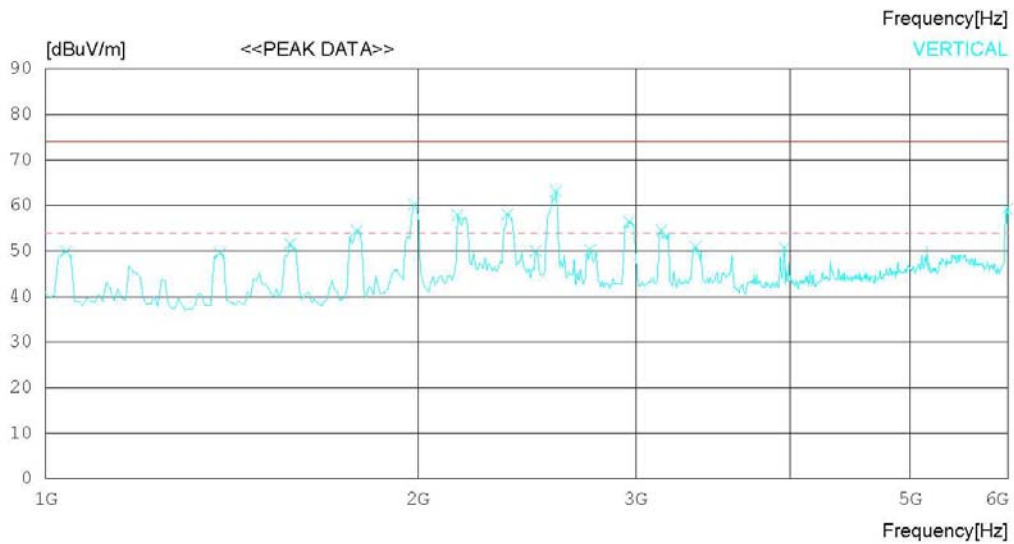
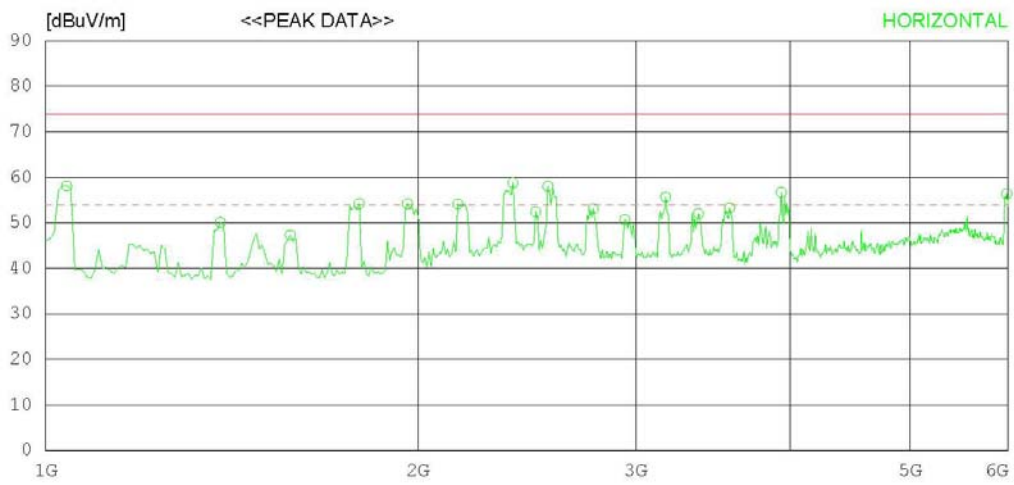
RADIATED EMISSION

Date : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 'C 35 % 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 : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 °C 35 % 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	1040.064	71.9	23.9	3.4	41.1	58.1	74.0	15.9	100	205
2	1384.615	62.0	24.5	3.9	40.3	50.1	74.0	23.9	100	1
3	1576.923	58.5	24.6	4.2	40.0	47.3	74.0	26.7	100	1
4	1793.269	64.8	24.6	4.5	39.7	54.2	74.0	19.8	100	1
5	1961.538	64.4	24.6	4.7	39.5	54.2	74.0	19.8	100	179
6	2153.847	63.2	25.4	4.9	39.4	54.1	74.0	19.9	100	1
7	2386.223	66.2	26.8	5.1	39.3	58.8	74.0	15.2	100	201
8	2490.391	59.1	27.4	5.2	39.3	52.4	74.0	21.6	100	225
9	2546.481	64.4	27.6	5.3	39.3	58.0	74.0	16	100	201
10	2770.844	58.6	28.3	5.5	39.3	53.1	74.0	20.9	100	240
11	2939.115	55.6	28.8	5.6	39.3	50.7	74.0	23.3	100	232
12	3171.491	60.1	28.9	5.9	39.2	55.7	74.0	18.3	100	1
13	3371.814	56.1	28.9	6.1	39.1	52.0	74.0	22	100	1
14	3572.138	56.8	29.1	6.3	38.9	53.3	74.0	20.7	100	199
15	3932.720	58.5	30.0	6.6	38.4	56.7	74.0	17.3	100	157
16	5983.975	54.8	31.9	8.4	38.7	56.4	74.0	17.6	100	174
----- Vertical -----										
17	1040.064	63.7	23.9	3.4	41.1	49.9	74.0	24.1	100	187
18	1384.615	61.4	24.5	3.9	40.3	49.5	74.0	24.5	100	358
19	1576.923	62.8	24.6	4.2	40.0	51.6	74.0	22.4	100	358
20	1785.256	65.2	24.6	4.4	39.7	54.5	74.0	19.5	100	229
21	1985.577	70.4	24.6	4.7	39.5	60.2	74.0	13.8	100	358
22	2153.847	67.1	25.4	4.9	39.4	58.0	74.0	16	100	358
23	2362.184	65.6	26.7	5.1	39.3	58.1	74.0	15.9	100	157
24	2490.391	56.7	27.4	5.2	39.3	50.0	74.0	24	100	358
25	2586.546	69.4	27.7	5.3	39.3	63.1	74.0	10.9	100	198
26	2754.818	55.8	28.2	5.5	39.3	50.2	74.0	23.8	100	182
27	2963.154	61.3	28.9	5.6	39.3	56.5	74.0	17.5	100	191
28	3147.452	59.0	29.0	5.8	39.2	54.6	74.0	19.4	100	215
29	3355.788	55.2	28.9	6.0	39.1	51.0	74.0	23	100	233
30	3956.759	52.5	30.0	6.6	38.4	50.7	74.0	23.3	100	233
31	5991.988	57.7	31.9	8.4	38.7	59.3	74.0	14.7	100	169

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

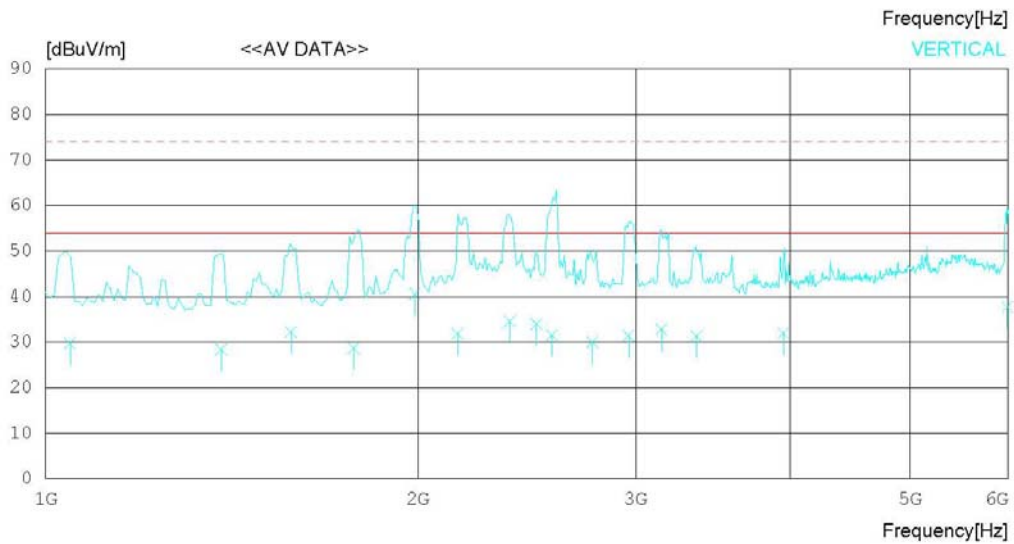
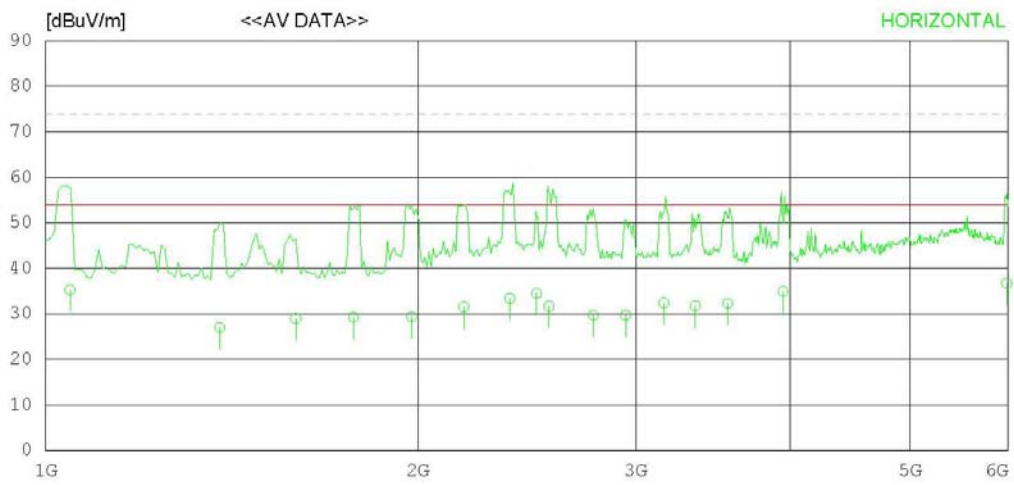
RADIATED EMISSION

Date : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 'C 35 % 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 : 2013-03-25

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % 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	1046.410	49.1	23.9	3.4	41.1	35.3	54.0	18.7	100	188
2	1383.205	38.9	24.5	3.9	40.3	27.0	54.0	27.0	100	194
3	1593.147	40.2	24.6	4.2	40.0	29.0	54.0	25.0	100	179
4	1774.423	40.0	24.6	4.4	39.7	29.3	54.0	24.7	100	163
5	1976.743	39.6	24.6	4.7	39.5	29.4	54.0	24.6	100	179
6	2177.929	40.4	25.6	4.9	39.4	31.5	54.0	22.5	100	150
7	2373.378	40.9	26.7	5.1	39.3	33.4	54.0	20.6	100	201
8	2494.070	41.2	27.4	5.2	39.3	34.5	54.0	19.5	100	224
9	2552.596	38.1	27.6	5.3	39.3	31.7	54.0	22.3	100	201
10	2772.295	35.2	28.3	5.5	39.3	29.7	54.0	24.3	100	240
11	2943.462	34.6	28.8	5.6	39.3	29.7	54.0	24.3	100	203
12	3159.942	36.9	28.9	5.8	39.2	32.4	54.0	21.6	100	199
13	3350.711	36.0	28.9	6.0	39.1	31.8	54.0	22.2	100	218
14	3560.237	35.9	29.0	6.3	38.9	32.3	54.0	21.7	100	225
15	3946.205	36.7	30.0	6.6	38.4	34.9	54.0	19.1	100	192
16	5983.975	35.1	31.9	8.4	38.7	36.7	54.0	17.3	100	174
----- Vertical -----										
17	1046.410	43.5	23.9	3.4	41.1	29.7	54.0	24.3	100	165
18	1386.410	40.3	24.5	3.9	40.3	28.4	54.0	25.6	100	164
19	1579.147	43.5	24.6	4.2	40.0	32.3	54.0	21.7	100	205
20	1774.430	39.4	24.6	4.4	39.7	28.7	54.0	25.3	100	191
21	1989.404	50.8	24.6	4.7	39.5	40.6	54.0	13.4	100	358
22	2153.847	41.0	25.4	4.9	39.4	31.9	54.0	22.1	100	194
23	2373.378	42.1	26.7	5.1	39.3	34.6	54.0	19.4	100	157
24	2494.070	40.7	27.4	5.2	39.3	34.0	54.0	20.0	100	191
25	2567.820	37.8	27.7	5.3	39.3	31.5	54.0	22.5	100	176
26	2765.884	35.5	28.3	5.5	39.3	30.0	54.0	24.0	100	182
27	2959.967	36.2	28.9	5.6	39.3	31.4	54.0	22.6	100	180
28	3147.452	37.2	29.0	5.8	39.2	32.8	54.0	21.2	100	241
29	3359.205	35.4	28.9	6.1	39.1	31.3	54.0	22.7	100	232
30	3948.769	33.7	30.0	6.6	38.4	31.9	54.0	22.1	100	233
31	5991.988	36.2	31.9	8.4	38.7	37.8	54.0	16.2	100	169

< USB MODE_30 MHz ~ 1 GHz >

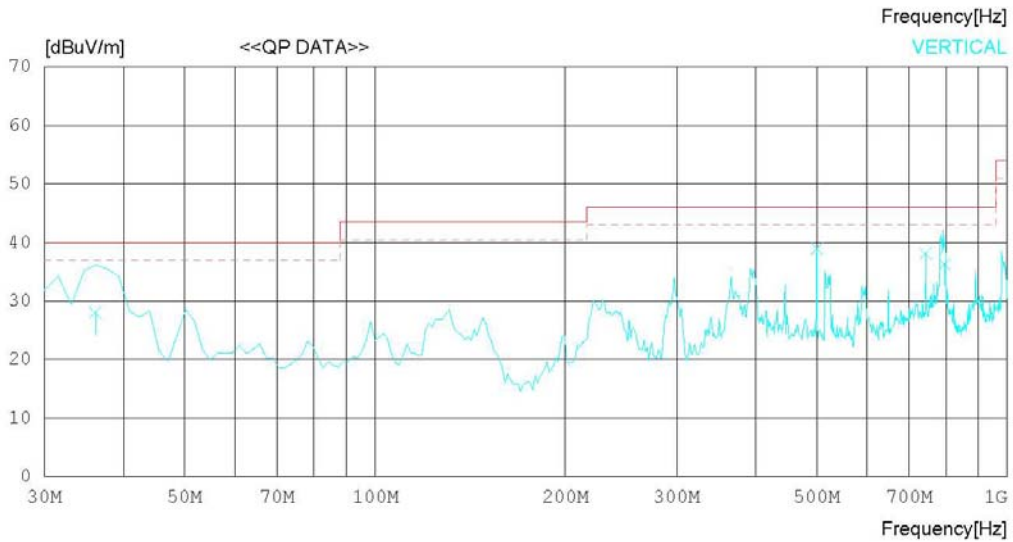
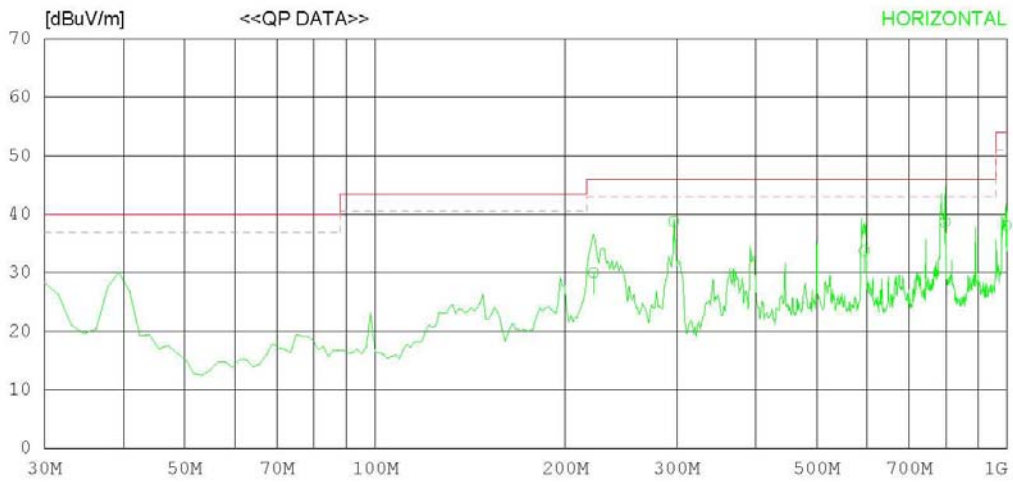
RADIATED EMISSION

Date : 2013-03-23

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 19 °C 37 % R.H.
Test Condition	: USB	Operator	:

Memo :

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



RADIATED EMISSION

Date : 2013-03-23

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °C 37 % 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	221.458	40.5	11.0	2.4	23.9	30.0	46.0	16.0	100	267
2	296.984	45.9	13.7	2.8	23.6	38.8	46.0	7.2	100	234
3	594.015	34.5	18.6	4.1	23.4	33.8	46.0	12.2	100	358
4	796.901	37.5	19.9	4.8	23.5	38.7	46.0	7.3	100	132
5	996.192	33.1	22.2	5.5	22.7	38.1	54.0	15.9	100	199
----- Vertical -----										
6	36.112	36.2	14.7	1.1	24.0	28.0	40.0	12.0	100	176
7	500.000	40.8	17.3	3.9	23.0	39.0	46.0	7.0	100	187
8	743.510	38.0	19.2	4.6	23.7	38.1	46.0	7.9	100	174
9	795.952	35.1	19.9	4.8	23.5	36.3	46.0	9.7	100	232

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

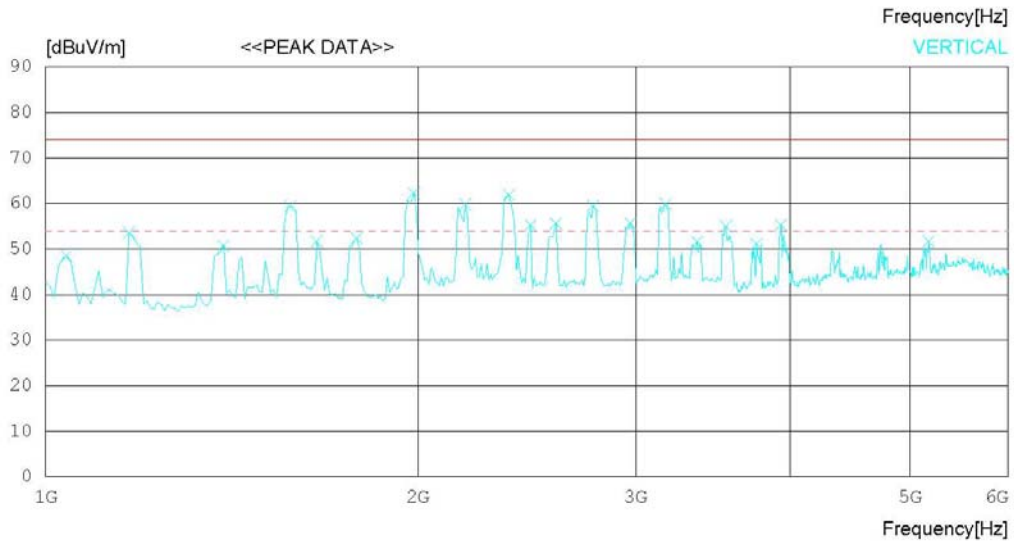
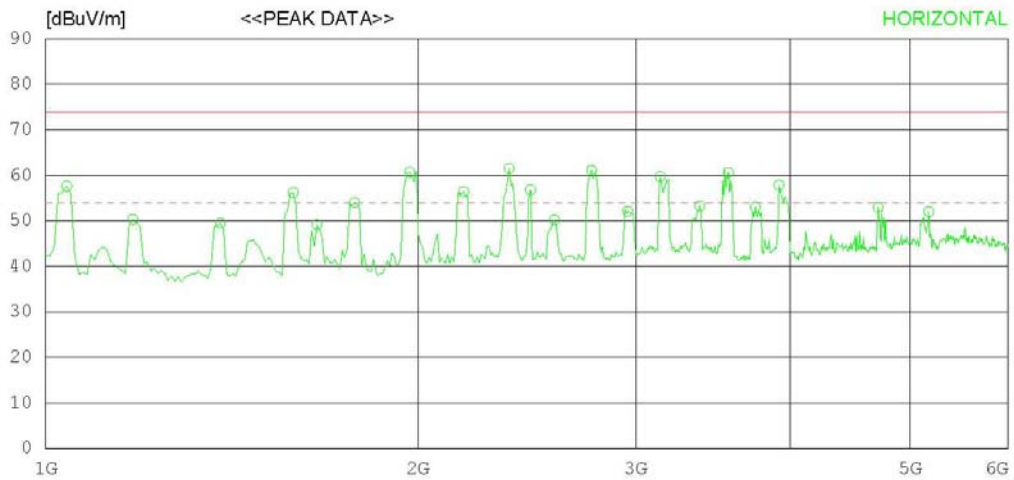
RADIATED EMISSION

Date : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 'C 35 % 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 : 2013-03-25

Model Name : 39LN5700-UH	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % 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	1040.064	71.4	23.9	3.4	41.1	57.6	74.0	16.4	100	206
2	1176.282	63.4	24.1	3.6	40.8	50.3	74.0	23.7	100	358
3	1384.615	61.4	24.5	3.9	40.3	49.5	74.0	24.5	100	358
4	1584.936	67.4	24.6	4.2	40.0	56.2	74.0	17.8	100	358
5	1657.051	60.2	24.6	4.3	39.9	49.2	74.0	24.8	100	358
6	1777.243	64.7	24.6	4.4	39.7	54.0	74.0	20	100	358
7	1969.551	70.9	24.6	4.7	39.5	60.7	74.0	13.3	100	358
8	2177.886	65.3	25.6	4.9	39.4	56.4	74.0	17.6	100	358
9	2370.197	69.0	26.7	5.1	39.3	61.5	74.0	12.5	100	358
10	2466.352	63.6	27.3	5.2	39.3	56.8	74.0	17.2	100	358
11	2578.533	56.5	27.7	5.3	39.3	50.2	74.0	23.8	100	358
12	2762.831	66.6	28.3	5.5	39.3	61.1	74.0	12.9	100	250
13	2955.141	57.0	28.8	5.6	39.3	52.1	74.0	21.9	100	358
14	3139.439	64.1	29.0	5.8	39.2	59.7	74.0	14.3	100	358
15	3379.827	57.4	28.9	6.1	39.1	53.3	74.0	20.7	100	242
16	3564.125	64.2	29.0	6.3	38.9	60.6	74.0	13.4	100	219
17	3748.422	55.8	29.5	6.4	38.7	53.0	74.0	21	100	195
18	3916.694	59.8	29.9	6.6	38.5	57.8	74.0	16.2	100	252
19	4709.957	52.5	31.6	7.5	38.7	52.9	74.0	21.1	100	211
20	5174.693	49.3	33.4	7.9	38.6	52.0	74.0	22	100	178
----- Vertical -----										
21	1040.064	62.2	23.9	3.4	41.1	48.4	74.0	25.6	100	1
22	1168.269	66.7	24.1	3.6	40.8	53.6	74.0	20.4	100	1
23	1392.628	62.6	24.5	3.9	40.3	50.7	74.0	23.3	100	1
24	1576.923	70.6	24.6	4.2	40.0	59.4	74.0	14.6	100	1
25	1657.051	62.7	24.6	4.3	39.9	51.7	74.0	22.3	100	220
26	1785.256	63.1	24.6	4.4	39.7	52.4	74.0	21.6	100	211
27	1985.577	72.5	24.6	4.7	39.5	62.3	74.0	11.7	100	187
28	2185.899	68.7	25.6	4.9	39.4	59.8	74.0	14.2	100	1
29	2370.197	69.4	26.7	5.1	39.3	61.9	74.0	12.1	100	194
30	2466.352	62.1	27.3	5.2	39.3	55.3	74.0	18.7	100	250
31	2586.546	61.9	27.7	5.3	39.3	55.6	74.0	18.4	100	192
32	2770.844	64.9	28.3	5.5	39.3	59.4	74.0	14.6	100	1
33	2971.167	60.5	28.9	5.6	39.3	55.7	74.0	18.3	100	1
34	3171.491	64.3	28.9	5.9	39.2	59.9	74.0	14.1	100	1
35	3363.801	55.7	28.9	6.1	39.1	51.6	74.0	22.4	100	1
36	3548.099	58.7	29.0	6.2	38.9	55.0	74.0	19	100	224
37	3756.435	53.8	29.5	6.5	38.7	51.1	74.0	22.9	100	1
38	3932.720	57.1	30.0	6.6	38.4	55.3	74.0	18.7	100	1
39	5174.693	49.0	33.4	7.9	38.6	51.7	74.0	22.3	100	207

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

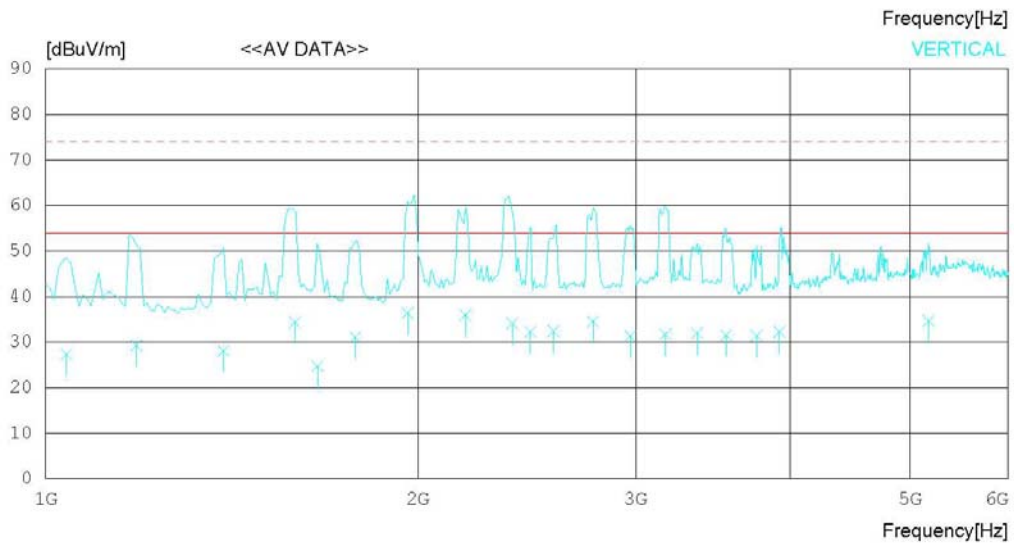
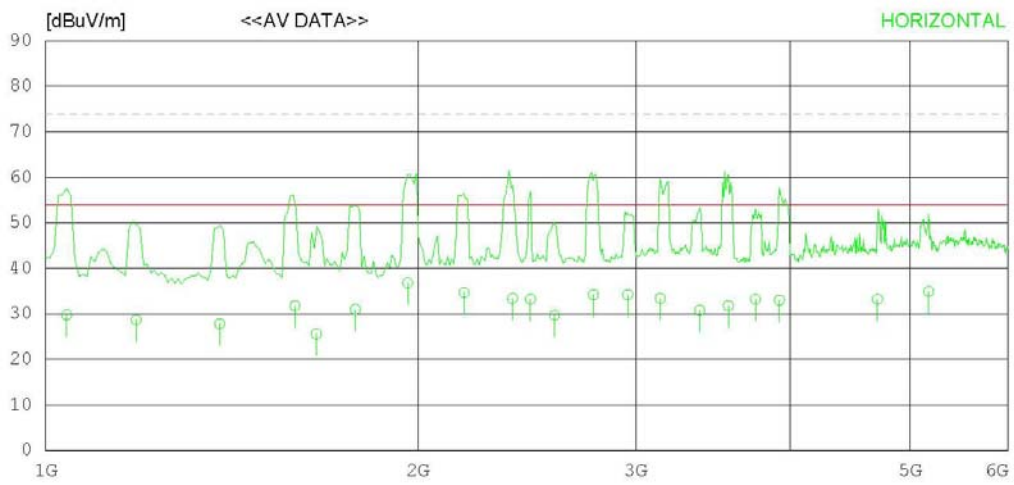
RADIATED EMISSION

Date : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 'C 35 % 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 : 2013-03-25

Model Name	: 39LN5700-UH	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 °C 35 % 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	1040.064	43.6	23.9	3.4	41.1	29.8	54.0	24.2	100	206
2	1183.942	41.7	24.2	3.6	40.8	28.7	54.0	25.3	100	358
3	1382.208	39.7	24.5	3.9	40.3	27.8	54.0	26.2	100	199
4	1590.904	43.0	24.6	4.2	40.0	31.8	54.0	22.2	100	358
5	1655.038	36.6	24.6	4.3	39.9	25.6	54.0	28.4	100	358
6	1780.272	41.7	24.6	4.4	39.7	31.0	54.0	23.0	100	358
7	1962.008	47.0	24.6	4.7	39.5	36.8	54.0	17.2	100	209
8	2179.052	43.6	25.6	4.9	39.4	34.7	54.0	19.3	100	358
9	2385.426	40.8	26.8	5.1	39.3	33.4	54.0	20.6	100	358
10	2466.352	40.0	27.3	5.2	39.3	33.2	54.0	20.8	100	358
11	2578.533	36.0	27.7	5.3	39.3	29.7	54.0	24.3	100	358
12	2772.622	39.7	28.3	5.5	39.3	34.2	54.0	19.8	100	250
13	2955.141	39.1	28.8	5.6	39.3	34.2	54.0	19.8	100	358
14	3139.439	37.8	29.0	5.8	39.2	33.4	54.0	20.6	100	358
15	3379.827	34.9	28.9	6.1	39.1	30.8	54.0	23.2	100	242
16	3564.125	35.4	29.0	6.3	38.9	31.8	54.0	22.2	100	219
17	3748.422	36.0	29.5	6.4	38.7	33.2	54.0	20.8	100	195
18	3919.676	35.0	29.9	6.6	38.5	33.0	54.0	21.0	100	217
19	4705.118	32.9	31.5	7.5	38.7	33.2	54.0	20.8	100	211
20	5174.693	32.2	33.4	7.9	38.6	34.9	54.0	19.1	100	178
----- Vertical -----										
21	1040.064	41.1	23.9	3.4	41.1	27.3	54.0	26.7	100	231
22	1183.942	42.3	24.2	3.6	40.8	29.3	54.0	24.7	100	194
23	1392.628	40.0	24.5	3.9	40.3	28.1	54.0	25.9	100	1
24	1590.904	45.6	24.6	4.2	40.0	34.4	54.0	19.6	100	191
25	1659.606	35.7	24.6	4.3	39.9	24.7	54.0	29.3	100	220
26	1780.272	41.8	24.6	4.4	39.7	31.1	54.0	22.9	100	211
27	1962.006	46.5	24.6	4.7	39.5	36.3	54.0	17.7	100	187
28	2185.899	44.8	25.6	4.9	39.4	35.9	54.0	18.1	100	1
29	2385.426	41.5	26.8	5.1	39.3	34.1	54.0	19.9	100	194
30	2466.352	39.0	27.3	5.2	39.3	32.2	54.0	21.8	100	250
31	2574.775	38.7	27.7	5.3	39.3	32.4	54.0	21.6	100	192
32	2770.844	40.0	28.3	5.5	39.3	34.5	54.0	19.5	100	1
33	2971.167	36.1	28.9	5.6	39.3	31.3	54.0	22.7	100	1
34	3171.491	36.1	28.9	5.9	39.2	31.7	54.0	22.3	100	194
35	3363.801	36.0	28.9	6.1	39.1	31.9	54.0	22.1	100	217
36	3548.099	35.2	29.0	6.2	38.9	31.5	54.0	22.5	100	224
37	3756.435	34.1	29.5	6.5	38.7	31.4	54.0	22.6	100	180
38	3919.676	34.2	29.9	6.6	38.5	32.2	54.0	21.8	100	164
39	5174.693	32.0	33.4	7.9	38.6	34.7	54.0	19.3	100	207

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	2013.02.28	2014.02.28
<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	2013.02.27	2014.02.27
<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"/> PREAMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
<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	2013.02.27	2014.02.27
<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	2013.02.28	2014.02.28

Appendix 2

Report Revision History

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