EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 60LN6150-UC
Order No.	: 1212-03054
Date of receipt	: 2012-12-27
Test duration	: 2013-01-07 ~ 2013-01-09
Use of report	: FCC CoC Marking
Date of Issue	: 2013-01-17

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 ~ 22) °C,
Humidity : (40 ~ 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:

Engineer
SeHyun Kim

Reviewed by:

General Manager
ChangHo Lee

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.	60LN6150-UC
Add Model No.	None
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ60LN6150UC
Type of Sample Tested	Pre-Production
High Frequency	796 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.8 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 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	01-07	22	41
Radiated Disturbance	01-09	20	40

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
0.38470	**L1**	**36.5**	Average	**48.2**	**11.7**

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
556.905	**V**	**42.7**	Quasi-Peak	**46.0**	**3.3**

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	9K77SBX	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-2000UB	TAKB401425B	MONITEREY INTERNATIONAL CORP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	M-UAE96	LZ751AP01L3	LOGITECH Inc.	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	SRP77008060035	BICSOLON	POWER USB	1.8 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

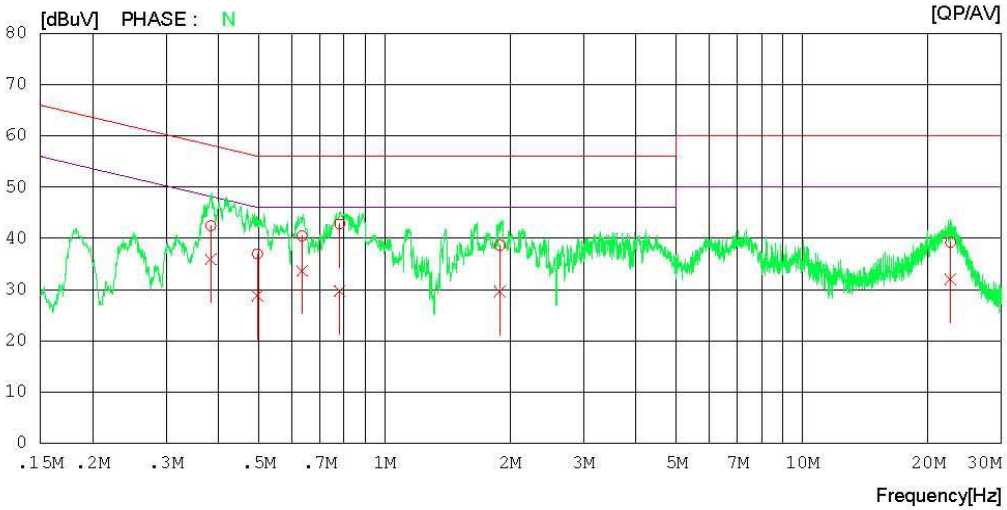
Results of Conducted Emission

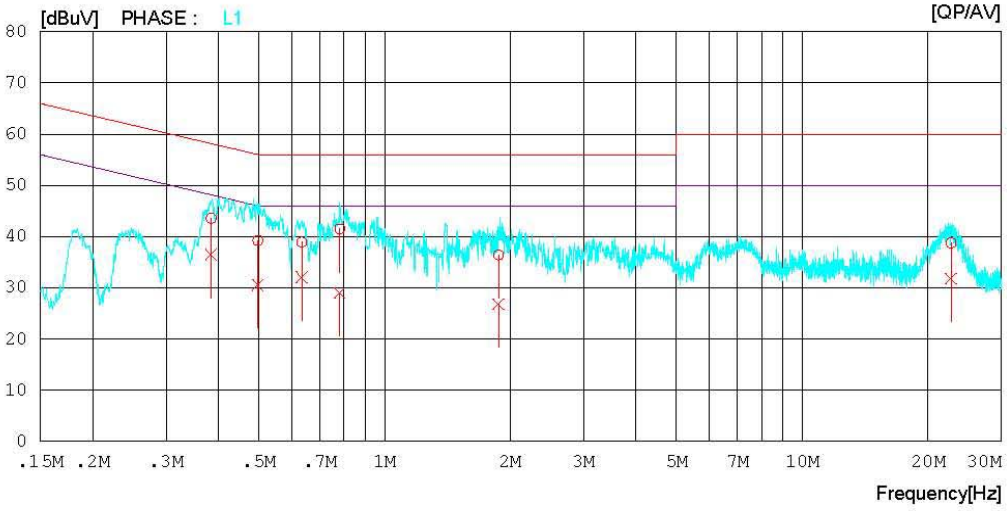
Digital EMC
Date : 2013-01-07

Model No.	:	60LN6150-UC	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	22 'C 41 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-01-07

Model No.	:	60LN6150-UC	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	22 'C 41 % 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	0.38406	42.2	35.7	0.2	42.4	35.9	58.2	48.2	15.8	12.3	N
2	0.49669	36.8	28.6	0.2	37.0	28.8	56.1	46.1	19.1	17.3	N
3	0.63489	40.3	33.5	0.2	40.5	33.7	56.0	46.0	15.5	12.3	N
4	0.78155	42.6	29.6	0.2	42.8	29.8	56.0	46.0	13.2	16.2	N
5	1.88850	38.3	29.3	0.3	38.6	29.6	56.0	46.0	17.4	16.4	N
6	22.65150	38.3	31.1	0.9	39.2	32.0	60.0	50.0	20.8	18.0	N
7	0.38470	43.4	36.3	0.2	43.6	36.5	58.2	48.2	14.6	11.7	L1
8	0.49744	39.1	30.4	0.2	39.3	30.6	56.0	46.0	16.7	15.4	L1
9	0.63373	38.7	31.9	0.2	38.9	32.1	56.0	46.0	17.1	13.9	L1
10	0.78150	41.3	28.8	0.2	41.5	29.0	56.0	46.0	14.5	17.0	L1
11	1.87550	36.1	26.5	0.3	36.4	26.8	56.0	46.0	19.6	19.2	L1
12	22.71550	37.8	30.8	1.0	38.8	31.8	60.0	50.0	21.2	18.2	L1

< USB MODE >

Digital EMC

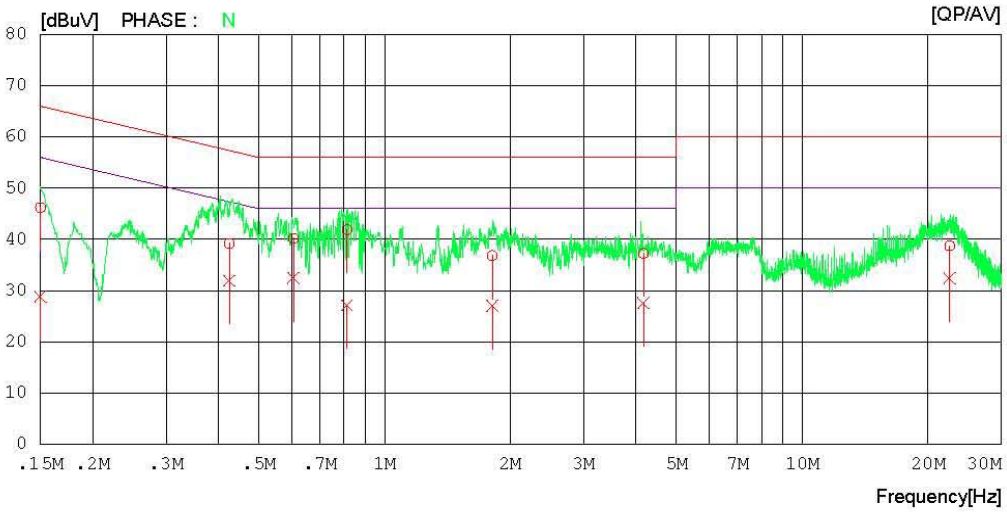
Results of Conducted Emission

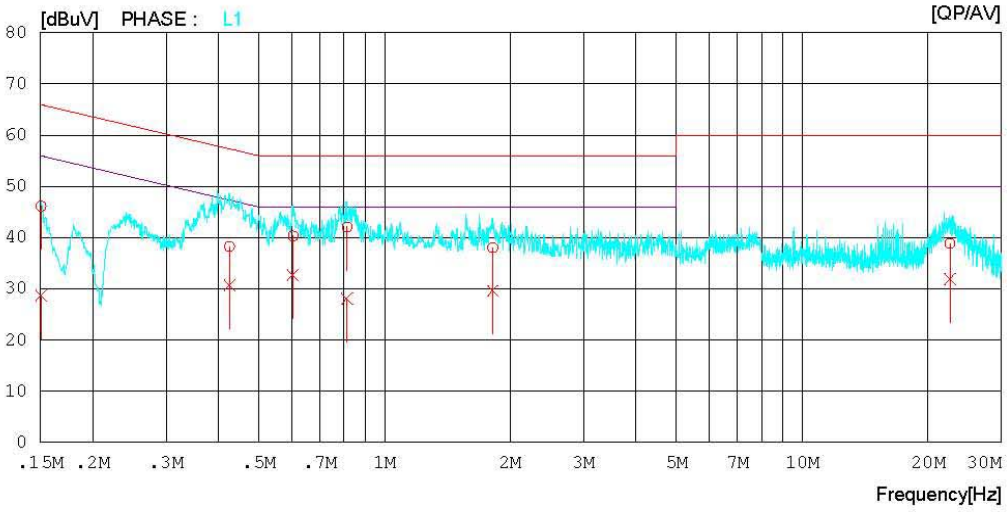
Digital EMC
Date : 2013-01-07

Model No.	:	60LN6150-UC	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	22 'C 41 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-01-07

Model No.	:	60LN6150-UC	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	22 'C 41 % R.H.
Test Condition	:	USB	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	0.15006	46.0	28.6	0.2	46.2	28.8	66.0	56.0	19.8	27.2	N
2	0.42466	39.0	31.7	0.2	39.2	31.9	57.4	47.4	18.2	15.5	N
3	0.60544	40.0	32.2	0.2	40.2	32.4	56.0	46.0	15.8	13.6	N
4	0.81359	41.7	26.9	0.2	41.9	27.1	56.0	46.0	14.1	18.9	N
5	1.81200	36.5	26.7	0.3	36.8	27.0	56.0	46.0	19.2	19.0	N
6	4.16800	36.9	27.3	0.3	37.2	27.6	56.0	46.0	18.8	18.4	N
7	22.55300	37.8	31.5	0.9	38.7	32.4	60.0	50.0	21.3	17.6	N
8	0.15061	45.9	28.6	0.2	46.1	28.8	66.0	56.0	19.9	27.2	L1
9	0.42583	38.0	30.5	0.2	38.2	30.7	57.3	47.3	19.1	16.6	L1
10	0.60446	40.1	32.5	0.2	40.3	32.7	56.0	46.0	15.7	13.3	L1
11	0.81399	41.9	27.9	0.2	42.1	28.1	56.0	46.0	13.9	17.9	L1
12	1.81750	37.7	29.4	0.3	38.0	29.7	56.0	46.0	18.0	16.3	L1
13	22.58050	38.0	31.0	0.9	38.9	31.9	60.0	50.0	21.1	18.1	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 >

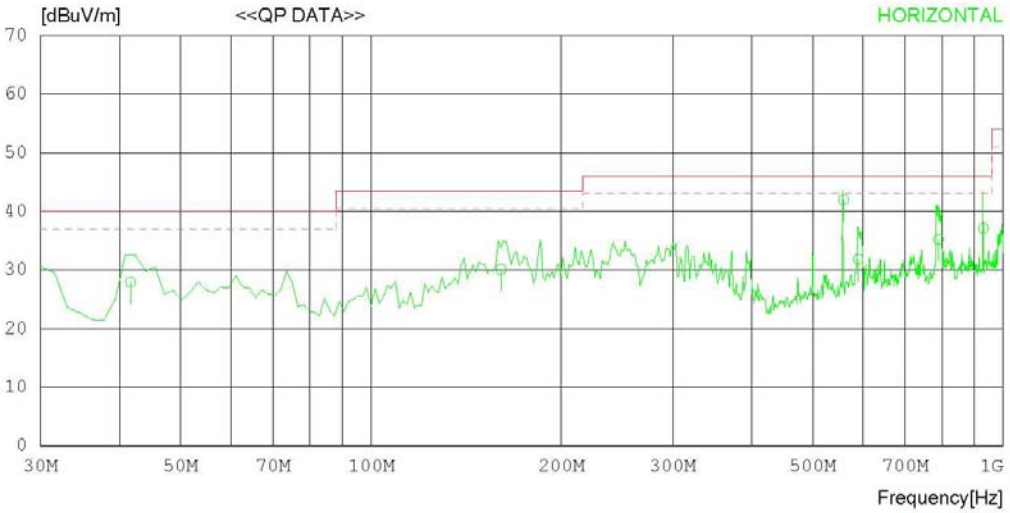
RADIATED EMISSION

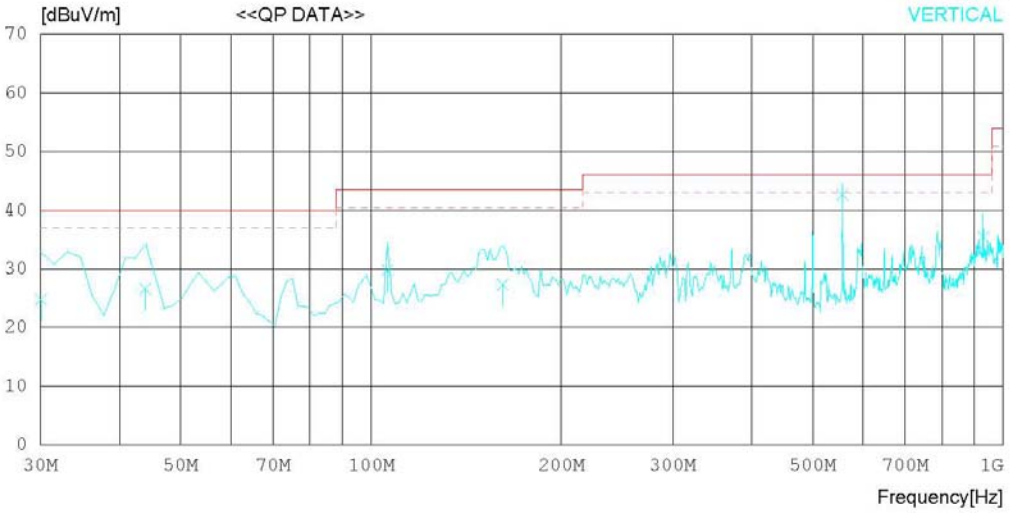
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	41.615	36.6	13.2	1.1	23.0	27.9	40.0	12.1	100	138
2	160.547	41.2	10.1	1.9	23.1	30.1	43.5	13.4	201	126
3	558.909	44.8	18.1	3.9	24.8	42.0	46.0	4.0	201	141
4	589.615	33.8	18.6	4.1	24.7	31.8	46.0	14.2	100	139
5	790.032	34.4	19.8	4.8	23.8	35.2	46.0	10.8	201	141
6	930.088	33.6	21.2	5.3	23.0	37.1	46.0	8.9	400	129
----- Vertical ------										
7	30.071	29.4	17.8	0.8	23.2	24.8	40.0	15.2	199	147
8	43.914	34.7	13.7	1.1	22.9	26.6	40.0	13.4	100	157
9	106.115	40.1	11.0	1.5	22.8	29.8	43.5	13.7	100	141
10	161.577	38.5	10.1	1.9	23.1	27.4	43.5	16.1	203	138
11	556.905	45.6	18.1	3.8	24.8	42.7	46.0	3.3	100	149
12	931.174	32.0	21.2	5.3	23.0	35.5	46.0	10.5	222	153

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

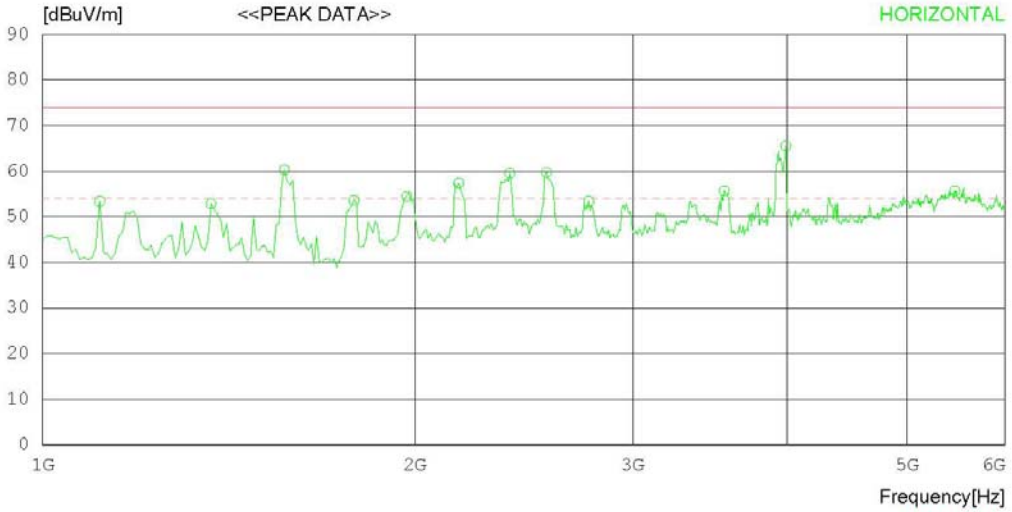
RADIATED EMISSION

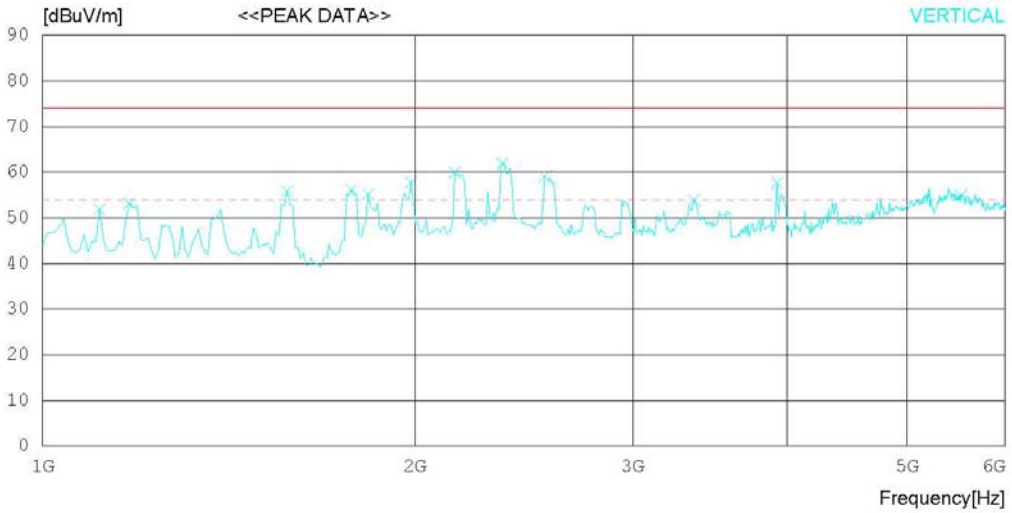
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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 : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	1112.179	51.8	24.0	6.1	28.5	53.4	74.0	20.6	100	1
2	1368.590	50.0	24.4	7.0	28.5	52.9	74.0	21.1	100	1
3	1568.910	56.6	24.6	7.6	28.5	60.3	74.0	13.7	100	1
4	1785.256	49.5	24.6	8.0	28.5	53.6	74.0	20.4	100	1
5	1969.551	50.0	24.6	8.4	28.5	54.5	74.0	19.5	100	228
6	2169.873	51.6	25.5	8.8	28.5	57.4	74.0	16.6	100	1
7	2386.223	51.9	26.8	9.3	28.5	59.5	74.0	14.5	100	212
8	2554.494	50.9	27.6	9.6	28.4	59.7	74.0	14.3	100	203
9	2762.831	43.5	28.3	10.0	28.4	53.4	74.0	20.6	100	1
10	3556.112	43.2	29.0	11.8	28.3	55.7	74.0	18.3	100	248
11	3988.811	50.8	30.1	12.9	28.3	65.5	74.0	8.5	100	1
12	5463.150	34.0	34.9	14.9	28.1	55.7	74.0	18.3	100	296
----- Vertical ------										
13	1112.179	50.3	24.0	6.1	28.5	51.9	74.0	22.1	100	242
14	1176.282	51.2	24.1	6.4	28.5	53.2	74.0	20.8	100	358
15	1576.923	52.1	24.6	7.6	28.5	55.8	74.0	18.2	100	163
16	1777.243	52.0	24.6	8.0	28.5	56.1	74.0	17.9	100	358
17	1833.333	51.0	24.6	8.1	28.5	55.2	74.0	18.8	100	358
18	1985.577	53.2	24.6	8.4	28.5	57.7	74.0	16.3	100	178
19	2153.847	54.3	25.4	8.8	28.5	60.0	74.0	14	100	203
20	2354.171	54.7	26.6	9.2	28.5	62.0	74.0	12	100	358
21	2546.481	50.3	27.6	9.6	28.4	59.1	74.0	14.9	100	197
22	3363.801	42.0	28.9	11.4	28.4	53.9	74.0	20.1	100	215
23	3924.707	43.2	30.0	12.8	28.3	57.7	74.0	16.3	100	193
24	5527.251	33.3	34.9	14.9	28.2	54.9	74.0	19.1	100	356

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

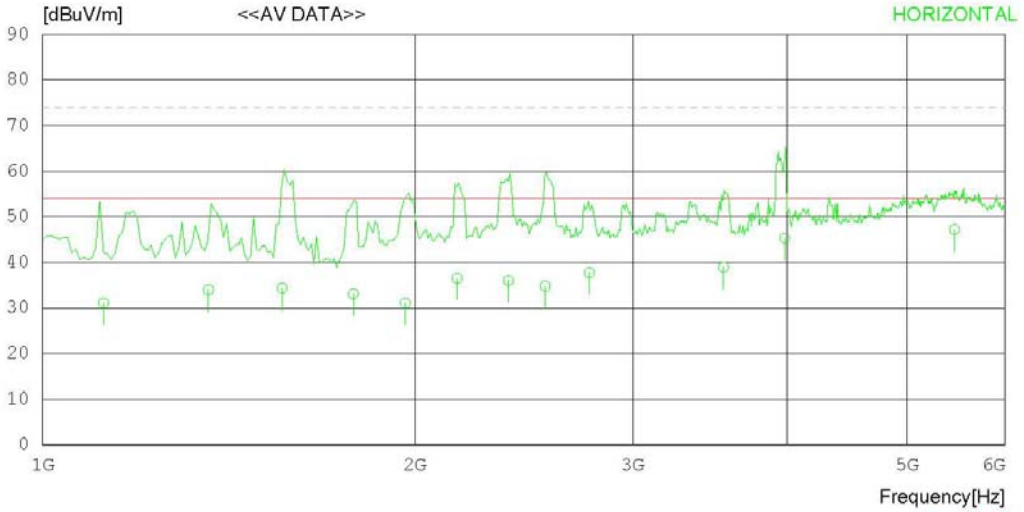
RADIATED EMISSION

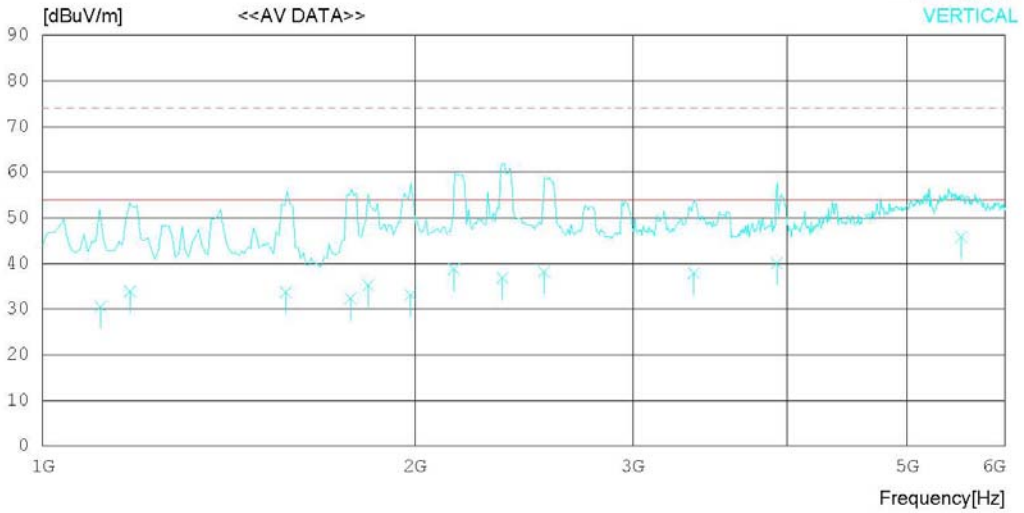
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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 : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	1120.136	29.3	24.1	6.2	28.5	31.1	54.0	22.9	100	134
2	1361.916	31.1	24.4	7.0	28.5	34.0	54.0	20.0	100	130
3	1561.848	30.7	24.6	7.6	28.5	34.4	54.0	19.6	100	142
4	1783.477	29.0	24.6	8.0	28.5	33.1	54.0	20.9	100	127
5	1964.179	26.6	24.6	8.4	28.5	31.1	54.0	22.9	100	122
6	2163.609	30.7	25.5	8.8	28.5	36.5	54.0	17.5	100	130
7	2380.274	28.4	26.8	9.3	28.5	36.0	54.0	18.0	100	122
8	2548.891	26.0	27.6	9.6	28.4	34.8	54.0	19.2	100	127
9	2766.958	27.7	28.3	10.1	28.4	37.7	54.0	16.3	100	151
10	3552.217	26.4	29.0	11.8	28.3	38.9	54.0	15.1	100	146
11	3980.135	30.6	30.1	12.9	28.3	45.3	54.0	8.7	100	150
12	5461.080	25.5	34.9	14.9	28.1	47.2	54.0	6.8	100	126
----- Vertical ------										
13	1114.810	28.9	24.0	6.1	28.5	30.5	54.0	23.5	100	138
14	1177.519	31.9	24.1	6.4	28.5	33.9	54.0	20.1	100	122
15	1573.629	30.0	24.6	7.6	28.5	33.7	54.0	20.3	100	139
16	1774.117	28.2	24.6	8.0	28.5	32.3	54.0	21.7	100	134
17	1834.199	31.1	24.6	8.1	28.5	35.3	54.0	18.7	100	141
18	1984.505	28.6	24.6	8.4	28.5	33.1	54.0	20.9	100	136
19	2151.418	33.1	25.4	8.8	28.5	38.8	54.0	15.2	100	142
20	2353.600	29.6	26.6	9.2	28.5	36.9	54.0	17.1	100	148
21	2544.156	29.4	27.6	9.6	28.4	38.2	54.0	15.8	100	139
22	3361.007	26.0	28.9	11.4	28.4	37.9	54.0	16.1	100	139
23	3921.519	25.7	30.0	12.7	28.3	40.1	54.0	13.9	100	141
24	5530.849	24.2	34.9	14.9	28.2	45.8	54.0	8.2	100	142

< USB MODE_30 MHz ~ 1 GHz >

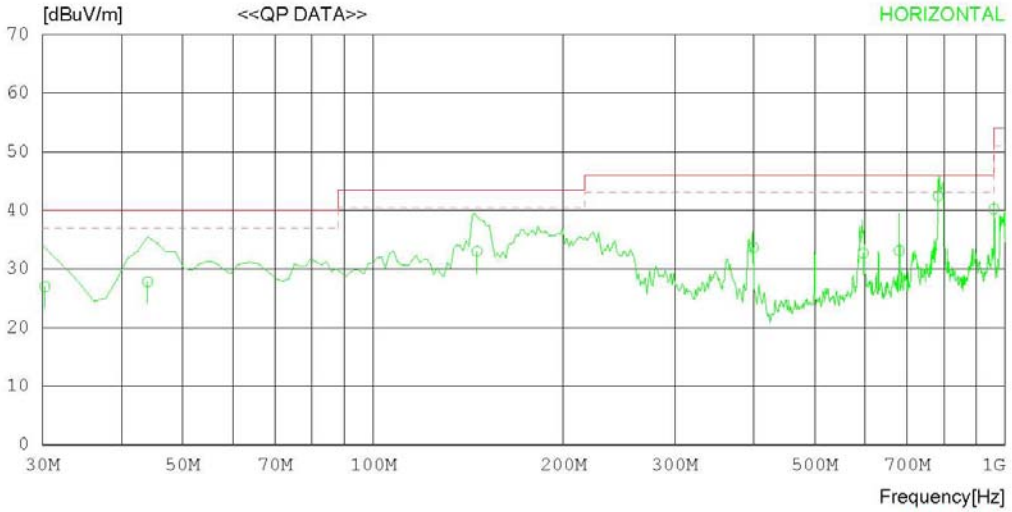
RADIATED EMISSION

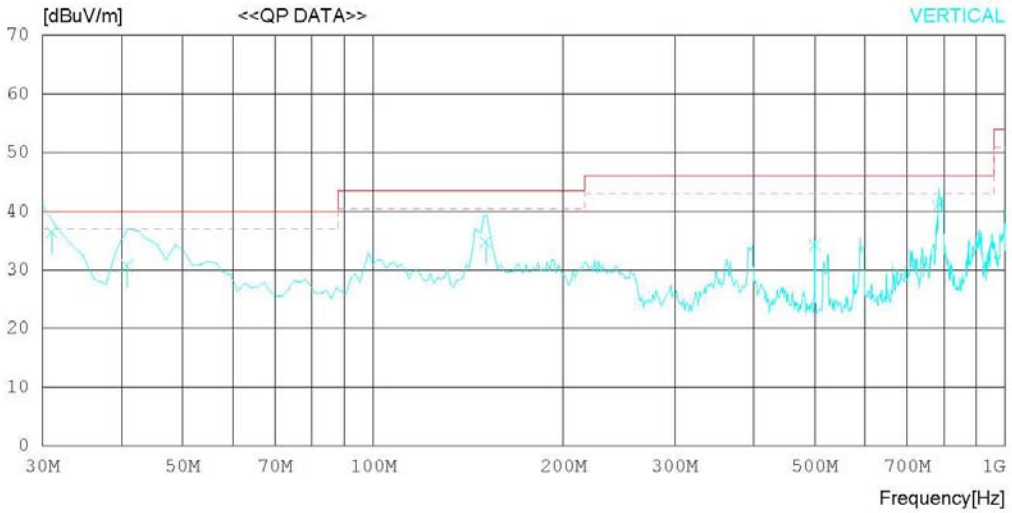
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	30.246	31.6	17.7	0.9	23.2	27.0	40.0	13.0	400	149
2	43.991	35.9	13.7	1.1	22.9	27.8	40.0	12.2	400	136
3	146.011	43.8	10.6	1.7	23.1	33.0	43.5	10.5	199	147
4	399.518	38.6	16.0	3.5	24.5	33.6	46.0	12.4	199	153
5	596.278	34.7	18.6	4.1	24.7	32.7	46.0	13.3	100	149
6	680.165	34.4	18.6	4.5	24.4	33.1	46.0	12.9	100	133
7	783.269	41.8	19.7	4.8	23.9	42.4	46.0	3.6	100	140
8	960.026	36.1	21.7	5.4	23.0	40.2	54.0	13.8	100	132
----- Vertical ------										
9	31.009	41.4	17.3	0.9	23.2	36.4	40.0	3.6	201	147
10	40.814	39.7	13.0	1.1	23.0	30.8	40.0	9.2	100	150
11	150.641	45.7	10.4	1.8	23.1	34.8	43.5	8.7	100	134
12	500.000	37.7	17.3	3.9	24.7	34.2	46.0	11.8	100	148
13	782.195	40.3	19.7	4.8	23.9	40.9	46.0	5.1	100	142

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

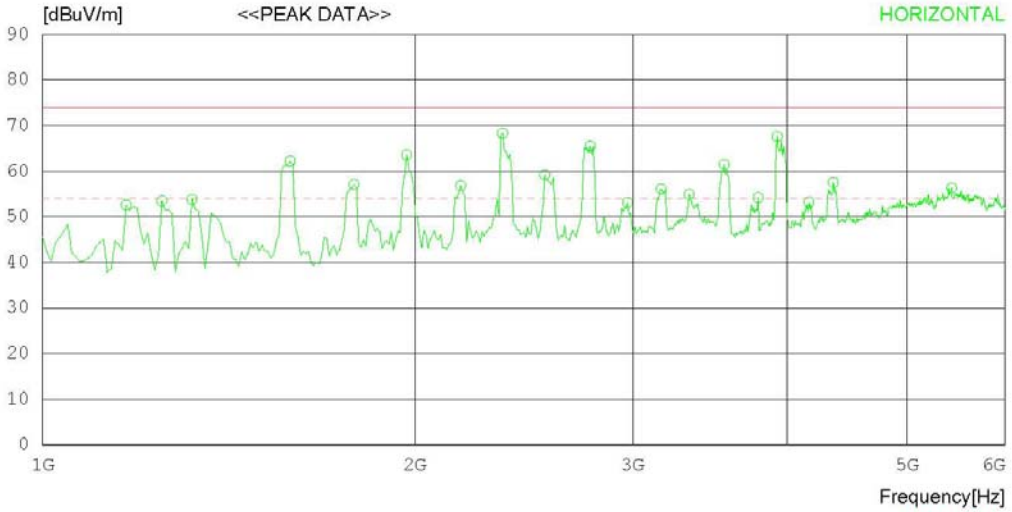
RADIATED EMISSION

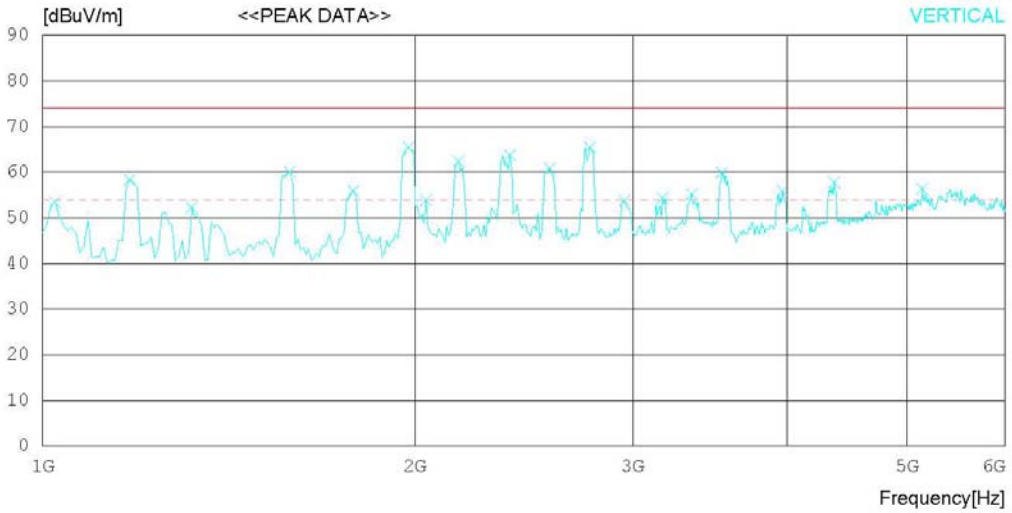
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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 : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	1168.269	50.7	24.1	6.3	28.5	52.6	74.0	21.4	100	173
2	1248.397	51.1	24.3	6.6	28.5	53.5	74.0	20.5	100	1
3	1320.513	51.0	24.4	6.9	28.5	53.8	74.0	20.2	100	1
4	1584.936	58.4	24.6	7.7	28.5	62.2	74.0	11.8	100	173
5	1785.256	53.0	24.6	8.0	28.5	57.1	74.0	16.9	100	1
6	1969.551	59.1	24.6	8.4	28.5	63.6	74.0	10.4	100	1
7	2177.886	50.9	25.6	8.8	28.5	56.8	74.0	17.2	100	1
8	2354.171	61.0	26.6	9.2	28.5	68.3	74.0	5.7	100	203
9	2546.481	50.4	27.6	9.6	28.4	59.2	74.0	14.8	100	172
10	2770.844	55.5	28.3	10.1	28.4	65.5	74.0	8.5	100	1
11	2971.167	42.1	28.9	10.5	28.4	53.1	74.0	20.9	100	210
12	3163.478	44.7	28.9	10.9	28.4	56.1	74.0	17.9	100	1
13	3331.750	43.1	28.9	11.3	28.4	54.9	74.0	19.1	100	192
14	3556.112	49.0	29.0	11.8	28.3	61.5	74.0	12.5	100	208
15	3788.487	40.5	29.6	12.4	28.3	54.2	74.0	19.8	100	192
16	3924.707	53.1	30.0	12.8	28.3	67.6	74.0	6.4	100	208
17	4165.093	38.0	30.4	13.1	28.3	53.2	74.0	20.8	100	192
18	4357.398	41.7	30.7	13.3	28.2	57.5	74.0	16.5	100	208
19	5431.099	34.8	34.7	14.9	28.1	56.3	74.0	17.7	100	216
----- Vertical ------										
20	1024.038	52.2	23.9	5.8	28.5	53.4	74.0	20.6	100	195
21	1176.282	56.4	24.1	6.4	28.5	58.4	74.0	15.6	100	185
22	1320.513	49.5	24.4	6.9	28.5	52.3	74.0	21.7	100	195
23	1584.936	56.3	24.6	7.7	28.5	60.1	74.0	13.9	100	358
24	1785.256	51.8	24.6	8.0	28.5	55.9	74.0	18.1	100	229
25	1977.564	61.0	24.6	8.4	28.5	65.5	74.0	8.5	100	219
26	2041.666	49.1	24.8	8.5	28.5	53.9	74.0	20.1	100	358
27	2169.873	56.6	25.5	8.8	28.5	62.4	74.0	11.6	100	197
28	2386.223	56.1	26.8	9.3	28.5	63.7	74.0	10.3	100	358
29	2570.520	51.8	27.7	9.7	28.4	60.8	74.0	13.2	100	181
30	2770.844	55.5	28.3	10.1	28.4	65.5	74.0	8.5	100	239
31	2955.141	43.0	28.8	10.4	28.4	53.8	74.0	20.2	100	189
32	3171.491	43.0	28.9	10.9	28.4	54.4	74.0	19.6	100	199
33	3347.775	43.4	28.9	11.3	28.4	55.2	74.0	18.8	100	232
34	3540.086	47.4	29.0	11.8	28.3	59.9	74.0	14.1	100	241
35	3964.772	41.3	30.1	12.9	28.3	56.0	74.0	18	100	358
36	4365.411	42.0	30.7	13.3	28.2	57.8	74.0	16.2	100	178
37	5142.642	36.0	33.2	15.3	28.1	56.4	74.0	17.6	100	358

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

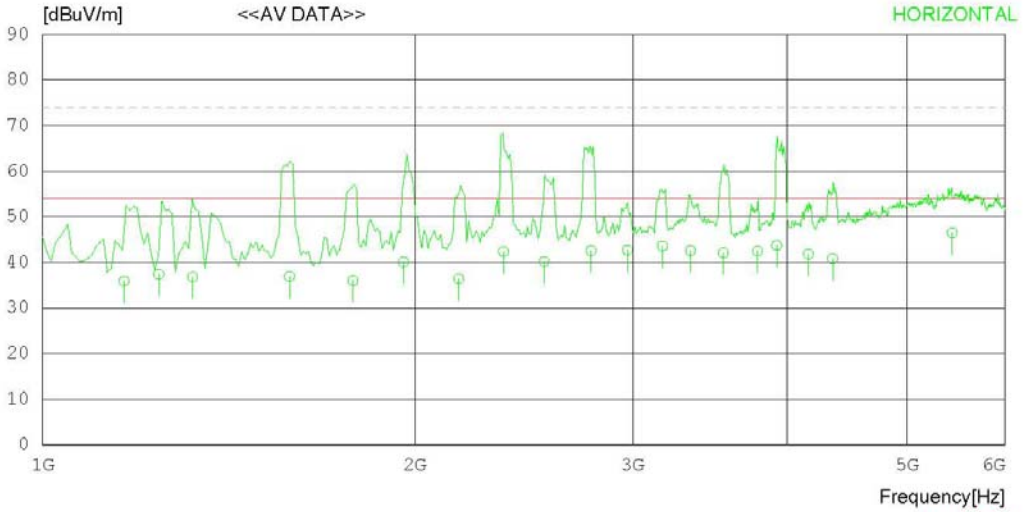
RADIATED EMISSION

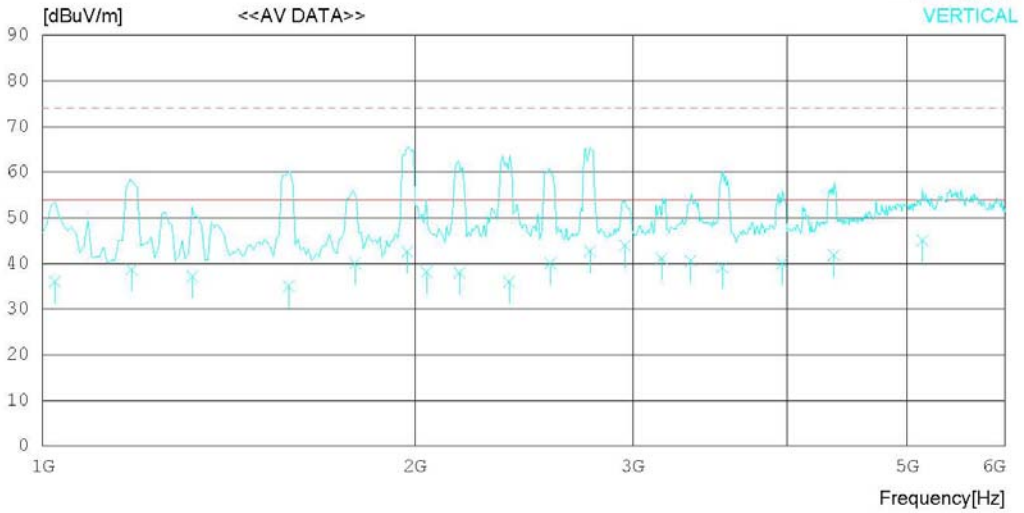
Date : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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 : 2013-01-09

Model Name	:	60LN6150-UC	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 40 % 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	1164.158	34.0	24.1	6.3	28.5	35.9	54.0	18.1	100	126
2	1241.528	35.1	24.2	6.6	28.5	37.4	54.0	16.6	100	118
3	1322.695	34.0	24.4	6.9	28.5	36.8	54.0	17.2	100	143
4	1583.369	33.1	24.6	7.7	28.5	36.9	54.0	17.1	100	150
5	1782.154	31.9	24.6	8.0	28.5	36.0	54.0	18.0	100	149
6	1957.159	35.6	24.6	8.4	28.5	40.1	54.0	13.9	100	124
7	2170.626	30.6	25.5	8.8	28.5	36.4	54.0	17.6	100	144
8	2358.202	35.1	26.6	9.2	28.5	42.4	54.0	11.6	100	155
9	2544.117	31.4	27.6	9.6	28.4	40.2	54.0	13.8	100	132
10	2776.847	32.6	28.3	10.1	28.4	42.6	54.0	11.4	100	127
11	2970.071	31.7	28.9	10.5	28.4	42.7	54.0	11.3	100	144
12	3169.507	32.2	28.9	10.9	28.4	43.6	54.0	10.4	100	149
13	3340.158	30.8	28.9	11.3	28.4	42.6	54.0	11.4	100	144
14	3551.099	29.6	29.0	11.8	28.3	42.1	54.0	11.9	100	119
15	3784.169	28.8	29.6	12.4	28.3	42.5	54.0	11.5	100	141
16	3921.484	29.3	30.0	12.7	28.3	43.7	54.0	10.3	100	133
17	4160.319	26.6	30.4	13.1	28.3	41.8	54.0	12.2	100	121
18	4351.544	25.0	30.7	13.3	28.2	40.8	54.0	13.2	100	130
19	5436.771	25.0	34.7	14.9	28.1	46.5	54.0	7.5	100	149
----- Vertical ------										
20	1023.519	34.8	23.9	5.8	28.5	36.0	54.0	18.0	100	131
21	1180.136	36.6	24.2	6.4	28.5	38.7	54.0	15.3	100	147
22	1322.159	34.4	24.4	6.9	28.5	37.2	54.0	16.8	100	136
23	1581.658	31.2	24.6	7.7	28.5	35.0	54.0	19.0	100	137
24	1789.158	36.0	24.6	8.0	28.5	40.1	54.0	13.9	100	131
25	1970.968	38.1	24.6	8.4	28.5	42.6	54.0	11.4	100	135
26	2043.581	33.4	24.8	8.5	28.5	38.2	54.0	15.8	100	139
27	2171.518	32.2	25.5	8.8	28.5	38.0	54.0	16.0	100	147
28	2383.592	28.4	26.8	9.3	28.5	36.0	54.0	18.0	100	138
29	2573.956	31.1	27.7	9.7	28.4	40.1	54.0	13.9	100	129
30	2771.158	32.7	28.3	10.1	28.4	42.7	54.0	11.3	100	130
31	2958.215	33.0	28.9	10.4	28.4	43.9	54.0	10.1	100	132
32	3164.800	29.7	28.9	10.9	28.4	41.1	54.0	12.9	100	136
33	3341.228	28.8	28.9	11.3	28.4	40.6	54.0	13.4	100	139
34	3544.151	26.7	29.0	11.8	28.3	39.2	54.0	14.8	100	157
35	3963.269	25.5	30.1	12.8	28.3	40.1	54.0	13.9	100	128
36	4361.484	26.0	30.7	13.3	28.2	41.8	54.0	12.2	100	125
37	5146.338	24.6	33.2	15.3	28.1	45.0	54.0	9.0	100	130

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-100M18-B01-25	TSJ	1719458	2012.06.04	2013.06.04
☐	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