

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 50LN5700-UH
Order No. : 1212-03055
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.

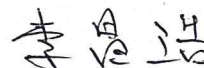
This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:

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.digitalemccom>

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.	50LN5700-UH
Add Model No.	None
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ50LN5700UH
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 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	01-07	22	41
Radiated Disturbance	01-09	20	40

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15000	L1	55.0	Quasi-Peak	66.0	11.0

(2) Radiated Emission (USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
3972.785	H	68.5	Peak	74.0	5.5

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	1.8		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	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 >



Results of Conducted Emission

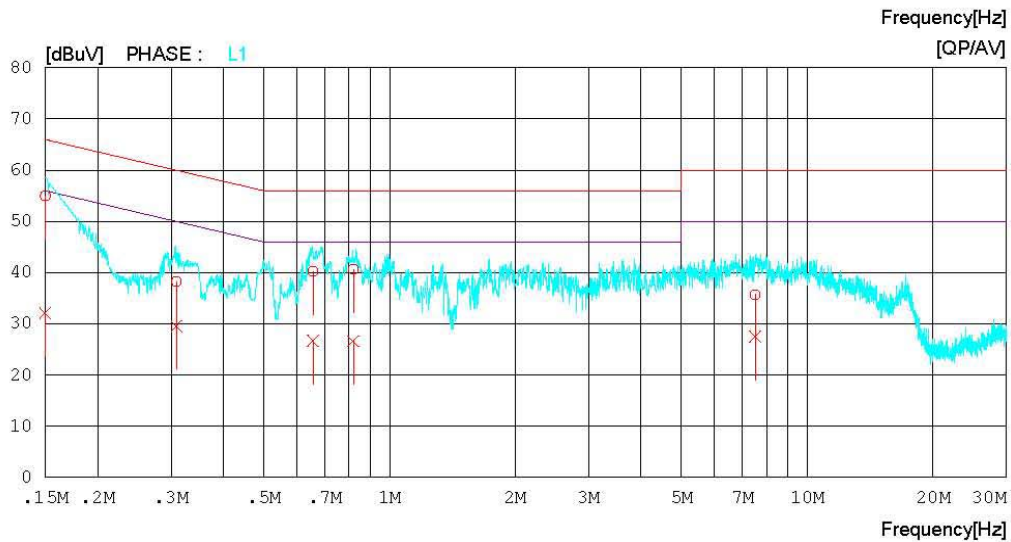
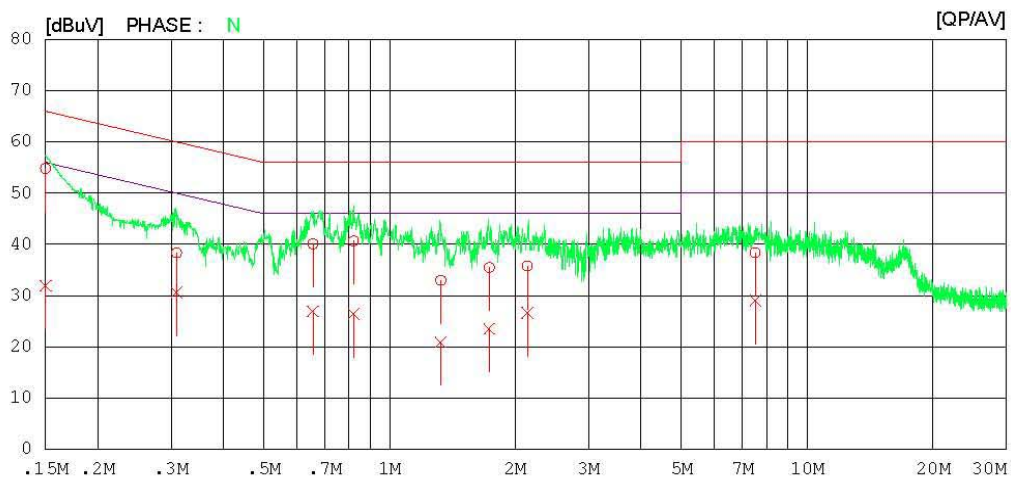
Digital EMC
Date : 2013-01-07

Model No. : 50LN5700-UH
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22°C 41 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-07

Model No. : 50LN5700-UH
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22 °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	0.15012	54.6	31.7	0.2	54.8	31.9	66.0	56.0	11.2	24.1	N
2	0.30950	38.1	30.4	0.2	38.3	30.6	60.0	50.0	21.7	19.4	N
3	0.65574	39.9	26.8	0.2	40.1	27.0	56.0	46.0	15.9	19.0	N
4	0.82000	40.4	26.2	0.2	40.6	26.4	56.0	46.0	15.4	19.6	N
5	1.32750	32.7	20.6	0.3	33.0	20.9	56.0	46.0	23.0	25.1	N
6	1.73400	35.2	23.2	0.3	35.5	23.5	56.0	46.0	20.5	22.5	N
7	2.13900	35.5	26.3	0.3	35.8	26.6	56.0	46.0	20.2	19.4	N
8	7.51200	37.9	28.5	0.5	38.4	29.0	60.0	50.0	21.6	21.0	N
9	0.15000	54.8	31.9	0.2	55.0	32.1	66.0	56.0	11.0	23.9	L1
10	0.30915	38.1	29.4	0.2	38.3	29.6	60.0	50.0	21.7	20.4	L1
11	0.65603	40.1	26.5	0.2	40.3	26.7	56.0	46.0	15.7	19.3	L1
12	0.81901	40.5	26.4	0.2	40.7	26.6	56.0	46.0	15.3	19.4	L1
13	7.50750	35.2	27.0	0.5	35.7	27.5	60.0	50.0	24.3	22.5	L1

< USB MODE >



Results of Conducted Emission

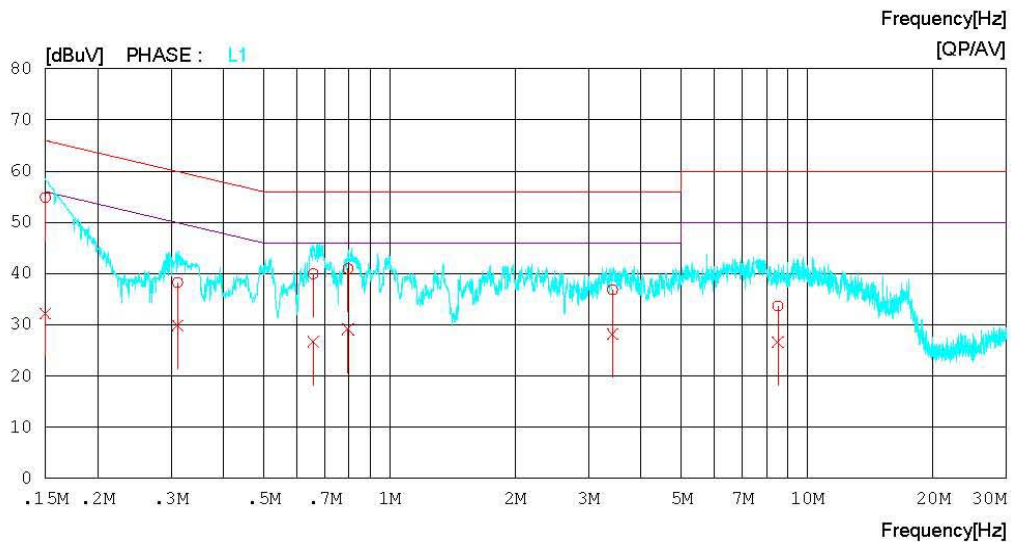
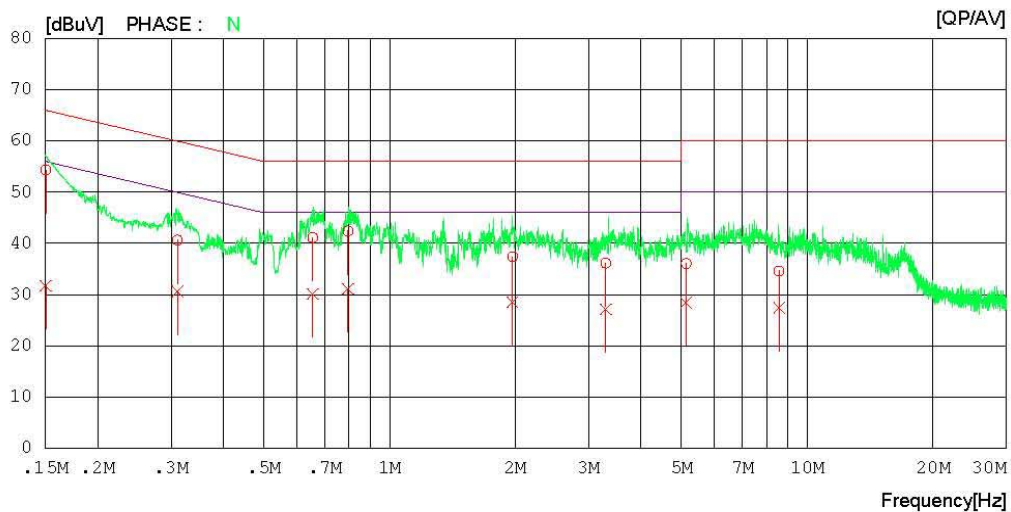
Digital EMC
Date : 2013-01-07

Model No. : 50LN5700-UH
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22°C 41 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-07

Model No. : 50LN5700-UH
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22 °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	0.15037	54.1	31.5	0.2	54.3	31.7	66.0	56.0	11.7	24.3	N
2	0.31080	40.4	30.4	0.2	40.6	30.6	59.9	49.9	19.3	19.3	N
3	0.65501	40.9	29.9	0.2	41.1	30.1	56.0	46.0	14.9	15.9	N
4	0.79555	42.2	30.9	0.2	42.4	31.1	56.0	46.0	13.6	14.9	N
5	1.97050	37.1	28.2	0.3	37.4	28.5	56.0	46.0	18.6	17.5	N
6	3.29500	35.8	26.8	0.3	36.1	27.1	56.0	46.0	19.9	18.9	N
7	5.13150	35.7	28.1	0.4	36.1	28.5	60.0	50.0	23.9	21.5	N
8	8.56450	33.9	26.7	0.7	34.6	27.4	60.0	50.0	25.4	22.6	N
9	0.15000	54.7	32.0	0.2	54.9	32.2	66.0	56.0	11.1	23.8	L1
10	0.31104	38.1	29.6	0.2	38.3	29.8	59.9	49.9	21.6	20.1	L1
11	0.65710	39.8	26.5	0.2	40.0	26.7	56.0	46.0	16.0	19.3	L1
12	0.79550	40.8	28.9	0.2	41.0	29.1	56.0	46.0	15.0	16.9	L1
13	3.42000	36.5	27.9	0.3	36.8	28.2	56.0	46.0	19.2	17.8	L1
14	8.51150	32.9	26.0	0.7	33.6	26.7	60.0	50.0	26.4	23.3	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 (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

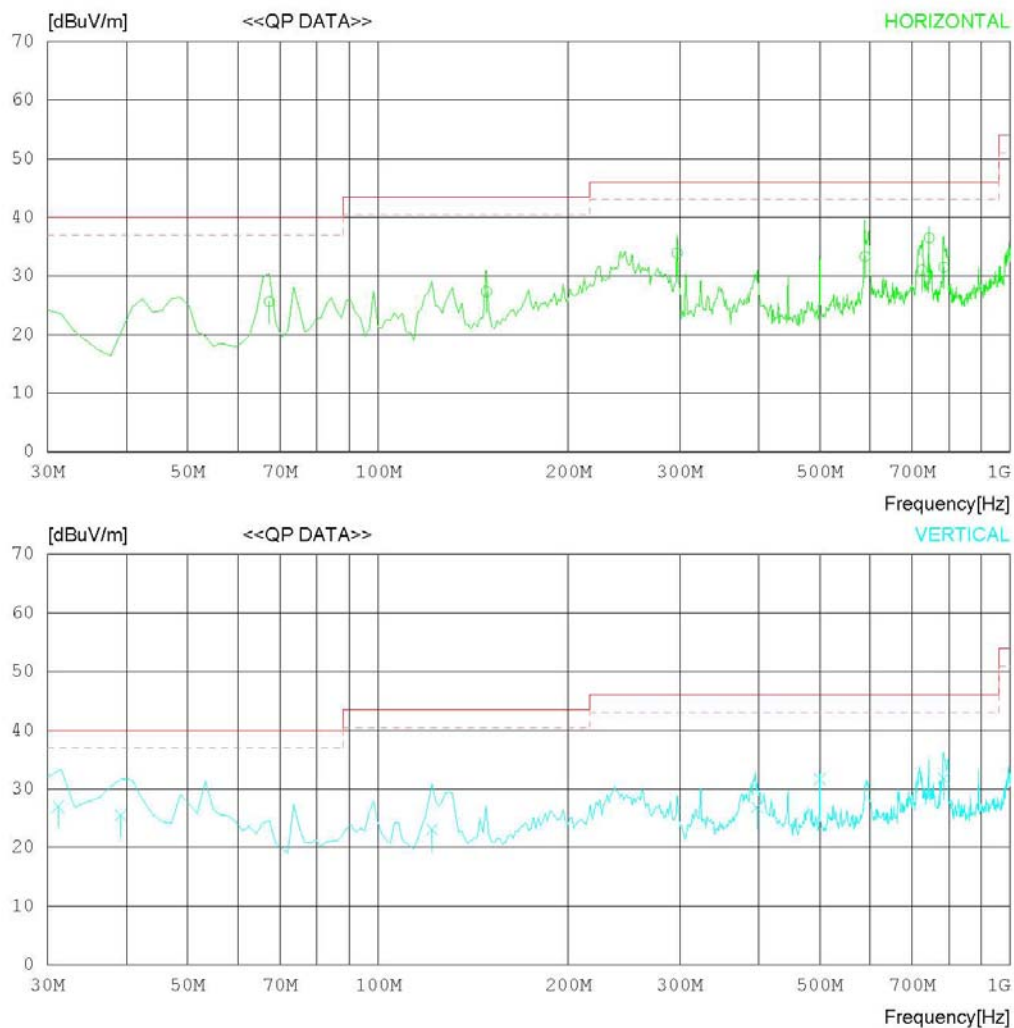
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-09

Model Name : 50LN5700-UH	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	67.314	40.6	6.1	1.6	22.7	25.6	40.0	14.4	400	123
2	148.487	38.2	10.5	1.7	23.1	27.3	43.5	16.2	201	137
3	297.372	41.3	13.7	2.8	23.9	33.9	46.0	12.1	100	144
4	589.060	35.3	18.6	4.1	24.7	33.3	46.0	12.7	100	134
5	725.385	31.6	18.9	4.6	24.1	31.0	46.0	15.0	100	146
6	744.581	36.7	19.2	4.6	24.0	36.5	46.0	9.5	201	132
7	785.013	30.8	19.8	4.8	23.9	31.5	46.0	14.5	201	119
----- Vertical -----										
8	31.206	32.1	17.2	0.9	23.2	27.0	40.0	13.0	100	151
9	39.150	34.1	13.3	1.1	23.0	25.5	40.0	14.5	220	139
10	121.774	32.7	11.7	1.6	22.9	23.1	43.5	20.4	100	146
11	397.552	31.9	16.0	3.5	24.5	26.9	46.0	19.1	100	198
12	499.958	35.2	17.3	3.9	24.7	31.7	46.0	14.3	199	157
13	785.069	31.1	19.8	4.8	23.9	31.8	46.0	14.2	100	124

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

RADIATED EMISSION

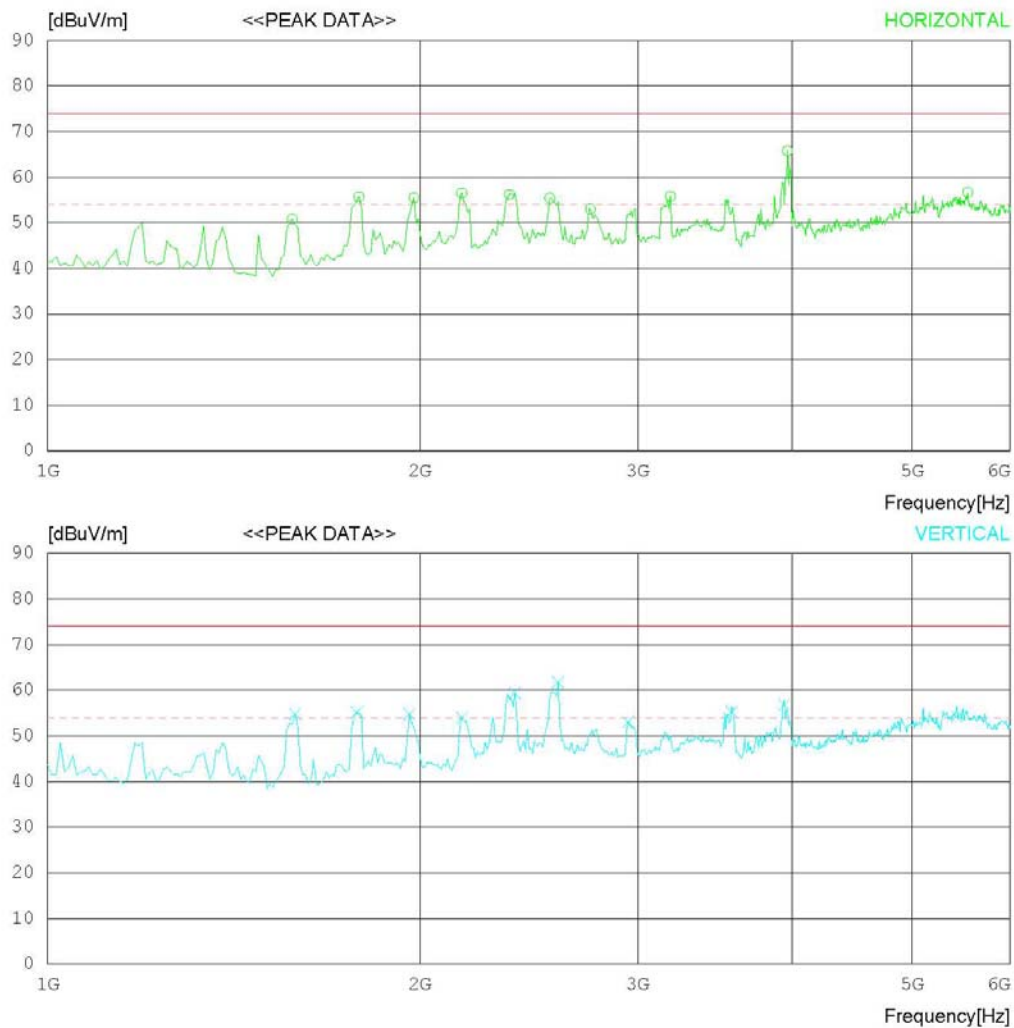
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % 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 : 2013-01-09

Model Name : 50LN5700-UH	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	1576.923	47.1	24.6	7.6	28.5	50.8	74.0	23.2	100	358
2	1785.256	51.6	24.6	8.0	28.5	55.7	74.0	18.3	100	358
3	1977.564	51.0	24.6	8.4	28.5	55.5	74.0	18.5	100	197
4	2161.860	50.7	25.5	8.8	28.5	56.5	74.0	17.5	100	358
5	2362.184	48.8	26.7	9.2	28.5	56.2	74.0	17.8	100	358
6	2546.481	46.6	27.6	9.6	28.4	55.4	74.0	18.6	100	215
7	2746.805	43.2	28.2	10.0	28.4	53.0	74.0	21	100	199
8	3187.517	44.3	28.9	11.0	28.4	55.8	74.0	18.2	100	232
9	3964.772	51.2	30.1	12.8	28.3	65.8	74.0	8.2	100	201
10	5543.277	35.1	34.8	14.9	28.1	56.7	74.0	17.3	100	358
----- Vertical -----										
11	1584.936	51.0	24.6	7.7	28.5	54.8	74.0	19.2	100	1
12	1777.243	51.0	24.6	8.0	28.5	55.1	74.0	18.9	100	195
13	1961.538	50.3	24.6	8.4	28.5	54.8	74.0	19.2	100	1
14	2161.860	48.2	25.5	8.8	28.5	54.0	74.0	20	100	1
15	2386.223	51.8	26.8	9.3	28.5	59.4	74.0	14.6	100	1
16	2586.546	52.8	27.7	9.7	28.4	61.8	74.0	12.2	100	1
17	2947.128	42.3	28.8	10.4	28.4	53.1	74.0	20.9	100	1
18	3572.138	43.6	29.1	11.0	28.4	55.3	74.0	18.7	100	215
19	3940.733	43.2	30.0	11.9	28.3	56.8	74.0	17.2	100	208
20	5431.099	35.0	34.7	12.9	28.3	54.3	74.0	19.7	100	230

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

RADIATED EMISSION

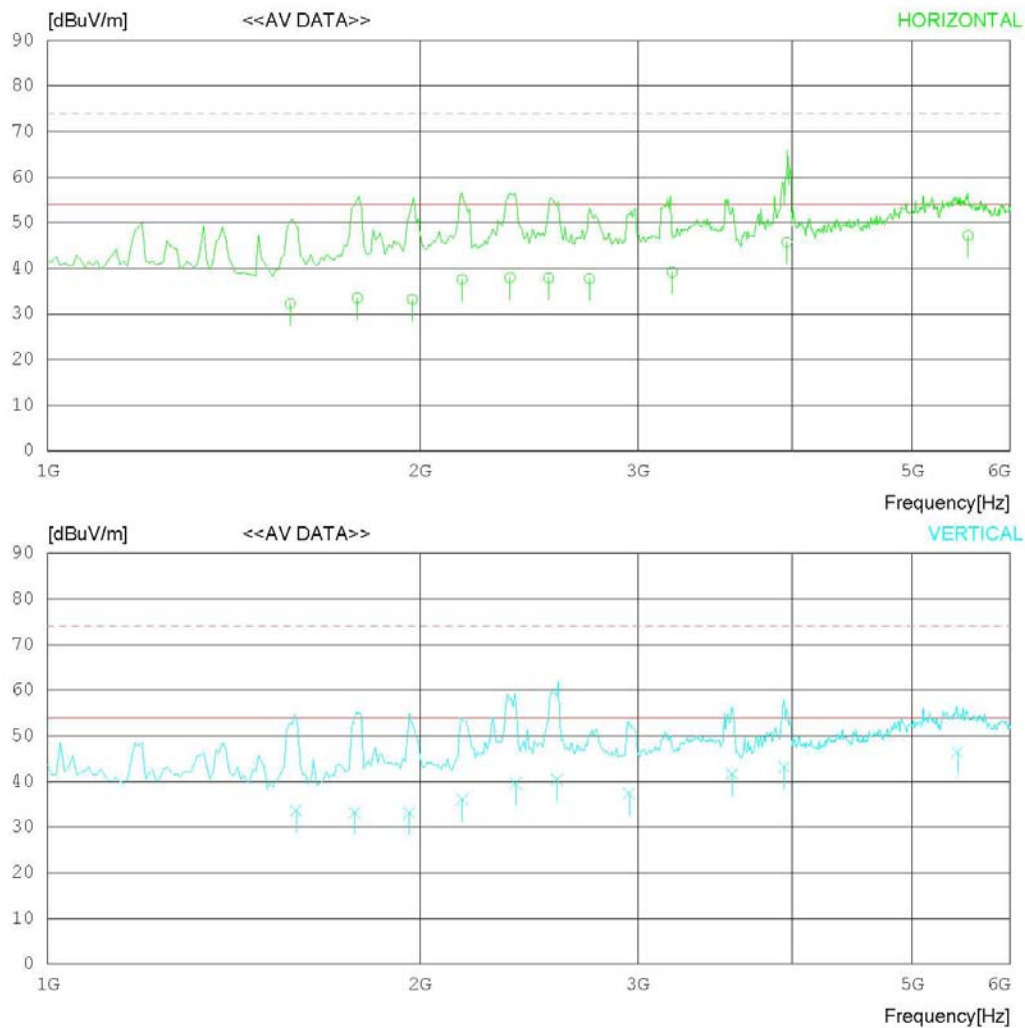
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % 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 : 2013-01-09

Model Name : 50LN5700-UH	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	1571.147	28.6	24.6	7.6	28.5	32.3	54.0	21.7	100	141
2	1780.362	29.4	24.6	8.0	28.5	33.5	54.0	20.5	100	126
3	1971.474	28.7	24.6	8.4	28.5	33.2	54.0	20.8	100	136
4	2163.699	31.8	25.5	8.8	28.5	37.6	54.0	16.4	100	142
5	2364.520	30.6	26.7	9.2	28.5	38.0	54.0	16.0	100	128
6	2542.011	29.1	27.6	9.6	28.4	37.9	54.0	16.1	100	147
7	2741.749	28.0	28.2	10.0	28.4	37.8	54.0	16.2	100	122
8	3199.504	27.7	28.9	11.0	28.4	39.2	54.0	14.8	100	139
9	3960.177	31.2	30.0	12.8	28.3	45.7	54.0	8.3	100	136
10	5548.507	25.7	34.8	14.9	28.2	47.2	54.0	6.8	100	141
----- Vertical -----										
11	1588.512	29.8	24.6	7.7	28.5	33.6	54.0	20.4	100	138
12	1771.528	29.1	24.6	8.0	28.5	33.2	54.0	20.8	100	139
13	1960.639	28.6	24.6	8.4	28.5	33.1	54.0	20.9	100	144
14	2164.842	30.2	25.5	8.8	28.5	36.0	54.0	18.0	100	135
15	2389.369	32.0	26.8	9.3	28.5	39.6	54.0	14.4	100	139
16	2580.036	31.4	27.7	9.7	28.4	40.4	54.0	13.6	100	150
17	2951.274	26.6	28.8	10.4	28.4	37.4	54.0	16.6	100	142
18	3577.202	28.9	29.1	11.9	28.3	41.6	54.0	12.4	100	148
19	3941.269	28.7	30.0	12.8	28.3	43.2	54.0	10.8	100	138
20	5438.233	24.9	34.8	14.9	28.1	46.5	54.0	7.5	100	129

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

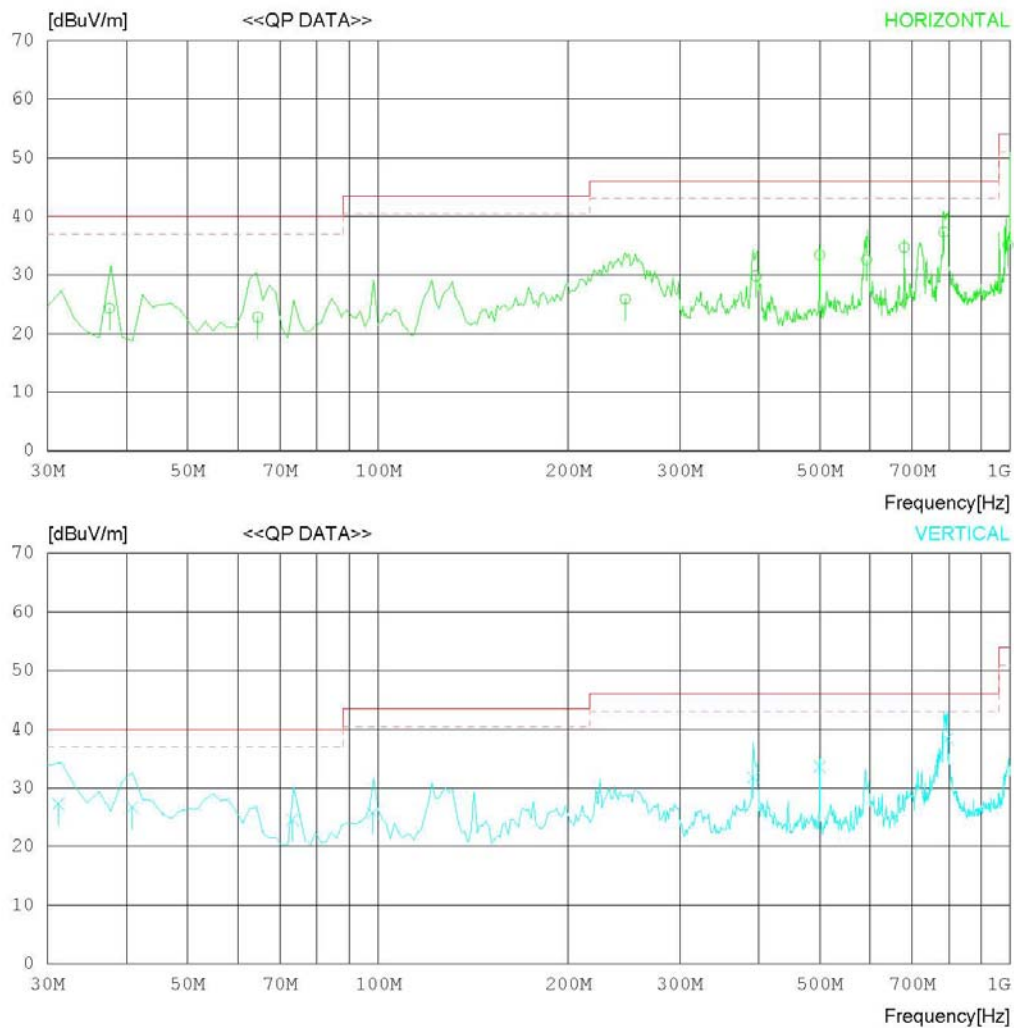
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % R.H.
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	37.613	32.2	14.0	1.1	23.0	24.3	40.0	15.7	201	133
2	64.471	38.2	5.8	1.5	22.7	22.8	40.0	17.2	301	151
3	246.147	34.4	12.5	2.6	23.6	25.9	46.0	20.1	100	126
4	396.195	34.8	16.0	3.5	24.5	29.8	46.0	16.2	201	148
5	499.718	36.9	17.3	3.9	24.7	33.4	46.0	12.6	201	140
6	592.519	34.6	18.6	4.1	24.7	32.6	46.0	13.4	100	130
7	680.077	36.0	18.6	4.5	24.4	34.7	46.0	11.3	100	137
8	785.927	36.6	19.8	4.8	23.9	37.3	46.0	8.7	400	122
9	991.505	30.6	22.1	5.4	23.0	35.1	54.0	18.9	201	152
----- Vertical -----										
10	31.205	32.4	17.2	0.9	23.2	27.3	40.0	12.7	100	133
11	40.842	35.6	13.0	1.1	23.0	26.7	40.0	13.3	100	141
12	73.158	39.1	6.6	1.7	22.8	24.6	40.0	15.4	400	151
13	98.158	36.8	10.4	1.4	22.8	25.8	43.5	17.7	100	136
14	392.295	36.8	15.9	3.5	24.4	31.8	46.0	14.2	100	143
15	499.958	37.1	17.3	3.9	24.7	33.6	46.0	12.4	220	138
16	795.369	37.5	19.9	4.8	23.8	38.4	46.0	7.6	100	150

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

RADIATED EMISSION

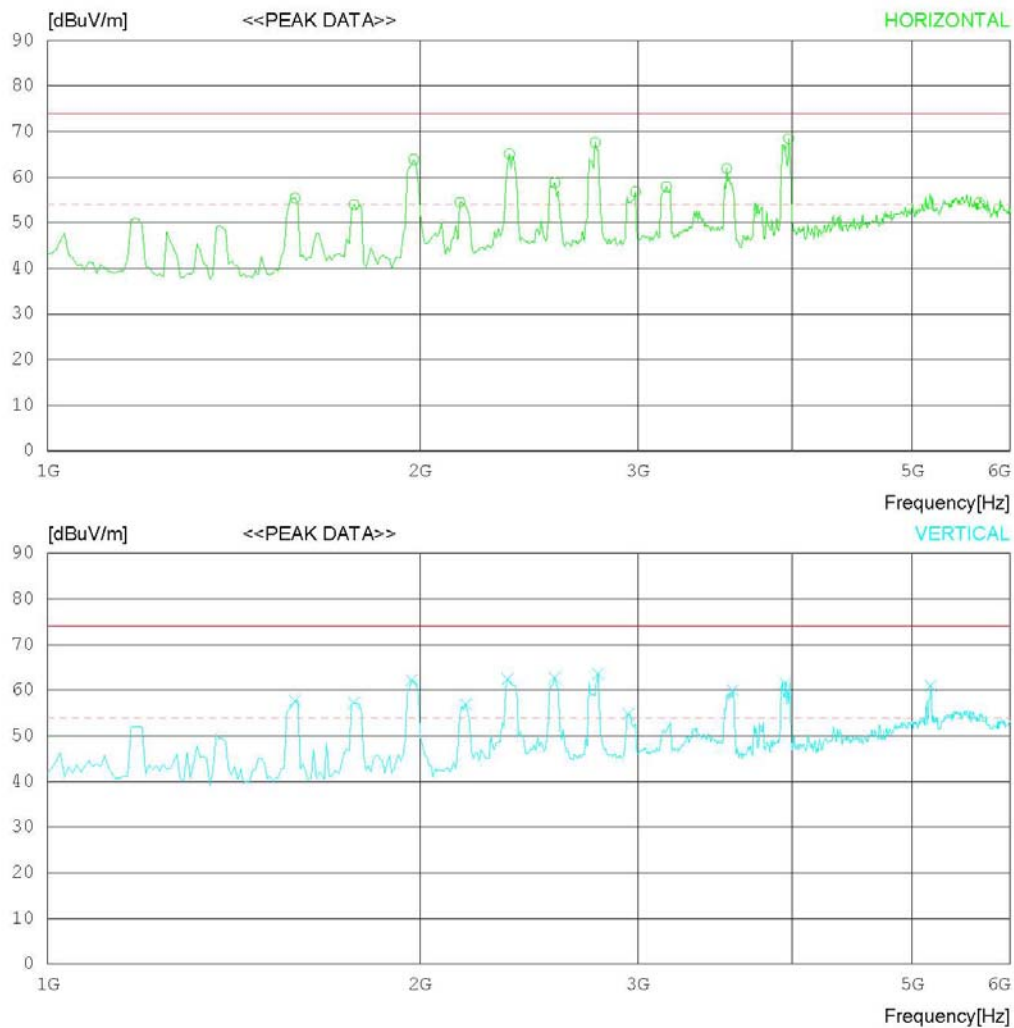
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % 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 : 2013-01-09

Model Name : 50LN5700-UH	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	1584.936	51.6	24.6	7.7	28.5	55.4	74.0	18.6	100	230
2	1769.230	49.9	24.6	8.0	28.5	54.0	74.0	20	100	358
3	1977.564	59.4	24.6	8.4	28.5	63.9	74.0	10.1	100	358
4	2153.847	48.8	25.4	8.8	28.5	54.5	74.0	19.5	100	358
5	2362.184	57.7	26.7	9.2	28.5	65.1	74.0	8.9	100	191
6	2570.520	49.8	27.7	9.7	28.4	58.8	74.0	15.2	100	201
7	2770.844	57.6	28.3	10.1	28.4	67.6	74.0	6.4	100	208
8	2987.193	45.8	28.9	10.5	28.4	56.8	74.0	17.2	100	358
9	3163.478	46.5	28.9	10.9	28.4	57.9	74.0	16.1	100	233
10	3540.086	49.4	29.0	11.8	28.3	61.9	74.0	12.1	100	193
11	3972.785	53.8	30.1	12.9	28.3	68.5	74.0	5.5	100	202
12	5663.467	33.4	34.0	15.2	28.2	54.4	74.0	19.6	100	349
----- Vertical -----										
13	1584.936	53.9	24.6	7.7	28.5	57.7	74.0	16.3	100	154
14	1769.230	53.1	24.6	8.0	28.5	57.2	74.0	16.8	100	358
15	1969.551	57.7	24.6	8.4	28.5	62.2	74.0	11.8	100	204
16	2177.886	51.0	25.6	8.8	28.5	56.9	74.0	17.1	100	205
17	2354.171	55.1	26.6	9.2	28.5	62.4	74.0	11.6	100	358
18	2570.520	53.7	27.7	9.7	28.4	62.7	74.0	11.3	100	191
19	2786.870	53.6	28.3	10.1	28.4	63.6	74.0	10.4	100	231
20	2947.128	44.0	28.8	10.4	28.4	54.8	74.0	19.2	100	358
21	3580.151	47.3	29.1	11.9	28.3	60.0	74.0	14	100	216
22	3948.746	47.1	30.0	12.8	28.3	61.6	74.0	12.4	100	358
23	5174.693	40.5	33.4	15.2	28.1	61.0	74.0	13	100	358

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

RADIATED EMISSION

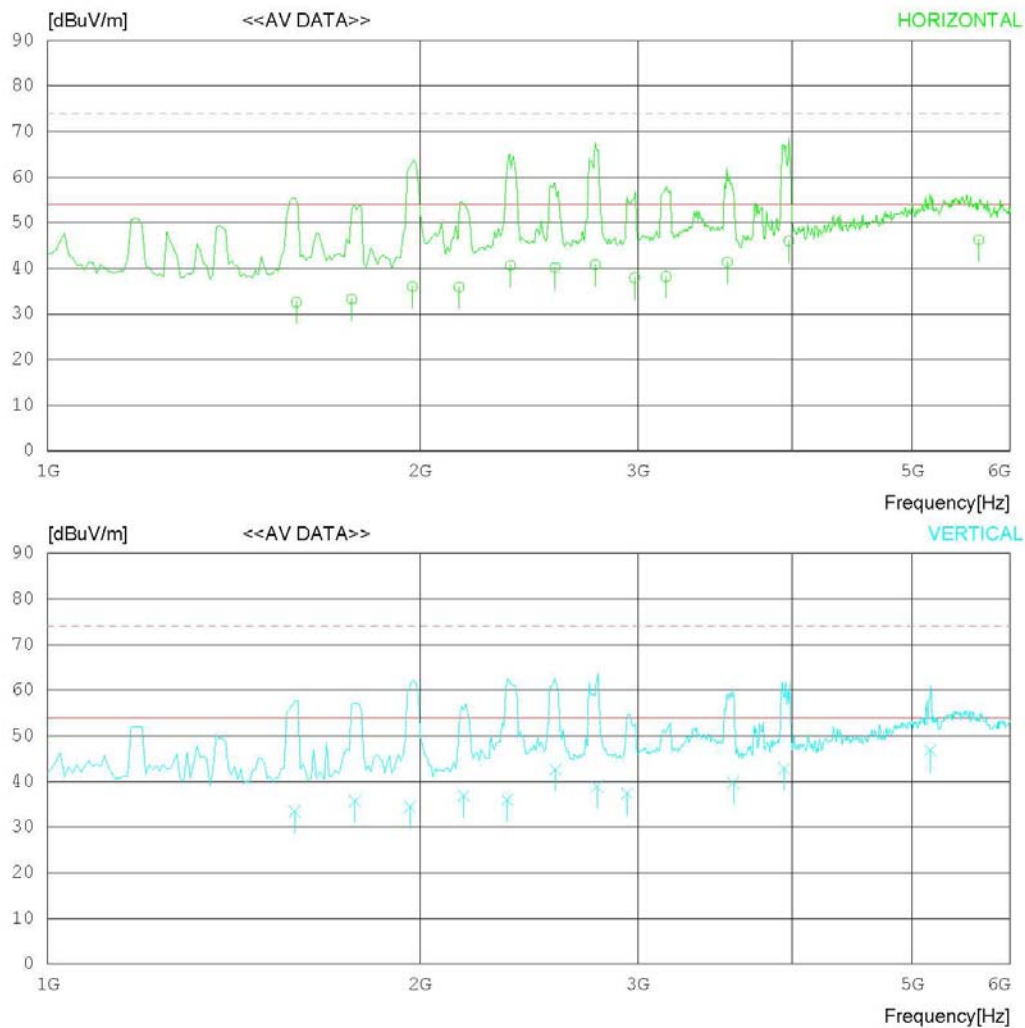
Date : 2013-01-09

Model Name : 50LN5700-UH
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 20 °C 40 % 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 : 2013-01-09

Model Name : 50LN5700-UH	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	1589.062	28.8	24.6	7.7	28.5	32.6	54.0	21.4	100	132
2	1761.528	29.2	24.6	8.0	28.5	33.3	54.0	20.7	100	115
3	1972.358	31.5	24.6	8.4	28.5	36.0	54.0	18.0	100	133
4	2151.525	30.2	25.4	8.8	28.5	35.9	54.0	18.1	100	129
5	2366.951	33.2	26.7	9.2	28.5	40.6	54.0	13.4	100	141
6	2571.499	31.2	27.7	9.7	28.4	40.2	54.0	13.8	100	136
7	2772.696	30.8	28.3	10.1	28.4	40.8	54.0	13.2	100	128
8	2981.507	27.0	28.9	10.5	28.4	38.0	54.0	16.0	100	152
9	3161.169	26.8	28.9	10.9	28.4	38.2	54.0	15.8	100	158
10	3543.696	28.9	29.0	11.8	28.3	41.4	54.0	12.6	100	138
11	3975.914	31.3	30.1	12.9	28.3	46.0	54.0	8.0	100	149
12	5660.965	25.3	34.0	15.2	28.2	46.3	54.0	7.7	100	130
----- Vertical -----										
13	1583.519	29.6	24.6	7.7	28.5	33.4	54.0	20.6	100	148
14	1771.469	31.6	24.6	8.0	28.5	35.7	54.0	18.3	100	141
15	1964.155	30.0	24.6	8.4	28.5	34.5	54.0	19.5	100	126
16	2170.363	31.1	25.5	8.8	28.5	36.9	54.0	17.1	100	150
17	2352.500	28.7	26.6	9.2	28.5	36.0	54.0	18.0	100	147
18	2574.969	33.6	27.7	9.7	28.4	42.6	54.0	11.4	100	133
19	2781.580	28.9	28.3	10.1	28.4	38.9	54.0	15.1	100	122
20	2941.599	26.6	28.8	10.4	28.4	37.4	54.0	16.6	100	124
21	3583.692	27.1	29.1	11.9	28.3	39.8	54.0	14.2	100	130
22	3942.507	28.4	30.0	12.8	28.3	42.9	54.0	11.1	100	142
23	5171.654	26.3	33.4	15.2	28.1	46.8	54.0	7.2	100	134

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