EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 50LN5710-UI
Order No.	: DEMC1307-02101
Date of receipt	: 2013-07-08
Test duration	: 2013-07-09
Use of report	: FCC CoC Marking
Date of Issue	: 2013-07-15

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 : 23 °C,
Humidity : 41 % R.H.

Test result : ☒ Comply ☐ Not Comply

Tested by:

Engineer
JunSeo Park

Reviewed by:

Technical 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.	50LN5710-UI
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ50LN5710UI
Type of Sample Tested	Pre-Production
High Frequency	790 MHz
Rating	AC 100-240 V~ 50/60 Hz 1.4 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	60.02
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 (℃)	Humidity (% R.H.)
Conducted Disturbance	07-09	23	41
Radiated Disturbance	07-09	23	41

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
0.15000	**L**	**56.3**	**Quasi-Peak**	**66.0**	**9.7**

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
959.996	**H**	**41.6**	**Quasi-Peak**	**46.0**	**4.4**

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, 1920 x 1080 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	VOSTRO460	7L7JXBX	DELL	POWER USB USB USB HDMI	1.8 1.7 1.6 1.8 1.9	Not use Not use Not use Not use Not use	Non-shield Non-shield Non-shield Shield Shield	Plastic	DOC
KEYBOARD	SKG-3000UB	TAKB60 1238B	MONITEREY INTERNATIONAL CORP.	USB	1.7	Not use	Non-shield	Plastic	DOC
MOUSE	1484	3527000 21378	MICROSOFT CORPORATION	USB	1.6	Not use	Non-shield	Plastic	DOC
PRINT	EPSON Aculaser M1200	LWTZ181070	EPSON	POWER USB	1.8 1.8	Not use Not use	Non-shield Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS.	POWER AV	1.8 1.5	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	CRUZER 4GB	N/A	SANDISK	USB	-	Not use	-	Plastic	DOC
REMOTE CONTROL	AKB73756542	N/A	HANSUNG 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

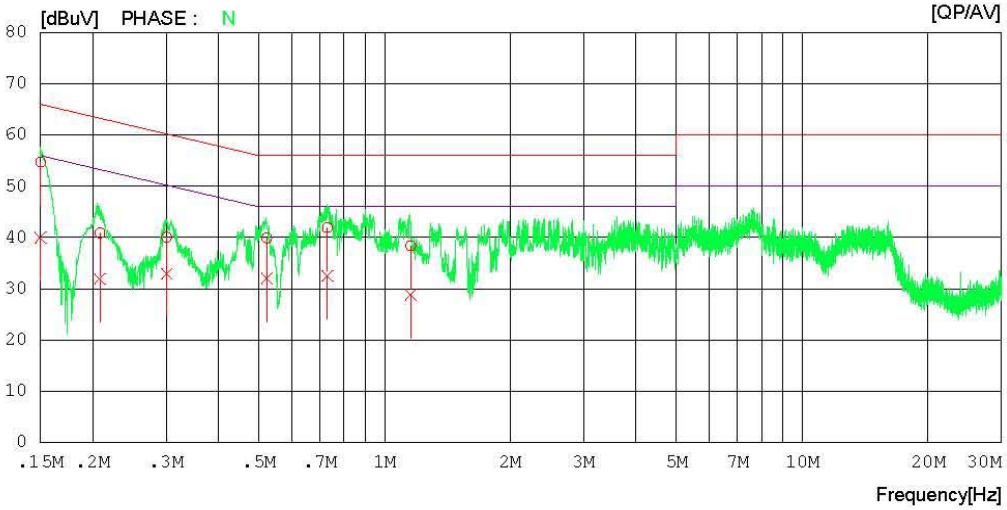
Results of Conducted Emission

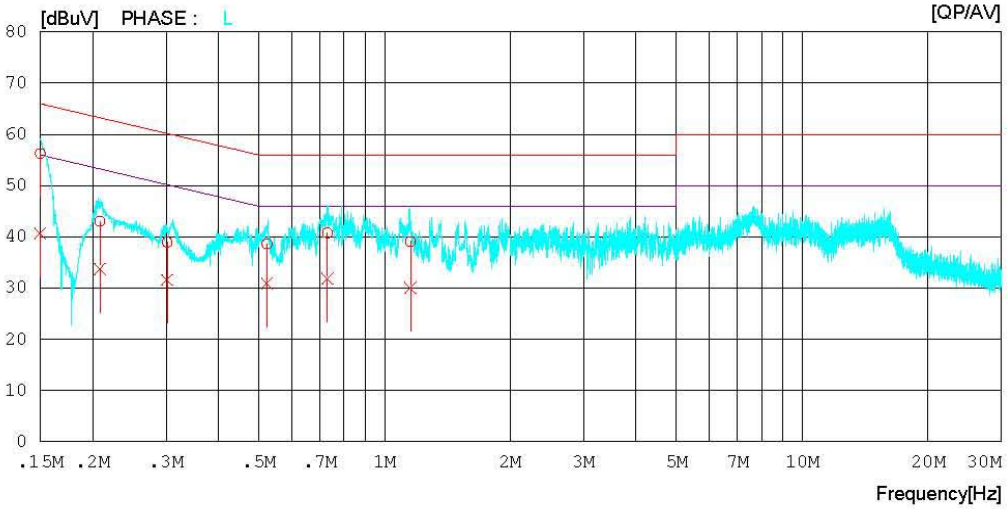
Digital EMC
Date : 2013-07-09

Model No.	:	50LN5710-UI	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 41 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-07-09

Model No.	:	50LN5710-UI	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 '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	0.15015	54.5	39.8	0.2	54.7	40.0	66.0	56.0	11.3	16.0	N
2	0.20850	40.6	31.7	0.2	40.8	31.9	63.3	53.3	22.5	21.4	N
3	0.30088	39.8	32.7	0.2	40.0	32.9	60.2	50.2	20.2	17.3	N
4	0.52315	39.7	31.8	0.2	39.9	32.0	56.0	46.0	16.1	14.0	N
5	0.73009	41.7	32.3	0.2	41.9	32.5	56.0	46.0	14.1	13.5	N
6	1.15580	38.0	28.5	0.3	38.3	28.8	56.0	46.0	17.7	17.2	N
7	0.15000	56.1	40.5	0.2	56.3	40.7	66.0	56.0	9.7	15.3	L
8	0.20838	42.8	33.5	0.2	43.0	33.7	63.3	53.3	20.3	19.6	L
9	0.30175	38.8	31.4	0.2	39.0	31.6	60.2	50.2	21.2	18.6	L
10	0.52344	38.4	30.7	0.2	38.6	30.9	56.0	46.0	17.4	15.1	L
11	0.72998	40.6	31.7	0.2	40.8	31.9	56.0	46.0	15.2	14.1	L
12	1.15340	38.8	29.8	0.3	39.1	30.1	56.0	46.0	16.9	15.9	L

< USB MODE >

Digital EMC

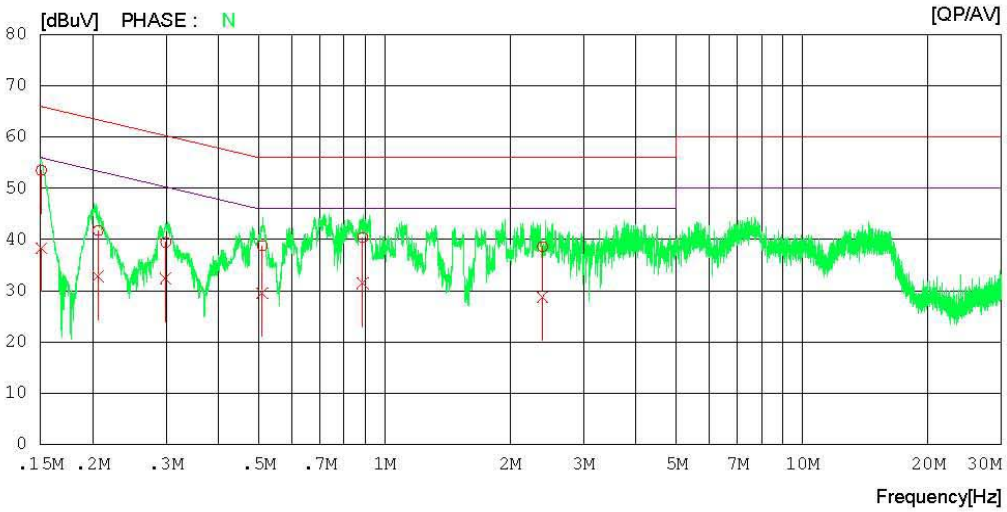
Results of Conducted Emission

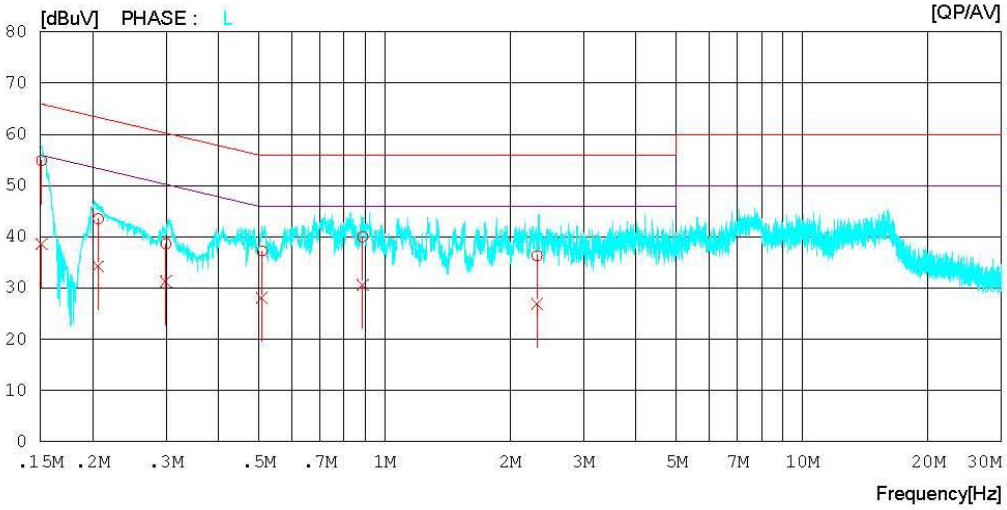
Digital EMC
Date : 2013-07-09

Model No.	:	50LN5710-UI	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 41 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-07-09

Model No.	:	50LN5710-UI	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 '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	0.15086	53.3	38.1	0.2	53.5	38.3	66.0	56.0	12.5	17.7	N
2	0.20621	41.5	32.6	0.2	41.7	32.8	63.4	53.4	21.7	20.6	N
3	0.29950	39.2	32.2	0.2	39.4	32.4	60.3	50.3	20.9	17.9	N
4	0.50977	38.6	29.3	0.2	38.8	29.5	56.0	46.0	17.2	16.5	N
5	0.88713	40.1	31.2	0.2	40.3	31.4	56.0	46.0	15.7	14.6	N
6	2.38880	38.3	28.4	0.3	38.6	28.7	56.0	46.0	17.4	17.3	N
7	0.15111	54.7	38.4	0.2	54.9	38.6	65.9	55.9	11.0	17.3	L
8	0.20644	43.3	34.1	0.2	43.5	34.3	63.3	53.3	19.8	19.0	L
9	0.29962	38.5	31.1	0.2	38.7	31.3	60.3	50.3	21.6	19.0	L
10	0.50926	37.0	28.0	0.2	37.2	28.2	56.0	46.0	18.8	17.8	L
11	0.88743	39.8	30.4	0.2	40.0	30.6	56.0	46.0	16.0	15.4	L
12	2.31880	36.0	26.6	0.3	36.3	26.9	56.0	46.0	19.7	19.1	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	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 >

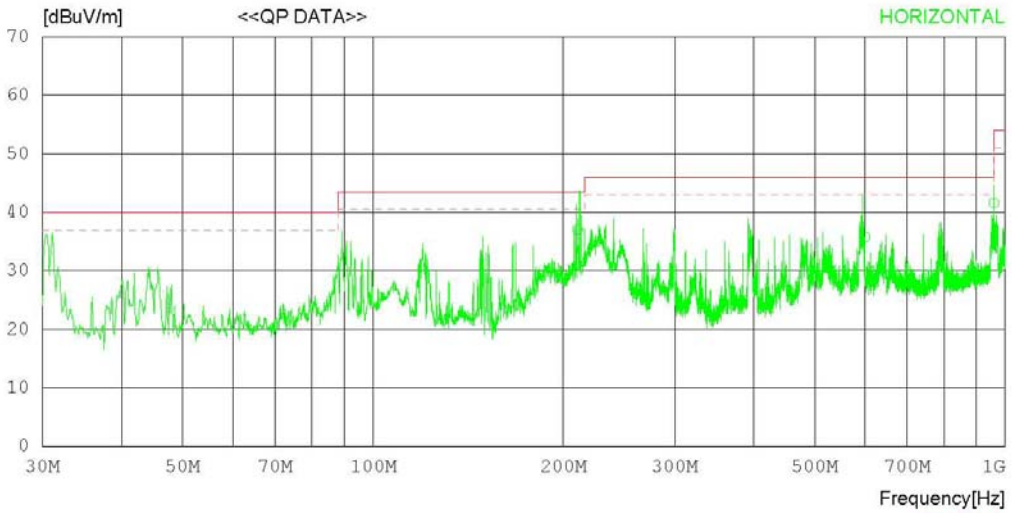
RADIATED EMISSION

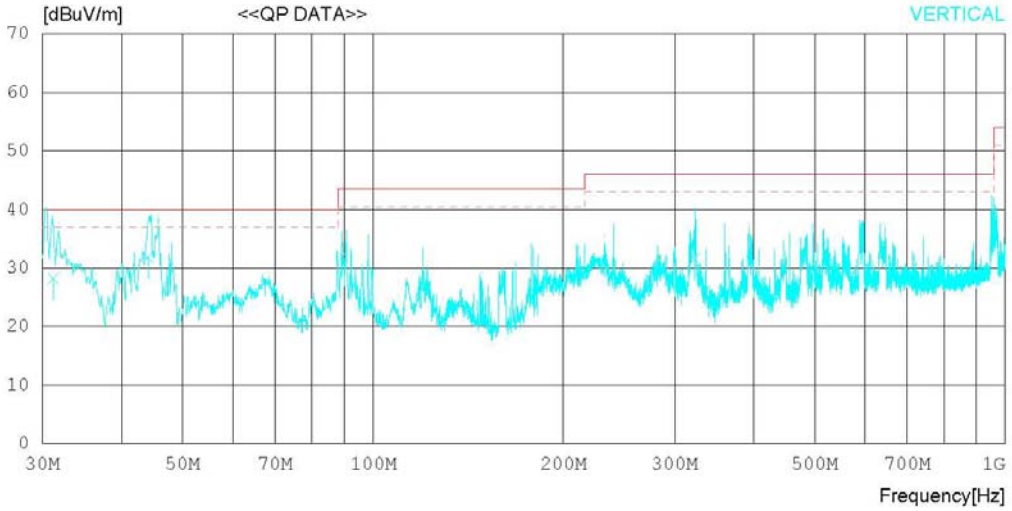
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	210.758	47.2	10.3	3.5	23.9	37.1	43.5	6.4	100	224
2	600.011	33.3	18.7	6.7	22.9	35.8	46.0	10.2	149	98
3	959.996	34.2	21.7	8.4	22.7	41.6	46.0	4.4	100	341
----- Vertical ------										
4	31.209	32.9	17.2	1.9	23.8	28.2	40.0	11.8	118	245
5	44.106	40.2	13.7	2.1	24.2	31.8	40.0	8.2	100	78
6	89.303	45.0	8.9	2.3	24.2	32.0	43.5	11.5	100	328
7	322.547	36.3	14.3	4.6	23.6	31.6	46.0	14.4	204	119

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

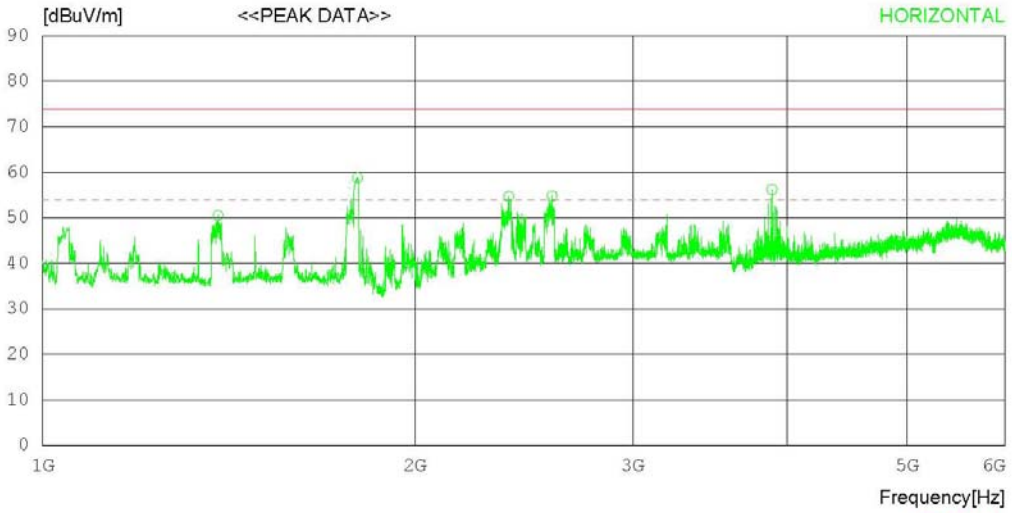
RADIATED EMISSION

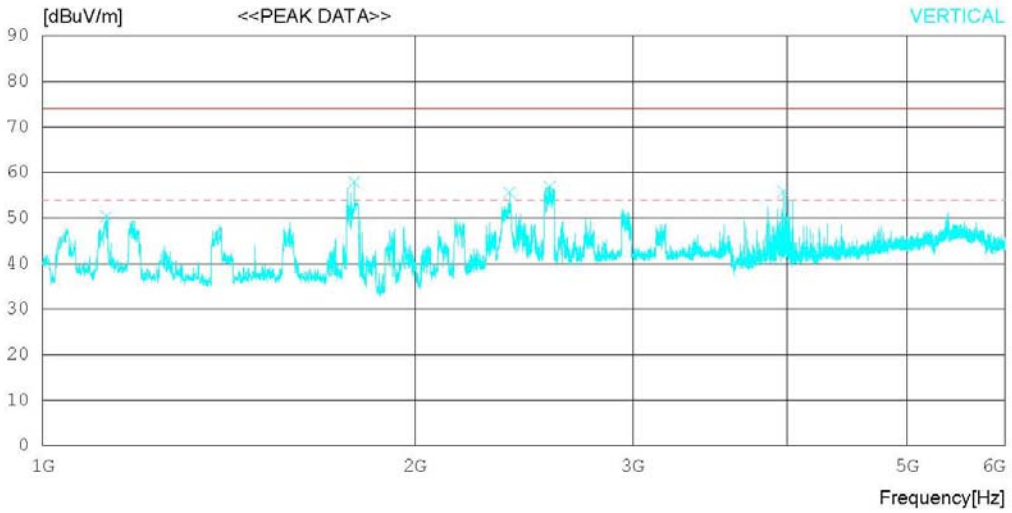
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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 : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	1386.250	62.4	24.5	3.9	40.3	50.5	74.0	23.5	100	214
2	1797.500	69.4	24.6	4.5	39.7	58.8	74.0	15.2	100	184
3	2381.875	62.1	26.8	5.1	39.3	54.7	74.0	19.3	100	0
4	2582.500	61.1	27.7	5.3	39.3	54.8	74.0	19.2	100	0
5	3886.250	58.2	29.9	6.6	38.5	56.2	74.0	17.8	100	0
----- Vertical ------										
6	1126.250	63.6	24.1	3.5	40.9	50.3	74.0	23.7	100	357
7	1786.875	68.7	24.6	4.4	39.7	58.0	74.0	16	100	276
8	2386.250	63.0	26.8	5.1	39.3	55.6	74.0	18.4	100	357
9	2570.625	63.2	27.7	5.3	39.3	56.9	74.0	17.1	100	357
10	3970.625	57.4	30.1	6.7	38.4	55.8	74.0	18.2	100	357

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

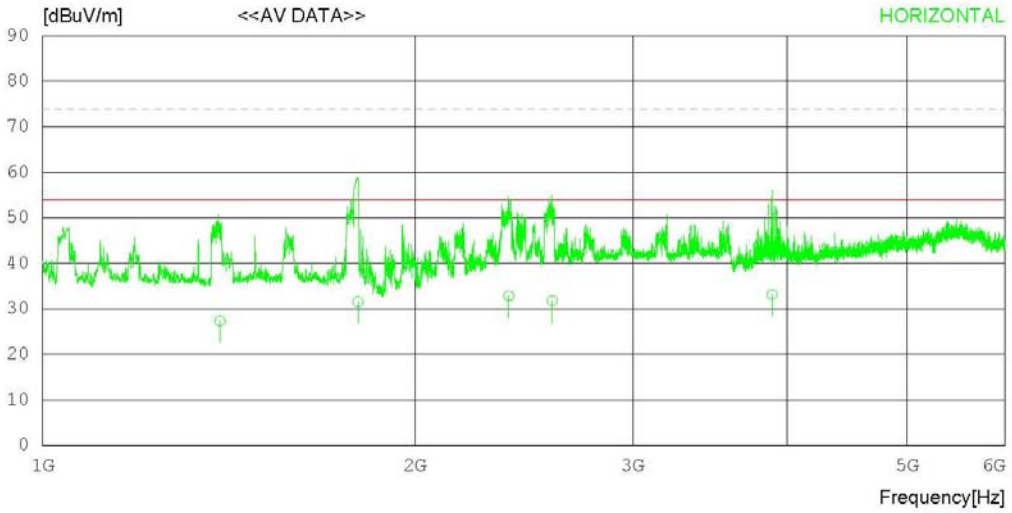
RADIATED EMISSION

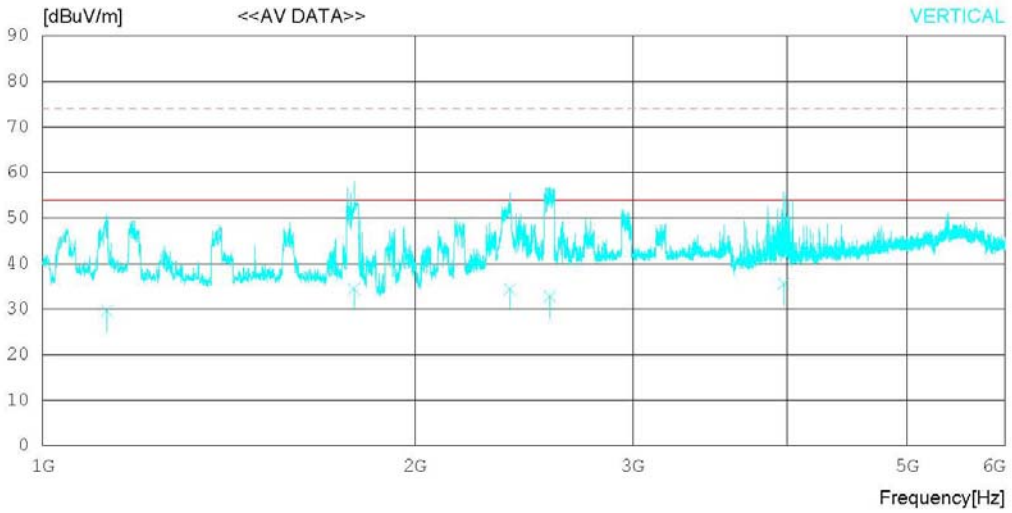
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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 : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	1391.801	39.2	24.5	3.9	40.3	27.3	54.0	26.7	100	209
2	1798.632	42.1	24.6	4.5	39.7	31.5	54.0	22.5	100	141
3	2381.716	40.2	26.8	5.1	39.3	32.8	54.0	21.2	100	194
4	2581.610	38.1	27.7	5.3	39.3	31.8	54.0	22.2	100	341
5	3887.541	35.1	29.9	6.6	38.5	33.1	54.0	20.9	100	87
----- Vertical ------										
6	1127.671	42.9	24.1	3.5	40.9	29.6	54.0	24.4	100	174
7	1786.249	45.2	24.6	4.4	39.7	34.5	54.0	19.5	100	82
8	2386.974	41.8	26.8	5.1	39.3	34.4	54.0	19.6	100	213
9	2571.612	39.1	27.7	5.3	39.3	32.8	54.0	21.2	100	116
10	3971.636	37.2	30.1	6.7	38.4	35.6	54.0	18.4	100	71

< USB MODE_30 MHz ~ 1 GHz >

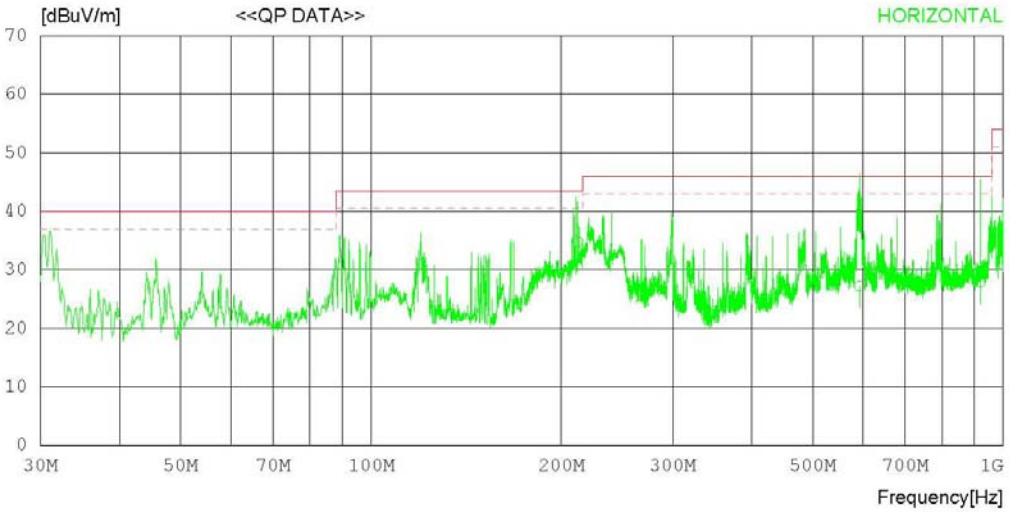
RADIATED EMISSION

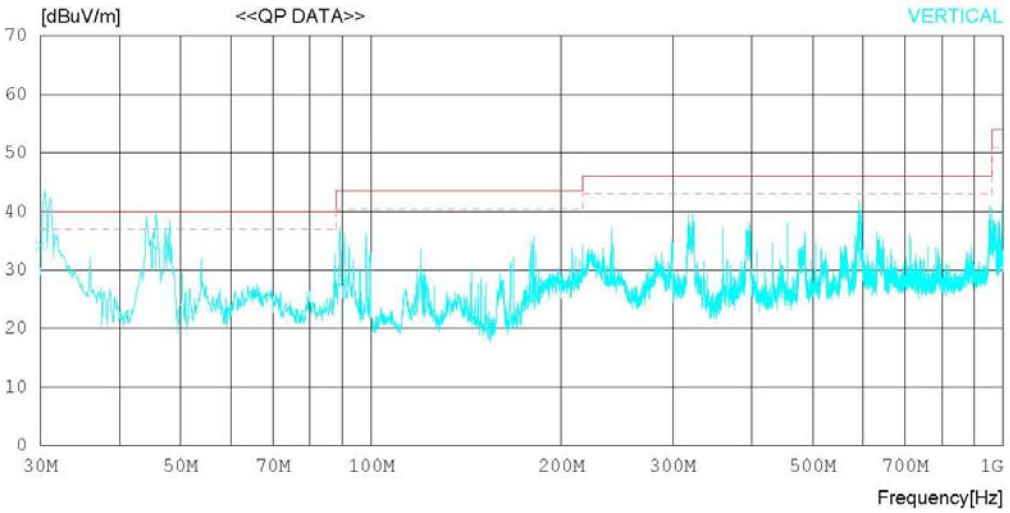
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	212.267	44.8	10.4	3.5	23.9	34.8	43.5	8.7	167	148
2	592.785	24.8	18.6	6.7	22.9	27.2	46.0	18.8	374	123
3	920.000	21.2	21.1	8.3	22.7	27.9	46.0	18.1	341	224
----- Vertical ------										
4	30.070	38.2	17.8	2.0	23.8	34.2	40.0	5.8	204	256
5	45.654	43.0	13.2	2.1	24.3	34.0	40.0	6.0	116	38
6	90.599	41.1	9.1	2.3	24.2	28.3	43.5	15.2	314	278
7	591.190	31.0	18.6	6.6	22.9	33.3	46.0	12.7	176	271

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

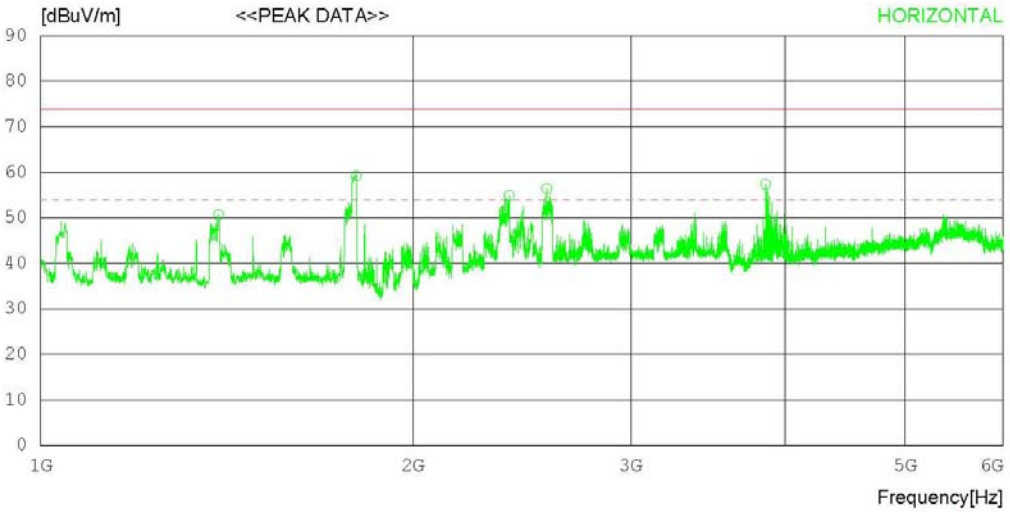
RADIATED EMISSION

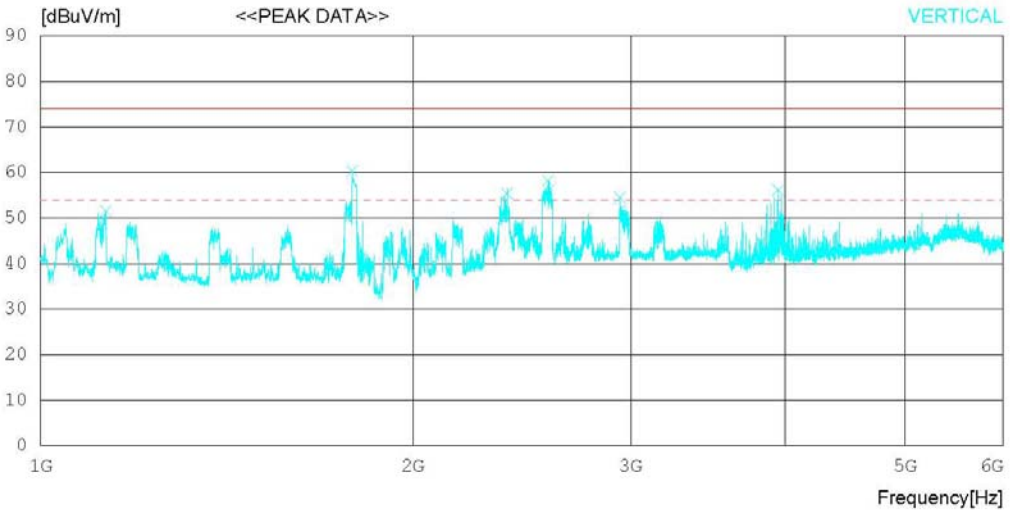
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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 : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	1392.500	62.6	24.5	3.9	40.3	50.7	74.0	23.3	100	358
2	1798.750	69.8	24.6	4.5	39.7	59.2	74.0	14.8	100	358
3	2392.500	62.3	26.8	5.1	39.3	54.9	74.0	19.1	100	198
4	2565.625	62.7	27.7	5.3	39.3	56.4	74.0	17.6	100	217
5	3855.625	59.6	29.8	6.5	38.5	57.4	74.0	16.6	100	358
----- Vertical ------										
6	1129.375	64.8	24.1	3.5	40.9	51.5	74.0	22.5	100	186
7	1786.250	71.0	24.6	4.4	39.7	60.3	74.0	13.7	100	151
8	2383.750	63.9	26.8	4.4	39.7	55.4	74.0	18.6	100	0
9	2572.500	64.7	27.7	5.1	39.3	58.2	74.0	15.8	100	0
10	2940.625	59.4	28.8	5.6	39.3	54.5	74.0	19.5	100	181
11	3946.875	57.9	30.0	6.6	38.4	56.1	74.0	17.9	100	0

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

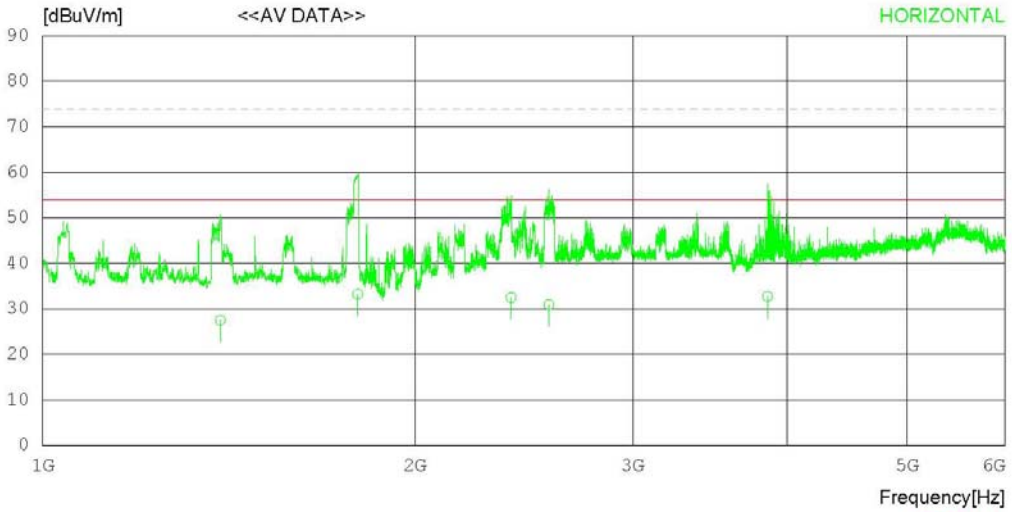
RADIATED EMISSION

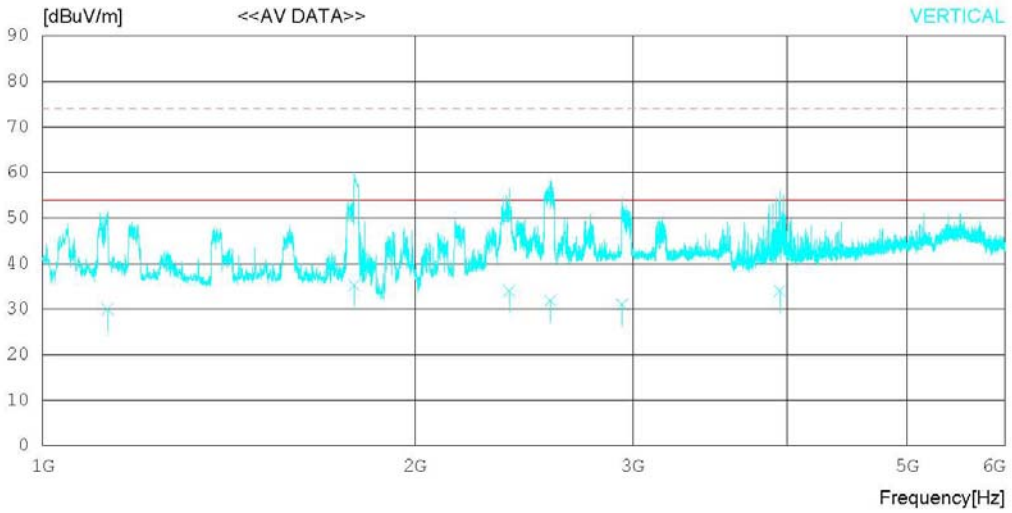
Date : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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 : 2013-07-09

Model Name	:	50LN5710-UI	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	23 'C 41 % 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	1392.408	39.4	24.5	3.9	40.3	27.5	54.0	26.5	100	298
2	1798.114	43.8	24.6	4.5	39.7	33.2	54.0	20.8	100	43
3	2391.763	39.9	26.8	5.1	39.3	32.5	54.0	21.5	100	198
4	2566.514	37.2	27.7	5.3	39.3	30.9	54.0	23.1	100	116
5	3854.269	34.9	29.8	6.5	38.5	32.7	54.0	21.3	100	126
----- Vertical ------										
6	1128.708	43.3	24.1	3.5	40.9	30.0	54.0	24.0	100	186
7	1786.957	46.0	24.6	4.4	39.7	35.3	54.0	18.7	100	98
8	2383.007	41.5	26.8	5.1	39.3	34.1	54.0	19.9	100	162
9	2573.348	38.2	27.7	5.3	39.3	31.9	54.0	22.1	100	216
10	2941.075	35.9	28.8	5.6	39.3	31.0	54.0	23.0	100	158
11	3946.281	35.8	30.0	6.6	38.4	34.0	54.0	20.0	100	74

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	2013.02.28	2014.02.28
☐	RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2013.06.28	2014.06.28
☐	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	2013.02.27	2014.02.27
☒	LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
☒	LISN	LISN1600	TTI	197204	2013.06.28	2014.06.28
☒	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	CBL6112B	SCHAFFNER	2737	2012.11.06	2014.11.06
☒	HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒	AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒	AMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
☐	SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2013.06.27	2014.06.27
☐	AMPLIFIER	8447D	AGILENT	2443A03690	2013.06.28	2014.06.28
☐	EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
☐	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	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