EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 42LN5200-UM
Order No.	: DEMC1304-01400
Date of receipt	: 2013-04-25
Test duration	: 2013-05-06
Use of report	: FCC CoC Marking
Date of Issue	: 2013-05-07

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 : (21 ~ 23) °C,
Humidity : (34 ~ 40) % R.H.

Test result : ☒ Comply ☐ Not Comply

Tested by:

Manager
MyungJin Song

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.	42LN5200-UM
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ42LN5200UM
Type of Sample Tested	Pre-Production
High Frequency	800 MHz
Rating (Use for Adaptor)	Model No.: LCAP37 Manufacturer : Lien Chang Electronic Enterprise Co., Ltd. Input : 100-240 V, 50-60 Hz, 1.2 A Output : 24 V, 3.42 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	31.46	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
1360 x 768	47.71	60.01
1152 x 864	54.34	60.05
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 (℃)	Humidity (% R.H.)
Conducted Disturbance	05-06	23	34
Radiated Disturbance	05-06	21	40

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [Db]
6.72000	**N**	**39.9**	Average	**50.0**	**10.1**

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
2970.038	**H**	**50.0**	Average	**54.0**	**3.5**

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, 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		
KEYBOARD	KB-065	CN11163233	HP	USB	1.7	Not use	Shield	Plastic	DOC
MOUSE	M-UAE96	LZ751AP 01L3	LOGITECH Inc.	USB	1.8	Not use	Shield	Plastic	DOC
PRINTER	SRP-770	SRP770080 60035	BICSOLON	USB POWER	1.9 1.8	Use Not use	Shield Non-shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS.	POWER AV	1.8 1.7	Not use Not use	Non-shield Non-shield	Plastic	VER
PC	VOSTRO460	6J7JXBX	DELL	POWER HDMI USB USB USB	1.8 2.0 1.8 1.7 1.9	Not use Not use Not use Use Use	Non-shield Shield Shield Shield Shield	Plastic	DOC
REMOTE CONTROL	AKB73715608	N/A	OHSUNG ELECTRONICS	-	-	-	-	Plastic	DOC
AC ADAPTOR	LCAP37	N/A	Lien Chang Electronics	POWER POWER	1.7 1.6	Not use Not use	Non-shield 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 >

Digital EMC

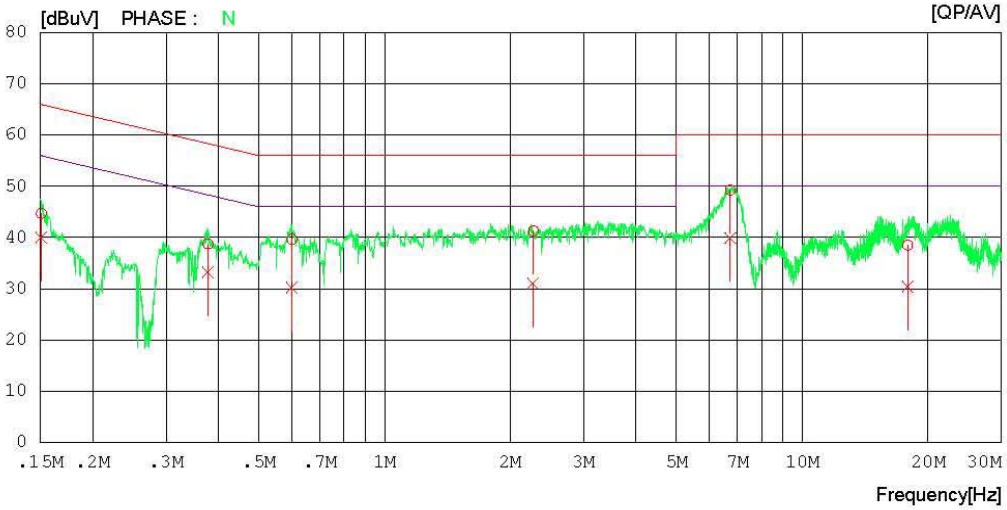
Results of Conducted Emission

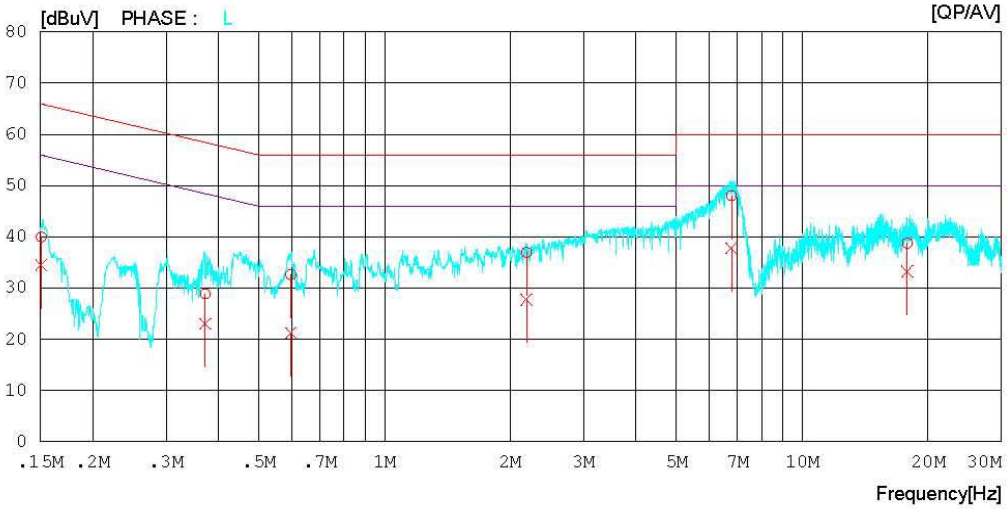
Digital EMC
Date : 2013-05-06

Model No.	:	42LN5200-UM	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 34 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-05-06

Model No.	:	42LN5200-UM	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 34 % 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	0.15093	44.5	39.8	0.2	44.7	40.0	65.9	55.9	21.2	15.9	N
2	0.37798	38.5	33.0	0.2	38.7	33.2	58.3	48.3	19.6	15.1	N
3	0.60010	39.4	30.1	0.2	39.6	30.3	56.0	46.0	16.4	15.7	N
4	2.27250	41.0	30.7	0.3	41.3	31.0	56.0	46.0	14.7	15.0	N
5	6.72000	48.7	39.4	0.5	49.2	39.9	60.0	50.0	10.8	10.1	N
6	17.89150	37.6	29.5	0.9	38.5	30.4	60.0	50.0	21.5	19.6	N
7	0.15080	39.8	34.3	0.2	40.0	34.5	66.0	56.0	26.0	21.5	L
8	0.37234	28.7	22.9	0.2	28.9	23.1	58.4	48.4	29.5	25.3	L
9	0.59703	32.4	21.1	0.2	32.6	21.3	56.0	46.0	23.4	24.7	L
10	2.18800	36.7	27.5	0.3	37.0	27.8	56.0	46.0	19.0	18.2	L
11	6.76850	47.5	37.3	0.5	48.0	37.8	60.0	50.0	12.0	12.2	L
12	17.85600	37.9	32.4	0.9	38.8	33.3	60.0	50.0	21.2	16.7	L

< USB MODE >

Digital EMC

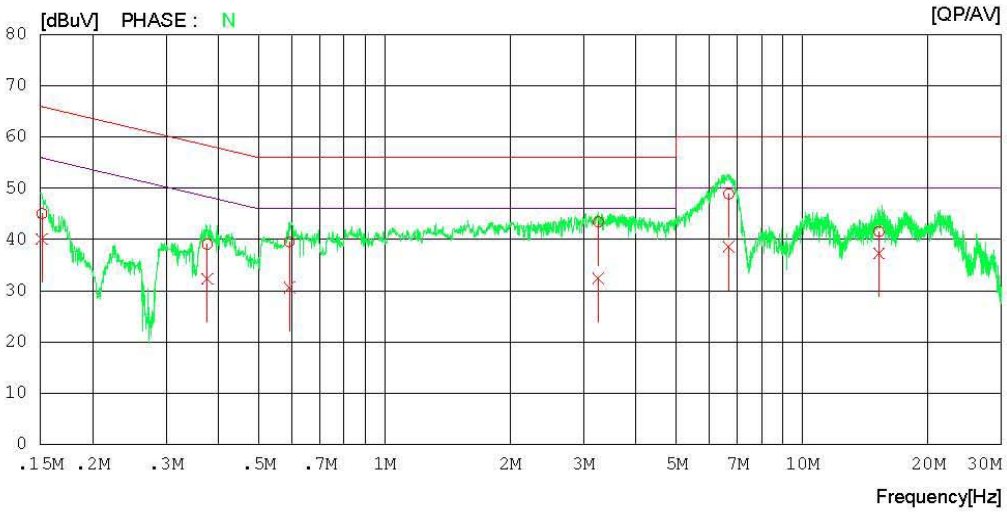
Results of Conducted Emission

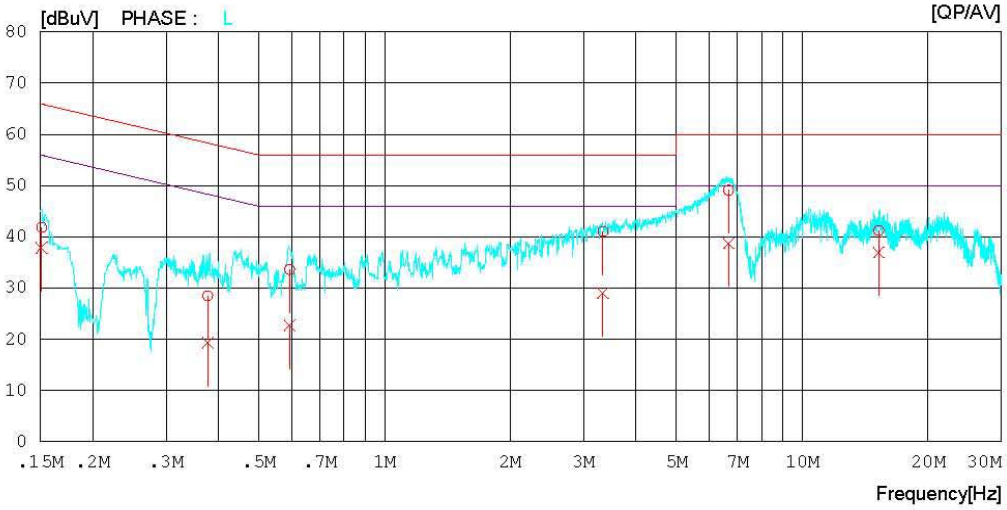
Digital EMC
Date : 2013-05-06

Model No.	:	42LN5200-UM	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 34 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-05-06

Model No.	:	42LN5200-UM	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 34 % 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	0.15136	44.8	39.9	0.2	45.0	40.1	65.9	55.9	20.9	15.8	N
2	0.37650	38.9	32.1	0.2	39.1	32.3	58.4	48.4	19.3	16.1	N
3	0.59243	39.3	30.5	0.2	39.5	30.7	56.0	46.0	16.5	15.3	N
4	3.25300	43.1	32.1	0.3	43.4	32.4	56.0	46.0	12.6	13.6	N
5	6.67350	48.4	38.1	0.5	48.9	38.6	60.0	50.0	11.1	11.4	N
6	15.26450	40.7	36.5	0.8	41.5	37.3	60.0	50.0	18.5	12.7	N
7	0.15111	41.6	37.7	0.2	41.8	37.9	65.9	55.9	24.1	18.0	L
8	0.37755	28.3	19.2	0.2	28.5	19.4	58.3	48.3	29.8	28.9	L
9	0.59289	33.4	22.6	0.2	33.6	22.8	56.0	46.0	22.4	23.2	L
10	3.33500	40.7	28.7	0.3	41.0	29.0	56.0	46.0	15.0	17.0	L
11	6.66750	48.6	38.2	0.5	49.1	38.7	60.0	50.0	10.9	11.3	L
12	15.26150	40.5	36.2	0.8	41.3	37.0	60.0	50.0	18.7	13.0	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 >

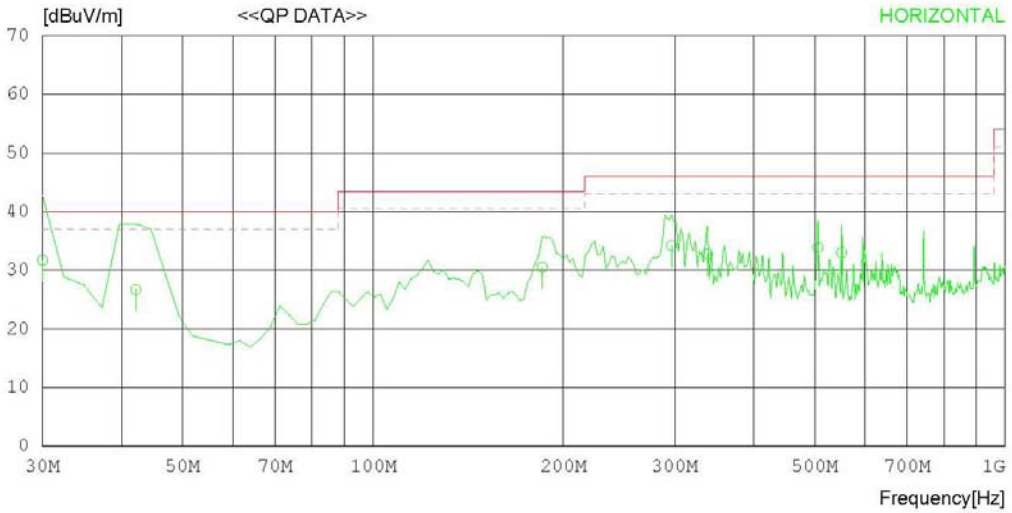
RADIATED EMISSION

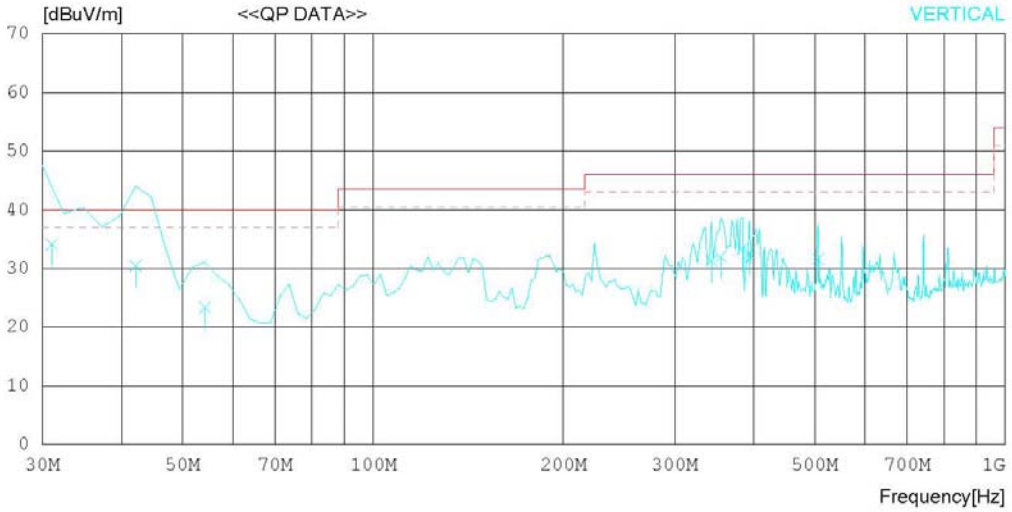
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21' C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21' 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	30.000	36.8	17.9	0.8	23.8	31.7	40.0	8.3	232	92
2	42.125	36.5	13.3	1.1	24.2	26.7	40.0	13.3	165	325
3	185.200	42.6	9.7	2.2	24.0	30.5	43.5	13.0	132	344
4	296.750	41.3	13.7	2.8	23.6	34.2	46.0	11.8	100	207
5	337.975	38.6	14.6	3.2	23.6	32.8	46.0	13.2	169	358
6	505.299	35.6	17.4	3.9	23.0	33.9	46.0	12.1	100	223
7	551.374	34.2	18.0	3.8	23.0	33.0	46.0	13.0	100	358
----- Vertical ------										
8	31.050	39.7	17.3	0.9	23.8	34.1	40.0	5.9	132	216
9	42.125	40.3	13.3	1.1	24.2	30.5	40.0	9.5	125	147
10	54.250	39.3	7.1	1.4	24.4	23.4	40.0	16.6	100	32
11	342.825	36.9	14.7	3.3	23.6	31.3	46.0	14.7	136	174
12	354.950	37.2	15.0	3.4	23.6	32.0	46.0	14.0	154	25
13	384.050	37.6	15.7	3.5	23.5	33.3	46.0	12.7	100	179
14	393.750	36.8	15.9	3.5	23.5	32.7	46.0	13.3	139	174
15	505.299	33.3	17.4	3.9	23.0	31.6	46.0	14.4	100	261

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

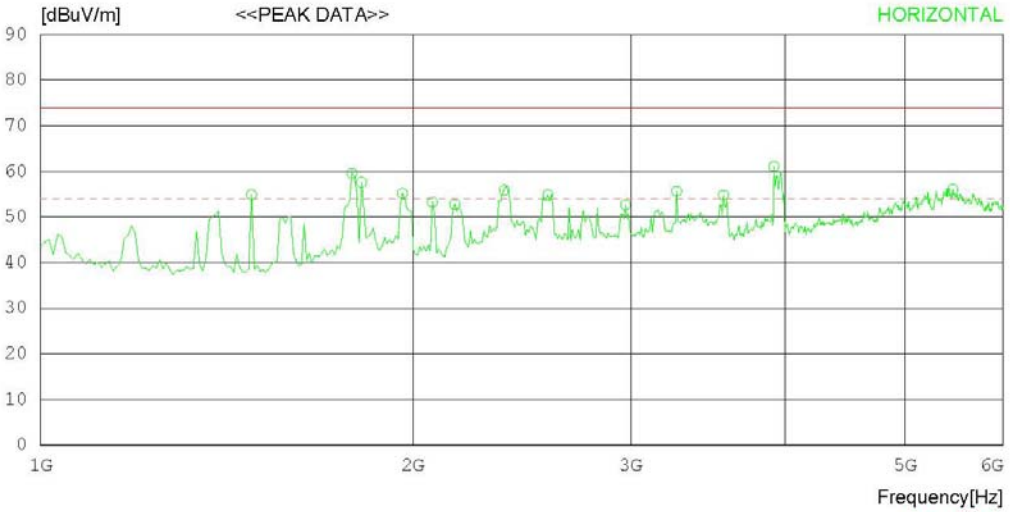
RADIATED EMISSION

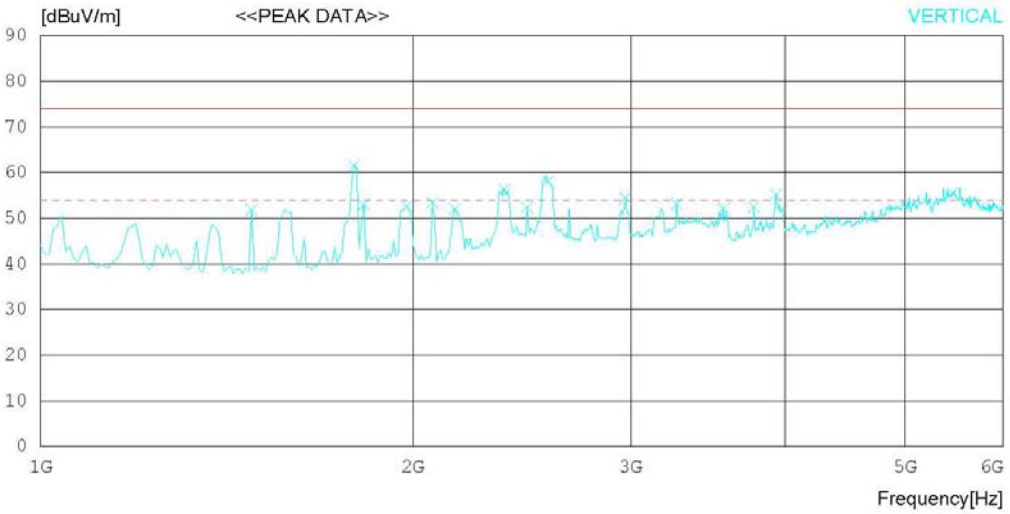
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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 : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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	1480.769	51.4	24.6	7.4	28.5	54.9	74.0	19.1	100	218
2	1785.256	55.5	24.6	8.0	28.5	59.6	74.0	14.4	100	1
3	1817.307	53.4	24.6	8.1	28.5	57.6	74.0	16.4	100	187
4	1961.538	50.7	24.6	8.4	28.5	55.2	74.0	18.8	100	211
5	2073.718	48.2	25.0	8.6	28.5	53.3	74.0	20.7	100	242
6	2161.860	47.0	25.5	8.8	28.5	52.8	74.0	21.2	100	1
7	2370.197	48.4	26.7	9.3	28.5	55.9	74.0	18.1	100	161
8	2570.520	45.9	27.7	9.7	28.4	54.9	74.0	19.1	100	199
9	2971.167	41.7	28.9	10.5	28.4	52.7	74.0	21.3	100	183
10	3267.646	44.1	28.9	11.1	28.4	55.7	74.0	18.3	100	223
11	3564.125	42.2	29.0	11.9	28.3	54.8	74.0	19.2	100	1
12	3916.694	46.8	29.9	12.7	28.3	61.1	74.0	12.9	100	1
13	5463.150	34.4	34.9	14.9	28.1	56.1	74.0	17.9	100	1
----- Vertical ------										
14	1480.769	48.4	24.6	7.4	28.5	51.9	74.0	22.1	100	197
15	1793.269	57.4	24.6	8.1	28.5	61.6	74.0	12.4	100	148
16	1825.320	48.8	24.6	8.1	28.5	53.0	74.0	21	100	239
17	1977.564	48.2	24.6	8.4	28.5	52.7	74.0	21.3	100	358
18	2073.718	48.4	25.0	8.6	28.5	53.5	74.0	20.5	100	116
19	2161.860	46.2	25.5	8.8	28.5	52.0	74.0	22	100	199
20	2370.197	48.9	26.7	9.3	28.5	56.4	74.0	17.6	100	182
21	2474.365	44.1	27.3	9.5	28.5	52.4	74.0	21.6	100	348
22	2570.520	49.1	27.7	9.7	28.4	58.1	74.0	15.9	100	200
23	2971.167	43.5	28.9	10.5	28.4	54.5	74.0	19.5	100	358
24	3267.646	41.6	28.9	11.1	28.4	53.2	74.0	20.8	100	358
25	3564.125	39.5	29.0	11.9	28.3	52.1	74.0	21.9	100	358
26	3772.461	38.8	29.6	12.4	28.3	52.5	74.0	21.5	100	358
27	3932.720	40.6	30.0	12.8	28.3	55.1	74.0	18.9	100	219
28	5463.150	33.8	34.9	14.9	28.1	55.5	74.0	18.5	100	228

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

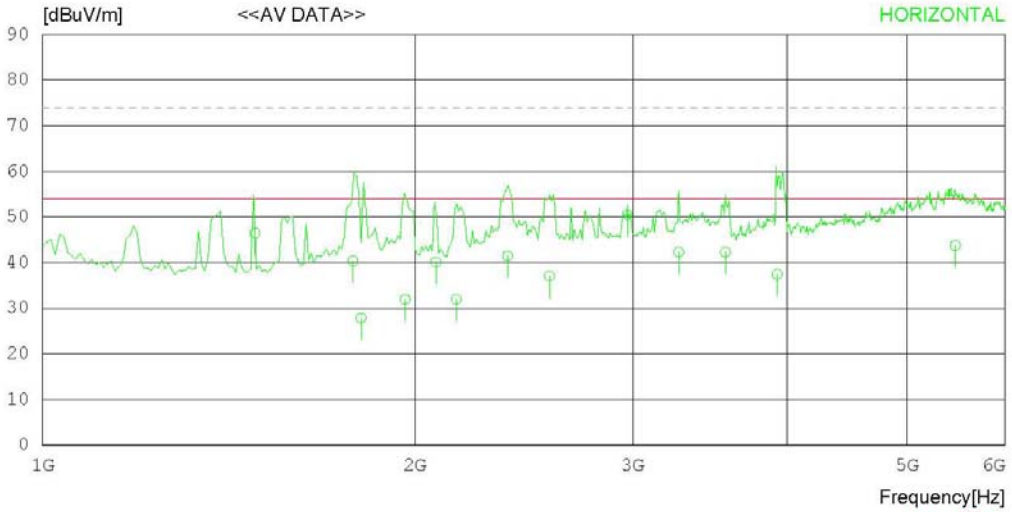
RADIATED EMISSION

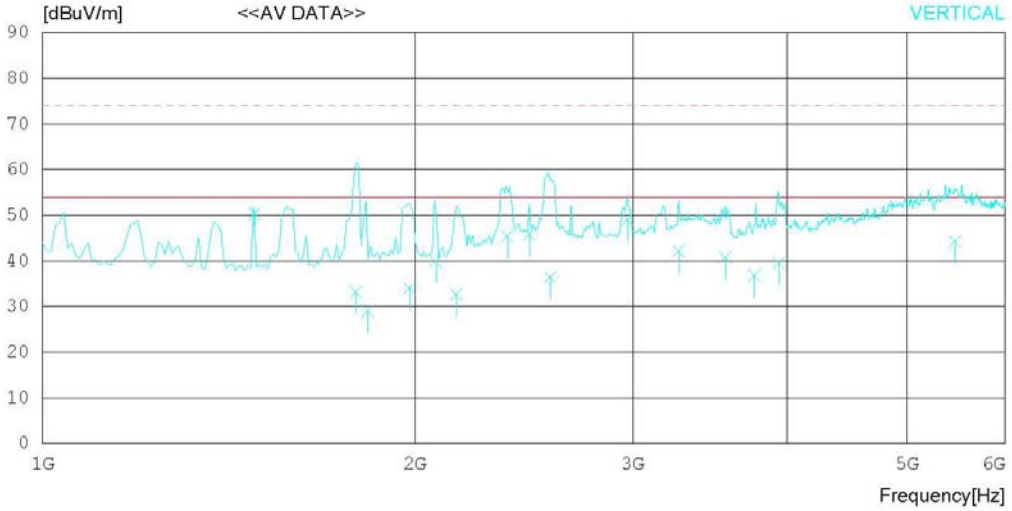
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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 : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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	1485.000	43.0	24.6	7.4	28.5	46.5	54.0	7.5	100	218
2	1782.021	36.3	24.6	8.0	28.5	40.4	54.0	13.6	100	55
3	1809.228	23.7	24.6	8.1	28.5	27.9	54.0	26.1	100	187
4	1963.500	27.5	24.6	8.4	28.5	32.0	54.0	22.0	100	211
5	2079.026	35.0	25.0	8.6	28.5	40.1	54.0	13.9	100	242
6	2160.006	26.2	25.5	8.8	28.5	32.0	54.0	22.0	100	200
7	2376.026	34.0	26.7	9.3	28.5	41.5	54.0	12.5	100	161
8	2568.814	28.1	27.7	9.7	28.4	37.1	54.0	16.9	100	199
9	2970.038	39.5	28.9	10.5	28.4	50.5	54.0	3.5	120	183
10	3267.032	30.7	28.9	11.1	28.4	42.3	54.0	11.7	100	223
11	3564.032	29.7	29.0	11.9	28.3	42.3	54.0	11.7	100	32
12	3925.262	23.0	30.0	12.8	28.3	37.5	54.0	16.5	100	200
13	5468.664	22.1	34.9	14.9	28.1	43.8	54.0	10.2	100	55
----- Vertical ------										
14	1485.018	46.9	24.6	7.4	28.5	50.4	54.0	3.6	100	197
15	1793.032	29.0	24.6	8.1	28.5	33.2	54.0	20.8	100	148
16	1831.506	24.8	24.6	8.1	28.5	29.0	54.0	25.0	100	239
17	1980.006	29.5	24.6	8.4	28.5	34.0	54.0	20.0	100	358
18	2078.994	34.8	25.0	8.6	28.5	39.9	54.0	14.1	100	116
19	2160.006	26.9	25.5	8.8	28.5	32.7	54.0	21.3	100	199
20	2376.058	37.9	26.7	9.3	28.5	45.4	54.0	8.6	125	182
21	2475.058	37.5	27.3	9.5	28.5	45.8	54.0	8.2	100	348
22	2574.006	27.5	27.7	9.7	28.4	36.5	54.0	17.5	100	200
23	2970.038	38.1	28.9	10.5	28.4	49.1	54.0	4.9	100	210
24	3267.032	30.5	28.9	11.1	28.4	42.1	54.0	11.9	100	116
25	3564.064	28.2	29.0	11.9	28.3	40.8	54.0	13.2	100	227
26	3762.000	23.2	29.5	12.3	28.3	36.7	54.0	17.3	100	32
27	3938.282	25.1	30.0	12.8	28.3	39.6	54.0	14.4	110	219
28	5468.965	22.6	34.9	14.9	28.1	44.3	54.0	9.7	100	228

< USB MODE_30 MHz ~ 1 GHz >

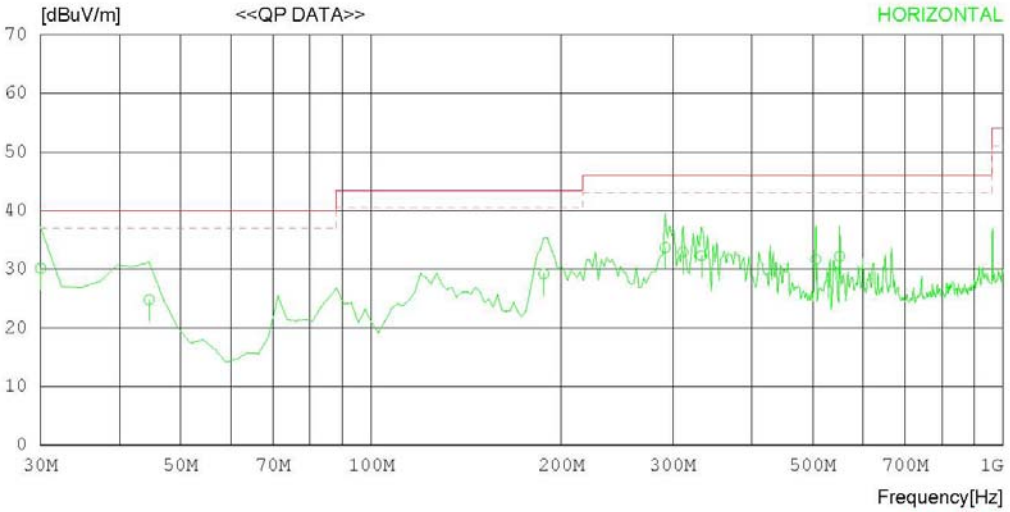
RADIATED EMISSION

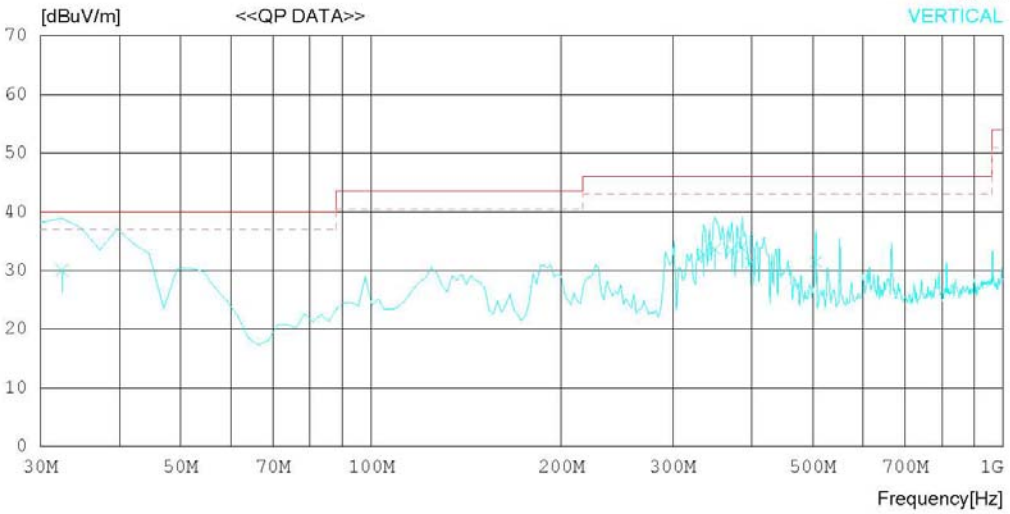
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21' C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21' 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	30.000	35.3	17.9	0.8	23.8	30.2	40.0	9.8	200	358
2	44.550	34.1	13.8	1.1	24.2	24.8	40.0	15.2	200	344
3	187.625	41.3	9.7	2.2	24.0	29.2	43.5	14.3	100	186
4	291.900	40.9	13.6	2.8	23.6	33.7	46.0	12.3	100	178
5	311.300	39.6	14.0	2.9	23.6	32.9	46.0	13.1	100	184
6	333.125	38.2	14.5	3.2	23.6	32.3	46.0	13.7	100	198
7	505.299	33.4	17.4	3.9	23.0	31.7	46.0	14.3	200	0
8	551.374	33.4	18.0	3.8	23.0	32.2	46.0	13.8	200	0
----- Vertical ------										
9	32.425	36.3	16.6	1.0	23.9	30.0	40.0	10.0	122	233
10	335.550	38.6	14.6	3.2	23.6	32.8	46.0	13.2	132	162
11	350.100	39.1	14.9	3.3	23.6	33.7	46.0	12.3	155	171
12	371.925	38.2	15.4	3.4	23.6	33.4	46.0	12.6	147	358
13	386.475	38.2	15.7	3.5	23.5	33.9	46.0	12.1	100	325
14	398.600	35.3	16.0	3.5	23.5	31.3	46.0	14.7	165	151
15	505.299	33.2	17.4	3.9	23.0	31.5	46.0	14.5	100	358

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

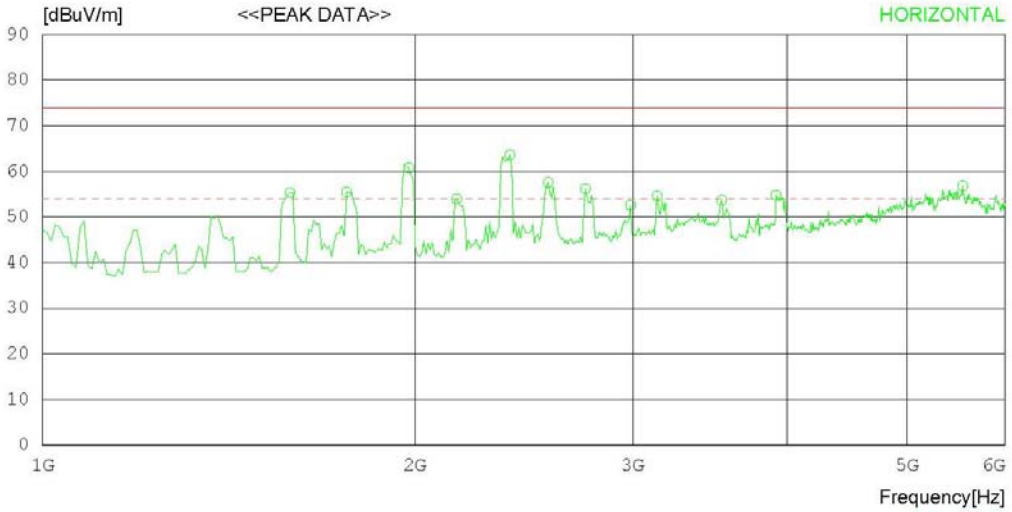
RADIATED EMISSION

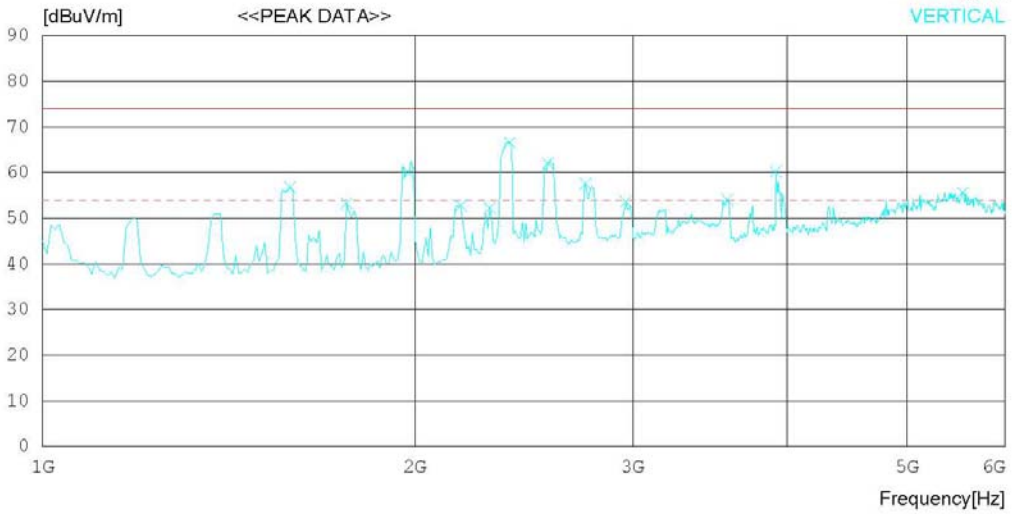
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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 : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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	51.5	24.6	7.7	28.5	55.3	74.0	18.7	100	157
2	1761.218	51.4	24.6	8.0	28.5	55.5	74.0	18.5	100	358
3	1977.564	56.3	24.6	8.4	28.5	60.8	74.0	13.2	100	198
4	2161.860	48.2	25.5	8.8	28.5	54.0	74.0	20	100	207
5	2386.223	56.0	26.8	9.3	28.5	63.6	74.0	10.4	100	358
6	2562.507	48.7	27.6	9.7	28.4	57.6	74.0	16.4	100	201
7	2746.805	46.4	28.2	10.0	28.4	56.2	74.0	17.8	100	358
8	2987.193	41.6	28.9	10.5	28.4	52.6	74.0	21.4	100	358
9	3139.439	43.2	29.0	10.8	28.4	54.6	74.0	19.4	100	178
10	3540.086	41.2	29.0	11.8	28.3	53.7	74.0	20.3	100	358
11	3916.694	40.5	29.9	12.7	28.3	54.8	74.0	19.2	100	203
12	5543.277	35.3	34.8	14.9	28.2	56.8	74.0	17.2	100	358
----- Vertical ------										
13	1584.936	53.0	24.6	7.7	28.5	56.8	74.0	17.2	100	181
14	1761.218	49.2	24.6	8.0	28.5	53.3	74.0	20.7	100	123
15	1977.564	55.5	24.6	8.4	28.5	60.0	74.0	14	100	187
16	2177.886	46.9	25.6	8.8	28.5	52.8	74.0	21.2	100	163
17	2298.080	45.4	26.3	9.1	28.5	52.3	74.0	21.7	100	187
18	2386.223	59.0	26.8	9.3	28.5	66.6	74.0	7.4	100	1
19	2562.507	53.2	27.6	9.7	28.4	62.1	74.0	11.9	100	1
20	2746.805	47.8	28.2	10.0	28.4	57.6	74.0	16.4	100	1
21	2963.154	42.8	28.9	10.4	28.4	53.7	74.0	20.3	100	201
22	3580.151	41.4	29.1	11.9	28.3	54.1	74.0	19.9	100	216
23	3916.694	45.9	29.9	12.7	28.3	60.2	74.0	13.8	100	167
24	5543.277	34.2	34.8	14.9	28.2	55.7	74.0	18.3	100	70

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

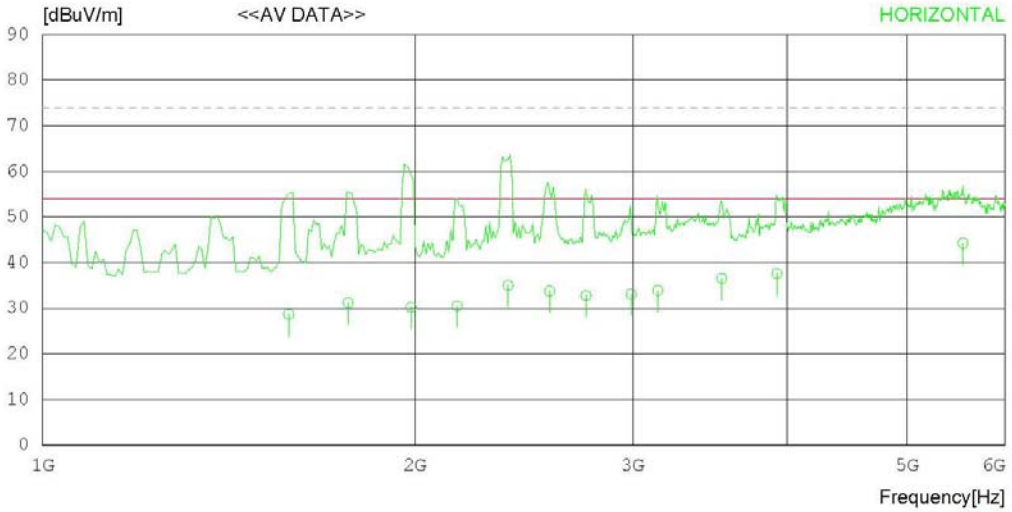
RADIATED EMISSION

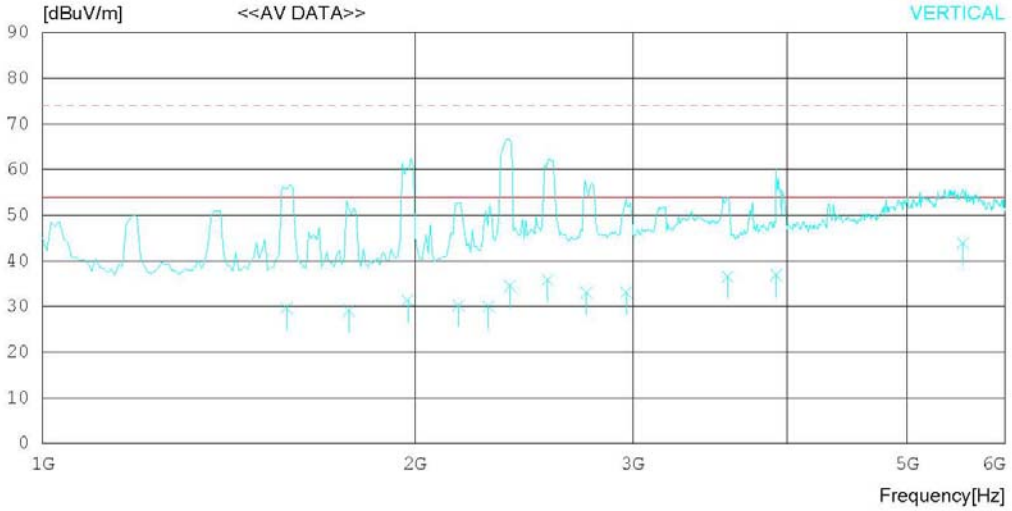
Date : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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 : 2013-05-06

Model Name	:	42LN5200-UM	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	21 '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	1581.212	24.9	24.6	7.7	28.5	28.7	54.0	25.3	100	157
2	1766.448	27.1	24.6	8.0	28.5	31.2	54.0	22.8	100	52
3	1985.269	25.7	24.6	8.4	28.5	30.2	54.0	23.8	100	198
4	2163.350	24.7	25.5	8.8	28.5	30.5	54.0	23.5	100	207
5	2378.115	27.5	26.7	9.3	28.5	35.0	54.0	19.0	100	358
6	2569.308	24.8	27.7	9.7	28.4	33.8	54.0	20.2	100	201
7	2750.060	23.0	28.2	10.0	28.4	32.8	54.0	21.2	100	358
8	2991.552	22.0	29.0	10.5	28.4	33.1	54.0	20.9	129	358
9	3143.872	22.4	29.0	10.9	28.4	33.9	54.0	20.1	100	178
10	3540.641	24.1	29.0	11.8	28.3	36.6	54.0	17.4	100	25
11	3922.859	23.2	30.0	12.7	28.3	37.6	54.0	16.4	100	203
12	5546.985	22.8	34.8	14.9	28.2	44.3	54.0	9.7	100	48
----- Vertical ------										
13	1574.096	26.0	24.6	7.6	28.5	29.7	54.0	24.3	100	181
14	1769.077	25.0	24.6	8.0	28.5	29.1	54.0	24.9	100	123
15	1974.212	26.9	24.6	8.4	28.5	31.4	54.0	22.6	100	187
16	2169.660	24.5	25.5	8.8	28.5	30.3	54.0	23.7	100	163
17	2293.962	23.2	26.3	9.1	28.5	30.1	54.0	23.9	100	187
18	2387.090	26.9	26.8	9.3	28.5	34.5	54.0	19.5	127	28
19	2560.942	27.0	27.6	9.7	28.4	35.9	54.0	18.1	100	199
20	2752.058	23.3	28.2	10.0	28.4	33.1	54.0	20.9	100	342
21	2965.115	22.2	28.9	10.4	28.4	33.1	54.0	20.9	100	201
22	3582.435	23.9	29.1	11.9	28.3	36.6	54.0	17.4	100	216
23	3916.609	22.6	29.9	12.7	28.3	36.9	54.0	17.1	115	167
24	5547.518	22.4	34.8	14.9	28.2	43.9	54.0	10.1	100	70

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	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	2013.02.27	2014.02.27
☒	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	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
☒	PREAMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
☐	SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
☐	AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
☐	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