

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 42LN541C-UA
Order No. : 1301-00168
Date of receipt : 2013-01-16
Test duration : 2013-01-22 ~ 2013-01-25
Use of report : FCC CoC Marking
Date of Issue : 2013-01-28

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 : (17 ~ 18) °C,
Humidity : (35 ~ 37) % R.H.

Test result : ☒ Comply ☐ Not Comply

The test results presented in this test report are limited only to the sample supplied by applicant and
the use of this test report is inhibited other than its purpose.

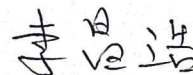
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Tested by:



Assistant Manager
DaeHwa Eun

Reviewed by:



General Manager
ChangHo Lee

PRESIDENT OF DIGITAL EMC CO., LTD.

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1. General Remarks

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

Address : 683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

<http://www.digitalemcc.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.	42LN541C-UA
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ42LN541CUA
Type of Sample Tested	Pre-Production
High Frequency	Max 800 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.6 A
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

RGB (PC), HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720x400	31.46	70.08
640x480	31.46	59.94
800x600	37.87	60.31
1024x768	48.36	60.00
1360x768	47.71	60.01
1280x1024	63.98	60.02
1920x1080	67.50	60.00

4. Test Summary

4.1 Applied standards and test results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4:2003	C
Radiated Disturbance	ANSI C63.4:2003	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

4.2 Test environment and conditions

Test Items	Test date (MM-DD)	Temp (°C)	Humidity (% R.H.)
Conducted Disturbance	01-22	18	37
Radiated Disturbance	01-24	17	37
	01-25	18	35

4.3 Test result Summary

(1) Conducted Emission (DSUB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
14.153	L1	34.4	Average	50.0	15.6

(2) Radiated Emission (DSUB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
198.000	H	40.0	Quasi-Peak	43.5	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

- DSUB MODE : 'H' Pattern mode, 1920x1080 Resolution
- HDMI MODE : 'H' Pattern mode, 1920x1080 Resolution
- USB MODE : USB record 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	VOSTRO220	G3RZKBX	DELL INC.	POWER	1.6	Not use	Non-shield	Plastic	DOC
				USB	1.8	Not use	Non-shield		
				USB	1.6	Not use	Non-shield		
				USB	1.7	Not use	Non-shield		
				HDMI	1.6	Not use	Shield		
				DSUB	1.7	Not use	Shield		
KEYBOARD	SKG-3000UB	TAKB60124 1E	MONITEREY INTERNATIONAL CORP	USB	1.8	Not use	Non-shield	Plastic	DOC
MOUSE	1484	N/A	MICROSOFT CORPORATION	USB	1.6	Not use	Non-shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2001499	SONY EMCS	POWER AV	1.7 1.8	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	SDCZ37-004G	N/A	SANDISK	USB	-	-	-	Plastic	DOC
PRINTER	EPSON AcuLaser M1200	LWTZ18070	EPSON	POWER USB	1.8 2.0	Not use Not use	Non-shield Non-shield	Plastic	DOC
Remote control	AKB73715608	N/A	OHSUNG ELECTRONIC	-	-	-	-	-	-
Headset	COV903	N/A	COSY	STEREO	2.0	Not use	Non-shield	Plastic	DOC

6. Test Results : Emission

6.1 Conducted Disturbance

6.1.1 Measurement Procedure

In the range of 0.15 MHz to 30 MHz, the conducted disturbance was measured and set-up was made accordance with **ANSI C63.4**.

If the EUT is table top equipment, it was placed on a wooden table with a height of 0.8 m above the reference ground plane and 0.4 m from the conducting wall of the shielded room.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15 m above the reference ground plane.

Connect the EUT's power source lines to the appropriate power mains / peripherals through the LISN. All the other peripherals are connected to the 2nd LISN, if any.

Unused measuring port of the LISN was resistively terminated by 50 ohm terminator.

The measuring port of the LISN for EUT was connected to spectrum analyzer.

Using conducted emission test software, the emissions were scanned with peak detector mode.

After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and Average detector.

By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.

For further description of the configuration refer to the picture of the test set-up.

6.1.2 Limit for Conducted Disturbance

(1) Conducted disturbance at mains ports.

Frequency range (MHz)	Limits dB(μV)			
	Quasi-peak		Average	
	Class A	Class B	Class A	Class B
0.15 to 0.50	79	66 to 56	66	56 to 46
0.50 to 5	73	56	60	46
5 to 30		60		50
Note 1 The lower limit shall apply at the transition frequencies.				
Note 2 The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Note) 1. Emission Level = Reading Value + Correction Factor.

2. Correction Factor = Cable Loss + Insertion Loss of LISN

3. Margin = Limit - Emission level

Test Result

< DSUB MODE >



Results of Conducted Emission

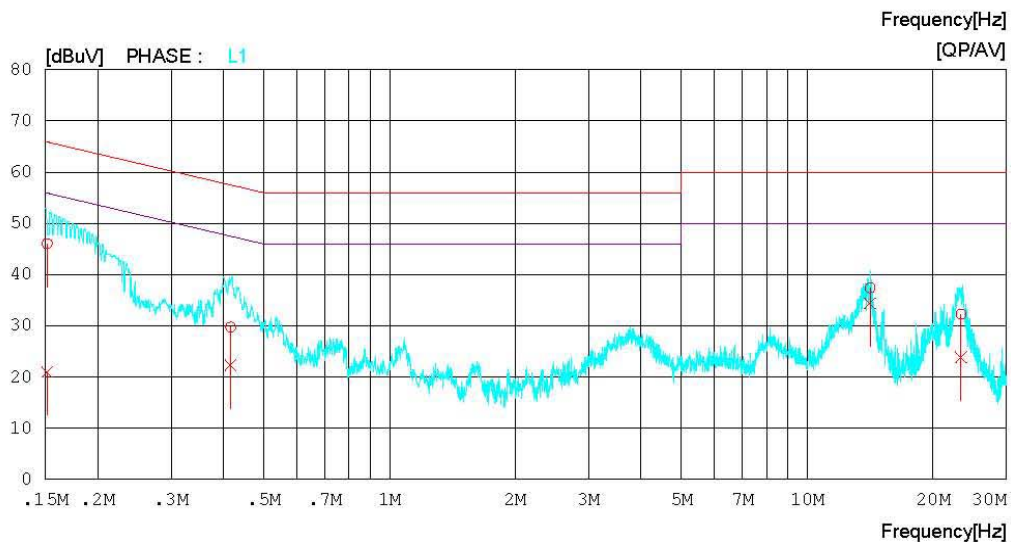
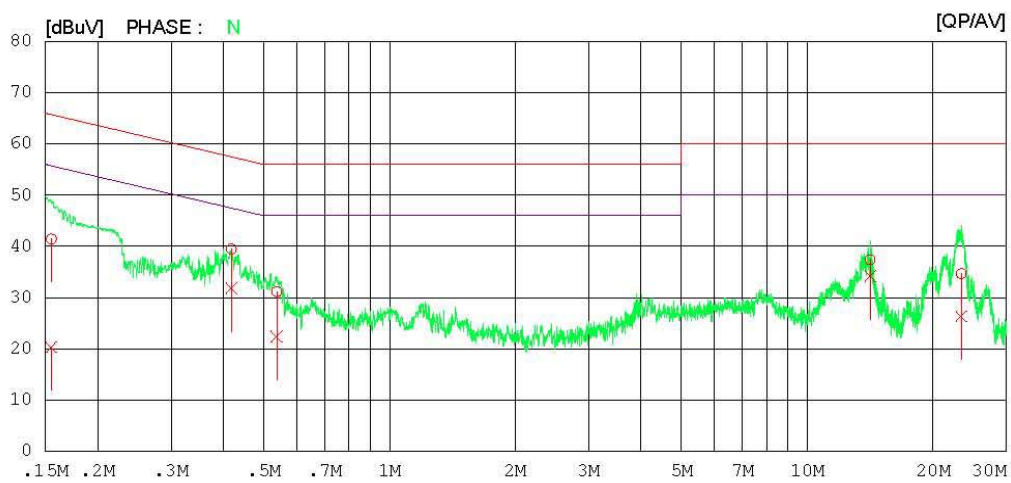
Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % 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	0.15510	41.2	20.1	0.2	41.4	20.3	65.7	55.7	24.3	35.4	N
2	0.41854	39.3	31.6	0.2	39.5	31.8	57.5	47.5	18.0	15.7	N
3	0.53709	30.9	22.2	0.2	31.1	22.4	56.0	46.0	24.9	23.6	N
4	14.15500	36.7	33.4	0.7	37.4	34.1	60.0	50.0	22.6	15.9	N
5	23.39550	33.7	25.3	1.0	34.7	26.3	60.0	50.0	25.3	23.7	N
6	0.15161	45.9	20.8	0.2	46.1	21.0	65.9	55.9	19.8	34.9	L1
7	0.41661	29.6	22.1	0.2	29.8	22.3	57.5	47.5	27.7	25.2	L1
8	14.15300	36.7	33.7	0.7	37.4	34.4	60.0	50.0	22.6	15.6	L1
9	23.35100	31.3	22.9	1.0	32.3	23.9	60.0	50.0	27.7	26.1	L1

< HDMI MODE >



Results of Conducted Emission

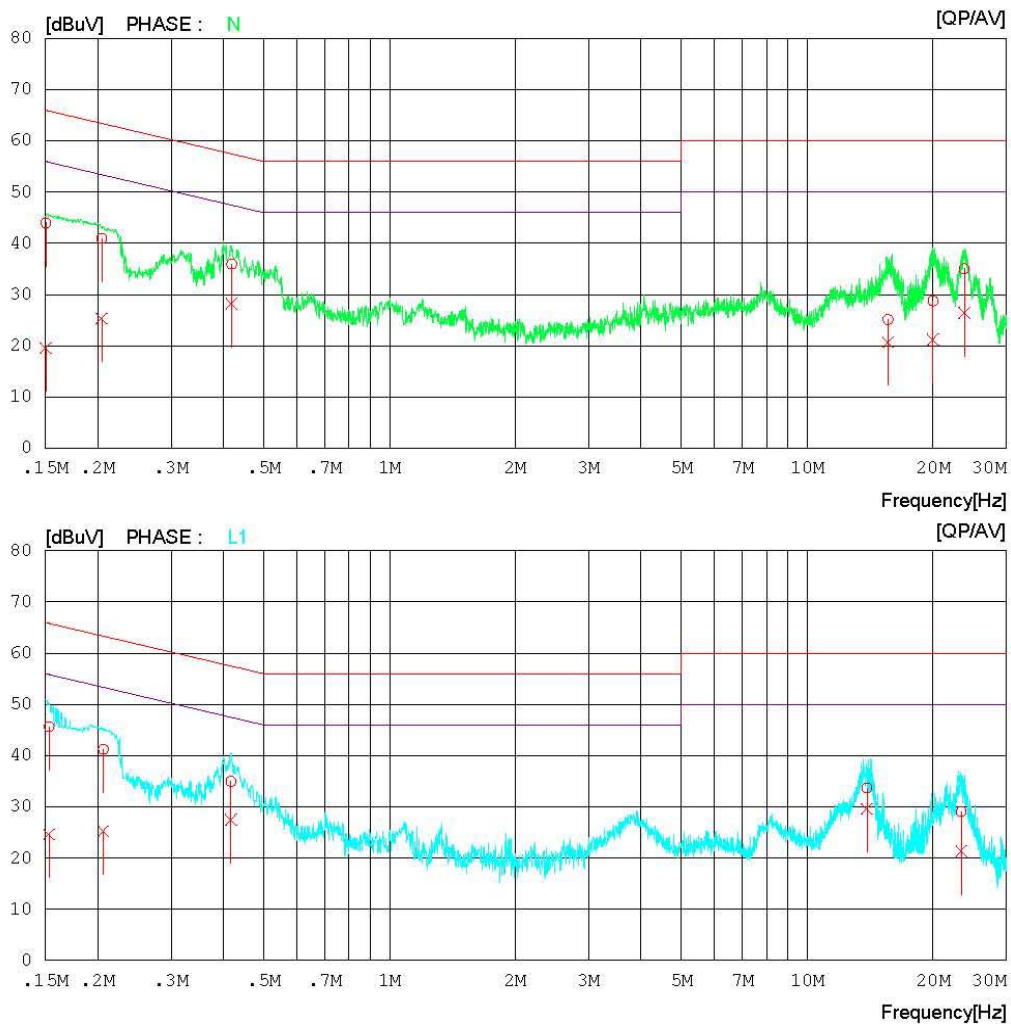
Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % 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	0.15056	43.8	19.4	0.2	44.0	19.6	66.0	56.0	22.0	36.4	N
2	0.20470	40.8	25.1	0.2	41.0	25.3	63.4	53.4	22.4	28.1	N
3	0.41911	35.7	28.0	0.2	35.9	28.2	57.5	47.5	21.6	19.3	N
4	15.61800	24.3	19.9	0.8	25.1	20.7	60.0	50.0	34.9	29.3	N
5	20.00900	27.8	20.3	0.9	28.7	21.2	60.0	50.0	31.3	28.8	N
6	23.76600	34.0	25.4	1.0	35.0	26.4	60.0	50.0	25.0	23.6	N
7	0.15324	45.4	24.4	0.2	45.6	24.6	65.8	55.8	20.2	31.2	L1
8	0.20650	41.0	25.0	0.2	41.2	25.2	63.3	53.3	22.1	28.1	L1
9	0.41724	34.8	27.3	0.2	35.0	27.5	57.5	47.5	22.5	20.0	L1
10	13.90950	33.0	28.9	0.7	33.7	29.6	60.0	50.0	26.3	20.4	L1
11	23.39350	28.1	20.4	1.0	29.1	21.4	60.0	50.0	30.9	28.6	L1

< USB MODE >



Results of Conducted Emission

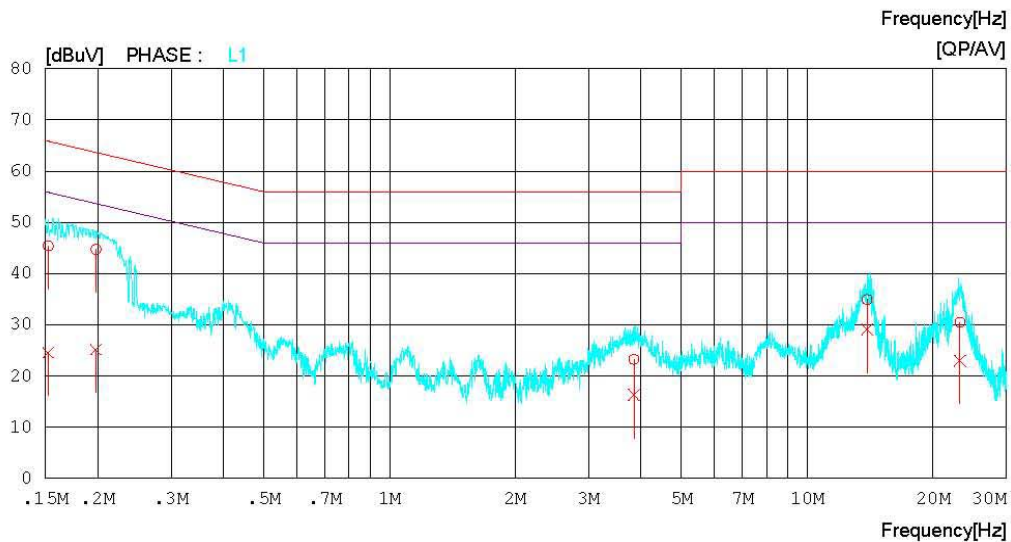
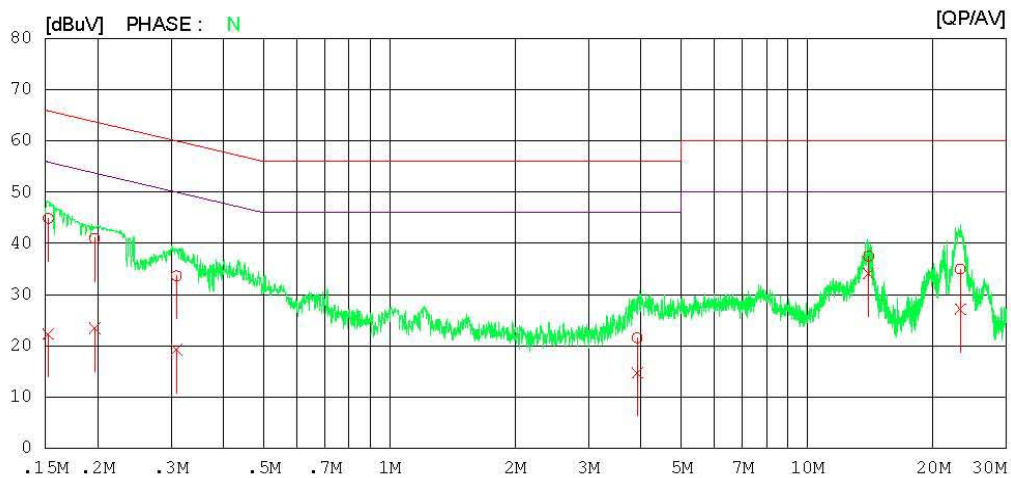
Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-22

Model No. : 42LN541C-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 18 °C 37 % 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	0.15248	44.7	22.1	0.2	44.9	22.3	65.9	55.9	21.0	33.6	N
2	0.19689	40.8	23.2	0.2	41.0	23.4	63.7	53.7	22.7	30.3	N
3	0.30919	33.4	19.0	0.2	33.6	19.2	60.0	50.0	26.4	30.8	N
4	3.91900	21.2	14.4	0.3	21.5	14.7	56.0	46.0	34.5	31.3	N
5	14.03200	36.8	33.4	0.7	37.5	34.1	60.0	50.0	22.5	15.9	N
6	23.27100	34.0	26.1	1.0	35.0	27.1	60.0	50.0	25.0	22.9	N
7	0.15248	45.2	24.4	0.2	45.4	24.6	65.9	55.9	20.5	31.3	L1
8	0.19829	44.5	25.0	0.2	44.7	25.2	63.7	53.7	19.0	28.5	L1
9	3.84850	22.9	16.0	0.3	23.2	16.3	56.0	46.0	32.8	29.7	L1
10	13.91300	34.3	28.4	0.7	35.0	29.1	60.0	50.0	25.0	20.9	L1
11	23.20750	29.5	22.0	1.0	30.5	23.0	60.0	50.0	29.5	27.0	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

< DSUB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

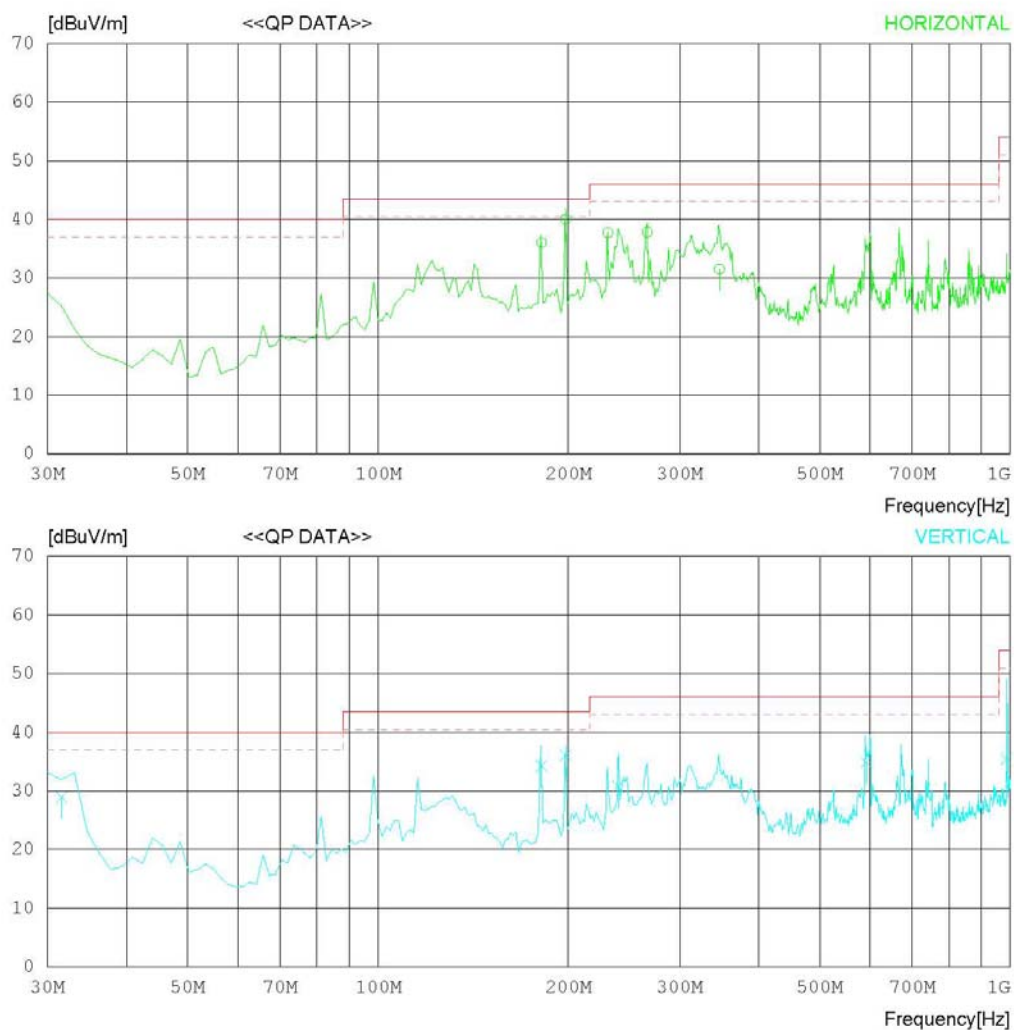
Date : 2013-01-24

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 17 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-24

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 17 °C 37 % R.H.
Test Condition : DSUB	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	181.503	48.1	9.7	2.2	24.0	36.0	43.5	7.5	100	180
2	198.000	52.0	9.7	2.3	24.0	40.0	43.5	3.5	100	178
3	230.994	47.4	11.6	2.5	23.8	37.7	46.0	8.3	100	358
4	266.471	45.7	13.1	2.7	23.7	37.8	46.0	8.2	100	221
5	346.511	37.0	14.8	3.3	23.6	31.5	46.0	14.5	100	87
----- Vertical -----										
6	31.585	34.9	17.0	0.9	23.8	29.0	40.0	11.0	100	108
7	181.497	46.4	9.7	2.2	24.0	34.3	43.5	9.2	168	184
8	198.000	48.1	9.7	2.3	24.0	36.1	43.5	7.4	184	142
9	240.000	40.0	12.1	2.5	23.8	30.8	46.0	15.2	100	180
10	592.333	35.6	18.6	4.1	23.4	34.9	46.0	11.1	100	194
11	987.192	30.7	22.1	5.4	22.8	35.4	54.0	18.6	100	279

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

RADIATED EMISSION

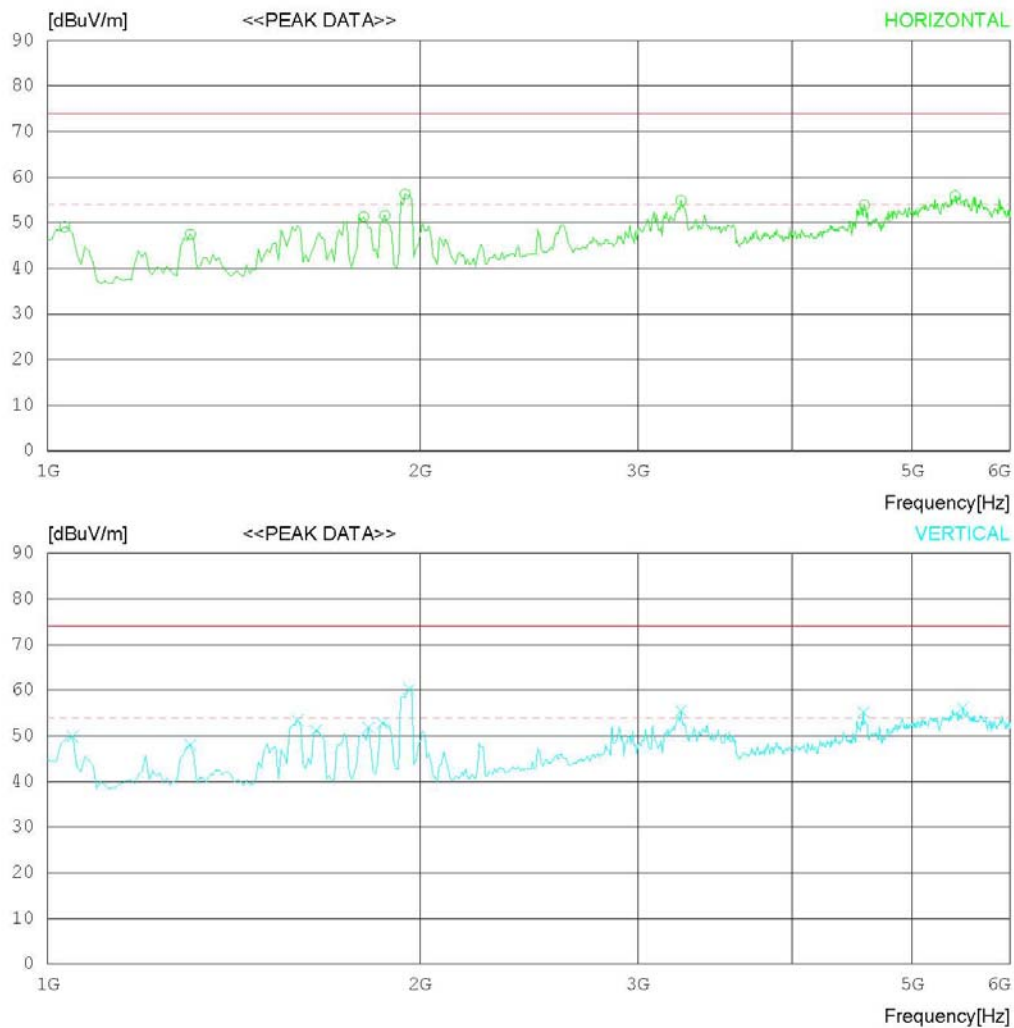
Date : 2013-01-25

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-25

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : DSUB	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	1032.051	47.8	23.9	5.9	28.5	49.1	74.0	24.9	100	180
2	1304.487	44.9	24.3	6.8	28.5	47.5	74.0	26.5	100	358
3	1801.282	47.1	24.6	8.1	28.5	51.3	74.0	22.7	100	358
4	1873.397	47.3	24.6	8.2	28.5	51.6	74.0	22.4	100	158
5	1945.512	51.9	24.6	8.3	28.5	56.3	74.0	17.7	100	206
6	3251.620	43.3	28.9	11.1	28.4	54.9	74.0	19.1	100	176
7	4573.741	37.3	31.1	13.7	28.2	53.9	74.0	20.1	100	171
8	5415.074	34.5	34.6	14.9	28.1	55.9	74.0	18.1	100	346
----- Vertical -----										
9	1048.077	48.5	23.9	5.9	28.5	49.8	74.0	24.2	100	1
10	1304.487	45.4	24.3	6.8	28.5	48.0	74.0	26	100	1
11	1592.948	49.6	24.6	7.7	28.5	53.4	74.0	20.6	100	211
12	1649.038	47.3	24.6	7.8	28.5	51.2	74.0	22.8	100	221
13	1817.307	47.6	24.6	8.1	28.5	51.8	74.0	22.2	100	188
14	1865.384	48.5	24.6	8.2	28.5	52.8	74.0	21.2	100	188
15	1961.538	55.8	24.6	8.4	28.5	60.3	74.0	13.7	100	228
16	3251.620	43.9	28.9	11.1	28.4	55.5	74.0	18.5	100	208
17	4565.728	38.6	31.1	13.7	28.2	55.2	74.0	18.8	100	1
18	5495.201	34.2	35.1	14.9	28.1	56.1	74.0	17.9	100	117

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

RADIATED EMISSION

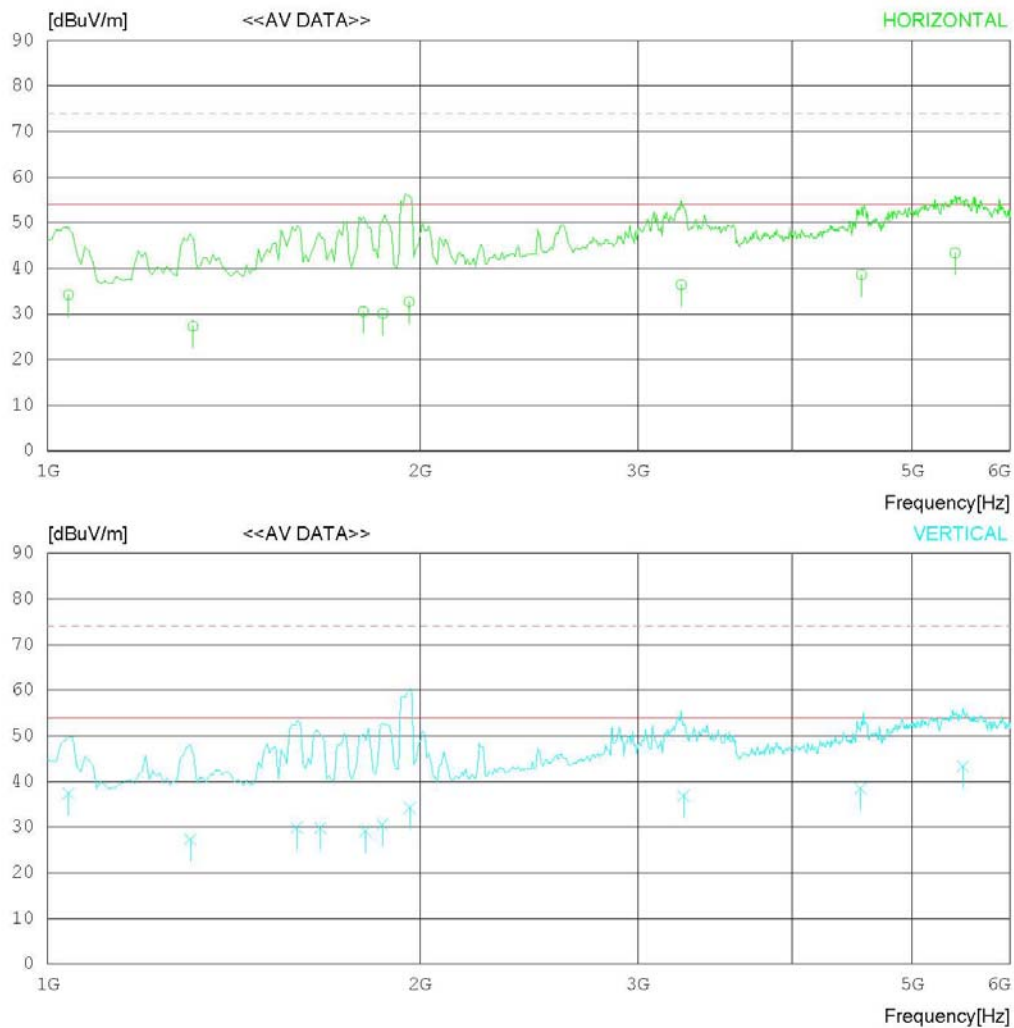
Date : 2013-01-25

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-25

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : DSUB	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	1039.660	32.9	23.9	5.9	28.5	34.2	54.0	19.8	100	194
2	1310.846	24.6	24.4	6.8	28.5	27.3	54.0	26.7	100	30
3	1799.853	26.3	24.6	8.1	28.5	30.5	54.0	23.5	100	163
4	1866.574	25.8	24.6	8.2	28.5	30.1	54.0	23.9	100	158
5	1960.509	28.2	24.6	8.4	28.5	32.7	54.0	21.3	100	194
6	3252.955	24.8	28.9	11.1	28.4	36.4	54.0	17.6	100	176
7	4548.683	22.1	31.1	13.6	28.2	38.6	54.0	15.4	100	73
8	5415.074	22.0	34.6	14.9	28.1	43.4	54.0	10.6	100	346
----- Vertical -----										
9	1039.660	36.1	23.9	5.9	28.5	37.4	54.0	16.6	100	201
10	1304.487	24.7	24.3	6.8	28.5	27.3	54.0	26.7	100	188
11	1590.474	26.1	24.6	7.7	28.5	29.9	54.0	24.1	100	271
12	1662.529	25.9	24.6	7.8	28.5	29.8	54.0	24.2	100	221
13	1807.304	24.9	24.6	8.1	28.5	29.1	54.0	24.9	100	187
14	1865.384	26.2	24.6	8.2	28.5	30.5	54.0	23.5	100	164
15	1963.509	29.7	24.6	8.4	28.5	34.2	54.0	19.8	100	228
16	3266.737	25.3	28.9	11.1	28.4	36.9	54.0	17.1	100	208
17	4541.952	22.1	31.0	13.6	28.2	38.5	54.0	15.5	100	1
18	5495.201	21.4	35.1	14.9	28.1	43.3	54.0	10.7	100	117

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

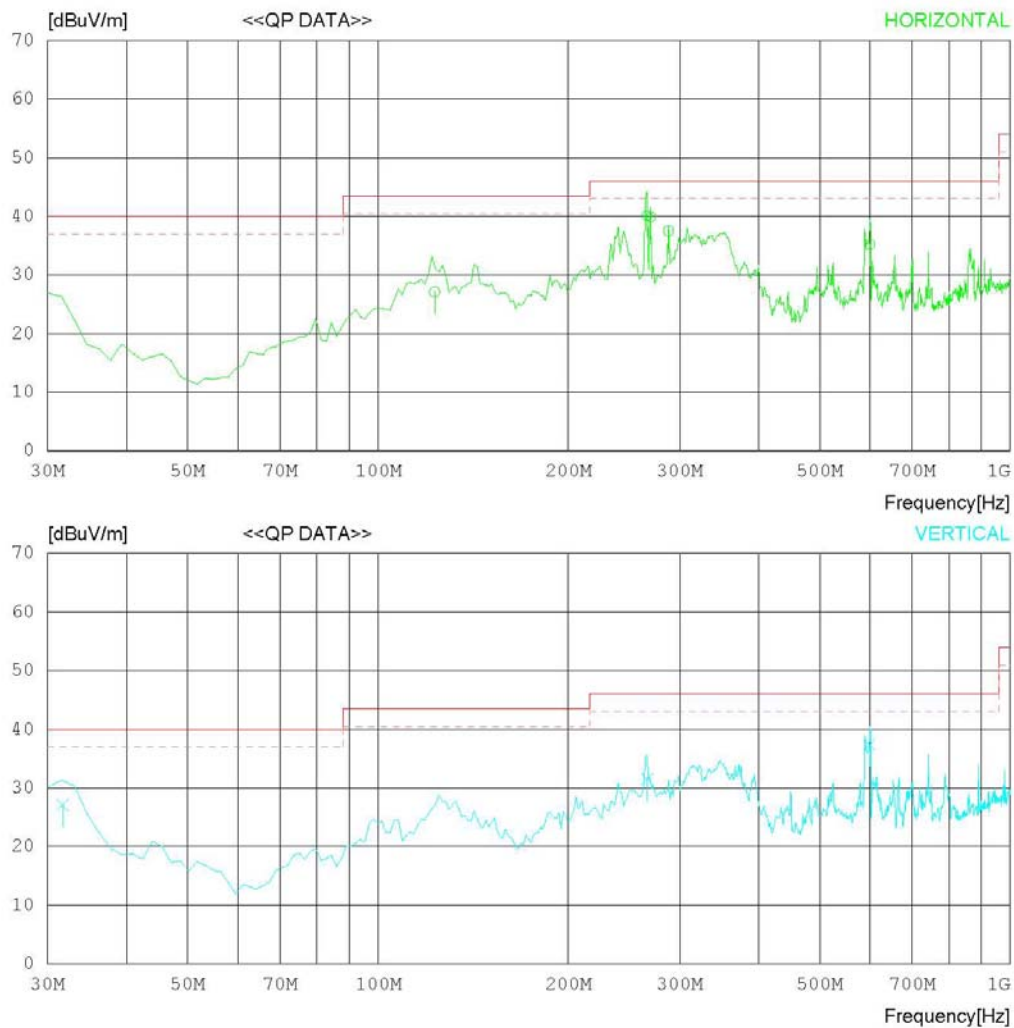
Date : 2013-01-24

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 17 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-24

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 17 °C 37 % R.H.
Test Condition : HDMI	Operator :

Memo :

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

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	122.823	38.0	11.7	1.6	24.2	27.1	43.5	16.4	164	198
2	266.282	48.0	13.1	2.7	23.7	40.1	46.0	5.9	100	284
3	270.009	47.8	13.1	2.7	23.7	39.9	46.0	6.1	100	243
4	288.008	44.9	13.5	2.8	23.7	37.5	46.0	8.5	100	358
5	599.888	35.8	18.7	4.1	23.4	35.2	46.0	10.8	100	229
----- Vertical -----										
6	31.682	33.0	17.0	0.9	23.8	27.1	40.0	12.9	100	12
7	266.468	39.4	13.1	2.7	23.7	31.5	46.0	14.5	100	1
8	599.904	38.0	18.7	4.1	23.4	37.4	46.0	8.6	100	188

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

RADIATED EMISSION

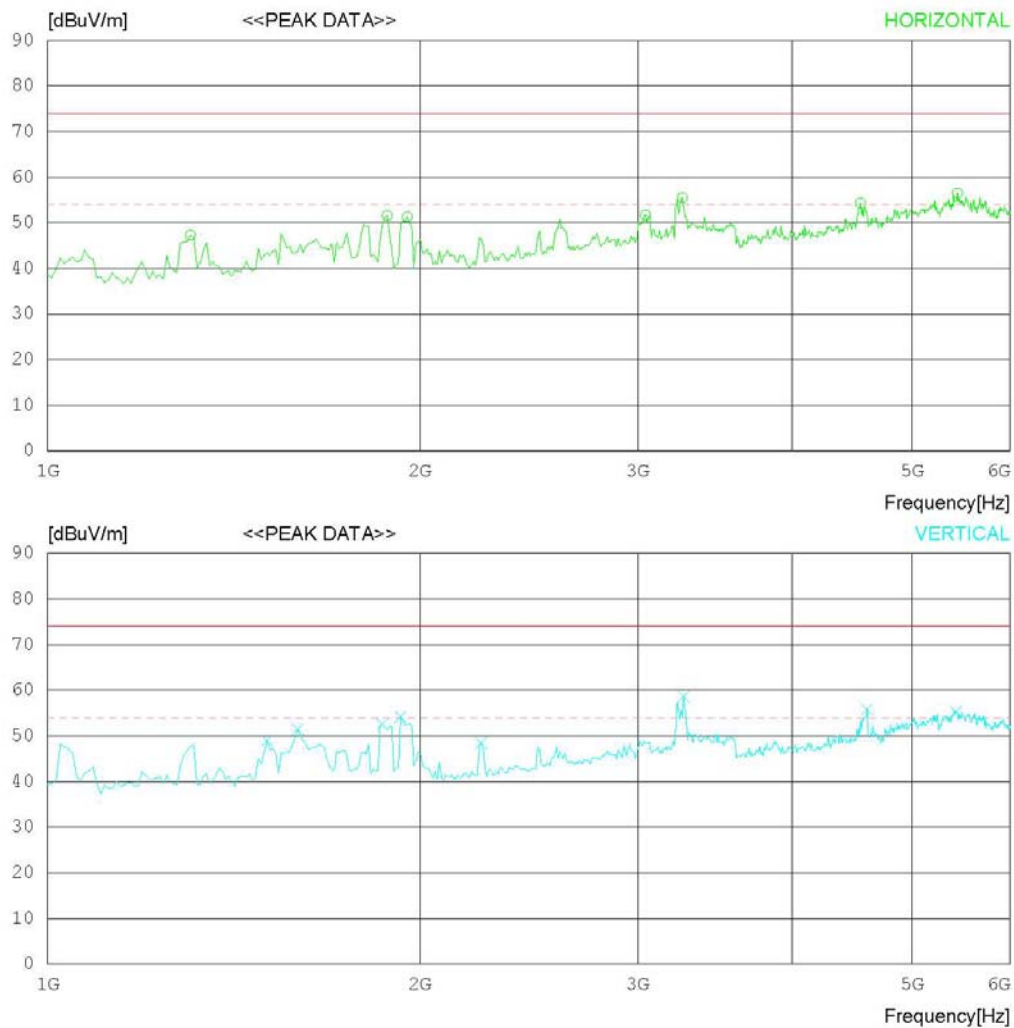
Date : 2013-01-24

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-24

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : HDMI	Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1304.487	44.7	24.3	6.8	28.5	47.3	74.0	26.7	100	358
2	1881.410	47.3	24.6	8.2	28.5	51.6	74.0	22.4	100	358
3	1953.525	46.8	24.6	8.4	28.5	51.3	74.0	22.7	100	358
4	3043.284	40.5	29.0	10.6	28.4	51.7	74.0	22.3	100	358
5	3259.633	43.9	28.9	11.1	28.4	55.5	74.0	18.5	100	358
6	4541.690	37.9	31.0	13.6	28.2	54.3	74.0	19.7	100	167
7	5439.112	34.9	34.8	14.9	28.1	56.5	74.0	17.5	100	265
----- Vertical -----										
8	1504.807	45.4	24.6	7.5	28.5	49.0	74.0	25	100	162
9	1592.948	47.7	24.6	7.7	28.5	51.5	74.0	22.5	100	212
10	1865.384	48.2	24.6	8.2	28.5	52.5	74.0	21.5	100	179
11	1929.487	49.7	24.6	8.3	28.5	54.1	74.0	19.9	100	1
12	2241.990	42.0	26.0	9.0	28.5	48.5	74.0	25.5	100	1
13	3267.646	47.0	28.9	11.1	28.4	58.6	74.0	15.4	100	1
14	4597.779	39.0	31.2	13.8	28.2	55.8	74.0	18.2	100	1
15	5423.086	33.8	34.7	14.9	28.1	55.3	74.0	18.7	100	52

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

RADIATED EMISSION

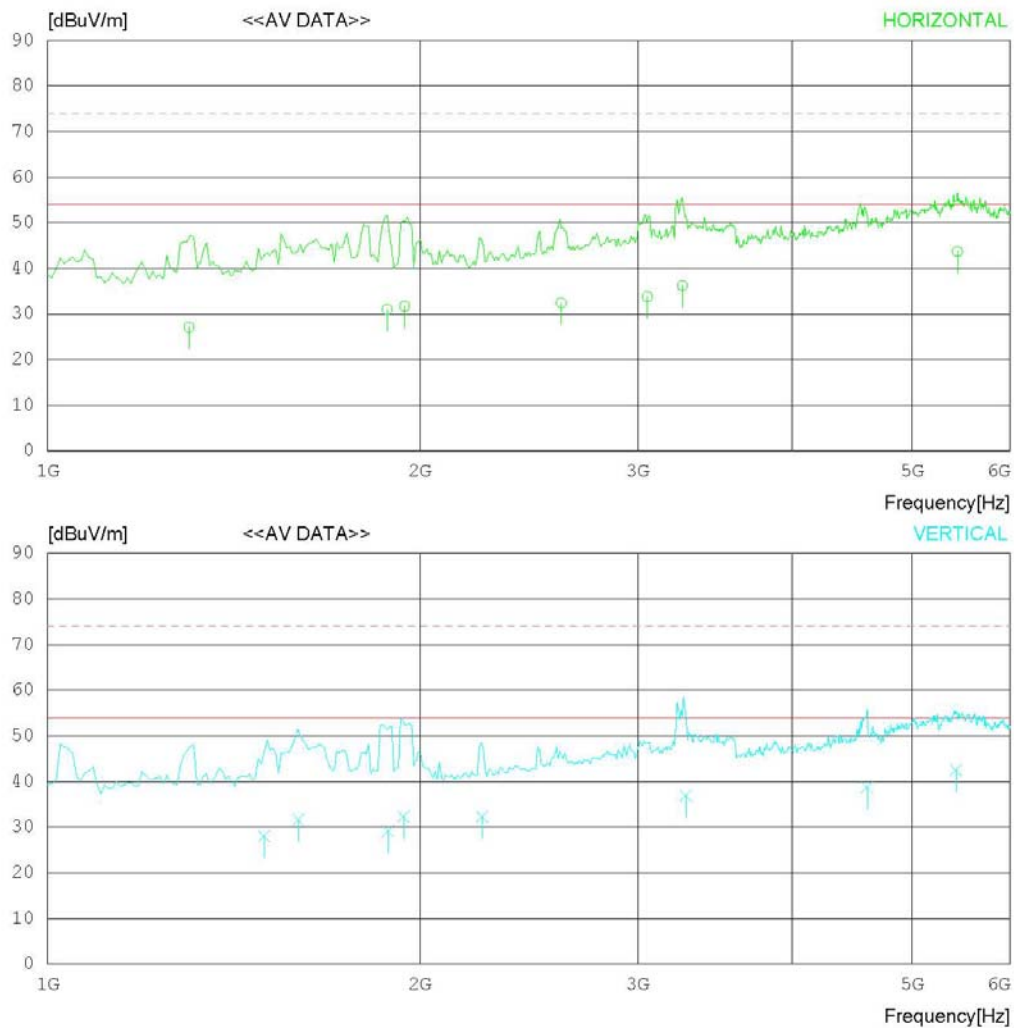
Date : 2013-01-24

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-24

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : HDMI	Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1301.115	24.5	24.3	6.8	28.5	27.1	54.0	26.9	100	155
2	1881.410	26.7	24.6	8.2	28.5	31.0	54.0	23.0	100	358
3	1944.391	27.3	24.6	8.3	28.5	31.7	54.0	22.3	100	358
4	2601.971	23.3	27.8	9.7	28.4	32.4	54.0	21.6	100	358
5	3054.000	22.6	29.0	10.6	28.4	33.8	54.0	20.2	100	358
6	3258.892	24.6	28.9	11.1	28.4	36.2	54.0	17.8	100	167
7	5439.112	22.1	34.8	14.9	28.1	43.7	54.0	10.3	100	16
----- Vertical -----										
8	1496.551	24.4	24.6	7.5	28.5	28.0	54.0	26.0	100	162
9	1595.064	27.8	24.6	7.7	28.5	31.6	54.0	22.4	100	212
10	1886.147	24.8	24.6	8.2	28.5	29.1	54.0	24.9	100	179
11	1939.397	27.9	24.6	8.3	28.5	32.3	54.0	21.7	100	213
12	2245.167	25.8	26.0	9.0	28.5	32.3	54.0	21.7	100	180
13	3280.807	25.1	28.9	11.2	28.4	36.8	54.0	17.2	100	46
14	4597.779	21.9	31.2	13.8	28.2	38.7	54.0	15.3	100	344
15	5423.086	21.0	34.7	14.9	28.1	42.5	54.0	11.5	100	52

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

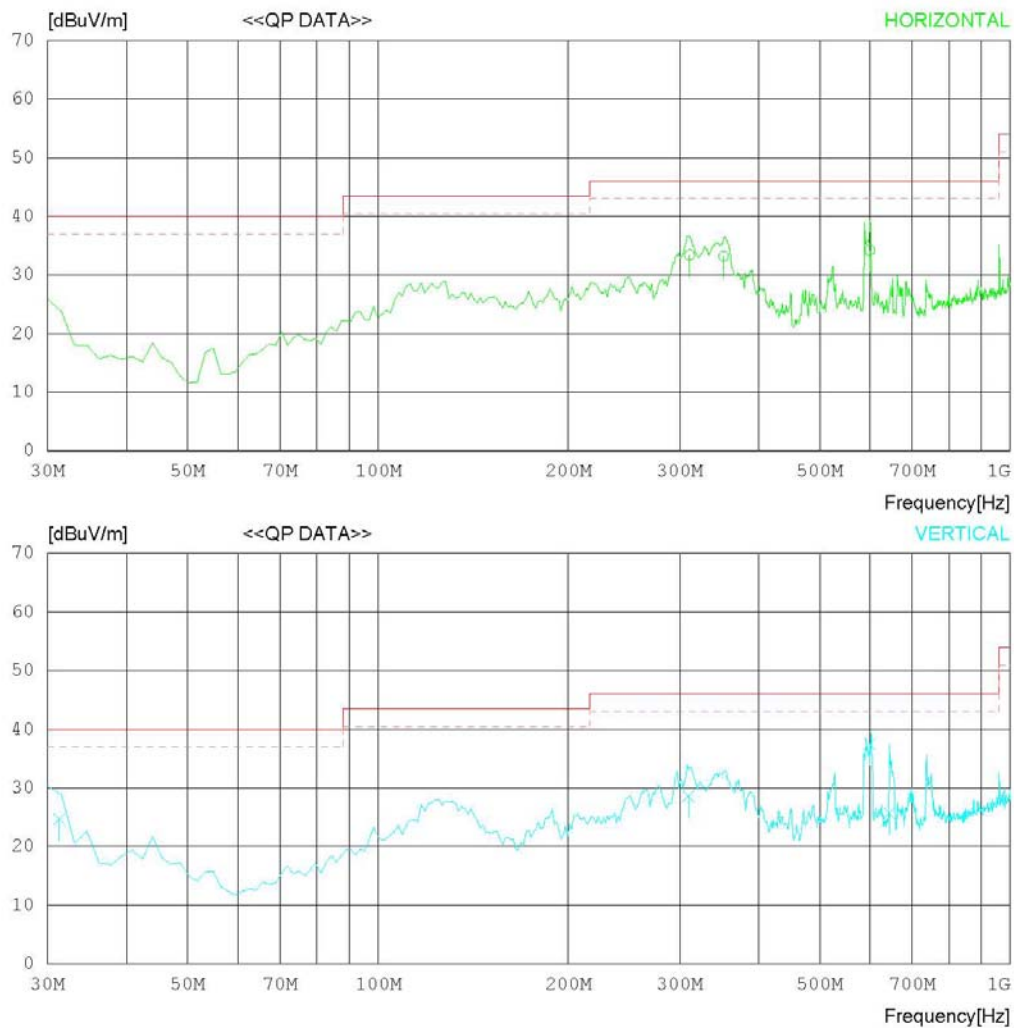
Date : 2013-01-24

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 17 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-24

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 17 °C 37 % R.H.
Test Condition : USB	Operator :

Memo :

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

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	311.147	40.1	14.0	2.9	23.6	33.4	46.0	12.6	100	241
2	352.112	38.6	14.9	3.3	23.6	33.2	46.0	12.8	209	203
3	599.840	34.8	18.7	4.1	23.4	34.2	46.0	11.8	100	227
----- Vertical -----										
4	31.304	30.4	17.2	0.9	23.8	24.7	40.0	15.3	100	301
5	310.032	35.3	14.0	2.9	23.6	28.6	46.0	17.4	168	181
6	599.848	38.1	18.7	4.1	23.4	37.5	46.0	8.5	100	213
7	644.022	26.5	18.6	4.2	23.6	25.7	46.0	20.3	100	1

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

RADIATED EMISSION

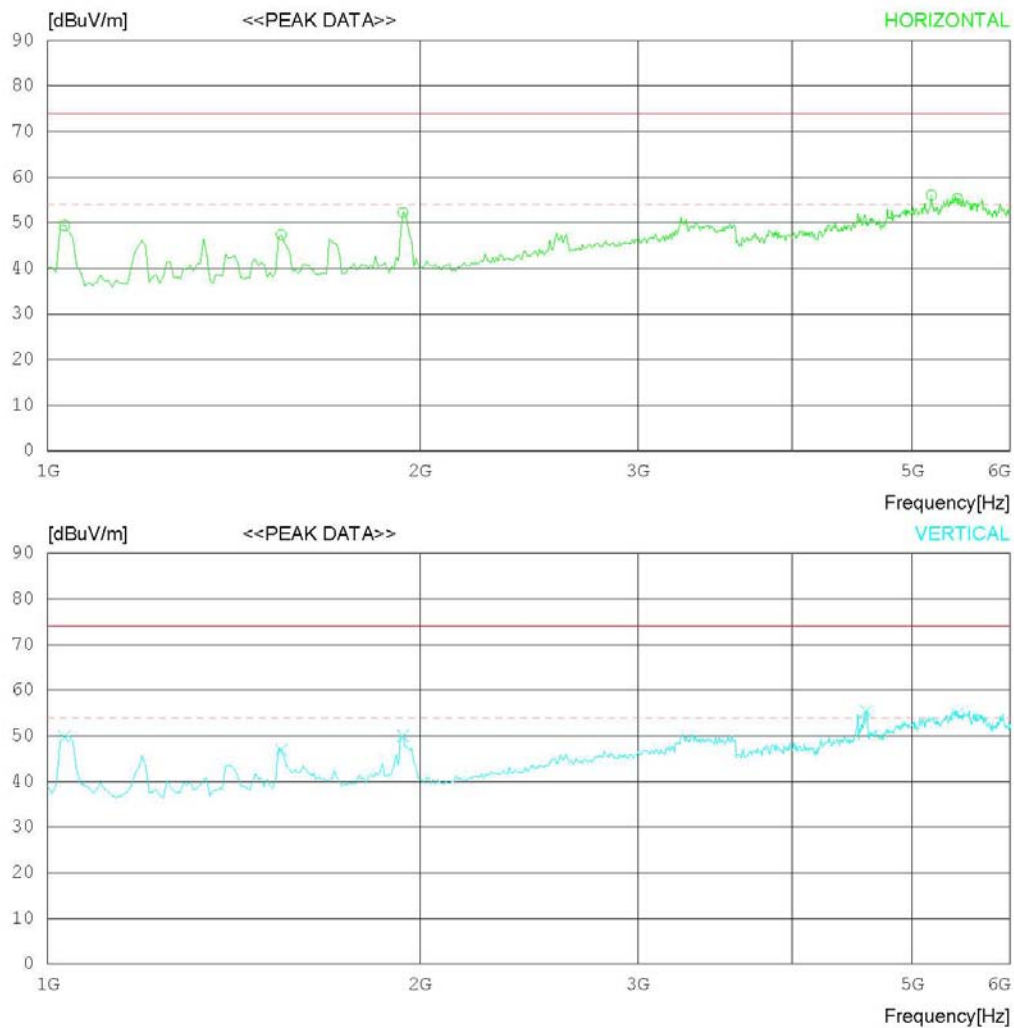
Date : 2013-01-25

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-25

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : USB	Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1032.051	48.1	23.9	5.9	28.5	49.4	74.0	24.6	100	358
2	1544.872	43.7	24.6	7.6	28.5	47.4	74.0	26.6	100	215
3	1937.500	47.9	24.6	8.3	28.5	52.3	74.0	21.7	100	358
4	5182.706	35.6	33.4	15.2	28.1	56.1	74.0	17.9	100	1
5	5439.112	33.7	34.8	14.9	28.1	55.3	74.0	18.7	100	309
----- Vertical -----										
6	1032.051	48.5	23.9	5.9	28.5	49.8	74.0	24.2	100	166
7	1544.872	43.2	24.6	7.6	28.5	46.9	74.0	27.1	100	181
8	1937.500	45.6	24.6	8.3	28.5	50.0	74.0	24	100	1
9	4589.766	38.7	31.2	13.8	28.2	55.5	74.0	18.5	100	207
10	5439.112	33.2	34.8	14.9	28.1	54.8	74.0	19.2	100	1

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

RADIATED EMISSION

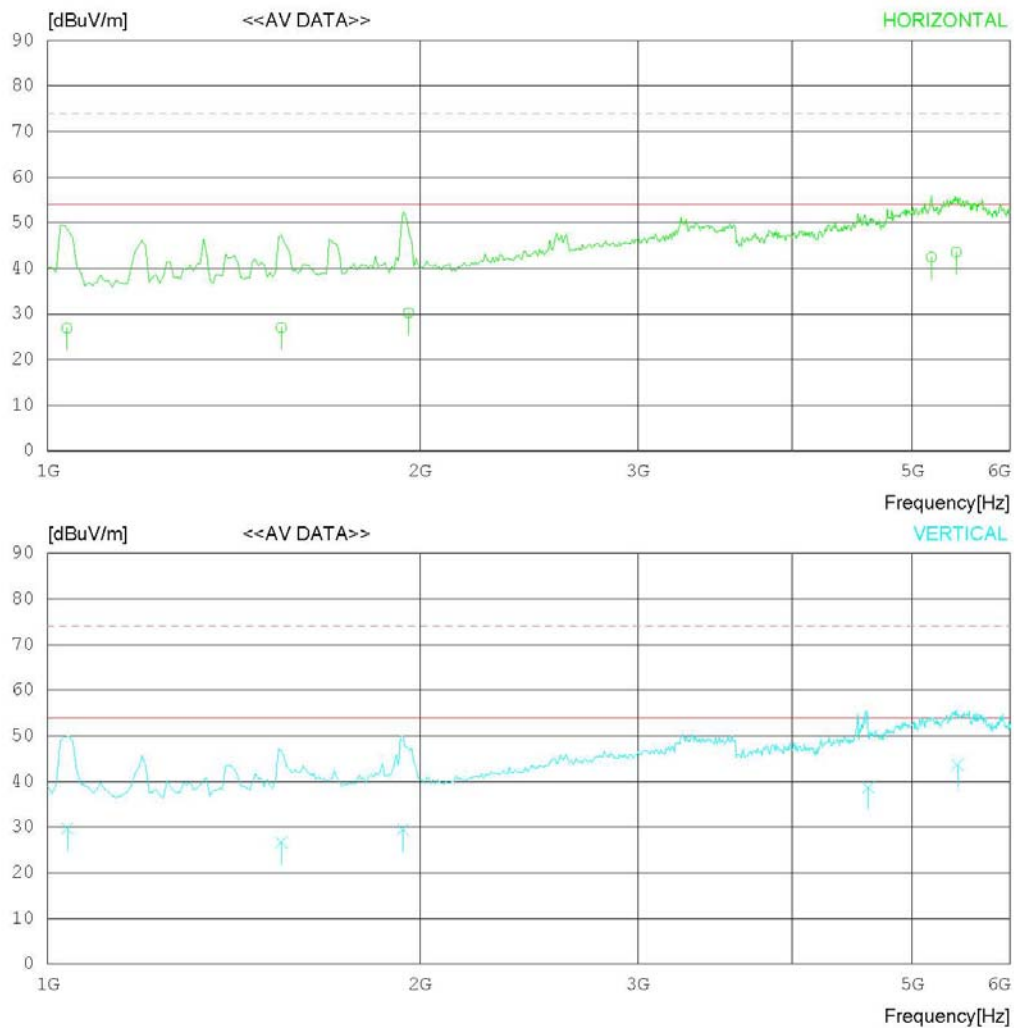
Date : 2013-01-25

Model Name : 42LN541C-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 35 % 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 : 2013-01-25

Model Name : 42LN541C-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 35 % R.H.
Test Condition : USB	Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1036.700	25.6	23.9	5.9	28.5	26.9	54.0	27.1	100	181
2	1544.872	23.3	24.6	7.6	28.5	27.0	54.0	27.0	100	215
3	1957.423	25.8	24.6	8.4	28.5	30.3	54.0	23.7	100	221
4	5182.706	22.0	33.4	15.2	28.1	42.5	54.0	11.5	100	188
5	5426.647	22.1	34.7	14.9	28.1	43.6	54.0	10.4	100	310
----- Vertical -----										
6	1037.609	28.4	23.9	5.9	28.5	29.7	54.0	24.3	100	166
7	1544.872	23.0	24.6	7.6	28.5	26.7	54.0	27.3	100	181
8	1937.500	25.0	24.6	8.3	28.5	29.4	54.0	24.6	100	237
9	4604.731	21.9	31.2	13.8	28.2	38.7	54.0	15.3	100	207
10	5439.112	22.1	34.8	14.9	28.1	43.7	54.0	10.3	100	46

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	CBL6112B	SCHAFFNER	2737	2012.03.22	2014.03.22
☒ 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
☐ 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