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<http://www.digitalemcc.com>

FCC Test Report

for

LCD TV Monitor

Applicant : LG Electronics Inc.

Model Number : 42LD650H-UA

Manufacturer : LG Electronics Inc.

ANSI C 63.4:2003

Test Standard : FCC Part 15 Subpart B

(Type of Device : Class B Computing Device Peripheral (JBP))

Date of Tests : July 12 ~ 14, 2010

Date of Issue : July 23, 2010

Tested by : M.K.KIM/Engineer

Reviewed by : Y.K.SHIN/Manager

A handwritten signature in black ink, appearing to read "mkkim", written over a horizontal line.

A handwritten signature in black ink, appearing to read "y.k.shin", written over a horizontal line.

This test result only responds to the tested sample.

It is not allowed to copy this report even partly without the allowance of the test laboratory.

CONTENTS

1. General Remarks	3
2. Test Laboratory	3
3. General Information of EUT	4
3.1 Product Information	4
4. Test Summary	5
4.1 Summary of tests	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 Emission	7
6.2 Radiated Emission	15

1. General Remarks

This Report describes the emission characteristics of the tested product.

If the product will be used with additional equipment other than those mentioned in this report or if the tested product will be used against the manufacture's specifications, the compliance with the relevant standards for the system has to be ensured.

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	Test Facility list & NSA Data
	Japan	VCCI	C-1427, C-2807 R-1364, R-2556 T-1442	Test Facility list & NSA Data
Certification	Korea	KCC	KR0034	Test Facility list & NSA Data
	Germany	TUV	ROK0826C	ISO/IEC 17025

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competents of calibration and testing laboratory".

DIGITAL EMC CO., LTD.

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3. General Information of EUT

3.1 Product Information

Equipment under Test	LCD TV Monitor
Model No.	42LD650H-UA
Add Model No.	42LD655H-UA
Serial No	NONE
Type of Sample Tested	Pre-Production
Rating Power Supply	AC120V, 60Hz
High Frequency	513MHz,1920*1080(HDMI,D sub max resolution)
Supplied Power for Test	AC120V, 60Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, Korea
Factory	LG Electronics Reynosa, Inc. LG Electronics USA, Inc_Reynosa 9801 South Cage Blvd. Suite 3F Pharr, TX. 78577
Date of Receipt of Sample	2010-06-30

< Resolution >

RGB-PC			HDMI-PC		
Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)
720x400	31.469	70.08	720x400	31.469	70.08
640x480	31.469 37.861	59.94 72.80	640x480	31.469	59.94
800x600	37.879 48.077	60.31 72.18	800x600	35.156 37.879	56.25 60.31
1024x768	48.363 56.476	60.00 70.06	1024x768	48.363	60.00
1280x768	47.776 60.289	59.870 74.893	1280x768	47.776	59.87
1360x768	47.712	60.015	1360x768	47.712	60.015
1280x1024	63.981 79.976	60.020 75.025	1280x1024	63.981	60.02
1920x1080	66.587	59.934	1920x1080	67.50	60.00

Depending on models

Depending on models

4. Test Summary

4.1 Summary of tests

The applied standards to evaluate the compliance of requirements is 47CFR Part 15, Subpart B and the measurement procedures specified in ANSI C63.4 are performed.

Test Items	Applied Standards	Status
Emission		
Conducted Emission	FCC Part 15 Subpart B	C
Radiated Emission	FCC Part 15 Subpart B	C
Note 1: C=Conform NC=Not Conform NT=Not Tested NA=Not Applicable		

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 : Resolution 1920*1080 MAX, "H" character scroll
- DVI to HDMI mode : Resolution 1920*1080 MAX, "H" character scroll
- USB MP3 mode : MP3 play

EUT is the following operational conditions apply:

- a) Set the contrast control to maximum.
- b) Set the brightness control to maximum or at raster extinction if raster extinction occurs at less than maximum brightness.
- c) For color monitors, use white letters on a black background to represent all colors.
- d) Select the worse case of positive or negative video if both alternatives are available.
- e) Set character size and number of characters per line so that the typical maximum number of characters per screen is displayed.
- f) For a monitor that has no graphics capabilities, regardless of the video card used, a pattern consisting of random text shall be displayed. For a monitor with graphics capability, even though another videocard may be needed to accomplish a graphic display, a screen pattern consisting of lines of scrolling H's should be displayed. For a monitor that has no text capabilities, use a typical display. That pattern should be used for the remainder of the tests.

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE			Backshell	FCC ID
				Connect type	Length (m)	shield		
PC	S30MS	004SHVM019295	LG	Power	1.8	Non-shield	Plastic	DOC
				LAN	1.6	Non-shield	Plastic	
				USB	1.8	Shield	Plastic	
				DSUB	1.6	Shield	Plastic	
				DVI	1.9	Shield	Plastic	
				PS/2	1.6	Shield	Plastic	
				PS/2	1.8	Shield	Plastic	
				USB	-	-	-	
Keyboard	SKG-210P	TAKSC12254A	MONITEREY INTERNATIONAL CORP	PS/2	1.6	Non-shield	Plastic	DOC
Mouse	SML-510P	TAKS700467Y	MONITEREY INTERNATIONAL CORP	PS/2	1.8	Non-shield	Plastic	DOC
Printer	SRP-770	N/A	BIXOLON	Power	1.8	Non-shield	Plastic	DOC
				USB	1.8	Shield	Plastic	

NOTE

- See "APPENDIX 1 Photographs" for actual system test setup

6. Test Results : Emission

6.1 Conducted Emission

RESULT : COMPLY

6.1.1 Measurement Procedure

In the range of 0.15MHz to 30MHz, the conducted emission was measured and set-up was made accordance with **ANSI C63.4:2003**.

If the EUT is table top equipment, it was placed on a wooden table with a height of 0.8m above the reference ground plane and 0.4m 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 0.15m 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 TOYO conducted emission test software, the emissions were scanned from 150KHz to 30MHz 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 List of Test and Measurement Instruments

Name of Instrument	Model No.	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
Spectrum Analyzer	8591E	3649A05889	H.P	2010.03.12	2011.03.12
RFI/Field intensity Meter	KNM-2402	4N-170-3	KYORITSU	2010.07.02	2011.07.02
LISN	KNW-407	8-317-8	KYORITSU	2010.01.29	2011.01.29
LISN	KNW-242	8-654-15	KYORITSU	2010.01.29	2011.01.29
50 ohm Terminator	CT-01	N/A	TME	2010.01.12	2011.01.12

6.1.3 Limit for Conducted Emission

(1) Conducted Emission at mains ports of class A

Frequency range (MHz)	Limits dB(μ V)	
	Quasi-peak	Average
0.15 to 0.50	79	66
0.50 to 30	73	60
Note The lower limit shall apply at the transition frequencies.		

(2) Conducted Emission at mains ports of class B

Frequency range (MHz)	Limits dB(μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	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 0.15MHz to 0.5MHz.		

6.1.4 Test Result

Test date	July 12, 2010
Ambient Temperature	26
Relative Humidity	44 % R.H.

Result : For the measurement data, see next page.

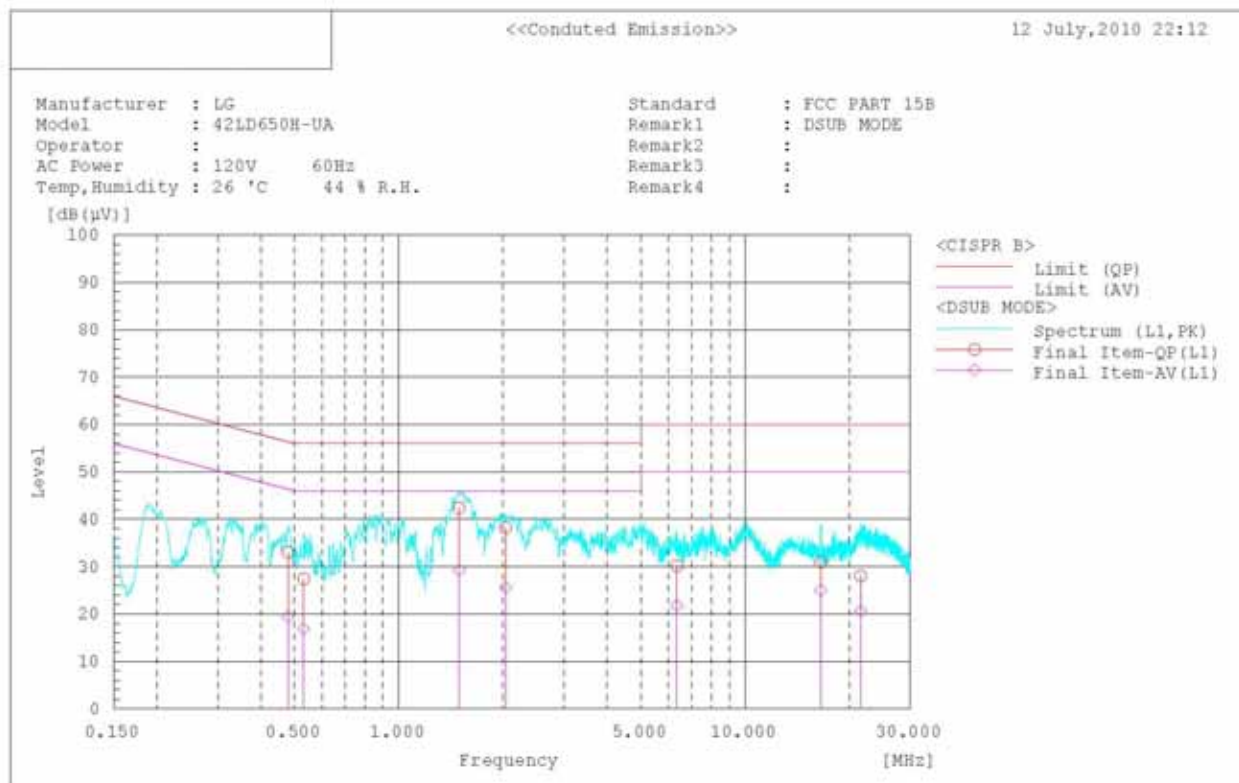
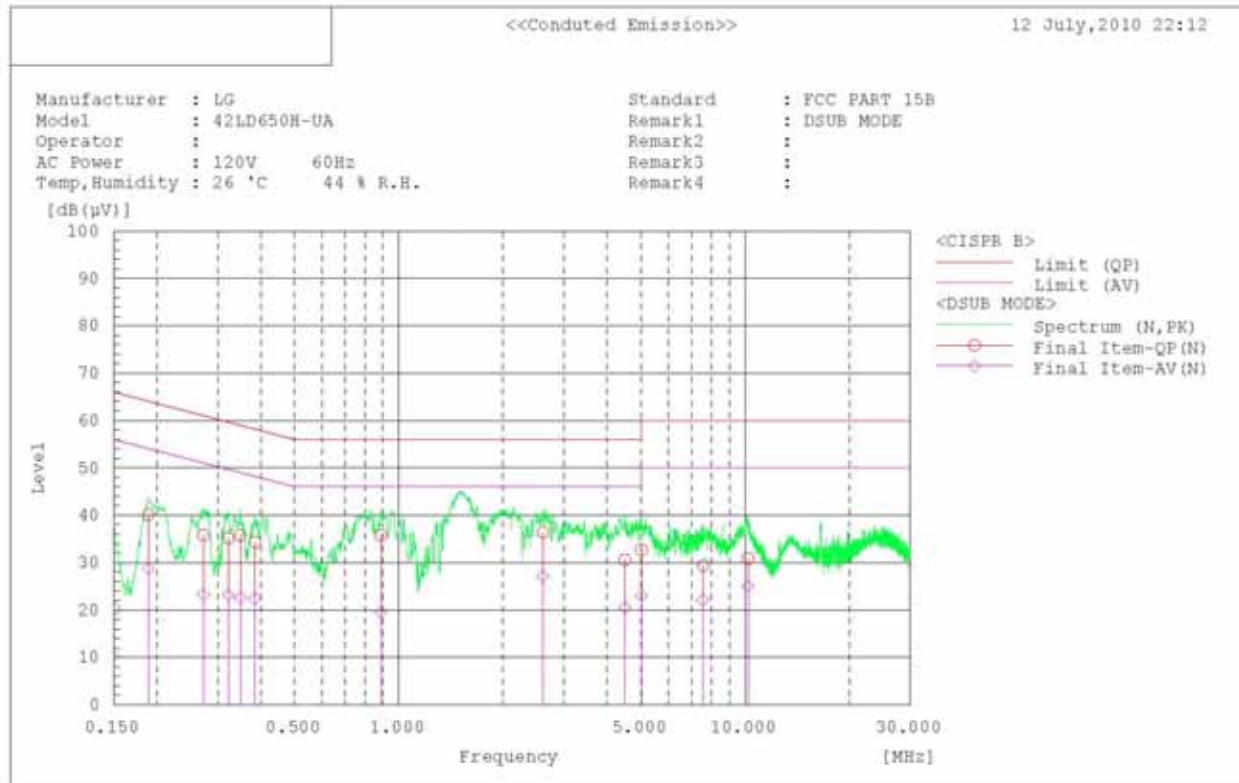
Note) 1. Emission Level = Reading Value + Correction Factor.

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

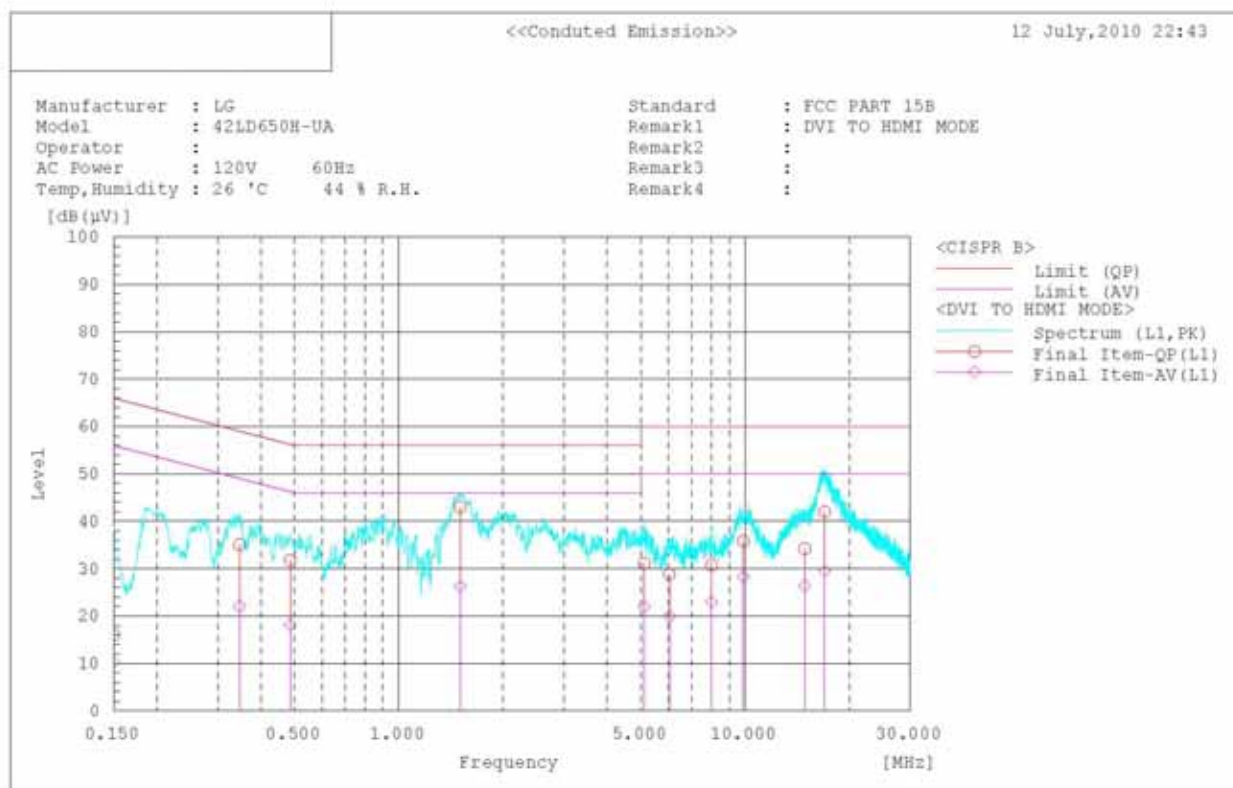
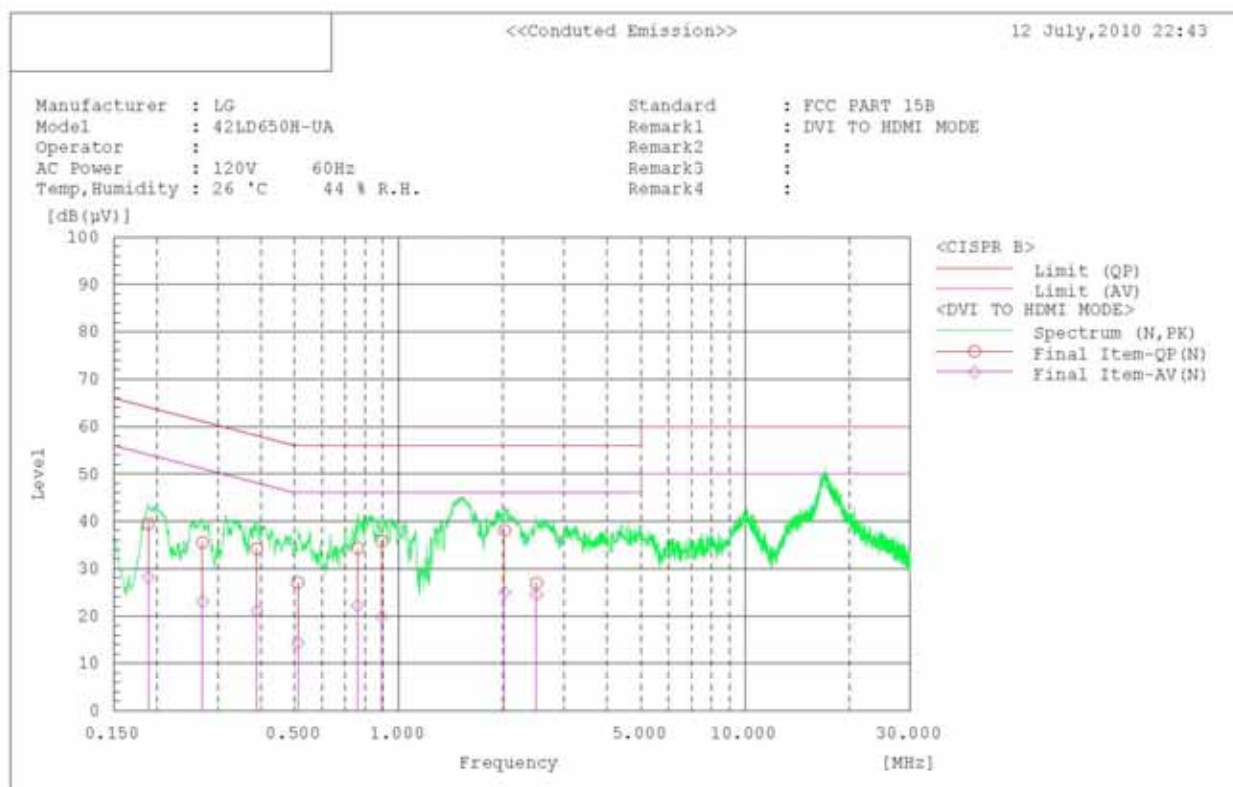
3. Margin = Limit - Emission level

Test Result

< DSUB MODE >



< DVI TO HDMI MODE >



<<Conducted Emission>>

12 July, 2010 22:43

Standard : FCC PART 15B
 Manufacturer : LG
 Model : 42LD650H-UA
 Operator :
 AC Power : 120V 60Hz
 Temp, Humidity : 26 °C 44 % R.H.
 Remark1 : DVI TO HDMI MODE
 Remark2 :
 Remark3 :
 Remark4 :

Final Result

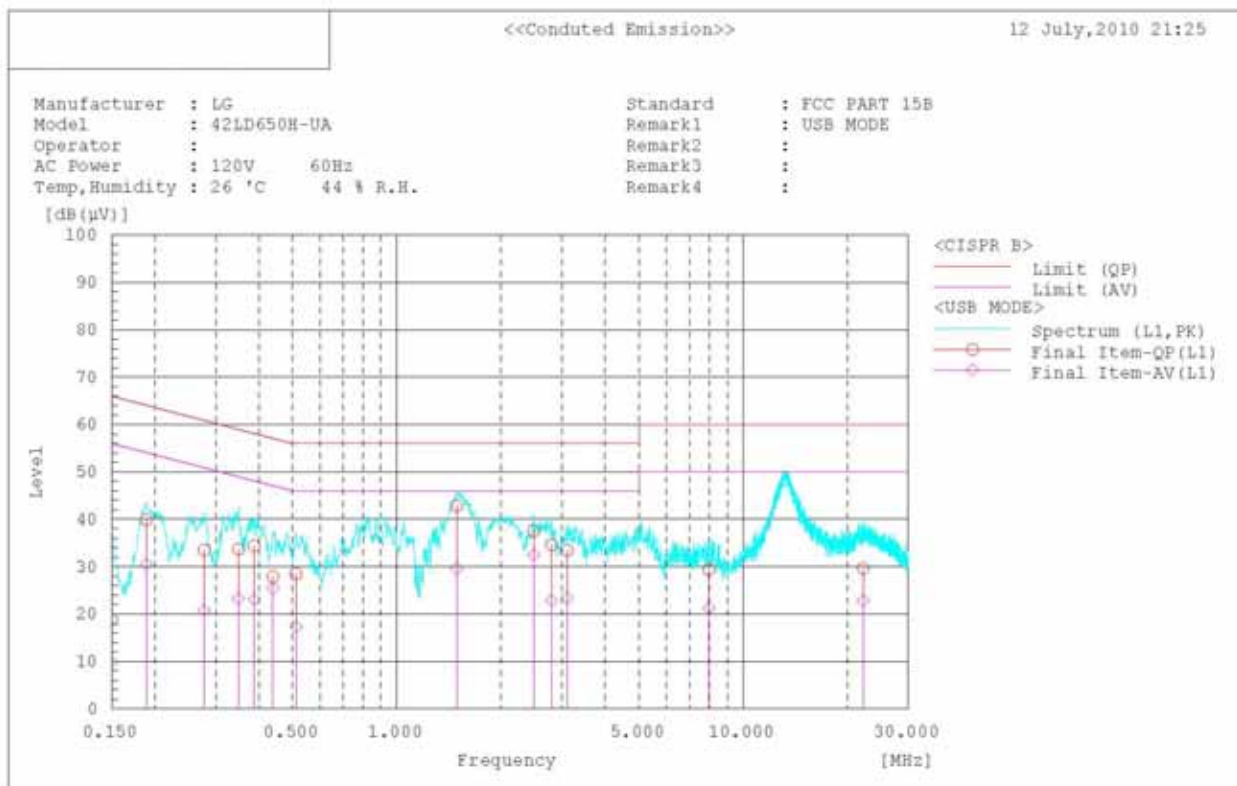
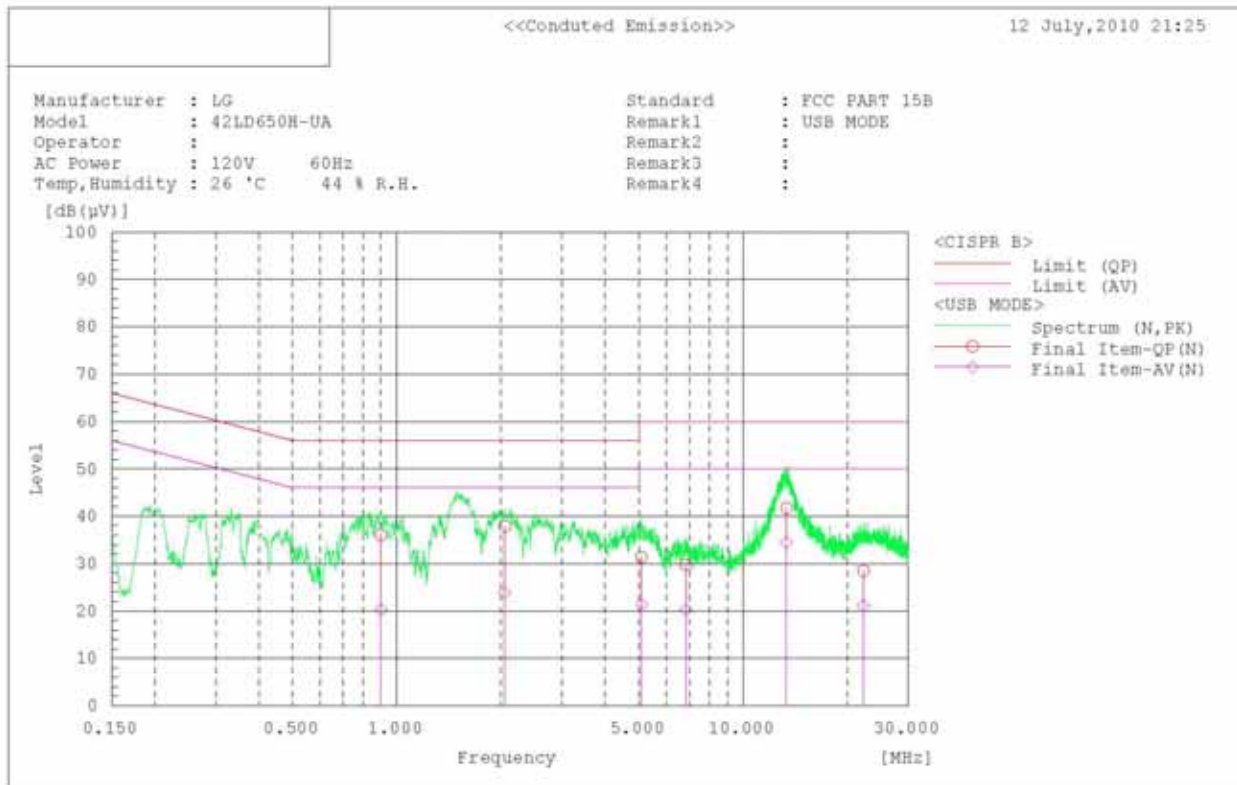
--- N Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]		[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.189	39.4	28.1	0.1	39.5	28.2	64.1	54.1	24.6	25.9	
2	0.271	35.4	23.0	0.1	35.5	23.1	61.1	51.1	25.6	28.0	
3	0.389	34.1	21.0	0.1	34.2	21.1	58.1	48.1	23.9	27.0	
4	0.511	27.0	14.2	0.1	27.1	14.3	56.0	46.0	28.9	31.7	
5	0.761	34.2	22.1	0.1	34.3	22.2	56.0	46.0	21.7	23.8	
6	0.894	35.7	19.8	0.1	35.8	19.9	56.0	46.0	20.2	26.1	
7	2.020	37.9	24.8	0.2	38.1	25.0	56.0	46.0	17.9	21.0	
8	2.495	26.7	24.3	0.2	26.9	24.5	56.0	46.0	29.1	21.5	

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]		[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.150	15.7	10.0	0.3	16.0	10.3	66.0	56.0	50.0	45.7	
2	0.347	34.8	21.8	0.3	35.1	22.1	59.0	49.0	23.9	26.9	
3	0.486	31.5	17.8	0.3	31.8	18.1	56.2	46.2	24.4	28.1	
4	1.505	42.7	26.0	0.3	43.0	26.3	56.0	46.0	13.0	19.7	
5	5.120	30.6	21.5	0.5	31.1	22.0	60.0	50.0	28.9	28.0	
6	6.048	28.3	19.5	0.5	28.8	20.0	60.0	50.0	31.2	30.0	
7	8.006	30.1	22.4	0.6	30.7	23.0	60.0	50.0	29.3	27.0	
8	9.985	35.1	27.6	0.7	35.8	28.3	60.0	50.0	24.2	21.7	
9	14.875	33.3	25.5	0.9	34.2	26.4	60.0	50.0	25.8	23.6	
10	16.987	41.0	28.6	1.0	42.0	29.6	60.0	50.0	18.0	20.4	

< USB MODE >



<<Conducted Emission>>

12 July, 2010 21:25

Standard : FCC PART 15B
 Manufacturer : LG
 Model : 42LD650H-UA
 Operator :
 AC Power : 120V 60Hz
 Temp, Humidity : 26 °C 44 % R.H.
 Remark1 : USB MODE
 Remark2 :
 Remark3 :
 Remark4 :

Final Result

--- N Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]		[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.900	35.9	20.2	0.1	36.0	20.3	56.0	46.0	20.0	25.7	
2	2.050	37.7	23.7	0.2	37.9	23.9	56.0	46.0	18.1	22.1	
3	5.094	31.0	21.1	0.4	31.4	21.5	60.0	50.0	28.6	28.5	
4	6.844	29.4	19.8	0.4	29.8	20.2	60.0	50.0	30.2	29.8	
5	13.351	41.0	33.8	0.7	41.7	34.5	60.0	50.0	18.3	15.5	
6	22.290	27.2	19.8	1.3	28.5	21.1	60.0	50.0	31.5	28.9	

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]		[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.150	18.5	9.6	0.3	18.8	9.9	66.0	56.0	47.2	46.1	
2	0.189	39.6	30.2	0.3	39.9	30.5	64.1	54.1	24.2	23.6	
3	0.278	33.2	20.5	0.3	33.5	20.8	60.9	50.9	27.4	30.1	
4	0.349	33.4	23.0	0.3	33.7	23.3	59.0	49.0	25.3	25.7	
5	0.387	34.1	22.8	0.3	34.4	23.1	58.1	48.1	23.7	25.0	
6	0.439	27.6	25.1	0.3	27.9	25.4	57.1	47.1	29.2	21.7	
7	0.512	28.2	17.0	0.3	28.5	17.3	56.0	46.0	27.5	28.7	
8	1.491	42.6	29.3	0.3	42.9	29.6	56.0	46.0	13.1	16.4	
9	2.489	37.3	32.2	0.3	37.6	32.5	56.0	46.0	18.4	13.5	
10	2.799	34.2	22.5	0.4	34.6	22.9	56.0	46.0	21.4	23.1	
11	3.105	33.0	23.0	0.4	33.4	23.4	56.0	46.0	22.6	22.6	
12	7.972	28.8	20.6	0.6	29.4	21.2	60.0	50.0	30.6	28.8	
13	22.265	28.3	21.5	1.3	29.6	22.8	60.0	50.0	30.4	27.2	

6.2 Radiated Emission

RESULT : COMPLY

6.2.1 Measurement Procedure

The radiated emission was measured and set-up was made accordance with **ANSI C63.4:2003**.

If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8m above the reference ground plane and 3m away from the interference receiving antenna **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 0.15m above the reference ground plane.

Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4m 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 1GHz frequency range, Quasi-Peak detector with 120kHz RBW was used.

Also Peak and Average detector with 1MHz RBW were used for above 1GHz frequency range.

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

6.2.2 List of Test and Measurement Instruments

Radiated Emission (10m Chamber)					
Name of Instrument	Model No.	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
EMI Test Receiver	ESU	100014	R&S	2010.01.29	2011.01.29
Bilog Antenna	CBL6112D	22609	SCHAFFNER	2010.10.28	2011.10.28
Horn Antenna	3115	21097	ETS	2009.09.23	2010.09.23
Amplifier(22dB)	8447E	2945A02865	H/P	2010.01.29	2011.01.29
Amplifier(30dB)	8449B	3008A01590	Agilent	2009.10.10	2010.10.10
Low Noise Preamplifier	MLA-00108-B02-36	1518831	TSJ	2010.02.08	2011.02.08
Controller	5905A	N/A	TOKIN	-	-
ANT.master	N/A	N/A	TOKIN	-	-

6.2.3 Limit of Radiated Emission

- The test frequency range of Radiated Emission 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	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

(1) Limit for Radiated Emission below 1000MHz

Frequency range (MHz)	Class A Equipment (10m distance)	Class B Equipment (3m distance)
	Quasi-peak limits (dB μ V/m)	Quasi-peak limits (dB μ V/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1000	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.		
30 to 230	40	30
230 to 1000	47	37

(2) Limits for Radiated Emission in the frequency range 1000 - 2000MHz at a measuring distance of 10m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	peak (dB μ V/m)	peak (dB μ V/m)	peak (dB μ V/m)	Average (dB μ V/m)
1 to 2	69.5	49.5	63.5	43.5

(3) Limits for Radiated Emission above 1000MHz at a measuring distance of 3m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	peak (dB μ V/m)	peak (dB μ V/m)	peak (dB μ V/m)	Average (dB μ V/m)
1 to 40	80	60	74	54

6.2.4 Test Result

Test date	July 14, 2010
Ambient Temperature	24
Relative Humidity	54 % R.H.

Result : For the measurement data, see next page

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

2. Correction Factor = Cable loss - Amp gain + Antenna Factor

3. Margin = Limit - Emission level

* No emission were found greater than 10dB below limit above 3GHz.

Test Result

< DSUB MODE >

- 30MHz-1GHz

**RADIATED EMISSION**

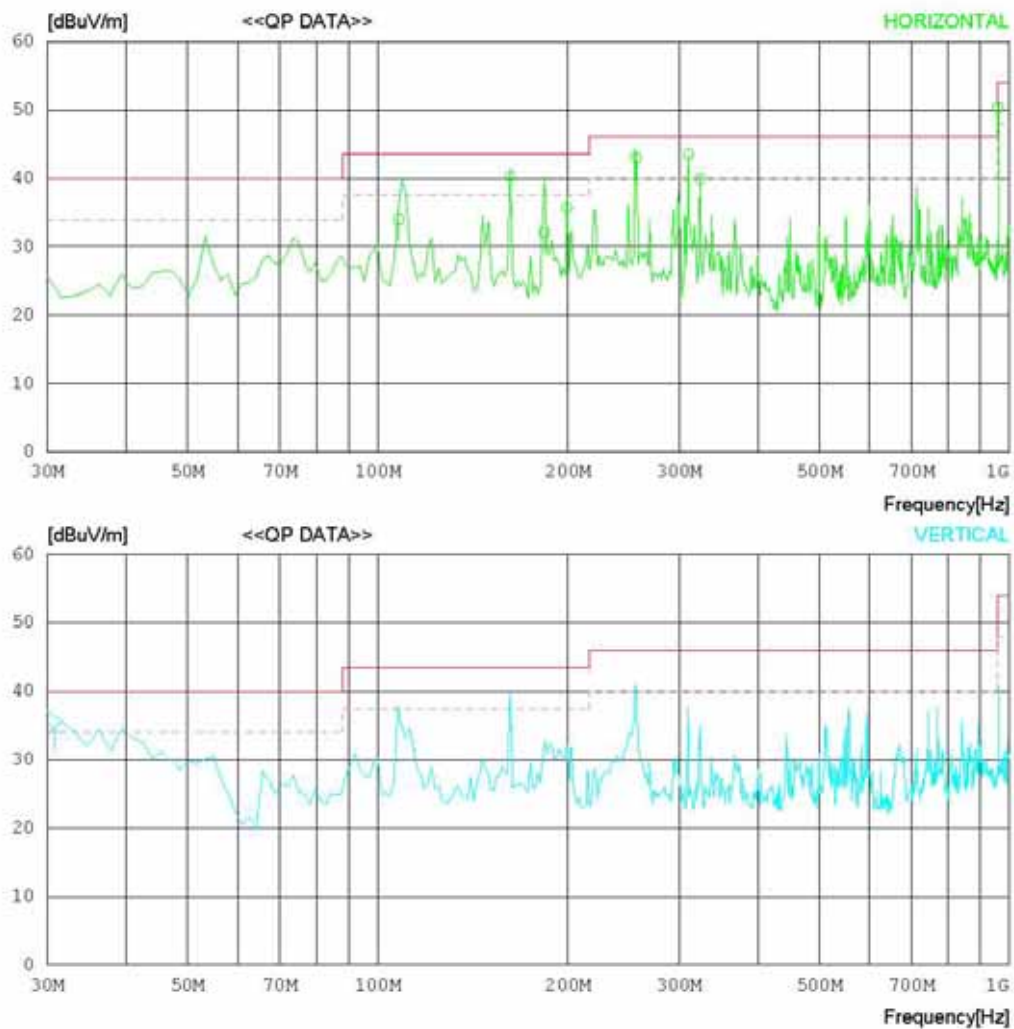
Date : 2010-07-14

Model Name : 42LD650H-UA
Model No. :
Serial No. :
Test Condition : DSUB MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 24°C 54% R.H.
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 6 dB



RADIATED EMISSION

Date : 2010-07-14

Model Name : 42LD650H-UA
 Model No. :
 Serial No. :
 Test Condition : DSUB MODE

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 24°C 54% R.H.
 Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m)
 MARGIN: 6 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	107.985	44.7	10.8	1.2	22.7	34.0	43.5	9.5	100	348
2	161.917	51.8	10.2	1.4	23.1	40.3	43.5	3.2	213	141
3	183.695	43.4	10.3	1.6	23.2	32.1	43.5	11.4	136	279
4	199.443	46.6	10.7	1.7	23.3	35.7	43.5	7.8	100	34
5	256.501	51.4	13.4	1.8	23.6	43.0	46.0	3.0	100	97
6	310.512	51.1	14.1	2.1	23.8	43.5	46.0	2.5	100	139
7	323.800	47.3	14.4	2.1	23.9	39.9	46.0	6.1	100	66
8	960.022	48.5	21.2	3.7	23.0	50.4	54.0	3.6	185	29
----- Vertical -----										
9	30.756	38.4	18.1	0.7	22.6	34.6	40.0	5.4	100	306

- 1GHz-2GHz



RADIATED EMISSION

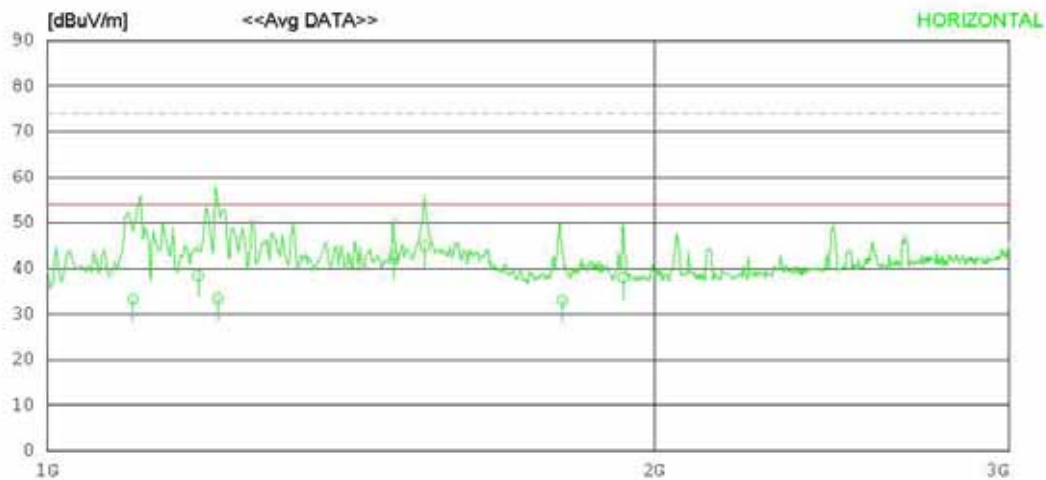
Date : 2010-07-14

Model Name : 42LD650H-UA
Model No. :
Serial No. :
Test Condition : DSUB MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 24°C 54% R.H
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Avg)
FCC Part15 Subpart.B Class B (3m) - 8G(Peak)



RADIATED EMISSION

Date : 2010-07-14

Model Name : 42LD650H-UA
 Model No. :
 Serial No. :
 Test Condition : DSUB MODE

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 24°C 54% R.H
 Operator :

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Avg)
 FCC Part15 Subpart B Class B (3m) - 8G(Peak)

No.	FREQ [MHz]	READING Avg [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1102.159	46.2	23.9	5.1	41.9	33.3	54.0	20.7	100	158
2	1188.024	51.0	24.2	5.2	41.9	38.5	54.0	15.5	100	347
3	1214.989	45.7	24.3	5.3	41.9	33.4	54.0	20.6	100	12
4	1485.025	53.6	25.1	5.9	41.9	42.7	54.0	11.3	100	241
5	1538.988	55.7	25.1	6.0	41.9	44.9	54.0	9.1	128	206
6	1800.000	43.1	25.2	6.6	41.9	33.0	54.0	21.0	152	137
7	1930.584	47.8	25.2	6.9	41.9	38.0	54.0	16.0	100	263
----- Vertical -----										
8	1101.934	49.7	23.9	5.1	41.9	36.8	54.0	17.3	100	327
9	1186.006	40.9	24.2	5.2	41.9	28.4	54.0	25.6	100	329
10	1255.157	43.5	24.4	5.4	41.9	31.4	54.0	22.6	100	48
11	1282.543	53.3	24.5	5.5	41.9	41.4	54.0	12.6	100	296
12	1539.047	57.8	25.1	6.0	41.9	47.0	54.0	7.0	100	234
13	1795.529	55.1	25.2	6.6	41.9	45.0	54.0	9.0	100	58
14	2454.552	48.4	27.1	7.7	41.6	41.6	54.0	12.4	100	46



RADIATED EMISSION

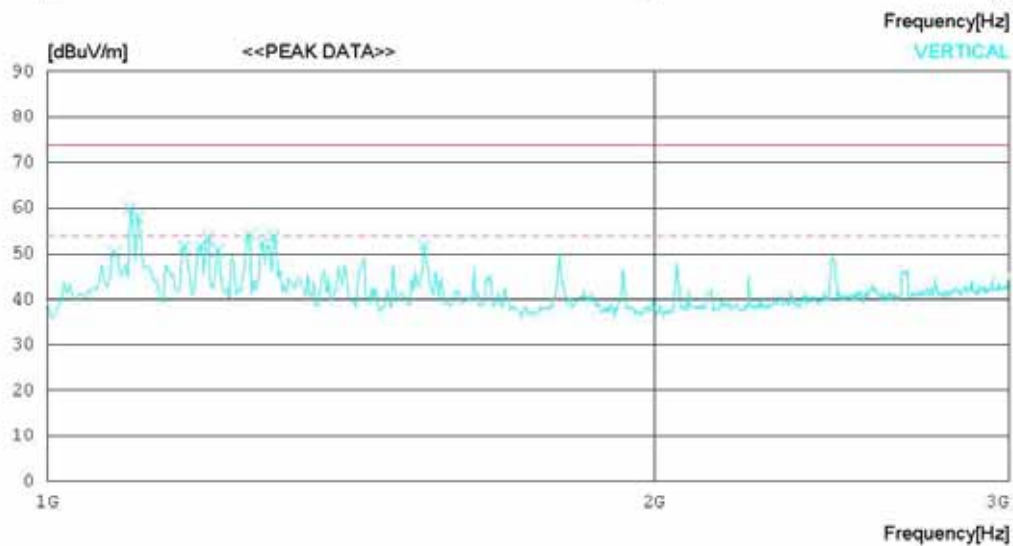
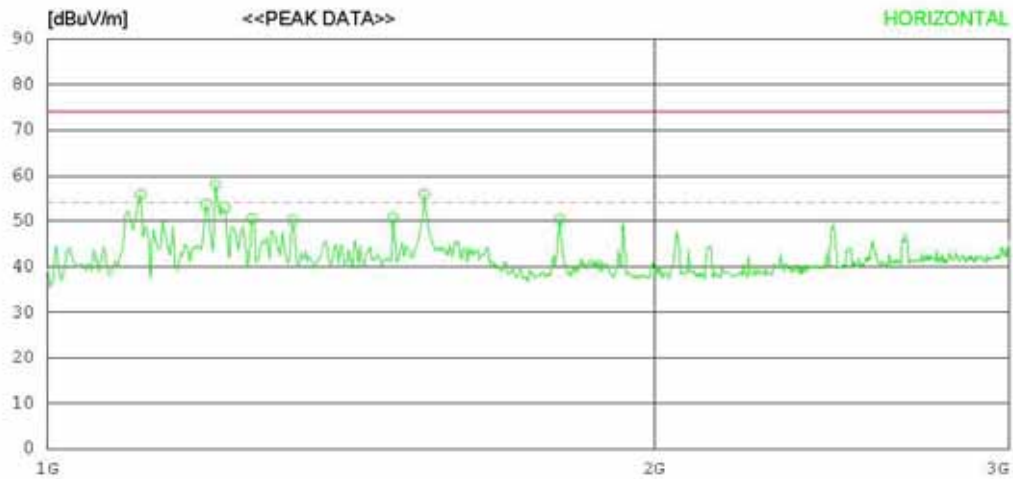
Date : 2010-07-14

Model Name : 42LD650H-UA
Model No. :
Serial No. :
Test Condition : DSUB MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 24'C 54% R.H
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Peak)
FCC Part15 Subpart.B Class B (3m) - 8G(Avg)



RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:	
Model No.	:	Power Supply	:	120V 60Hz
Serial No.	:	Temp/Humi	:	24°C 54% R.H
Test Condition	: DSUB MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Peak)
FCC Part15 Subpart B Class B (3m) - 8G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1112.178	68.6	24.0	5.1	41.9	55.8	74.0	18.2	100	236
2	1198.715	66.1	24.2	5.3	41.9	53.7	74.0	20.3	100	358
3	1211.536	70.3	24.3	5.3	41.9	58.0	74.0	16	100	358
4	1224.356	65.3	24.3	5.3	41.9	53.0	74.0	21	100	251
5	1262.817	62.7	24.4	5.4	41.9	50.6	74.0	23.4	100	358
6	1323.713	61.9	24.6	5.6	41.9	50.2	74.0	23.8	100	149
7	1483.967	61.7	25.1	5.9	41.9	50.8	74.0	23.2	100	222
8	1538.454	66.7	25.1	6.0	41.9	55.9	74.0	18.1	100	358
9	1794.860	60.4	25.2	6.6	41.9	50.3	74.0	23.7	100	358
----- Vertical -----										
10	1080.127	63.2	23.9	5.0	41.9	50.2	74.0	23.8	100	260
11	1099.358	72.9	23.9	5.0	41.9	59.9	74.0	14.1	100	359
12	1108.973	70.7	24.0	5.1	41.9	57.9	74.0	16.1	100	250
13	1169.870	64.2	24.1	5.2	41.9	51.6	74.0	22.4	100	1
14	1192.305	64.1	24.2	5.3	41.9	51.7	74.0	22.3	100	205
15	1201.920	66.0	24.2	5.3	41.9	53.6	74.0	20.4	100	1
16	1214.741	63.0	24.3	5.3	41.9	50.7	74.0	23.3	100	1
17	1259.612	66.2	24.4	5.4	41.9	54.1	74.0	19.9	100	1
18	1278.842	64.3	24.5	5.5	41.9	52.4	74.0	21.6	100	142
19	1294.868	65.6	24.5	5.5	41.9	53.7	74.0	20.3	100	226
20	1538.454	62.7	25.1	6.0	41.9	51.9	74.0	22.1	100	184

< USB MODE >

- 30MHz-1GHz



RADIATED EMISSION

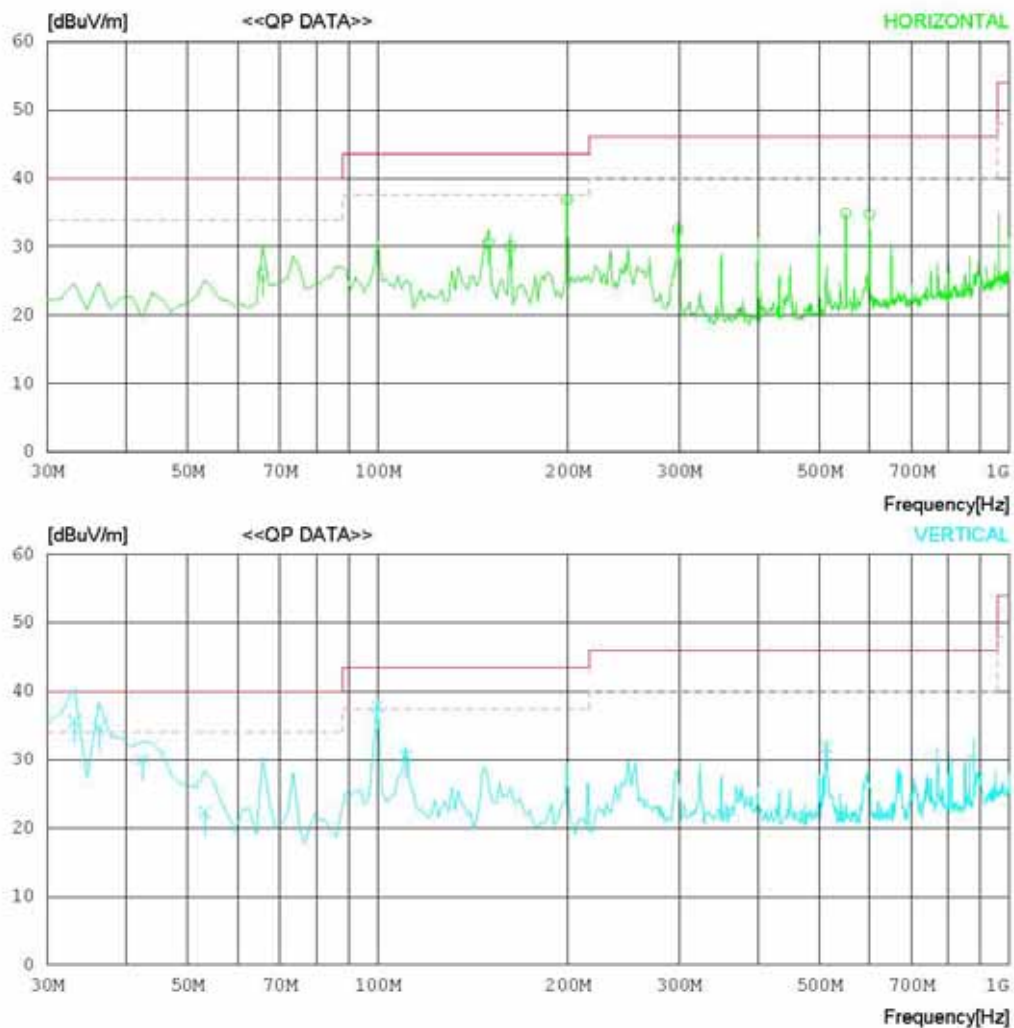
Date : 2010-07-14

Model Name : 42LD650H-UA
 Model No. :
 Serial No. :
 Test Condition : USB MODE

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 24°C 56% R.H.
 Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
 MARGIN: 6 dB



RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:	
Model No.	:	Power Supply	:	120V 60Hz
Serial No.	:	Temp/Humi	:	24°C 56% R.H.
Test Condition	: USB MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m)
MARGIN: 6 dB

No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	65.754	41.6	6.2	1.0	22.7	26.1	40.0	13.9	148	44
2	149.700	41.9	10.3	1.4	23.0	30.6	43.5	12.9	100	195
3	162.145	41.5	10.2	1.4	23.1	30.0	43.5	13.5	241	17
4	199.441	47.8	10.7	1.7	23.3	36.9	43.5	6.6	100	122
5	298.935	40.3	13.9	2.0	23.7	32.5	46.0	13.5	174	263
6	550.761	38.4	18.2	2.8	24.5	34.9	46.0	11.1	100	58
7	600.501	37.5	18.8	2.9	24.4	34.8	46.0	11.2	100	263
----- Vertical -----										
8	33.114	40.6	16.9	0.7	22.6	35.6	40.0	4.4	100	338
9	36.209	41.2	15.3	0.8	22.6	34.7	40.0	5.3	100	56
10	42.427	39.8	12.1	0.8	22.6	30.1	40.0	9.9	100	302
11	53.331	36.7	7.4	0.9	22.7	22.3	40.0	17.7	100	374
12	99.960	48.9	10.4	1.2	22.7	37.8	43.5	5.7	100	331
13	110.827	41.3	10.9	1.2	22.8	30.6	43.5	12.9	100	326
14	513.449	35.9	17.8	2.7	24.5	31.9	46.0	14.1	237	149

- 1GHz-2GHz



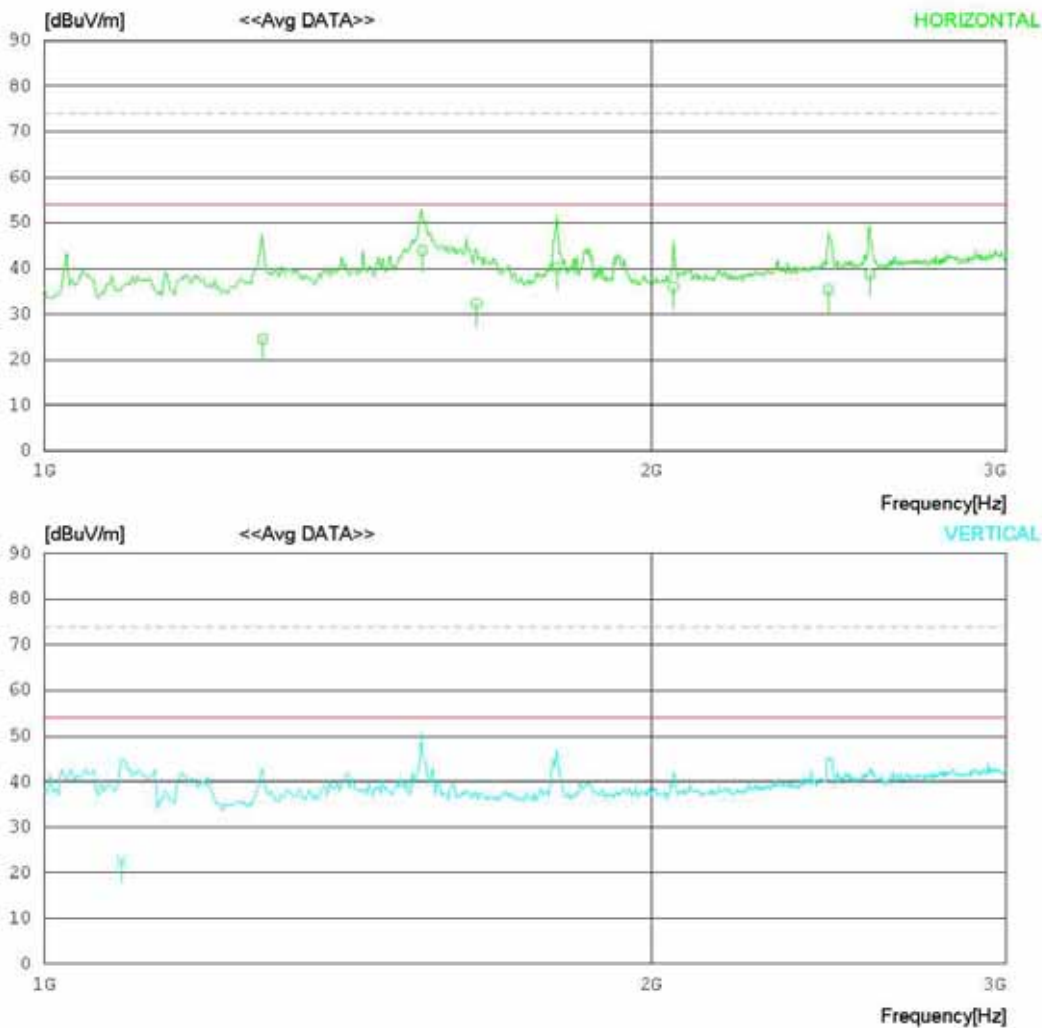
RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:	
Model No.	:	Power Supply	:	120V 60Hz
Serial No.	:	Temp/Humi	:	24'C 56% R.H.
Test Condition	: USB MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Avg)
FCC Part15 Subpart.B Class B (3m) - 8G(Peak)



RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 24°C 56% R.H.
Test Condition	: USB MODE	Operator	:

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Avg)
 FCC Part15 Subpart B Class B (3m) - 8G(Peak)

No.	FREQ [MHz]	READING Avg [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1283.154	36.5	24.5	5.5	41.9	24.6	54.0	29.4	122	29
2	1539.757	54.7	25.1	6.0	41.9	43.9	54.0	10.1	100	224
3	1637.805	42.8	25.2	6.2	41.9	32.3	54.0	21.7	100	77
4	1795.443	50.2	25.2	6.6	41.9	40.1	54.0	13.9	100	27
5	2051.208	45.3	25.4	7.1	41.9	35.9	54.0	18.1	145	312
6	2448.643	42.1	27.1	7.7	41.6	35.3	54.0	18.7	100	207
7	2567.275	45.0	27.5	7.9	41.6	38.8	54.0	15.2	154	34
----- Vertical -----										
8	1092.937	35.6	23.9	5.0	41.9	22.6	54.0	31.4	100	300



RADIATED EMISSION

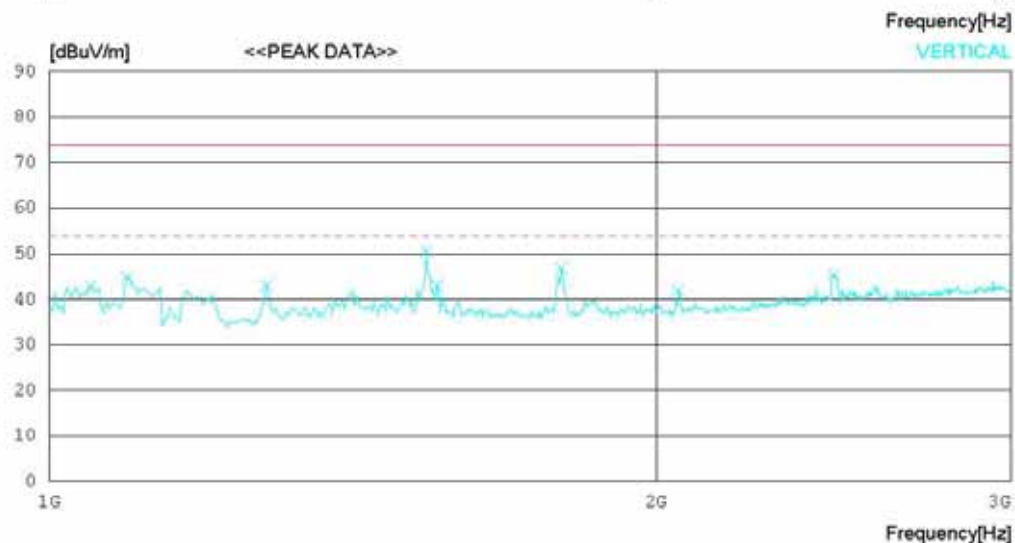
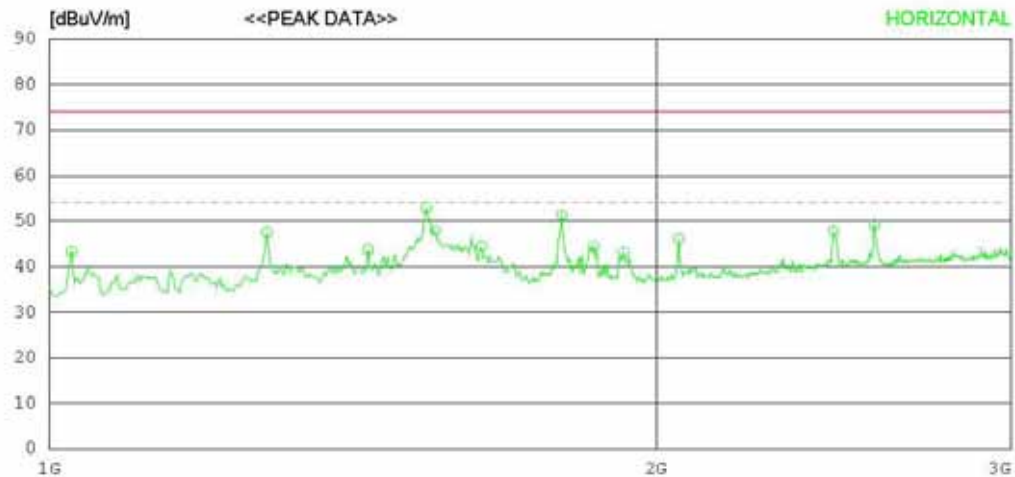
Date : 2010-07-14

Model Name : 42LD650H-UA
Model No. :
Serial No. :
Test Condition : USB MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 24'C 56% R.H.
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Peak)
FCC Part15 Subpart.B Class B (3m) - 8G(Avg)



RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 24°C 56% R.H.
Test Condition	: USB MODE	Operator	:

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Peak)
FCC Part15 Subpart B Class B (3m) - 8G(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	1025.641	56.6	23.7	4.9	41.9	43.3	74.0	30.7	100	1
2	1282.047	59.5	24.5	5.5	41.9	47.6	74.0	26.4	200	246
3	1439.096	54.8	25.0	5.8	41.9	43.7	74.0	30.3	100	1
4	1538.454	63.8	25.1	6.0	41.9	53.0	74.0	21	100	1
5	1554.479	58.6	25.1	6.1	41.9	47.9	74.0	26.1	100	257
6	1637.811	55.0	25.2	6.2	41.9	44.5	74.0	29.5	100	1
7	1794.860	61.4	25.2	6.6	41.9	51.3	74.0	22.7	100	1
8	1862.167	54.5	25.2	6.7	41.9	44.5	74.0	29.5	100	222
9	1926.268	52.9	25.2	6.9	41.9	43.1	74.0	30.9	100	208
10	2051.266	55.5	25.4	7.1	41.9	46.1	74.0	27.9	200	291
11	2448.696	54.6	27.1	7.7	41.6	47.8	74.0	26.2	100	280
12	2567.284	55.3	27.5	7.9	41.6	49.1	74.0	24.9	200	0
----- Vertical -----										
13	1048.077	56.1	23.8	4.9	41.9	42.9	74.0	31.1	116	1
14	1092.948	57.8	23.9	5.0	41.9	44.8	74.0	29.2	100	357
15	1282.047	54.9	24.5	5.5	41.9	43.0	74.0	31	116	1
16	1538.454	61.2	25.1	6.0	41.9	50.4	74.0	23.6	100	189
17	1557.684	53.6	25.1	6.1	41.9	42.9	74.0	31.1	100	199
18	1794.860	57.0	25.2	6.6	41.9	46.9	74.0	27.1	116	1
19	2051.266	51.4	25.4	7.1	41.9	42.0	74.0	32	116	1
20	2448.696	52.1	27.1	7.7	41.6	45.3	74.0	28.7	116	1

< DVI TO HDMI MODE >

- 30MHz-1GHz

RADIATED EMISSION

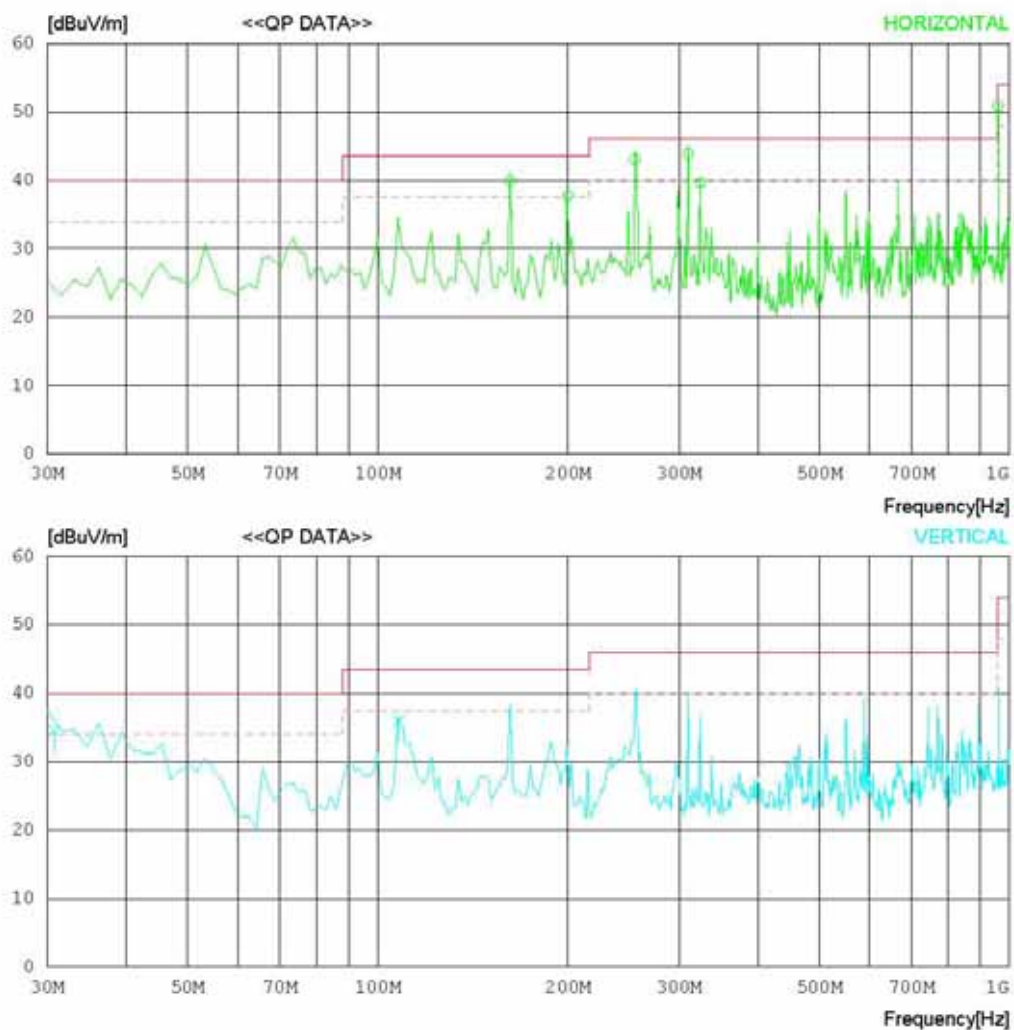
Date : 2010-07-14

Model Name : 42LD650H-UA
Model No. :
Serial No. :
Test Condition : DVI TO HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 24'C 54% R.H.
Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 6 dB



RADIATED EMISSION

Date : 2010-07-14

Model Name	:	42LD650H-UA	Reference No.	:	
Model No.	:		Power Supply	:	120V 60Hz
Serial No.	:		Temp/Humi	:	24°C 54% R.H.
Test Condition	:	DVI TO HDMI MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m)
MARGIN: 6 dB

No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	161.990	51.4	10.2	1.4	23.1	39.9	43.5	3.6	157	52
2	199.989	48.6	10.7	1.7	23.3	37.7	43.5	5.8	100	105
3	255.414	51.4	13.4	1.8	23.5	43.1	46.0	2.9	100	323
4	310.511	51.5	14.1	2.1	23.8	43.9	46.0	2.1	263	156
5	323.987	47.1	14.4	2.1	23.9	39.7	46.0	6.3	100	55
6	960.027	49.0	21.2	3.7	23.0	50.9	54.0	3.1	100	164
----- Vertical -----										
7	30.810	38.4	18.1	0.7	22.6	34.6	40.0	5.4	100	263
8	108.021	46.7	10.8	1.2	22.7	36.0	43.5	7.5	100	218

- 1GHz-3GHz



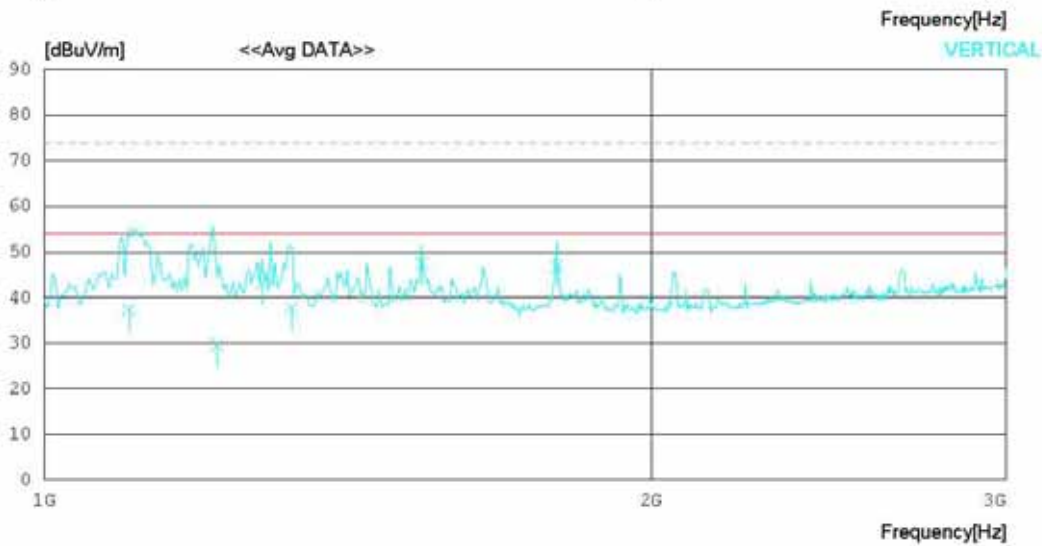
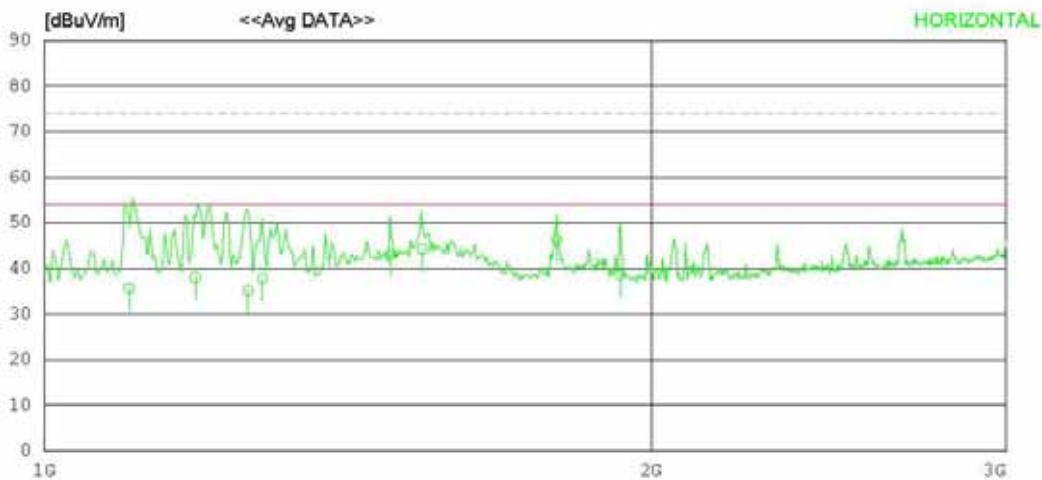
RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:	
Model No.	:	Power Supply	:	120V 60Hz
Serial No.	:	Temp/Humi	:	24'C 54% R.H
Test Condition	: DVI TO HDMI MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Avg)
FCC Part15 Subpart.B Class B (3m) - 8G(Peak)



RADIATED EMISSION

Date : 2010-07-14

Model Name	:	42LD650H-UA	Reference No.	:	
Model No.	:		Power Supply	:	120V 60Hz
Serial No.	:		Temp/Humi	:	24°C 54% R.H
Test Condition	:	DVI TO HDMI MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Avg)
 FCC Part15 Subpart B Class B (3m) - 8G(Peak)

No.	FREQ [MHz]	READING Avg [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1101.508	48.7	23.9	5.0	41.9	35.7	54.0	18.3	100	58
2	1188.012	50.6	24.2	5.2	41.9	38.1	54.0	15.9	100	147
3	1261.235	47.3	24.4	5.4	41.9	35.2	54.0	18.8	142	27
4	1282.464	49.7	24.5	5.5	41.9	37.8	54.0	16.2	100	87
5	1485.120	54.0	25.1	5.9	41.9	43.1	54.0	10.9	100	84
6	1539.223	55.0	25.1	6.0	41.9	44.2	54.0	9.8	100	175
7	1795.549	56.3	25.2	6.6	41.9	46.2	54.0	7.8	100	237
8	1930.484	48.5	25.2	6.9	41.9	38.7	54.0	15.3	100	152
----- Vertical -----										
9	1101.279	50.4	23.9	5.0	41.9	37.4	54.0	16.6	100	342
10	1217.823	41.9	24.3	5.3	41.9	29.6	54.0	24.4	100	270
11	1282.496	55.1	24.5	5.5	41.9	43.2	54.0	10.8	100	316
12	1326.553	49.3	24.6	5.6	41.9	37.6	54.0	16.4	100	263
13	1538.958	58.3	25.1	6.0	41.9	47.5	54.0	6.5	100	332
14	1795.537	57.0	25.2	6.6	41.9	46.9	54.0	7.1	100	114



RADIATED EMISSION

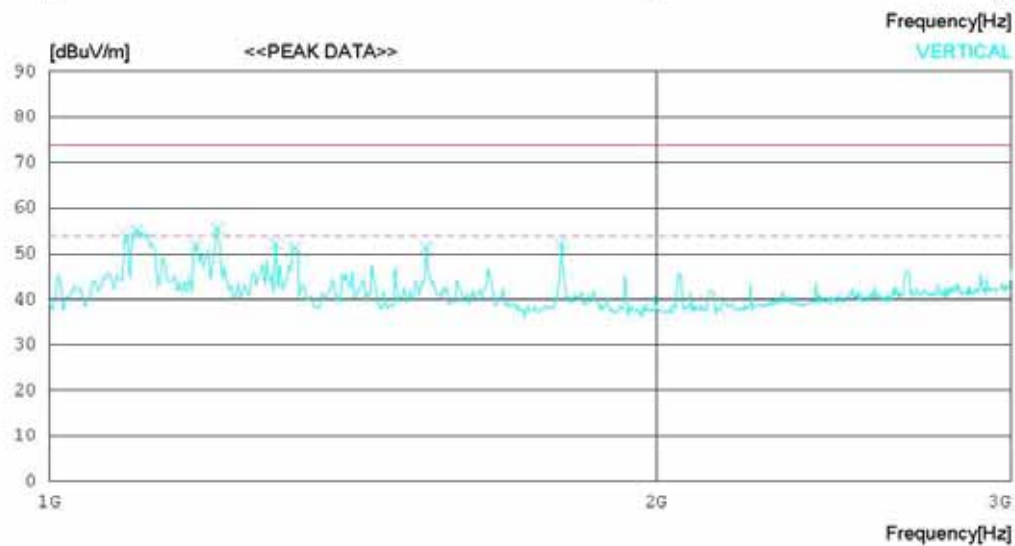
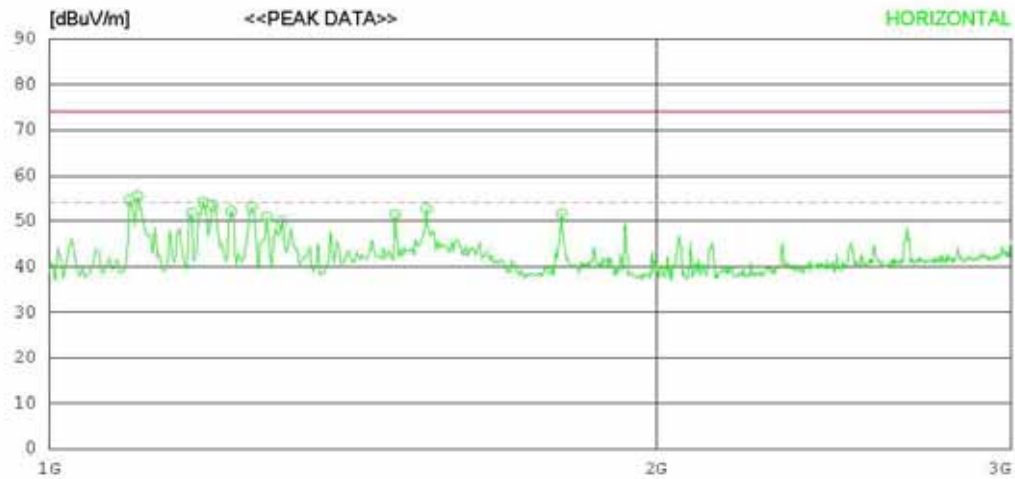
Date : 2010-07-14

Model Name : 42LD650H-UA
 Model No. :
 Serial No. :
 Test Condition : DVI TO HDMI MODE

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 24'C 54% R.H
 Operator :

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m) - 8G(Peak)
 FCC Part15 Subpart.B Class B (3m) - 8G(Avg)



RADIATED EMISSION

Date : 2010-07-14

Model Name	: 42LD650H-UA	Reference No.	:	
Model No.	:	Power Supply	:	120V 60Hz
Serial No.	:	Temp/Humi	:	24°C 54% R.H
Test Condition	: DVI TO HDMI MODE	Operator	:	

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 8G(Peak)
FCC Part15 Subpart B Class B (3m) - 8G(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	1096.153	67.6	23.9	5.0	41.9	54.6	74.0	19.4	100	1
2	1105.768	68.4	23.9	5.1	41.9	55.5	74.0	18.5	100	215
3	1176.280	64.3	24.2	5.2	41.9	51.8	74.0	22.2	100	1
4	1192.305	66.6	24.2	5.3	41.9	54.2	74.0	19.8	100	1
5	1205.125	65.9	24.2	5.3	41.9	53.5	74.0	20.5	100	1
6	1230.766	64.5	24.3	5.3	41.9	52.2	74.0	21.8	100	1
7	1259.612	65.3	24.4	5.4	41.9	53.2	74.0	20.8	100	1
8	1282.047	62.9	24.5	5.5	41.9	51.0	74.0	23	100	235
9	1304.483	61.8	24.5	5.5	41.9	49.9	74.0	24.1	100	1
10	1483.967	62.3	25.1	5.9	41.9	51.4	74.0	22.6	100	1
11	1538.454	63.6	25.1	6.0	41.9	52.8	74.0	21.2	100	229
12	1794.860	61.7	25.2	6.6	41.9	51.6	74.0	22.4	100	1
----- Vertical -----										
13	1092.948	66.6	23.9	5.0	41.9	53.6	74.0	20.4	100	358
14	1105.768	68.1	23.9	5.1	41.9	55.2	74.0	18.8	100	358
15	1182.690	64.3	24.2	5.2	41.9	51.8	74.0	22.2	100	358
16	1211.536	67.8	24.3	5.3	41.9	55.5	74.0	18.5	100	202
17	1294.868	64.0	24.5	5.5	41.9	52.1	74.0	21.9	100	358
18	1323.713	63.1	24.6	5.6	41.9	51.4	74.0	22.6	100	228
19	1538.454	62.2	25.1	6.0	41.9	51.4	74.0	22.6	100	358
20	1794.860	62.1	25.2	6.6	41.9	52.0	74.0	22	100	150