EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 47LA6650-UA
Order No.	: DEMC1301-00413
Date of receipt	: 2013-01-30
Test duration	: 2013-02-06 ~ 2013-02-07
Use of report	: FCC CoC Marking
Date of Issue	: 2013-02-13

Applicant : LG Electronics Inc.
19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

Test laboratory : Digital EMC Co., Ltd.
683-3, Yubang-Dong, Cheoin-Gu, Yongin-Si, Gyeonggi-Do, 449-080, Korea

Test specification : ANSI C 63.4:2003
FCC Part 15 Subpart B
(Type of Device : Class B Personal Computers and Peripherals (JBP))

Test environment : Temperature : (20 ~ 21) °C,
Humidity : (37 ~ 38) % R.H.

Test result : ☒ Comply ☐ Not Comply

The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose.
This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:

Engineer
HyungJun Kim

Reviewed by:

Manager
MyungJin Song

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.	47LA6650-UA
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ47LA6650UA
Type of Sample Tested	Pre-Production
High Frequency	Max 790 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.2 A
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1152 x 864	54.348	60.053
1360 x 768	47.712	60.015
1280 x 1024	63.981	60.02
1920 x 1080	67.50	60.00

4. Test Summary

4.1 Applied standards and test results

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

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

4.2 Test environment and conditions

Test Items	Test date (MM-DD)	Temp (℃)	Humidity (% R.H.)
Conducted Disturbance	02-06	21	38
Radiated Disturbance	02-07	20	37

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
0.34286	**N**	**37.0**	Average	**49.1**	**12.1**

(2) Radiated Emission (USB MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
785.482	**H**	**42.7**	Quasi-Peak	**46.0**	**3.3**

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 & USB MODE TEST : “H” characters scroll on the LCD TV screen
(Max Resolution 1920 x 1080)

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
PC	DC8CMF	G3RZKBX	DELL INC.	POWER HDMI USB USB USB	1.8 1.8 1.8 1.8 1.5	Not use Not use Not use Not use Not use	Non-shield Shield Shield Shield Shield	Plastic	DOC
KEYBOARD	KB-065	CN111363232	HP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	1094	X817158-002	MICROSOFT CORPORATION	USB	1.6	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	POWER COMPONENT	1.8 1.6	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	Cruzer 4GB	N/A	SANDISK	USB	-	-	-	-	DOC
PRINTER	Aculaser M1200	LWTZ181070	EPSON	USB AC POWER	1.8 1.5	Not use Not use	Shield Non-shield	Plastic	-
HEADSET	COV903	N/A	COSY	HEADPHONE	2.5	Not use	Non-shield	Plastic	DOC
Remote Control	AKB73756542	N/A	OHSUNG ELECTRONIC	-	-	-	-	-	-

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

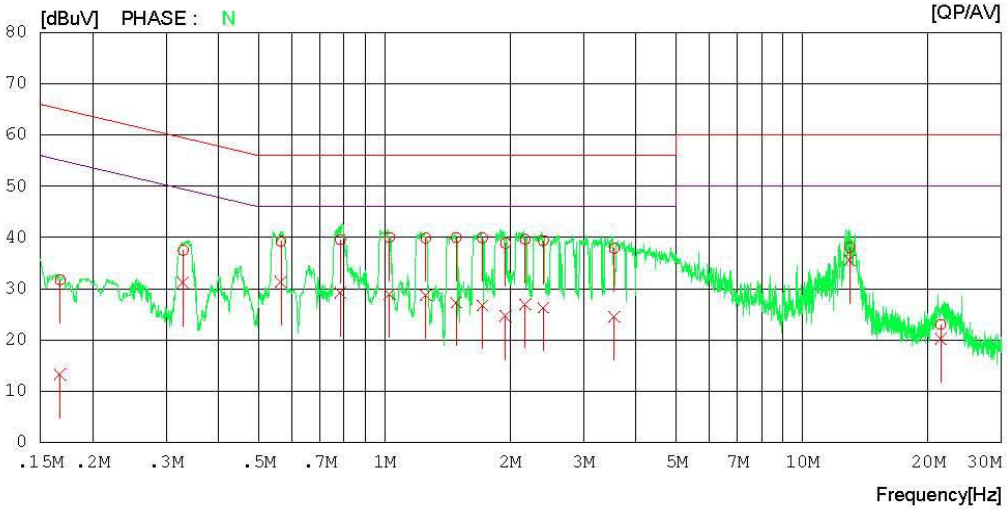
Results of Conducted Emission

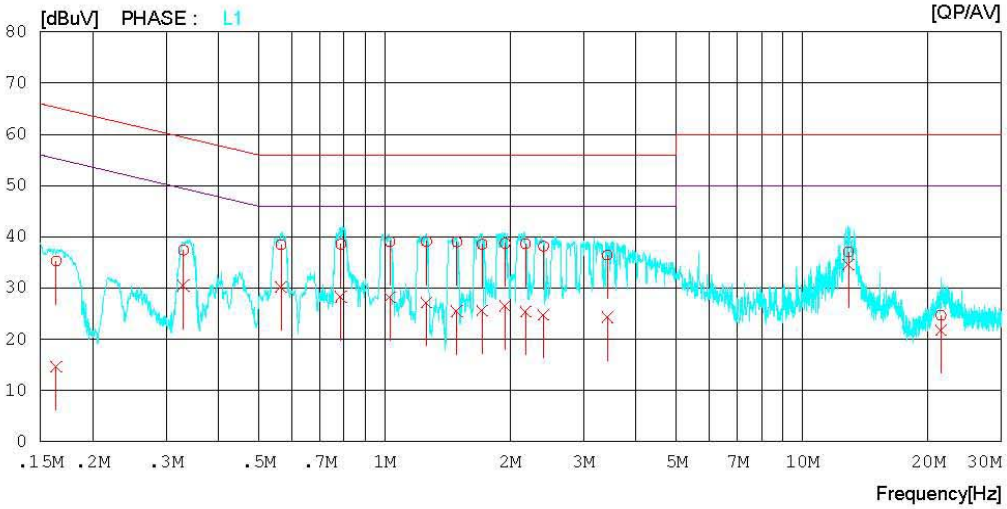
Digital EMC
Date : 2013-02-06

Model No.	:	47LA6650-UA	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 38 % R.H
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-02-06

Model No.	:	47LA6650-UA	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 38 % 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	0.16733	31.5	13.1	0.2	31.7	13.3	65.1	55.1	33.4	41.8	N
2	0.32968	37.3	31.0	0.2	37.5	31.2	59.5	49.5	22.0	18.3	N
3	0.56521	39.0	31.1	0.2	39.2	31.3	56.0	46.0	16.8	14.7	N
4	0.78438	39.3	29.0	0.2	39.5	29.2	56.0	46.0	16.5	16.8	N
5	1.02850	39.7	28.6	0.3	40.0	28.9	56.0	46.0	16.0	17.1	N
6	1.25550	39.6	28.4	0.3	39.9	28.7	56.0	46.0	16.1	17.3	N
7	1.48600	39.7	27.0	0.3	40.0	27.3	56.0	46.0	16.0	18.7	N
8	1.71650	39.6	26.4	0.3	39.9	26.7	56.0	46.0	16.1	19.3	N
9	1.94900	38.6	24.3	0.3	38.9	24.6	56.0	46.0	17.1	21.4	N
10	2.17400	39.3	26.7	0.3	39.6	27.0	56.0	46.0	16.4	19.0	N
11	2.40200	39.1	26.0	0.3	39.4	26.3	56.0	46.0	16.6	19.7	N
12	3.54750	37.6	24.3	0.3	37.9	24.6	56.0	46.0	18.1	21.4	N
13	12.99900	37.4	34.8	0.7	38.1	35.5	60.0	50.0	21.9	14.5	N
14	21.47900	22.1	19.3	0.9	23.0	20.2	60.0	50.0	37.0	29.8	N
15	0.16366	35.1	14.5	0.2	35.3	14.7	65.3	55.3	30.0	40.6	L1
16	0.33019	37.2	30.3	0.2	37.4	30.5	59.4	49.4	22.0	18.9	L1
17	0.56539	38.3	30.0	0.2	38.5	30.2	56.0	46.0	17.5	15.8	L1
18	0.78630	38.4	28.1	0.2	38.6	28.3	56.0	46.0	17.4	17.7	L1
19	1.03100	38.8	27.9	0.3	39.1	28.2	56.0	46.0	16.9	17.8	L1
20	1.26000	38.8	26.9	0.3	39.1	27.2	56.0	46.0	16.9	18.8	L1
21	1.49100	38.7	25.2	0.3	39.0	25.5	56.0	46.0	17.0	20.5	L1
22	1.71300	38.3	25.3	0.3	38.6	25.6	56.0	46.0	17.4	20.4	L1
23	1.94650	38.5	26.2	0.3	38.8	26.5	56.0	46.0	17.2	19.5	L1
24	2.17800	38.3	25.1	0.3	38.6	25.4	56.0	46.0	17.4	20.6	L1
25	2.40350	37.9	24.5	0.3	38.2	24.8	56.0	46.0	17.8	21.2	L1
26	3.41650	36.1	24.0	0.3	36.4	24.3	56.0	46.0	19.6	21.7	L1
27	12.92000	36.4	33.9	0.7	37.1	34.6	60.0	50.0	22.9	15.4	L1
28	21.50300	23.8	20.9	0.9	24.7	21.8	60.0	50.0	35.3	28.2	L1

< USB MODE >

Digital EMC

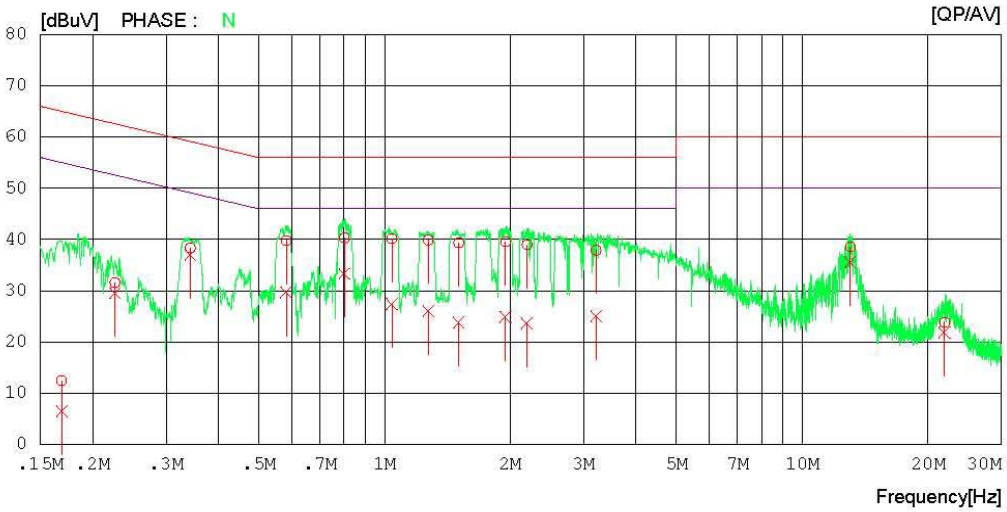
Results of Conducted Emission

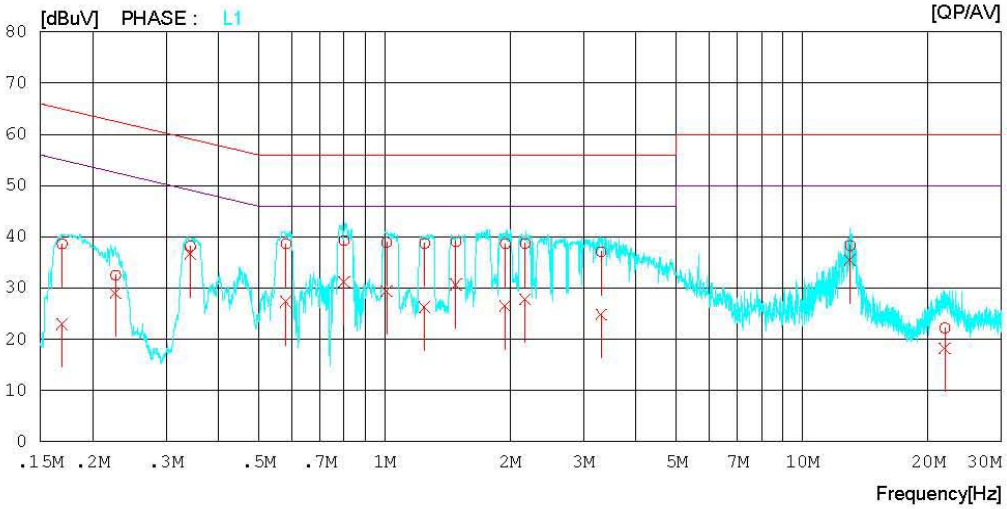
Digital EMC
Date : 2013-02-06

Model No.	:	47LA6650-UA	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 38 % R.H
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-02-06

Model No.	:	47LA6650-UA	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	21 'C 38 % 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	0.16874	12.2	6.3	0.2	12.4	6.5	65.0	55.0	52.6	48.5	N
2	0.22629	31.3	29.3	0.2	31.5	29.5	62.6	52.6	31.1	23.1	N
3	0.34286	38.1	36.8	0.2	38.3	37.0	59.1	49.1	20.8	12.1	N
4	0.58138	39.6	29.4	0.2	39.8	29.6	56.0	46.0	16.2	16.4	N
5	0.80231	40.1	33.1	0.2	40.3	33.3	56.0	46.0	15.7	12.7	N
6	1.04100	39.9	27.1	0.3	40.2	27.4	56.0	46.0	15.8	18.6	N
7	1.27300	39.6	25.7	0.3	39.9	26.0	56.0	46.0	16.1	20.0	N
8	1.50550	39.0	23.5	0.3	39.3	23.8	56.0	46.0	16.7	22.2	N
9	1.94950	39.2	24.5	0.3	39.5	24.8	56.0	46.0	16.5	21.2	N
10	2.19500	38.7	23.3	0.3	39.0	23.6	56.0	46.0	17.0	22.4	N
11	3.21250	37.6	24.7	0.3	37.9	25.0	56.0	46.0	18.1	21.0	N
12	13.03200	37.8	34.8	0.7	38.5	35.5	60.0	50.0	21.5	14.5	N
13	21.92200	22.9	20.9	0.9	23.8	21.8	60.0	50.0	36.2	28.2	N
14	0.16920	38.4	22.8	0.2	38.6	23.0	65.0	55.0	26.4	32.0	L1
15	0.22728	32.3	28.8	0.2	32.5	29.0	62.5	52.5	30.0	23.5	L1
16	0.34298	38.0	36.4	0.2	38.2	36.6	59.1	49.1	20.9	12.5	L1
17	0.58104	38.4	27.1	0.2	38.6	27.3	56.0	46.0	17.4	18.7	L1
18	0.80061	39.1	31.0	0.2	39.3	31.2	56.0	46.0	16.7	14.8	L1
19	1.01200	38.6	29.1	0.3	38.9	29.4	56.0	46.0	17.1	16.6	L1
20	1.24750	38.4	26.0	0.3	38.7	26.3	56.0	46.0	17.3	19.7	L1
21	1.48250	38.8	30.4	0.3	39.1	30.7	56.0	46.0	16.9	15.3	L1
22	1.94700	38.4	26.3	0.3	38.7	26.6	56.0	46.0	17.3	19.4	L1
23	2.17050	38.4	27.5	0.3	38.7	27.8	56.0	46.0	17.3	18.2	L1
24	3.30200	36.8	24.6	0.3	37.1	24.9	56.0	46.0	18.9	21.1	L1
25	13.03300	37.6	34.8	0.7	38.3	35.5	60.0	50.0	21.7	14.5	L1
26	21.94750	21.3	17.3	0.9	22.2	18.2	60.0	50.0	37.8	31.8	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	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 >

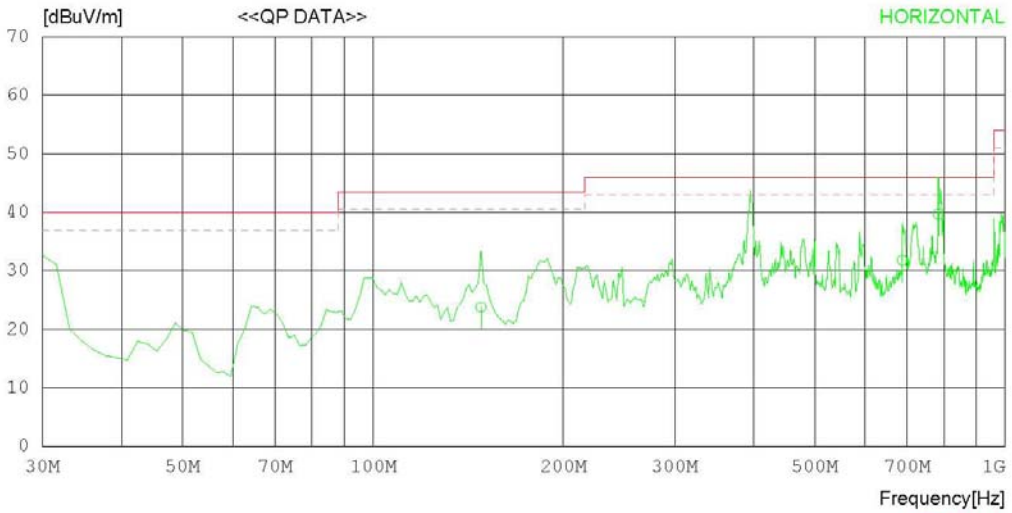
RADIATED EMISSION

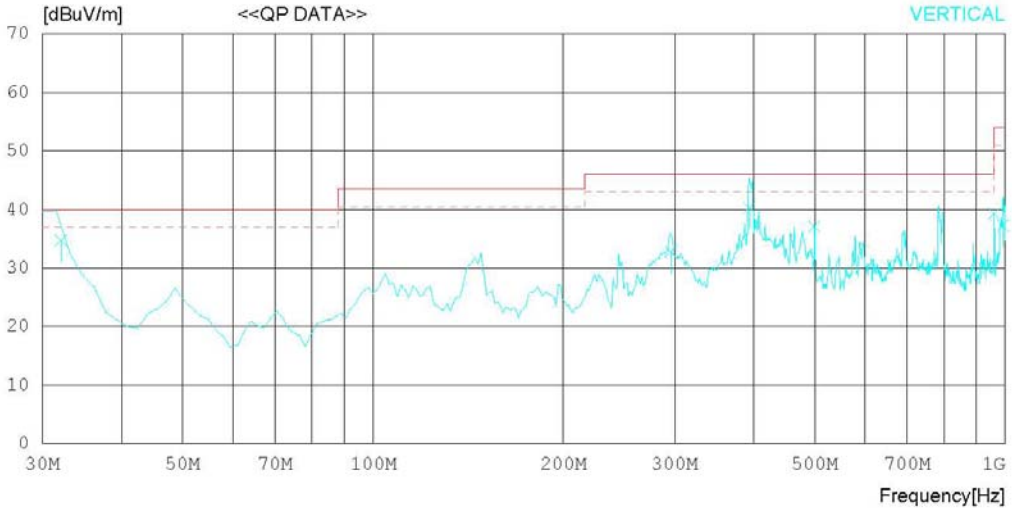
Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 37 % R.H
Test Condition	:	HDMI	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 '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	148.141	35.8	10.5	1.7	24.2	23.8	43.5	19.7	213	358
2	687.548	32.5	18.6	4.5	23.8	31.8	46.0	14.2	100	1
3	783.927	38.6	19.8	4.8	23.5	39.7	46.0	6.3	100	1
----- Vertical ------										
4	32.057	40.9	16.8	0.9	23.9	34.7	40.0	5.3	100	246
5	295.817	39.9	13.7	2.8	23.6	32.8	46.0	13.2	100	358
6	393.749	44.5	15.9	3.5	23.5	40.4	46.0	5.6	100	156
7	499.453	38.9	17.3	3.9	23.0	37.1	46.0	8.9	100	327
8	961.141	35.1	21.7	5.4	22.9	39.3	54.0	14.7	100	358
9	992.231	32.5	22.1	5.4	22.7	37.3	54.0	16.7	100	158

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

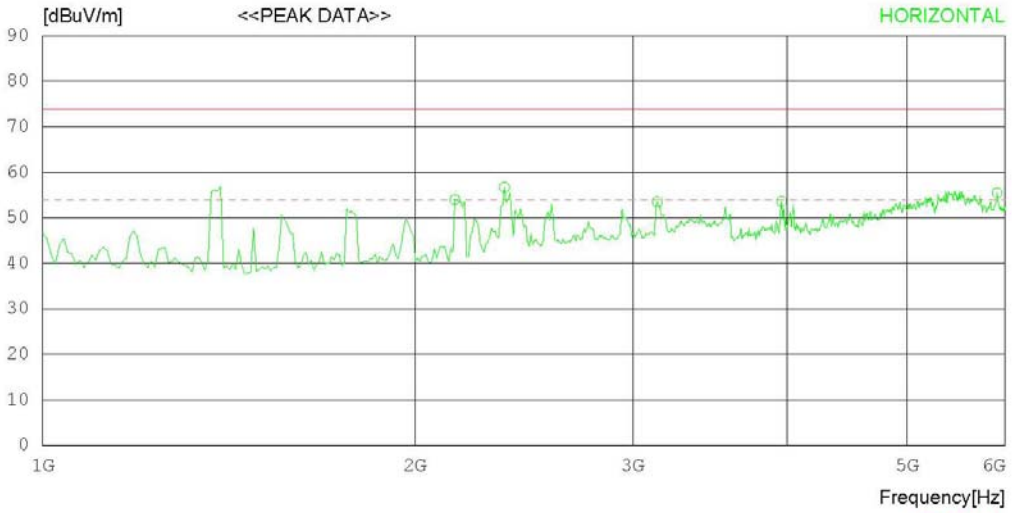
RADIATED EMISSION

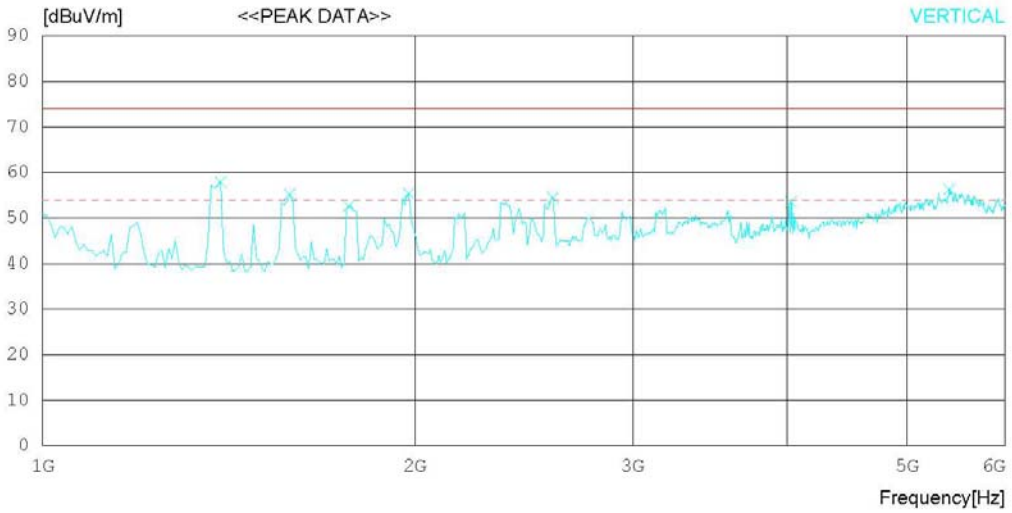
Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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 : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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	2153.847	48.3	25.4	8.8	28.5	54.0	74.0	20	100	229
2	2362.184	49.3	26.7	9.2	28.5	56.7	74.0	17.3	100	229
3	3139.439	42.1	29.0	10.8	28.4	53.5	74.0	20.5	100	247
4	3956.759	39.1	30.0	12.8	28.3	53.6	74.0	20.4	100	358
5	5911.861	35.6	32.4	15.7	28.2	55.5	74.0	18.5	100	358
----- Vertical ------										
6	1392.628	54.8	24.5	7.1	28.5	57.9	74.0	16.1	100	196
7	1584.936	51.4	24.6	7.7	28.5	55.2	74.0	18.8	100	1
8	1769.230	48.6	24.6	8.0	28.5	52.7	74.0	21.3	100	187
9	1977.564	50.8	24.6	8.4	28.5	55.3	74.0	18.7	100	1
10	2586.546	45.5	27.7	9.7	28.4	54.5	74.0	19.5	100	1
11	4028.875	38.6	30.2	13.0	28.3	53.5	74.0	20.5	100	198
12	5407.061	34.8	34.6	15.0	28.1	56.3	74.0	17.7	100	1

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

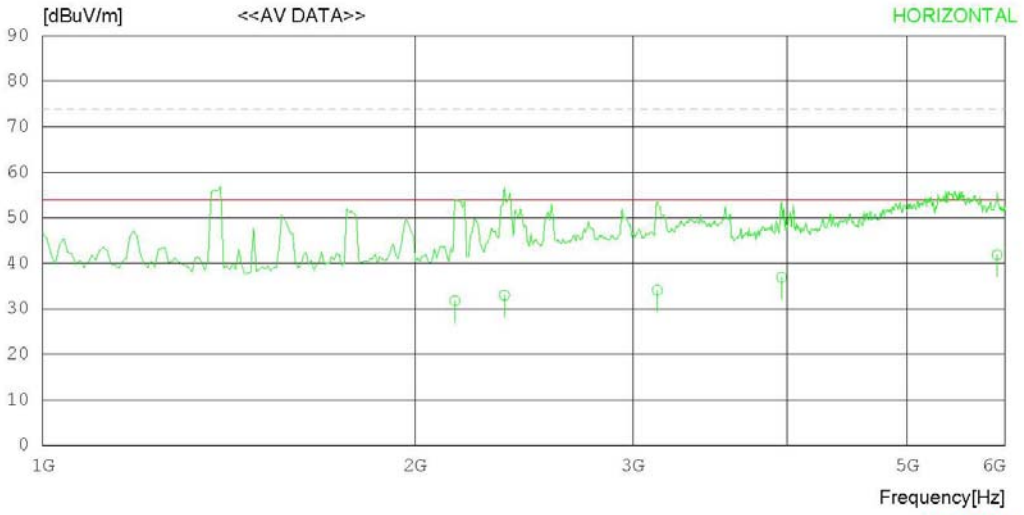
RADIATED EMISSION

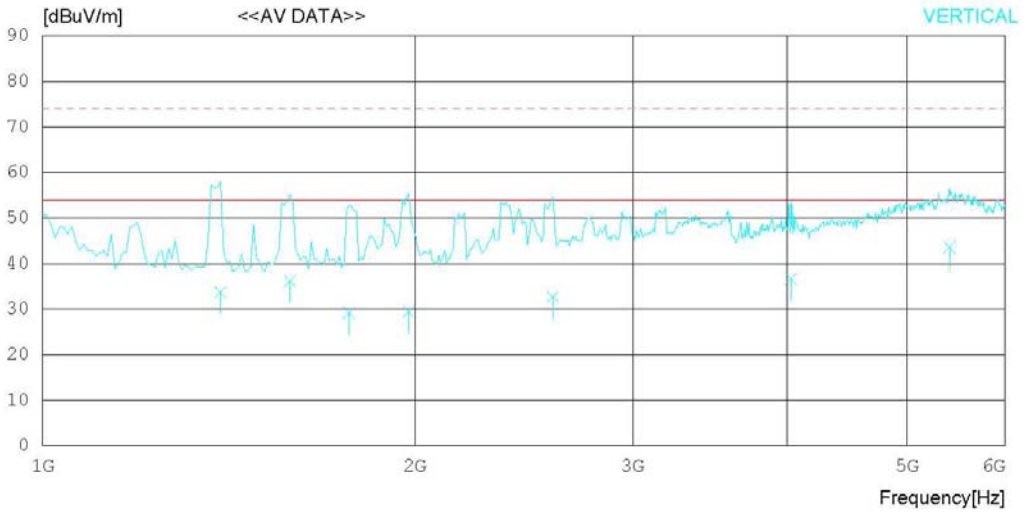
Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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 : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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	2153.847	26.1	25.4	8.8	28.5	31.8	54.0	22.2	100	229
2	2362.184	25.6	26.7	9.2	28.5	33.0	54.0	21.0	100	229
3	3139.439	22.7	29.0	10.8	28.4	34.1	54.0	19.9	100	247
4	3956.759	22.4	30.0	12.8	28.3	36.9	54.0	17.1	100	358
5	5911.861	22.0	32.4	15.7	28.2	41.9	54.0	12.1	100	358
----- Vertical ------										
6	1392.628	30.6	24.5	7.1	28.5	33.7	54.0	20.3	100	196
7	1584.936	32.4	24.6	7.7	28.5	36.2	54.0	17.8	100	1
8	1769.230	25.1	24.6	8.0	28.5	29.2	54.0	24.8	100	187
9	1977.564	25.0	24.6	8.4	28.5	29.5	54.0	24.5	100	1
10	2586.546	23.7	27.7	9.7	28.4	32.7	54.0	21.3	100	1
11	4028.875	21.8	30.2	13.0	28.3	36.7	54.0	17.3	100	198
12	5407.061	22.1	34.6	15.0	28.1	43.6	54.0	10.4	100	1

< USB MODE_30 MHz ~ 1 GHz >

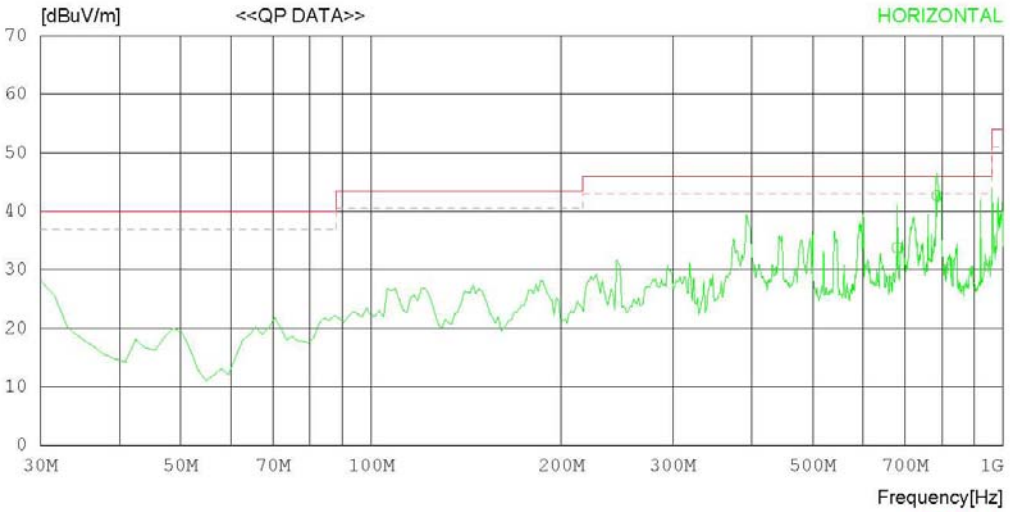
RADIATED EMISSION

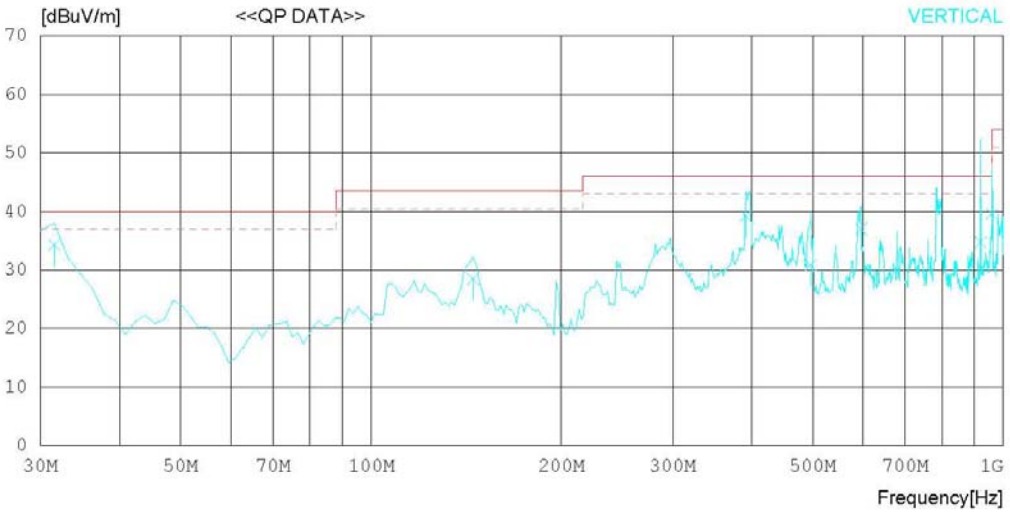
Date : 2013-02-07

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 'C 37 % R.H
Test Condition	:	USB	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-02-07

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	20 '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	679.776	34.4	18.6	4.5	23.7	33.8	46.0	12.2	239	231
2	785.482	41.6	19.8	4.8	23.5	42.7	46.0	3.3	100	205
----- Vertical ------										
3	31.554	40.1	17.1	0.9	23.8	34.3	40.0	5.7	100	1
4	145.032	40.3	10.7	1.7	24.2	28.5	43.5	15.0	100	4
5	392.195	43.3	15.9	3.5	23.5	39.2	46.0	6.8	204	358
6	496.344	32.7	17.3	3.9	23.0	30.9	46.0	15.1	311	359
7	595.832	37.7	18.6	4.1	23.4	37.0	46.0	9.0	214	200
8	920.724	31.4	21.1	5.3	23.0	34.8	46.0	11.2	100	1
9	961.141	35.4	21.7	5.4	22.9	39.6	54.0	14.4	224	358

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

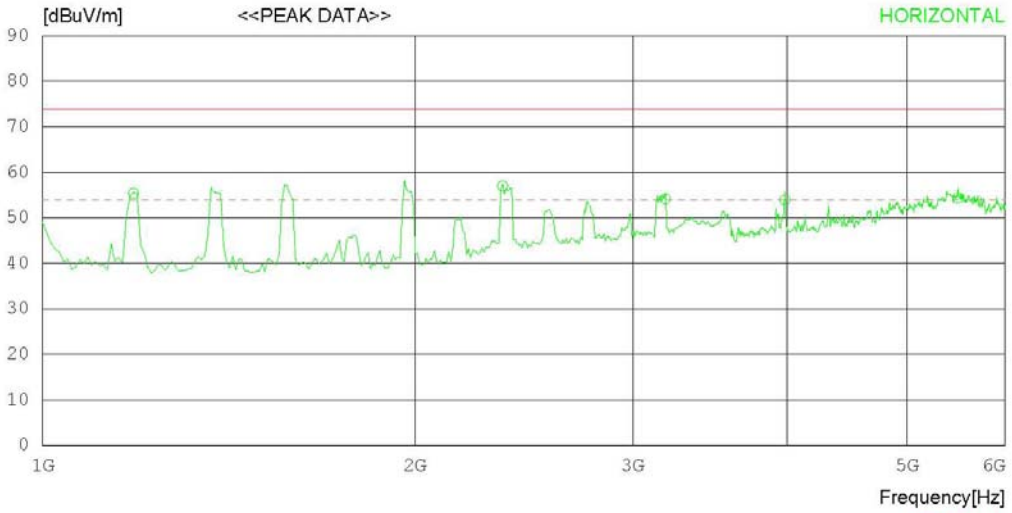
RADIATED EMISSION

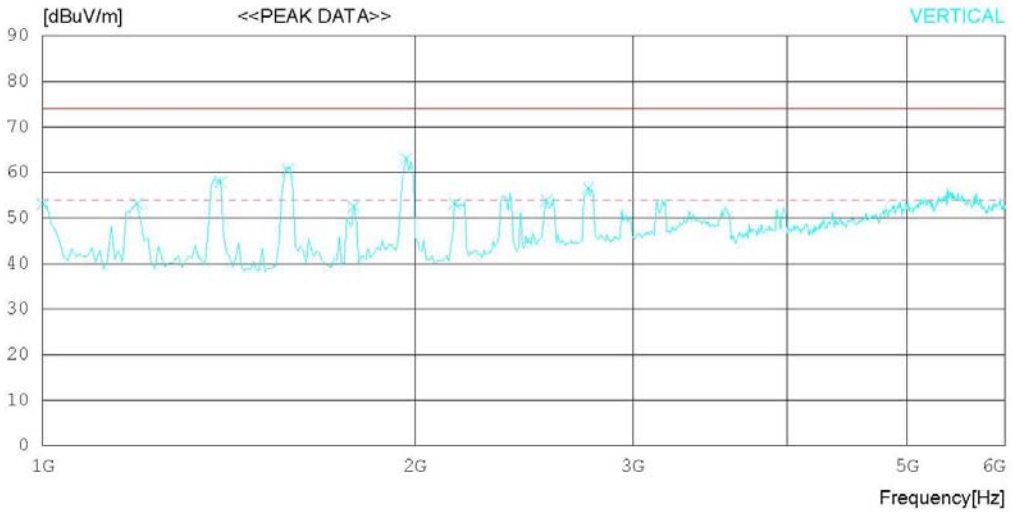
Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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 : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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	1184.295	53.6	24.2	6.1	28.5	55.4	74.0	18.6	100	1
2	2354.171	50.1	26.6	8.8	28.5	57.0	74.0	17	100	233
3	3187.517	43.7	28.9	10.0	28.4	54.2	74.0	19.8	100	1
4	3980.798	41.2	30.1	11.0	28.4	53.9	74.0	20.1	100	1
5	5495.201	34.6	35.1	12.9	28.3	54.3	74.0	19.7	100	1
----- Vertical ------										
6	1000.000	52.0	23.9	5.7	28.5	53.1	74.0	20.9	100	155
7	1192.308	51.1	24.2	6.4	28.5	53.2	74.0	20.8	100	212
8	1392.628	55.6	24.5	6.4	28.5	58.0	74.0	16	100	358
9	1576.923	57.4	24.6	7.1	28.5	60.6	74.0	13.4	100	358
10	1785.256	48.8	24.6	7.6	28.5	52.5	74.0	21.5	100	204
11	1969.551	58.9	24.6	8.0	28.5	63.0	74.0	11	100	358
12	2153.847	47.9	25.4	8.4	28.5	53.2	74.0	20.8	100	213
13	2554.494	45.5	27.6	9.2	28.5	53.8	74.0	20.2	100	358
14	2762.831	47.0	28.3	9.6	28.4	56.5	74.0	17.5	100	199

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

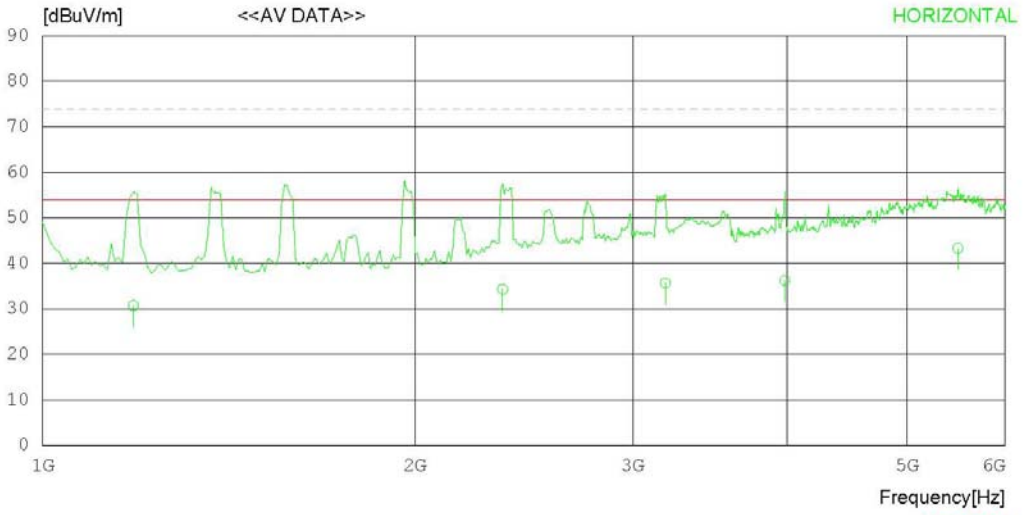
RADIATED EMISSION

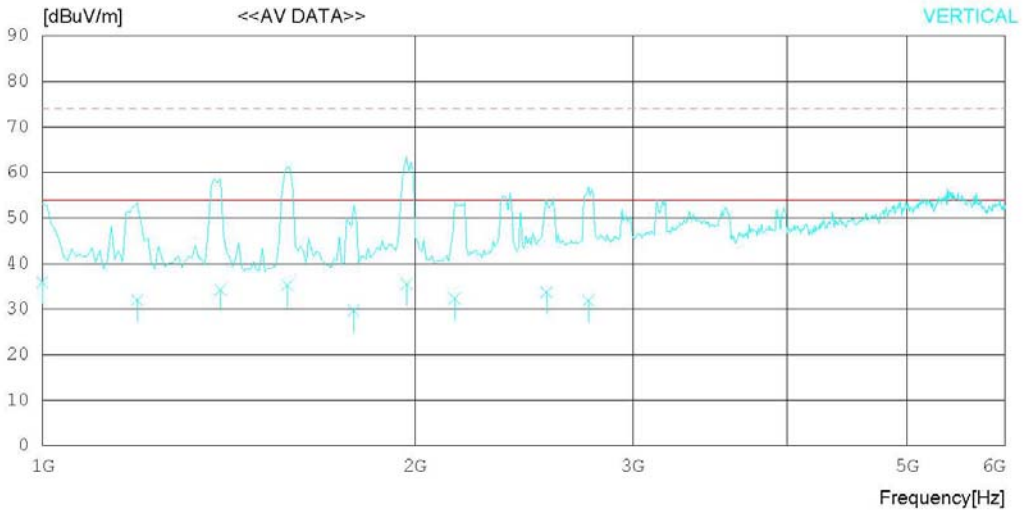
Date : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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 : 2013-02-06

Model Name	:	47LA6650-UA	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	22 'C 31 % 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	1184.295	28.6	24.2	6.4	28.5	30.7	54.0	23.3	100	1
2	2354.171	27.0	26.6	9.2	28.5	34.3	54.0	19.7	100	233
3	3187.517	24.2	28.9	11.0	28.4	35.7	54.0	18.3	100	1
4	3980.798	21.5	30.1	12.9	28.3	36.2	54.0	17.8	100	1
5	5495.201	21.4	35.1	14.9	28.1	43.3	54.0	10.7	100	1
----- Vertical ------										
6	1000.000	34.8	23.9	5.7	28.5	35.9	54.0	18.1	100	155
7	1192.308	29.9	24.2	6.4	28.5	32.0	54.0	22.0	100	212
8	1392.628	31.2	24.5	7.1	28.5	34.3	54.0	19.7	100	358
9	1576.923	31.6	24.6	7.6	28.5	35.3	54.0	18.7	100	358
10	1785.256	25.6	24.6	8.0	28.5	29.7	54.0	24.3	100	204
11	1969.551	31.0	24.6	8.4	28.5	35.5	54.0	18.5	100	358
12	2153.847	26.7	25.4	8.8	28.5	32.4	54.0	21.6	100	213
13	2554.494	24.9	27.6	9.6	28.4	33.7	54.0	20.3	100	358
14	2762.831	22.0	28.3	10.0	28.4	31.9	54.0	22.1	100	199

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	2012.11.06	2014.11.06
☒	HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒	AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒	AMPLIFIER	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