

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 47LA6200-UA
Order No. : 1301-00022
Date of receipt : 2013-01-03
Test duration : 2013-01-11 ~ 2013-01-12
Use of report : FCC CoC Marking
Date of Issue : 2013-01-16

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))

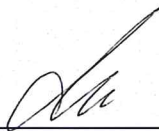
Test environment : Temperature : (18 ~ 23) °C,
Humidity : 31 % R.H.

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.

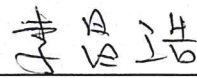
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Tested by:



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.	47LA6200-UA
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ47LA6200UA
Type of Sample Tested	Pre-Production
High Frequency	Max 800 MHz
Rating	AC 100-240 V~ 50/60 Hz
Supplied Power for Test	AC 120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

HDMI (PC) supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 350	31.468	70.09
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1360 x 768	47.712	60.015
1152 x 864	54.348	60.053
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 (°C)	Humidity (% R.H.)
Conducted Disturbance	01-11	23	31
Radiated Disturbance	01-11 01-12	20 18	31 31

4.3 Test result Summary

(1) Conducted Emission (HDMI MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15024	N	59.4	Quasi-Peak	66.0	6.6

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
1336.599	H	47.0	Average	54.0	7.0

5. Test Set-up and operation mode

5.1 Principle of Configuration Selection

Emission : The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

5.2 Test Operation Mode

- HDMI MODE : 'H' Pattern mode, 1920x1080 Resolution (Worst Case)
- 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 USB USB USB	1.6 1.8 1.6 2.0	Not use Not use Not use Not use	Non-shield Non-shield Non-shield Non-shield	Plastic	DOC
KEYBOARD	SKG-3000UB	TAKB601241E	MONITEREY INTERNATIONAL CORP	USB	1.8	Not use	Non-shield	Plastic	DOC
MOUSE	MS111-L	N/A	DELL INC.	USB	1.6	Not use	Non-shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	20014*99	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	-	-	-	-	DOC
PRINTER	SRP-770	N/A	BICOLON	POWER USB	1.8 2.0	Not use Not use	Non-shield Non-shield	Plastic	DOC
Remote control	AKB73756506	N/A	HANSUNG 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

< HDMI MODE >



Results of Conducted Emission

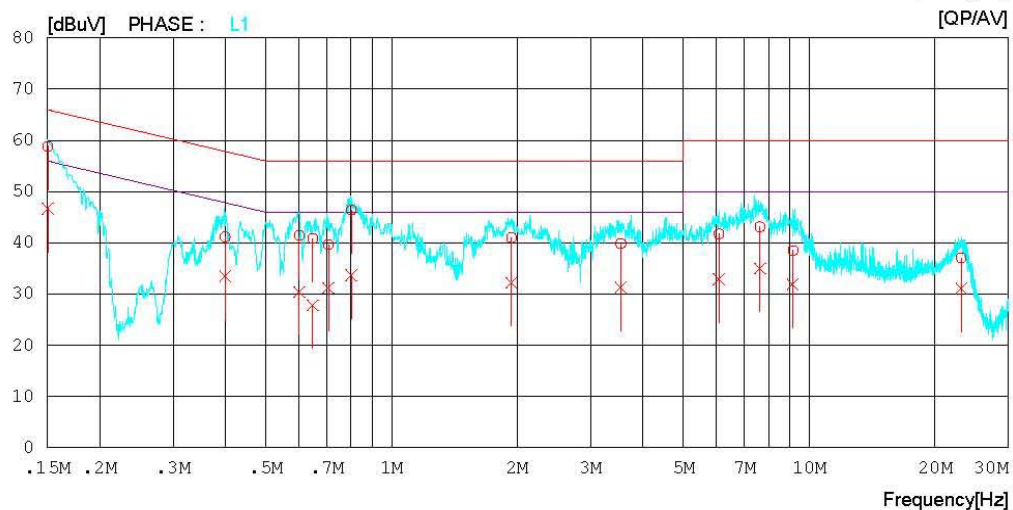
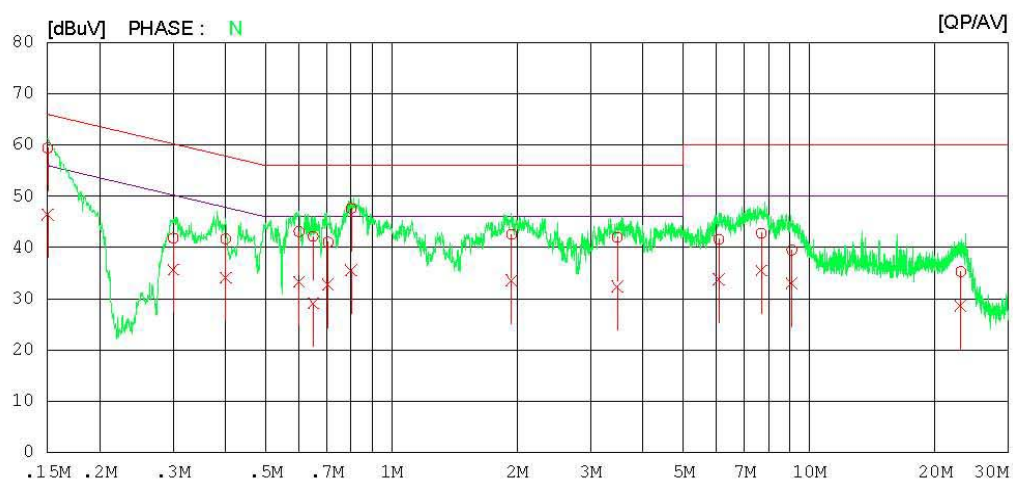
Digital EMC
Date : 2013-01-11

Model No. : 47LA6200-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 23 °C 31 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-11

Model No. : 47LA6200-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 23°C 31 % 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	0.15024	59.2	46.2	0.2	59.4	46.4	66.0	56.0	6.6	9.6	N
2	0.30056	41.6	35.5	0.2	41.8	35.7	60.2	50.2	18.4	14.5	N
3	0.40075	41.5	33.9	0.2	41.7	34.1	57.8	47.8	16.1	13.7	N
4	0.60040	42.9	33.1	0.2	43.1	33.3	56.0	46.0	12.9	12.7	N
5	0.64999	42.0	28.9	0.2	42.2	29.1	56.0	46.0	13.8	16.9	N
6	0.70501	40.8	32.6	0.2	41.0	32.8	56.0	46.0	15.0	13.2	N
7	0.80083	47.4	35.3	0.2	47.6	35.5	56.0	46.0	8.4	10.5	N
8	1.93950	42.3	33.3	0.3	42.6	33.6	56.0	46.0	13.4	12.4	N
9	3.47500	41.7	32.1	0.3	42.0	32.4	56.0	46.0	14.0	13.6	N
10	6.08050	41.1	33.3	0.5	41.6	33.8	60.0	50.0	18.4	16.2	N
11	7.68600	42.3	35.0	0.5	42.8	35.5	60.0	50.0	17.2	14.5	N
12	9.09200	38.8	32.3	0.7	39.5	33.0	60.0	50.0	20.5	17.0	N
13	23.06400	34.3	27.6	1.0	35.3	28.6	60.0	50.0	24.7	21.4	N
14	0.15032	58.6	46.5	0.2	58.8	46.7	66.0	56.0	7.2	9.3	L1
15	0.39993	41.0	33.3	0.2	41.2	33.5	57.9	47.9	16.7	14.4	L1
16	0.60134	41.2	30.2	0.2	41.4	30.4	56.0	46.0	14.6	15.6	L1
17	0.64795	40.6	27.6	0.2	40.8	27.8	56.0	46.0	15.2	18.2	L1
18	0.70694	39.5	31.0	0.2	39.7	31.2	56.0	46.0	16.3	14.8	L1
19	0.80135	46.2	33.5	0.2	46.4	33.7	56.0	46.0	9.6	12.3	L1
20	1.93650	40.7	31.9	0.3	41.0	32.2	56.0	46.0	15.0	13.8	L1
21	3.54000	39.6	31.1	0.3	39.9	31.4	56.0	46.0	16.1	14.6	L1
22	6.08150	41.2	32.4	0.5	41.7	32.9	60.0	50.0	18.3	17.1	L1
23	7.62050	42.6	34.5	0.5	43.1	35.0	60.0	50.0	16.9	15.0	L1
24	9.14800	37.8	31.2	0.7	38.5	31.9	60.0	50.0	21.5	18.1	L1
25	23.13050	36.1	30.1	1.0	37.1	31.1	60.0	50.0	22.9	18.9	L1

< USB MODE >



Results of Conducted Emission

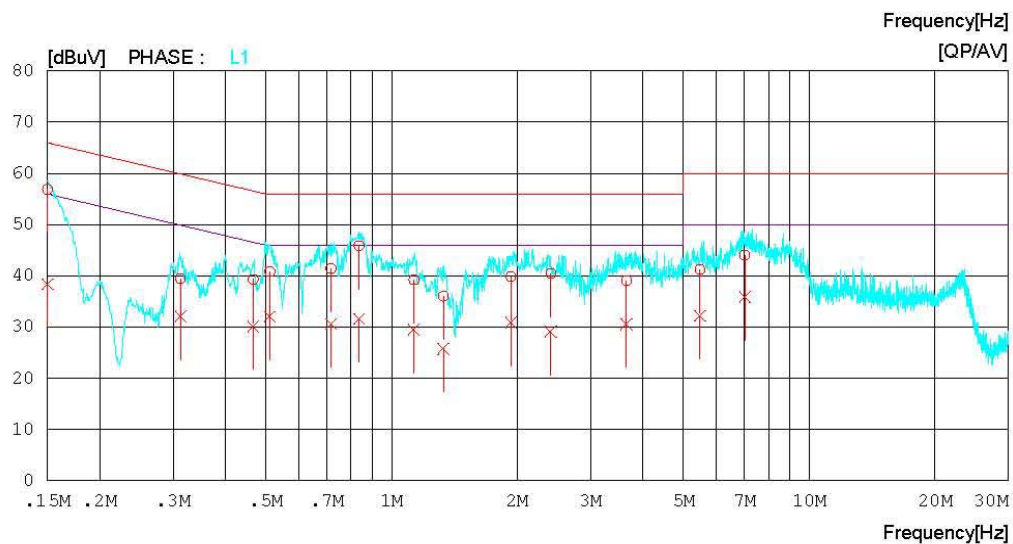
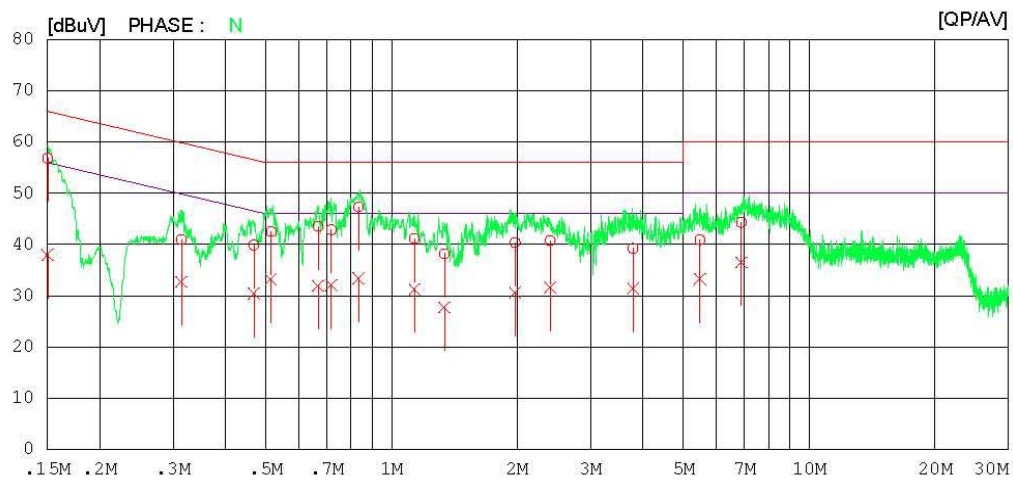
Digital EMC
Date : 2013-01-11

Model No. : 47LA6200-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 23 °C 31 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-01-11

Model No. : 47LA6200-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 23°C 31 % 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	0.15024	56.6	37.8	0.2	56.8	38.0	66.0	56.0	9.2	18.0	N
2	0.31413	40.8	32.5	0.2	41.0	32.7	59.9	49.9	18.9	17.2	N
3	0.46816	39.7	30.2	0.2	39.9	30.4	56.5	46.5	16.6	16.1	N
4	0.51510	42.3	33.0	0.2	42.5	33.2	56.0	46.0	13.5	12.8	N
5	0.66714	43.3	31.7	0.2	43.5	31.9	56.0	46.0	12.5	14.1	N
6	0.71775	42.6	31.8	0.2	42.8	32.0	56.0	46.0	13.2	14.0	N
7	0.83414	47.1	33.2	0.2	47.3	33.4	56.0	46.0	8.7	12.6	N
8	1.13500	40.8	30.9	0.3	41.1	31.2	56.0	46.0	14.9	14.8	N
9	1.33850	37.9	27.4	0.3	38.2	27.7	56.0	46.0	17.8	18.3	N
10	1.97800	40.1	30.3	0.3	40.4	30.6	56.0	46.0	15.6	15.4	N
11	2.40150	40.5	31.3	0.3	40.8	31.6	56.0	46.0	15.2	14.4	N
12	3.78700	38.9	31.1	0.3	39.2	31.4	56.0	46.0	16.8	14.6	N
13	5.47600	40.4	32.7	0.5	40.9	33.2	60.0	50.0	19.1	16.8	N
14	6.88400	43.8	36.0	0.5	44.3	36.5	60.0	50.0	15.7	13.5	N
15	0.15008	56.7	38.2	0.2	56.9	38.4	66.0	56.0	9.1	17.6	L1
16	0.31275	39.2	31.9	0.2	39.4	32.1	59.9	49.9	20.5	17.8	L1
17	0.46683	39.1	30.0	0.2	39.3	30.2	56.6	46.6	17.3	16.4	L1
18	0.51141	40.6	31.8	0.2	40.8	32.0	56.0	46.0	15.2	14.0	L1
19	0.71670	41.2	30.4	0.2	41.4	30.6	56.0	46.0	14.6	15.4	L1
20	0.83571	45.7	31.4	0.2	45.9	31.6	56.0	46.0	10.1	14.4	L1
21	1.13150	38.9	29.2	0.3	39.2	29.5	56.0	46.0	16.8	16.5	L1
22	1.33150	35.7	25.5	0.3	36.0	25.8	56.0	46.0	20.0	20.2	L1
23	1.93200	39.5	30.6	0.3	39.8	30.9	56.0	46.0	16.2	15.1	L1
24	2.40650	40.1	28.8	0.3	40.4	29.1	56.0	46.0	15.6	16.9	L1
25	3.65150	38.8	30.3	0.3	39.1	30.6	56.0	46.0	16.9	15.4	L1
26	5.47750	40.7	31.8	0.5	41.2	32.3	60.0	50.0	18.8	17.7	L1
27	7.01550	43.5	35.4	0.5	44.0	35.9	60.0	50.0	16.0	14.1	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

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

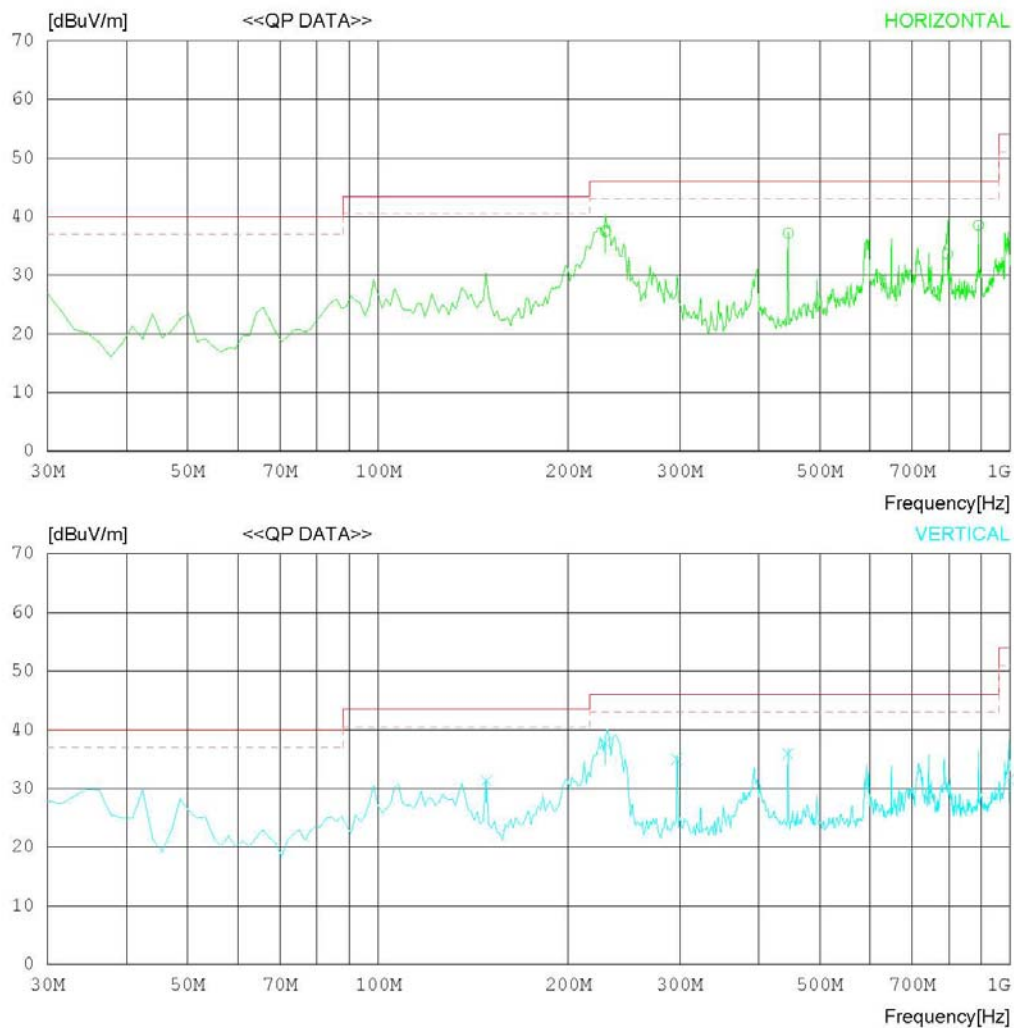
Date : 2013-01-11

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 20 °C 31 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-11

Model Name : 47LA6200-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 31 % 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	228.975	47.1	11.4	2.5	23.5	37.5	46.0	8.5	100	250
2	445.521	41.7	16.6	3.5	24.6	37.2	46.0	8.8	201	1
3	796.363	32.7	19.9	4.8	23.8	33.6	46.0	12.4	100	194
4	891.035	35.8	20.7	5.2	23.2	38.5	46.0	7.5	100	358
----- Vertical -----										
5	148.512	42.2	10.5	1.7	23.1	31.3	43.5	12.2	100	199
6	228.718	47.4	11.4	2.5	23.5	37.8	46.0	8.2	132	144
7	297.009	42.4	13.7	2.8	23.9	35.0	46.0	11.0	100	232
8	445.516	40.4	16.6	3.5	24.6	35.9	46.0	10.1	100	358
9	996.160	26.8	22.2	5.5	23.0	31.5	54.0	22.5	100	358

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

RADIATED EMISSION

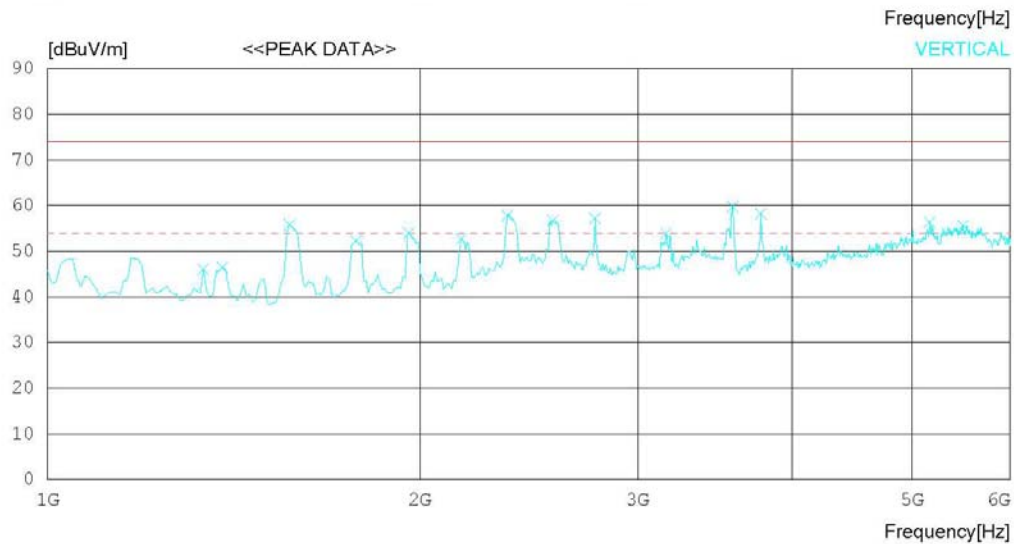
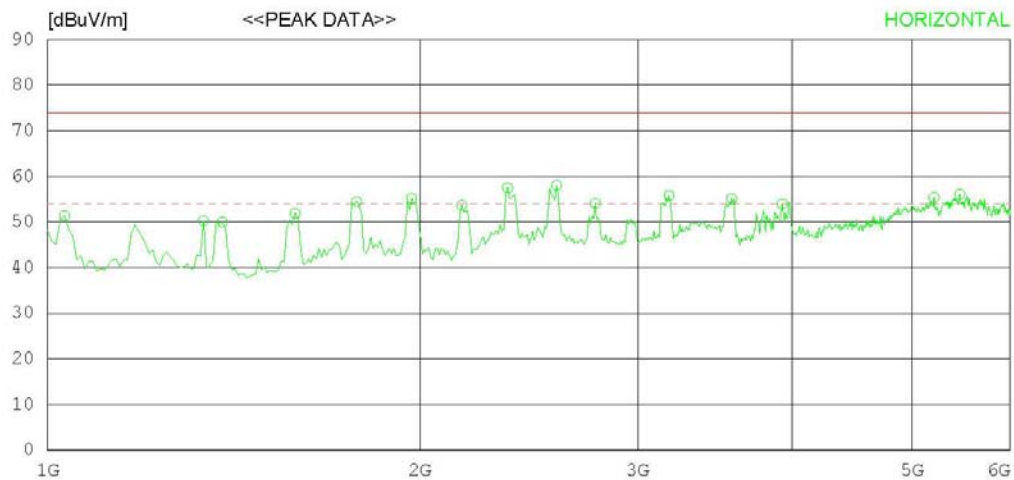
Date : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % 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 : 2013-01-12

Model Name : 47LA6200-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °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	1032.051	50.1	23.9	5.9	28.5	51.4	74.0	22.6	100	1
2	1336.538	47.5	24.4	6.9	28.5	50.3	74.0	23.7	100	221
3	1384.615	46.9	24.5	7.1	28.5	50.0	74.0	24	100	253
4	1584.936	48.1	24.6	7.7	28.5	51.9	74.0	22.1	100	164
5	1777.243	50.4	24.6	8.0	28.5	54.5	74.0	19.5	100	204
6	1969.551	50.7	24.6	8.4	28.5	55.2	74.0	18.8	100	156
7	2161.860	47.9	25.5	8.8	28.5	53.7	74.0	20.3	100	1
8	2354.171	50.2	26.6	9.2	28.5	57.5	74.0	16.5	100	171
9	2578.533	49.0	27.7	9.7	28.4	58.0	74.0	16	100	1
10	2770.844	44.1	28.3	10.1	28.4	54.1	74.0	19.9	100	1
11	3179.504	44.4	28.9	10.9	28.4	55.8	74.0	18.2	100	177
12	3572.138	42.4	29.1	11.9	28.3	55.1	74.0	18.9	100	1
13	3924.707	39.5	30.0	12.8	28.3	54.0	74.0	20	100	191
14	5206.744	34.8	33.5	15.2	28.1	55.4	74.0	18.6	100	184
15	5463.150	34.4	34.9	14.9	28.1	56.1	74.0	17.9	100	1
----- Vertical -----										
16	1336.538	43.3	24.4	6.9	28.5	46.1	74.0	27.9	100	358
17	1384.615	43.4	24.5	7.1	28.5	46.5	74.0	27.5	100	211
18	1568.910	52.1	24.6	7.6	28.5	55.8	74.0	18.2	100	358
19	1777.243	48.2	24.6	8.0	28.5	52.3	74.0	21.7	100	162
20	1961.538	49.5	24.6	8.4	28.5	54.0	74.0	20	100	358
21	2161.860	47.0	25.5	8.8	28.5	52.8	74.0	21.2	100	358
22	2354.171	50.6	26.6	9.2	28.5	57.9	74.0	16.1	100	180
23	2562.507	47.9	27.6	9.7	28.4	56.8	74.0	17.2	100	358
24	2770.844	47.3	28.3	10.1	28.4	57.3	74.0	16.7	100	237
25	3163.478	42.6	28.9	10.9	28.4	54.0	74.0	20	100	358
26	3580.151	47.1	29.1	11.9	28.3	59.8	74.0	14.2	100	358
27	3772.461	44.5	29.6	12.4	28.3	58.2	74.0	15.8	100	207
28	5166.680	36.0	33.3	15.2	28.1	56.4	74.0	17.6	100	358
29	5495.201	33.8	35.1	14.9	28.1	55.7	74.0	18.3	100	358

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

RADIATED EMISSION

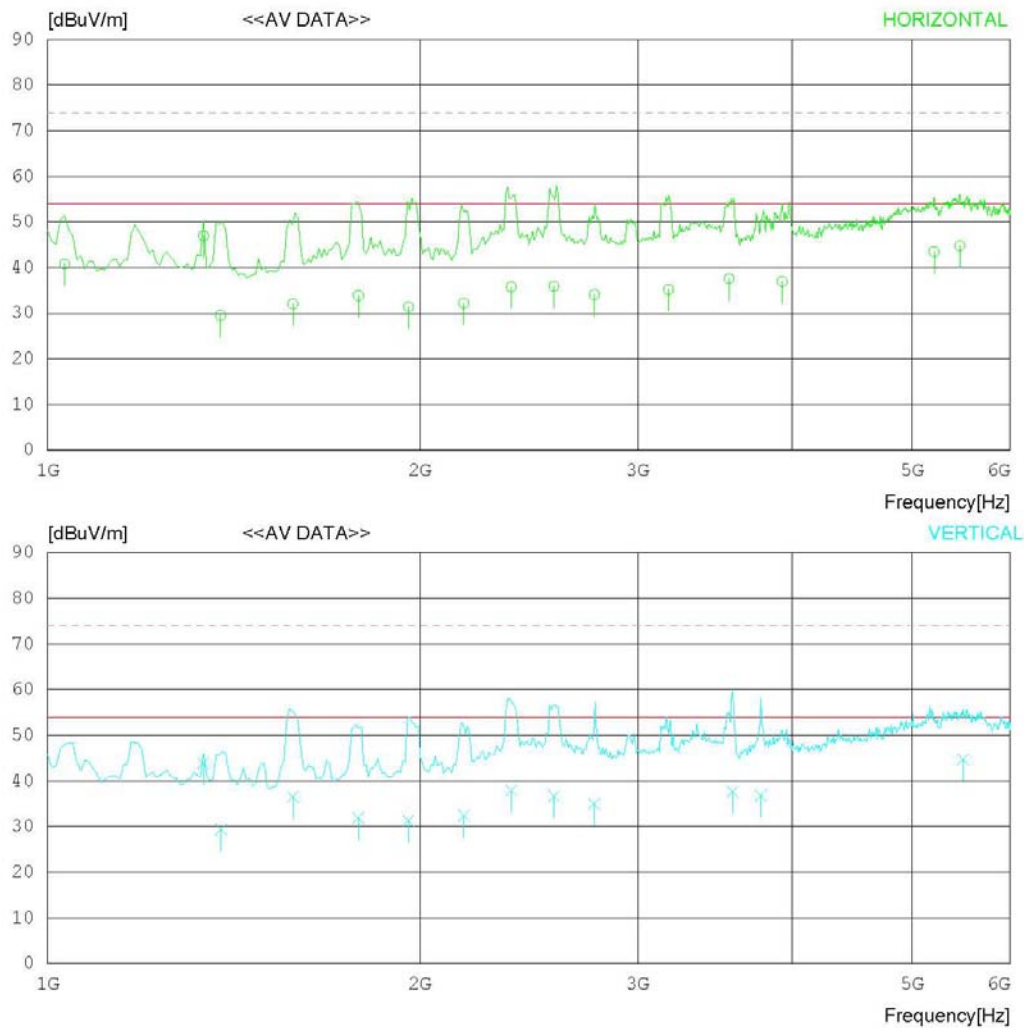
Date : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % 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 : 2013-01-12

Model Name	: 47LA6200-UA	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 18 °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	1032.051	39.5	23.9	5.9	28.5	40.8	54.0	13.2	100	1
2	1336.599	44.2	24.4	6.9	28.5	47.0	54.0	7.0	100	221
3	1379.855	26.4	24.5	7.1	28.5	29.5	54.0	24.5	100	244
4	1578.805	28.4	24.6	7.6	28.5	32.1	54.0	21.9	100	164
5	1783.575	29.8	24.6	8.0	28.5	33.9	54.0	20.1	100	204
6	1958.429	26.9	24.6	8.4	28.5	31.4	54.0	22.6	100	156
7	2169.843	26.4	25.5	8.8	28.5	32.2	54.0	21.8	100	190
8	2371.147	28.3	26.7	9.3	28.5	35.8	54.0	18.2	100	189
9	2566.683	26.9	27.7	9.7	28.4	35.9	54.0	18.1	100	90
10	2766.715	24.1	28.3	10.1	28.4	34.1	54.0	19.9	100	180
11	3176.042	23.8	28.9	10.9	28.4	35.2	54.0	18.8	100	177
12	3556.052	25.1	29.0	11.8	28.3	37.6	54.0	16.4	100	233
13	3924.707	22.5	30.0	12.8	28.3	37.0	54.0	17.0	100	191
14	5206.744	22.9	33.5	15.2	28.1	43.5	54.0	10.5	100	184
15	5463.150	23.1	34.9	14.9	28.1	44.8	54.0	9.2	100	1
----- Vertical -----										
16	1336.599	41.1	24.4	6.9	28.5	43.9	54.0	10.1	100	96
17	1381.355	26.3	24.5	7.1	28.5	29.4	54.0	24.6	100	199
18	1578.804	32.8	24.6	7.6	28.5	36.5	54.0	17.5	100	180
19	1783.574	27.8	24.6	8.0	28.5	31.9	54.0	22.1	100	162
20	1958.429	26.8	24.6	8.4	28.5	31.3	54.0	22.7	100	358
21	2170.843	26.6	25.5	8.8	28.5	32.4	54.0	21.6	100	178
22	2371.147	30.4	26.7	9.3	28.5	37.9	54.0	16.1	100	161
23	2566.686	27.7	27.7	9.7	28.4	36.7	54.0	17.3	100	299
24	2766.715	25.0	28.3	10.1	28.4	35.0	54.0	19.0	100	237
25	3580.151	24.9	29.1	11.9	28.3	37.6	54.0	16.4	100	358
26	3770.878	23.1	29.6	12.4	28.3	36.8	54.0	17.2	100	234
27	5495.201	22.9	35.1	14.9	28.1	44.8	54.0	9.2	100	358

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

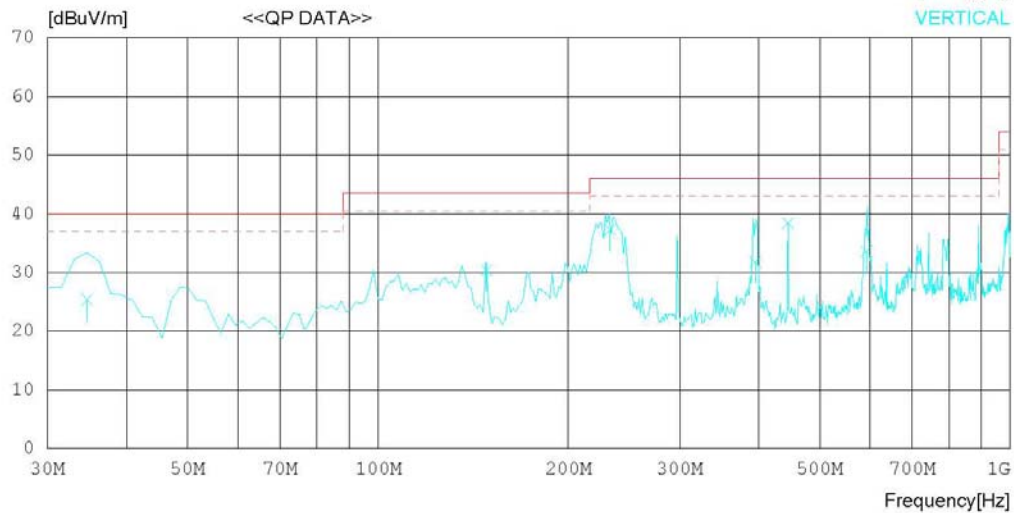
Date : 2013-01-11

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 20 °C 31 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-01-11

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 20 °C 31 % R.H.
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	62.644	37.1	5.6	1.5	22.7	21.5	40.0	18.5	164	44
2	228.975	45.1	11.4	2.5	23.5	35.5	46.0	10.5	100	238
3	445.514	43.0	16.6	3.5	24.6	38.5	46.0	7.5	100	102
4	597.756	38.0	18.7	4.1	24.7	36.1	46.0	9.9	196	161
5	796.872	35.6	19.9	4.8	23.8	36.5	46.0	9.5	201	0
6	995.400	33.5	22.2	5.5	23.0	38.2	54.0	15.8	300	124
----- Vertical -----										
7	34.663	32.0	15.4	1.1	23.1	25.4	40.0	14.6	100	121
8	232.864	46.6	11.7	2.5	23.5	37.3	46.0	8.7	199	1
9	148.514	41.3	10.5	1.7	23.1	30.4	43.5	13.1	100	145
10	395.032	36.8	15.9	3.5	24.4	31.8	46.0	14.2	100	185
11	445.516	42.9	16.6	3.5	24.6	38.4	46.0	7.6	100	146
12	592.545	35.6	18.6	4.1	24.7	33.6	46.0	12.4	100	220

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

RADIATED EMISSION

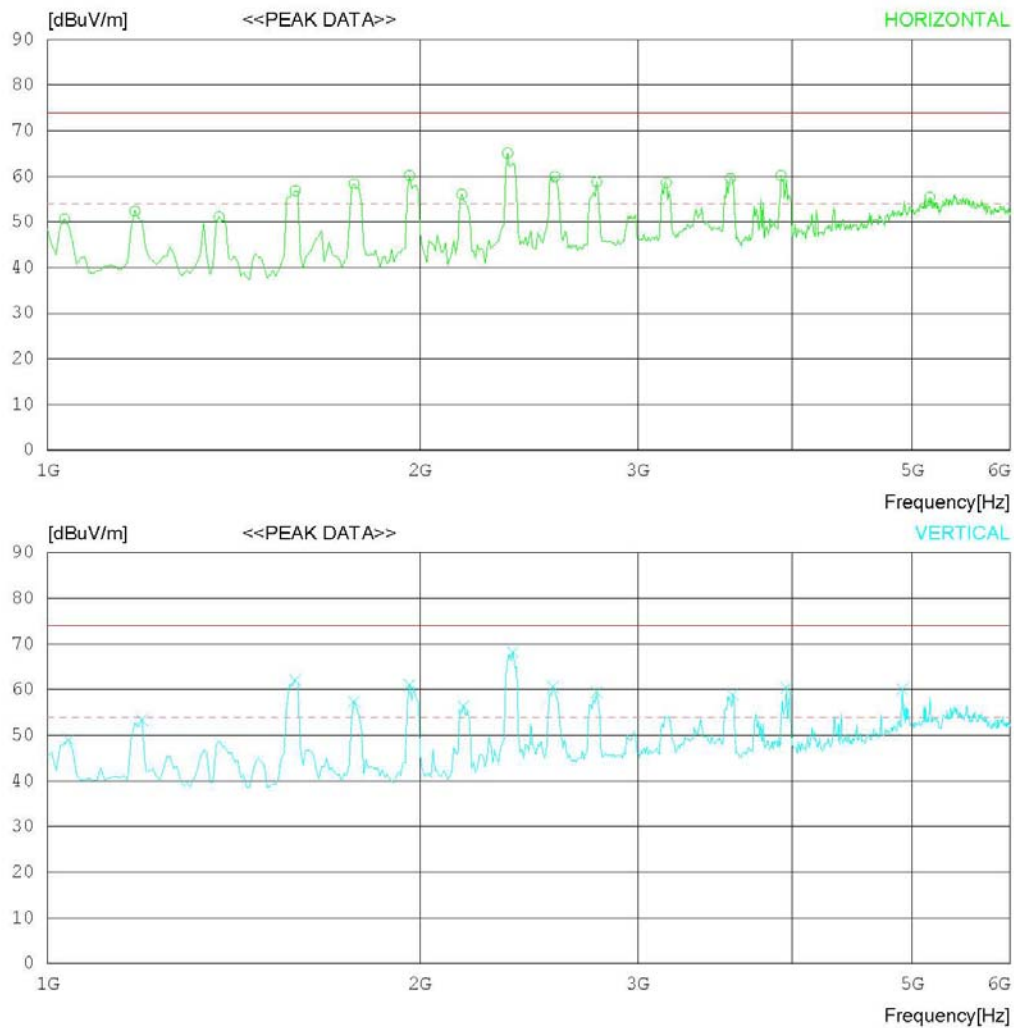
Date : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % 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 : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % R.H.
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	49.4	23.9	5.9	28.5	50.7	74.0	23.3	100	196
2	1176.282	50.4	24.1	6.4	28.5	52.4	74.0	21.6	100	148
3	1376.602	48.0	24.5	7.1	28.5	51.1	74.0	22.9	100	235
4	1584.936	53.1	24.6	7.7	28.5	56.9	74.0	17.1	100	1
5	1769.230	54.3	24.6	8.0	28.5	58.4	74.0	15.6	100	209
6	1961.538	55.7	24.6	8.4	28.5	60.2	74.0	13.8	100	209
7	2161.860	50.3	25.5	8.8	28.5	56.1	74.0	17.9	100	193
8	2354.171	57.8	26.6	9.2	28.5	65.1	74.0	8.9	100	177
9	2570.520	51.0	27.7	9.7	28.4	60.0	74.0	14	100	200
10	2778.857	48.8	28.3	10.1	28.4	58.8	74.0	15.2	100	1
11	3163.478	47.2	28.9	10.9	28.4	58.6	74.0	15.4	100	1
12	3564.125	47.0	29.0	11.9	28.3	59.6	74.0	14.4	100	1
13	3916.694	45.9	29.9	12.7	28.3	60.2	74.0	13.8	100	189
14	5166.680	35.1	33.3	15.2	28.1	55.5	74.0	18.5	100	229
----- Vertical -----										
15	1040.064	47.7	23.9	5.9	28.5	49.0	74.0	25	100	186
16	1192.308	51.3	24.2	6.4	28.5	53.4	74.0	20.6	100	154
17	1584.936	58.3	24.6	7.7	28.5	62.1	74.0	11.9	100	358
18	1769.230	53.3	24.6	8.0	28.5	57.4	74.0	16.6	100	163
19	1961.538	56.6	24.6	8.4	28.5	61.1	74.0	12.9	100	358
20	2169.873	50.6	25.5	8.8	28.5	56.4	74.0	17.6	100	221
21	2378.210	60.7	26.7	9.3	28.5	68.2	74.0	5.8	100	358
22	2562.507	51.7	27.6	9.7	28.4	60.6	74.0	13.4	100	174
23	2778.857	49.5	28.3	10.1	28.4	59.5	74.0	14.5	100	358
24	3580.151	46.3	29.1	11.9	28.3	59.0	74.0	15	100	192
25	3956.759	45.9	30.0	12.8	28.3	60.4	74.0	13.6	100	358
26	4910.274	40.9	32.2	15.1	28.1	60.1	74.0	13.9	100	358

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

RADIATED EMISSION

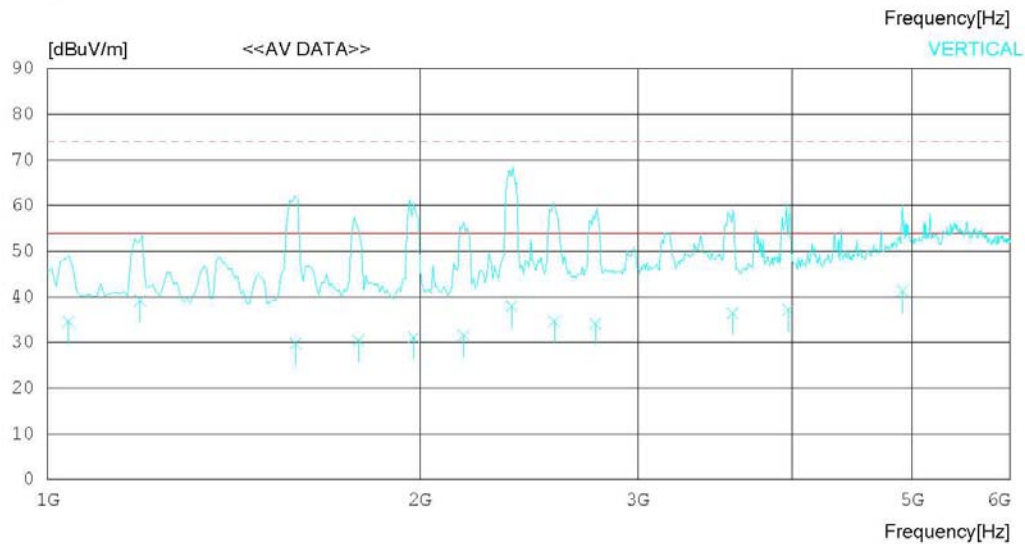
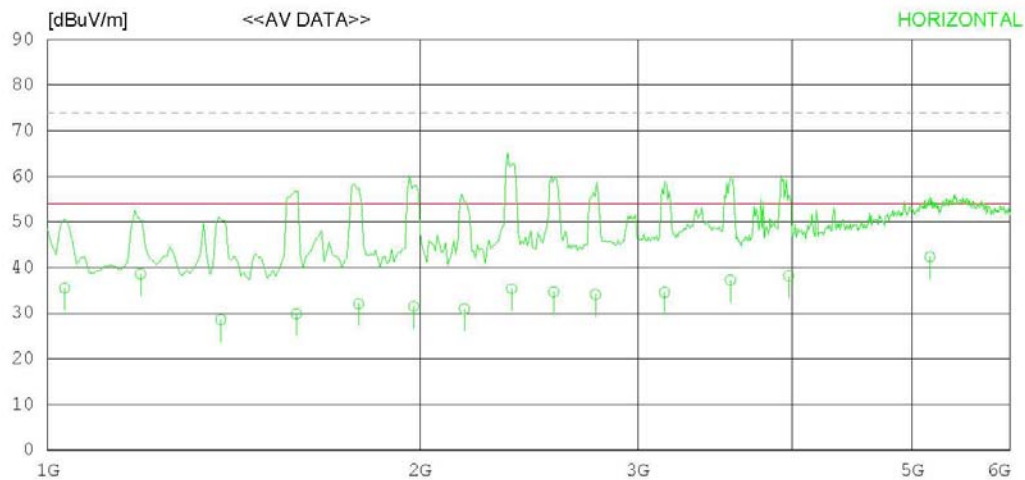
Date : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % 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 : 2013-01-12

Model Name : 47LA6200-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 18 °C 31 % R.H.
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	1032.051	34.2	23.9	5.9	28.5	35.5	54.0	18.5	100	196
2	1188.698	36.5	24.2	6.4	28.5	38.6	54.0	15.4	100	156
3	1380.567	25.5	24.5	7.1	28.5	28.6	54.0	25.4	100	235
4	1589.683	26.1	24.6	7.7	28.5	29.9	54.0	24.1	100	154
5	1783.705	28.0	24.6	8.0	28.5	32.1	54.0	21.9	100	172
6	1976.807	27.0	24.6	8.4	28.5	31.5	54.0	22.5	100	209
7	2171.737	25.2	25.5	8.8	28.5	31.0	54.0	23.0	100	199
8	2372.077	27.9	26.7	9.3	28.5	35.4	54.0	18.6	100	177
9	2564.798	25.8	27.6	9.7	28.4	34.7	54.0	19.3	100	148
10	2773.391	24.1	28.3	10.1	28.4	34.1	54.0	19.9	100	279
11	3153.047	23.2	28.9	10.9	28.4	34.6	54.0	19.4	100	175
12	3564.125	24.7	29.0	11.9	28.3	37.3	54.0	16.7	100	241
13	3973.288	23.5	30.1	12.9	28.3	38.2	54.0	15.8	100	189
14	5166.680	22.0	33.3	15.2	28.1	42.4	54.0	11.6	100	229
----- Vertical -----										
15	1039.371	33.2	23.9	5.9	28.5	34.5	54.0	19.5	100	186
16	1188.218	37.2	24.2	6.4	28.5	39.3	54.0	14.7	100	154
17	1586.183	26.0	24.6	7.7	28.5	29.8	54.0	24.2	100	164
18	1783.705	26.4	24.6	8.0	28.5	30.5	54.0	23.5	100	163
19	1976.807	26.7	24.6	8.4	28.5	31.2	54.0	22.8	100	358
20	2169.737	25.8	25.5	8.8	28.5	31.6	54.0	22.4	100	221
21	2372.077	30.5	26.7	9.3	28.5	38.0	54.0	16.0	100	358
22	2568.571	25.7	27.7	9.7	28.4	34.7	54.0	19.3	100	174
23	2773.391	24.2	28.3	10.1	28.4	34.2	54.0	19.8	100	190
24	3580.151	23.8	29.1	11.9	28.3	36.5	54.0	17.5	100	192
25	3970.288	22.5	30.1	12.9	28.3	37.2	54.0	16.8	100	358
26	4912.083	22.1	32.2	15.1	28.1	41.3	54.0	12.7	100	358

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
☒ 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
☒ BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.03.22	2014.03.22
☐ 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