

EMC TEST REPORT

Test item : LED LCD TV Monitor
Model No. : 47LM6200-UE
Order No. : 1112-01716
Date of receipt : 2011-12-08
Test duration : 2011-12-10 ~ 2011-12-12
Use of report : FCC Marking
Date of Issue : 2011-12-15

Applicant : LG Electronics Inc.

9-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

Test laboratory : Digital EMC Co., Ltd.

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

Test specification : ANSI C 63.4:2003
FCC Part 15 Subpart B
(Type of Device : Class B Personal Computers and Peripherals (JBP))
Test environment : Temperature (21 ~ 23) °C,
Humidity (35 ~ 38) % R.H.
Test result : ☒ Comply ☐ Not Comply

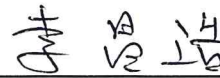
The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose. This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:



Assistant Manager
D.H EUN

Reviewed by:



General Manager
C.H.LEE

The above test report is the accredited test results by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

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.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
	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	ROK1028C	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

3.1 Product Information

Model No.	47LM6200-UE
EUT Type	LED LCD TV Monitor
Serial No	NONE
FCC ID	BEJ47LM6200UE
Type of Sample Tested	Pre-Production
High Frequency	756 MHz
Rating	AC100-240 V~, 50/60 Hz, 1.2 A, 120 W
Supplied Power for Test	AC120V, 60Hz
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

□ Formats Supported

PC Input Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
HDMI-PC / RGB-PC	640x350	31.468	70.09
	720x400	31.469	70.08
	640x480	31.469	59.94
	800x600	37.879	60.31
	1024x768	48.363	60.00
	1152x864	54.348	60.053
	1360x768	47.712	60.015
	1920x1080	67.5	60.00

4. Test Summary

4.1 Applied standards and test results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4:2003	Comply
Radiated Disturbance	ANSI C63.4:2003	Comply

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.)	Pressure (hPa)
Conducted Disturbance	12-12	21	38	-
Radiated Disturbance	12-10	23	36	
	12-12	22	35	

4.3 Test result Summary

(1) Conducted Emission(USB MODE)

Frequency [MHz]	Result [dBμV]	Phase	Detector	Limit [dBμV]	Margin [dB]
1.25850	34.2	N	Average	46.0	11.8

(2) Radiated Emission(DSUB + LAN MODE)

Frequency [MHz]	Pol.	Reading [dBμV]	C.F. [dB/m]	Result [dB(μV/m)]	Limit [dB(μV/m)]	Margin [dB]
592.332	V	42.0	-1.8	40.2	46.0	5.8

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

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

3. Margin = Limit - Emission level

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+LAN MODE - Worst Case Resolution : 1920 x 1080 Resolution
- HDMI+LAN MODE - Worst Case Resolution : 1920 x 1080 Resolution
- USB MODE

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE			Backshell	FCC ID
				Connect type	Length (m)	shield		
PC	VOSTRO430	9K77SBX	DELL	POWER	1.8	Non-shield	Plastic	DOC
				DSUB	1.5	Shield		
				HDMI	1.8	Shield		
				STEREO	1.6	Non-shield		
				USB	-	-		
				PS/2	1.6	Non-shield		
				PS/2	1.8	Non-shield		
				LAN	2.5	Non-shield		
KEYBOARD	SKG-210P	TAKSC12255P	MONITOEREY INTERNATIONAL CORP	PS/2	1.6	Non-shield	Plastic	DOC
MOUSE	SML-510PB	TAKS903519Z	MONITOEREY INTERNATIONAL CORP	PS/2	1.8	Non-shield	Plastic	DOC
USB MEMORY	POP-S2	N/A	MEMORIVE	USB	-	-	-	DOC

6. Test Results : Emission

6.1 Conducted Disturbance

6.1.1 Measurement Procedure

In the range of 0.15MHz to 30MHz, the conducted disturbance 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 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 0.15MHz to 0.5MHz.				

Test Result

< DSUB + LAN MODE >



Results of Conducted Emission

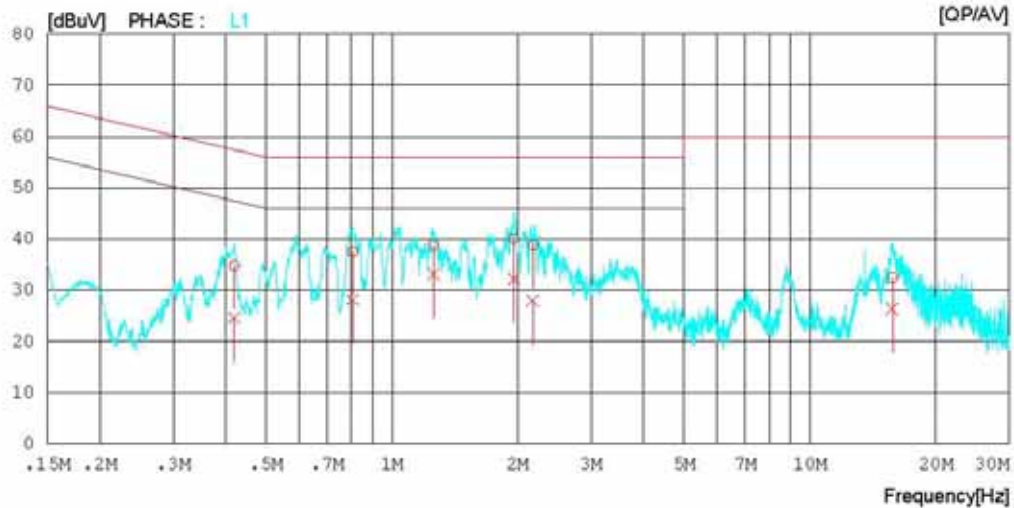
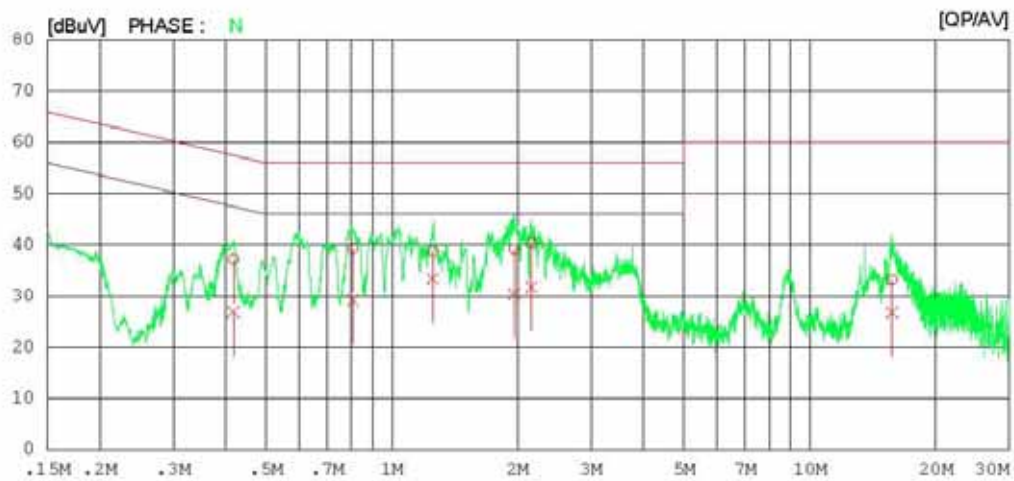
Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % 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	0.41785	37.0	26.7	0.2	37.2	26.9	57.5	47.5	20.3	20.6	N
2	0.80650	39.1	29.0	0.2	39.3	29.2	56.0	46.0	16.7	16.8	N
3	1.25450	38.6	33.2	0.2	38.8	33.4	56.0	46.0	17.2	12.6	N
4	1.96350	39.0	30.1	0.2	39.2	30.3	56.0	46.0	16.8	15.7	N
5	2.15800	40.0	31.4	0.3	40.3	31.7	56.0	46.0	15.7	14.3	N
6	15.74400	32.1	25.7	1.0	33.1	26.7	60.0	50.0	26.9	23.3	N
7	0.41943	34.6	24.4	0.2	34.8	24.6	57.5	47.5	22.7	22.9	L1
8	0.80633	37.4	28.0	0.2	37.6	28.2	56.0	46.0	18.4	17.8	L1
9	1.25800	38.6	32.9	0.2	38.8	33.1	56.0	46.0	17.2	12.9	L1
10	1.95750	39.9	32.0	0.2	40.1	32.2	56.0	46.0	15.9	13.8	L1
11	2.17500	38.6	27.7	0.3	38.9	28.0	56.0	46.0	17.1	18.0	L1
12	15.74800	31.5	25.3	1.0	32.5	26.3	60.0	50.0	27.5	23.7	L1

< HDMI + LAN MODE >



Results of Conducted Emission

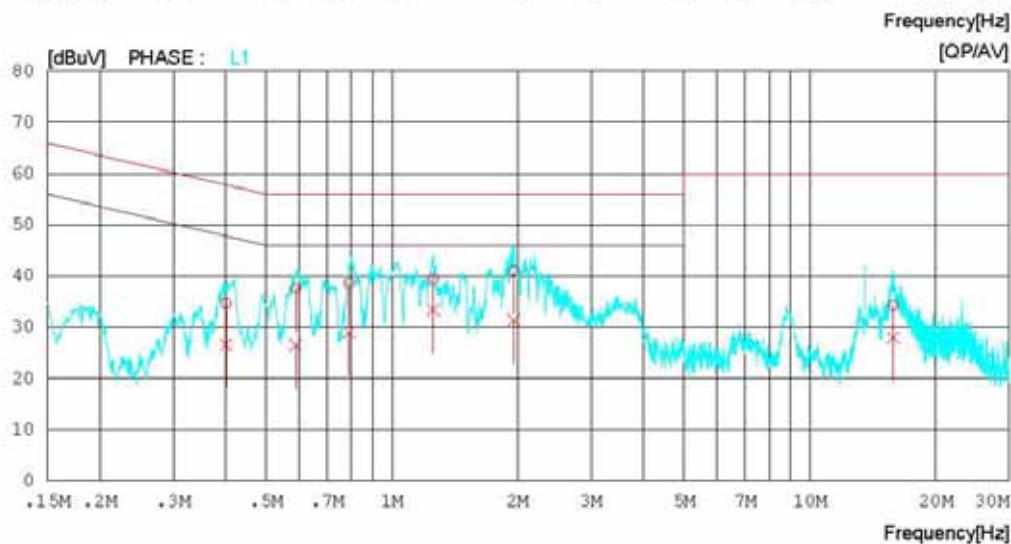
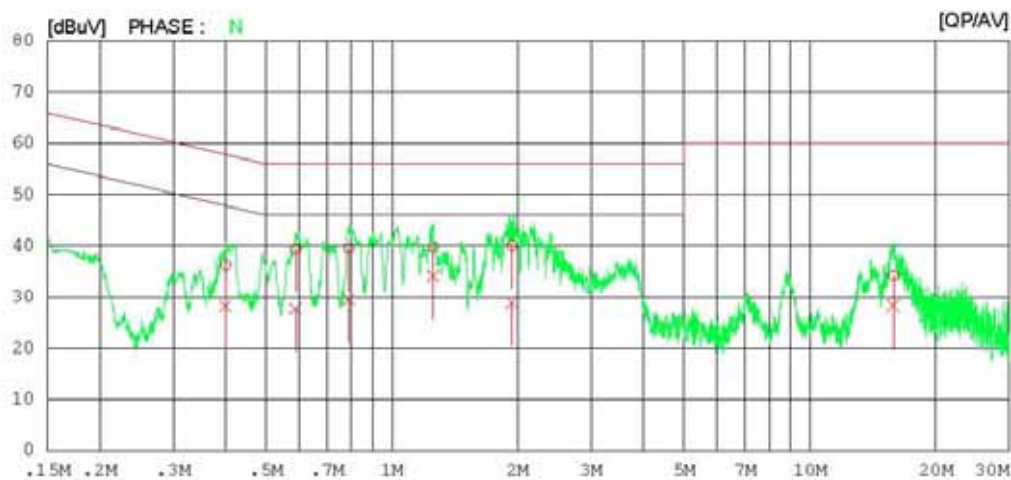
Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % 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	0.40035	36.0	28.0	0.2	36.2	28.2	57.8	47.8	21.6	19.6	N
2	0.58878	39.3	27.6	0.1	39.4	27.7	56.0	46.0	16.6	18.3	N
3	0.78954	39.5	29.5	0.1	39.6	29.6	56.0	46.0	16.4	16.4	N
4	1.25600	39.5	33.9	0.2	39.7	34.1	56.0	46.0	16.3	11.9	N
5	1.93950	39.9	28.7	0.2	40.1	28.9	56.0	46.0	15.9	17.1	N
6	15.84450	33.2	27.2	1.0	34.2	28.2	60.0	50.0	25.8	21.8	N
7	0.40180	34.5	26.5	0.2	34.7	26.7	57.8	47.8	23.1	21.1	L1
8	0.58878	37.6	26.4	0.1	37.7	26.5	56.0	46.0	18.3	19.5	L1
9	0.79070	38.5	28.9	0.1	38.6	29.0	56.0	46.0	17.4	17.0	L1
10	1.25550	39.3	33.3	0.2	39.5	33.5	56.0	46.0	16.5	12.5	L1
11	1.96050	40.8	31.3	0.2	41.0	31.5	56.0	46.0	15.0	14.5	L1
12	15.82150	33.3	27.0	1.0	34.3	28.0	60.0	50.0	25.7	22.0	L1

< USB MODE >



Results of Conducted Emission

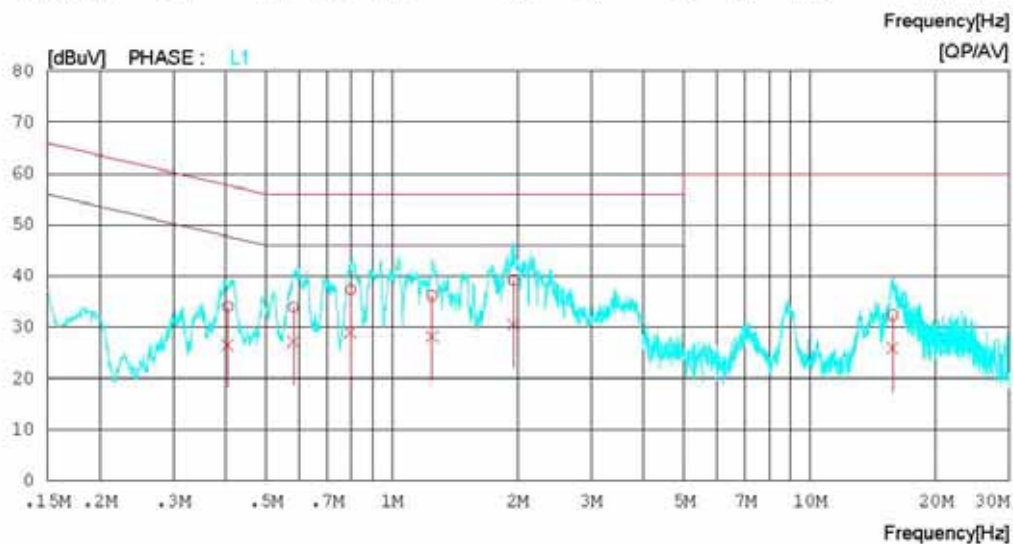
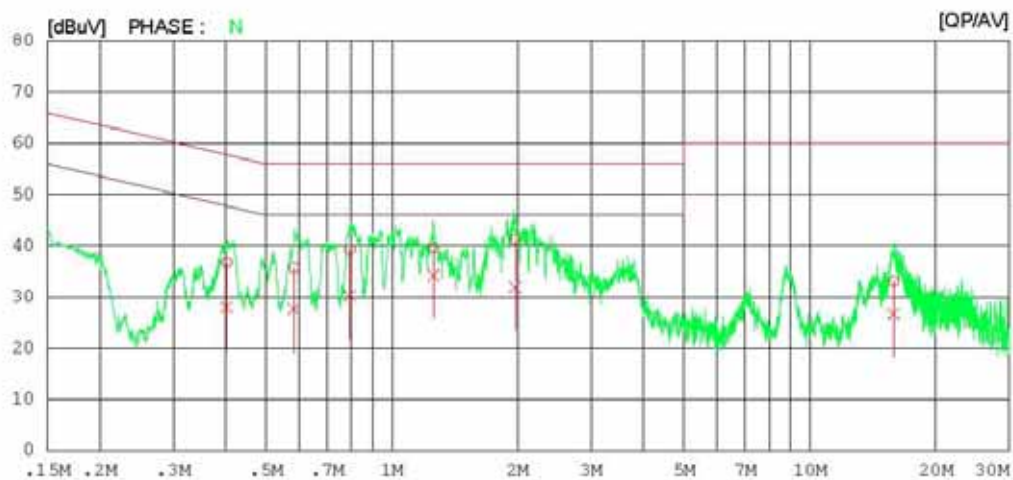
Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-12

Model No. : 47LM6200-UE
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 38 % 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	0.40249	36.6	27.8	0.2	36.8	28.0	57.8	47.8	21.0	19.8	N
2	0.58335	35.6	27.5	0.1	35.7	27.6	56.0	46.0	20.3	18.4	N
3	0.79365	39.1	30.1	0.1	39.2	30.2	56.0	46.0	16.8	15.8	N
4	1.25850	39.4	34.0	0.2	39.6	34.2	56.0	46.0	16.4	11.8	N
5	1.97400	41.0	31.7	0.2	41.2	31.9	56.0	46.0	14.8	14.1	N
6	15.88250	32.0	25.7	1.0	33.0	26.7	60.0	50.0	27.0	23.3	N
7	0.40505	33.9	26.4	0.2	34.1	26.6	57.7	47.7	23.6	21.1	L1
8	0.58149	33.9	27.2	0.1	34.0	27.3	56.0	46.0	22.0	18.7	L1
9	0.79633	37.3	28.9	0.1	37.4	29.0	56.0	46.0	18.6	17.0	L1
10	1.24900	36.0	28.1	0.2	36.2	28.3	56.0	46.0	19.8	17.7	L1
11	1.95550	39.1	30.4	0.2	39.3	30.6	56.0	46.0	16.7	15.4	L1
12	15.79000	31.4	24.9	1.0	32.4	25.9	60.0	50.0	27.6	24.1	L1

6.2 Radiated Disturbance

6.2.1 Measurement Procedure

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

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 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 0.15m 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 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	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)	Average (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)	Average (dB μ V/m)	peak (dB μ V/m)	Average (dB μ V/m)
1 to 40	80	60	74	54

Test Result

< DSUB + LAN MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

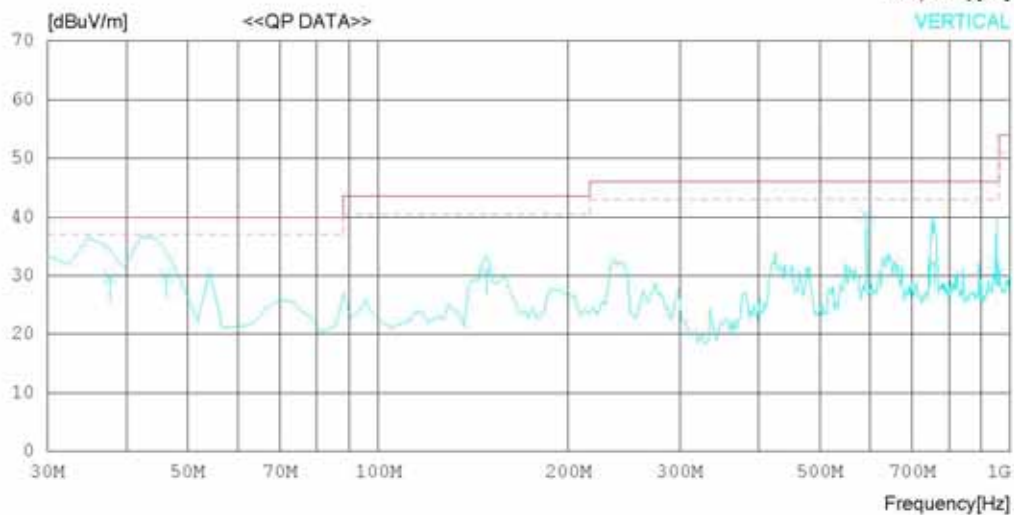
Date : 2011-12-10

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23 °C 36 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-10

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 36 % 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	46.130	31.6	13.1	1.0	22.6	23.1	40.0	16.9	298	96
2	183.845	39.3	9.8	2.0	23.2	27.9	43.5	15.6	204	1
3	240.000	40.4	12.4	2.3	23.5	31.6	46.0	14.4	100	1
4	592.599	39.1	18.7	3.9	24.4	37.3	46.0	8.7	204	12
----- Vertical -----										
5	37.640	36.1	15.2	0.9	22.6	29.6	40.0	10.4	100	358
6	46.250	38.6	13.0	1.0	22.6	30.0	40.0	10.0	100	125
7	148.487	41.6	10.5	1.7	23.1	30.7	43.5	12.8	100	358
8	592.332	42.0	18.7	3.9	24.4	40.2	46.0	5.8	100	67
9	757.665	31.7	19.7	4.4	23.8	32.0	46.0	14.0	100	354
10	952.160	29.0	21.0	4.9	23.0	31.9	46.0	14.1	202	152

< DSUB + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

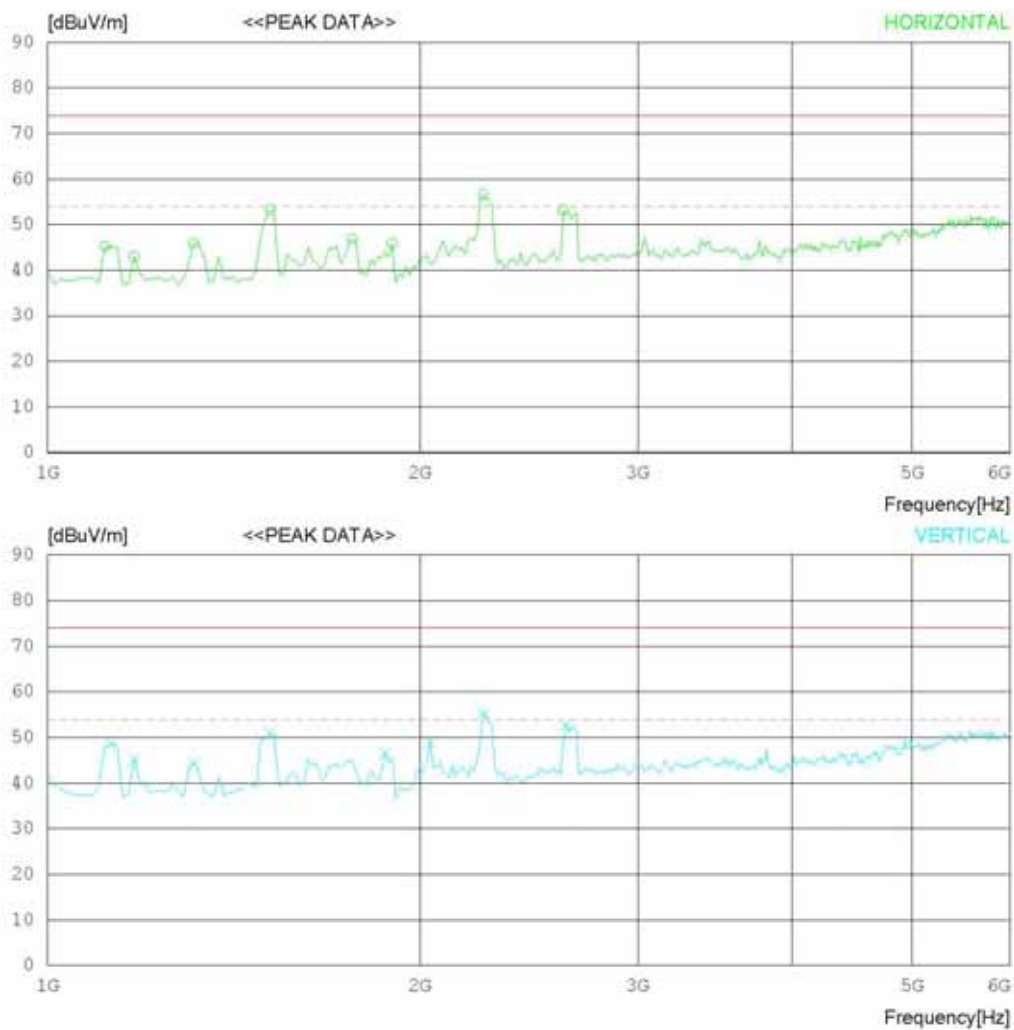
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°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	1112.500	58.0	24.0	5.1	41.8	45.3	74.0	28.7	100	236
2	1175.000	55.4	24.2	5.2	41.8	43.0	74.0	31	100	1
3	1312.500	57.7	24.6	5.5	41.9	45.9	74.0	28.1	100	154
4	1512.500	64.0	25.1	6.0	41.9	53.2	74.0	20.8	100	234
5	1762.500	57.2	25.2	6.5	42.0	46.9	74.0	27.1	100	269
6	1900.000	55.8	25.2	6.8	42.0	45.8	74.0	28.2	100	1
7	2250.000	64.9	26.3	7.4	42.0	56.6	74.0	17.4	100	1
8	2612.500	59.6	27.7	8.0	42.1	53.2	74.0	20.8	100	249
----- Vertical -----										
9	1125.000	61.3	24.0	5.1	41.8	48.6	74.0	25.4	100	358
10	1175.000	57.6	24.2	5.2	41.8	45.2	74.0	28.8	100	285
11	1312.500	56.2	24.6	5.5	41.9	44.4	74.0	29.6	100	358
12	1512.500	61.8	25.1	6.0	41.9	51.0	74.0	23	100	215
13	1875.000	56.6	25.2	6.7	42.0	46.5	74.0	27.5	100	358
14	2037.500	58.6	25.4	7.1	42.0	49.1	74.0	24.9	100	358
15	2250.000	63.5	26.3	7.4	42.0	55.2	74.0	18.8	100	330
16	2625.000	59.1	27.7	8.0	42.1	52.7	74.0	21.3	100	358

< DSUB + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

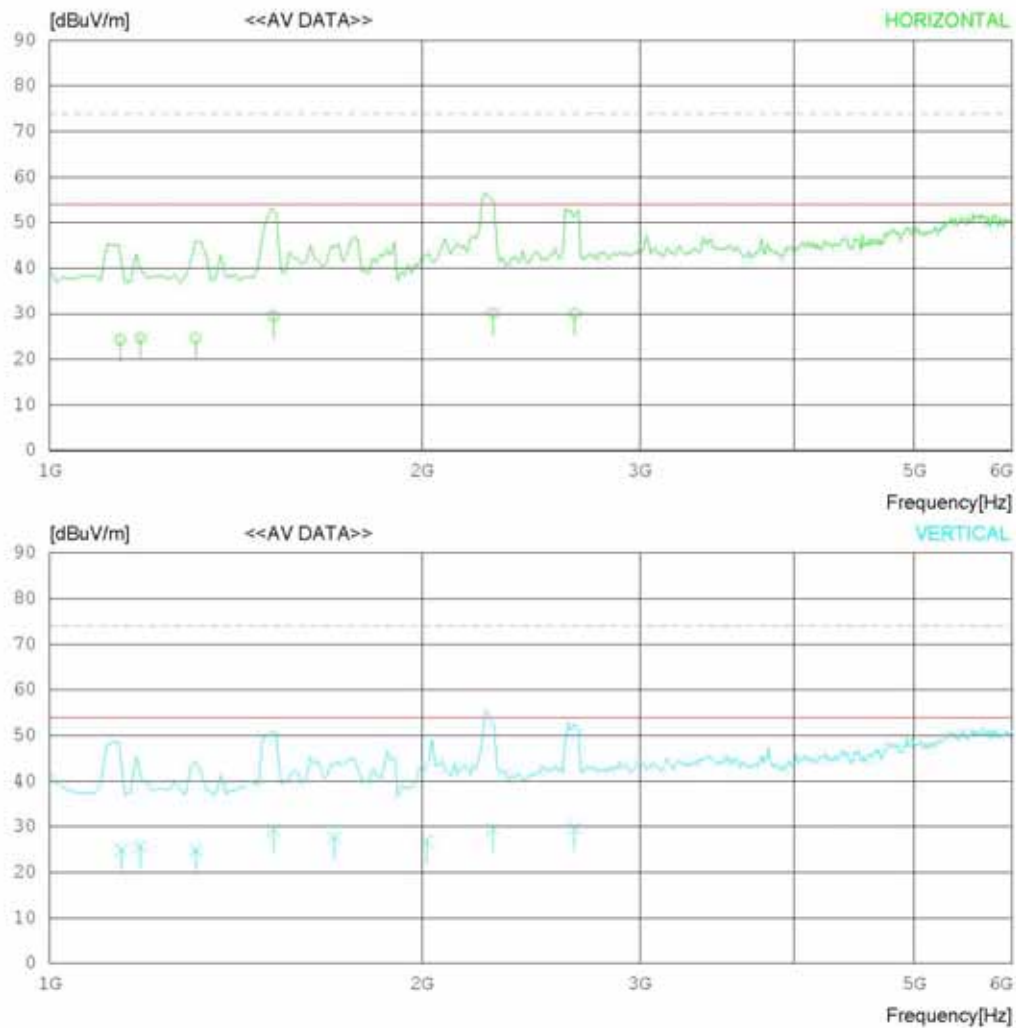
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22 °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	1140.250	37.0	24.0	5.1	41.8	24.3	54.0	29.7	100	236
2	1184.500	37.1	24.2	5.2	41.8	24.7	54.0	29.3	100	32
3	1311.988	36.5	24.6	5.5	41.9	24.7	54.0	29.3	100	154
4	1517.750	40.3	25.1	6.0	41.9	29.5	54.0	24.5	100	234
5	2282.833	38.3	26.4	7.4	42.0	30.1	54.0	23.9	100	1
6	2659.000	36.2	27.8	8.1	42.1	30.0	54.0	24.0	100	249
----- Vertical -----										
7	1144.250	37.5	24.1	5.1	41.8	24.9	54.0	29.1	100	358
8	1184.500	38.1	24.2	5.2	41.8	25.7	54.0	28.3	100	285
9	1311.987	36.7	24.6	5.5	41.9	24.9	54.0	29.1	100	358
10	1517.750	40.2	25.1	6.0	41.9	29.4	54.0	24.6	100	215
11	1698.750	37.9	25.2	6.4	41.9	27.6	54.0	26.4	100	358
12	2017.000	36.5	25.3	7.0	42.0	26.8	54.0	27.2	100	358
13	2282.833	37.6	26.4	7.4	42.0	29.4	54.0	24.6	100	330
14	2659.000	36.0	27.8	8.1	42.1	29.8	54.0	24.2	100	358

< HDMI + LAN MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

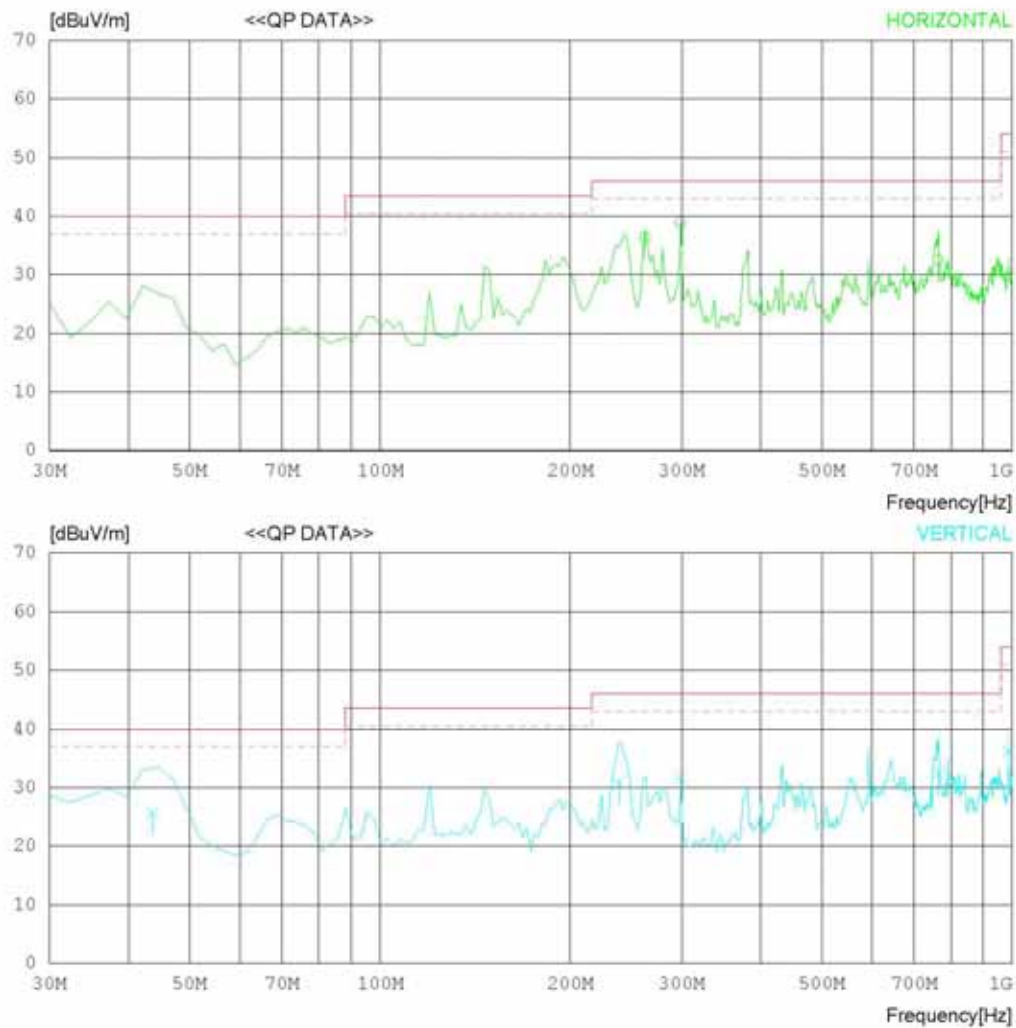
Date : 2011-12-10

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23 °C 36 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-10

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 36 % 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	262.290	44.4	13.3	2.4	23.6	36.5	46.0	9.5	112	253
2	298.740	46.3	13.8	2.6	23.9	38.8	46.0	7.2	109	265
3	763.218	32.2	19.7	4.4	23.8	32.5	46.0	13.5	100	155
----- Vertical -----										
4	43.668	33.2	14.1	1.0	22.6	25.7	40.0	14.3	172	65
5	238.373	39.8	12.3	2.3	23.5	30.9	46.0	15.1	117	200
6	299.785	39.2	13.8	2.6	23.9	31.7	46.0	14.3	147	13
7	763.458	32.2	19.7	4.4	23.8	32.5	46.0	13.5	159	343
8	987.162	33.0	21.2	4.9	22.9	36.2	54.0	17.8	212	30

< HDMI + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

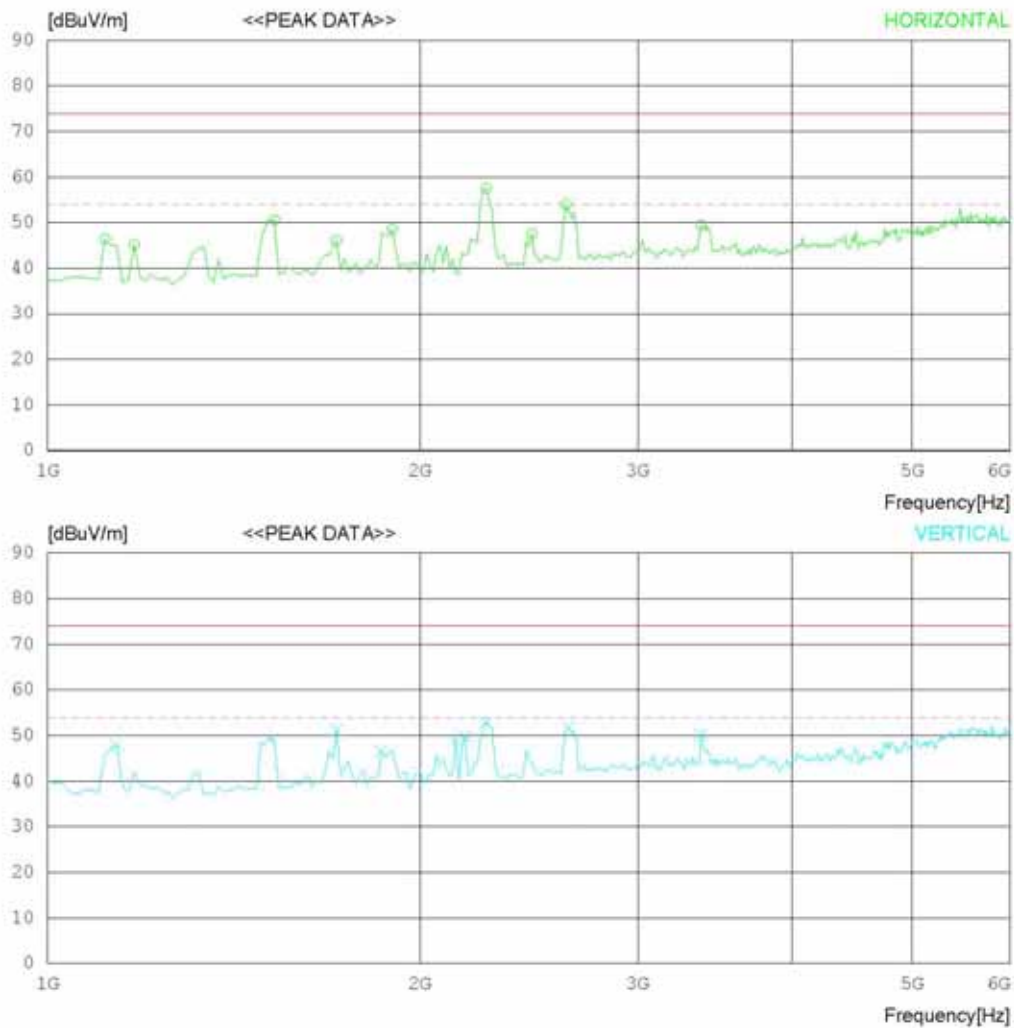
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name	: 47LM6200-UE	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 22°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	1112.500	59.1	24.0	5.1	41.8	46.4	74.0	27.6	100	1
2	1175.000	57.6	24.2	5.2	41.8	45.2	74.0	28.8	100	31
3	1525.000	61.3	25.1	6.0	41.9	50.5	74.0	23.5	100	234
4	1712.500	56.4	25.2	6.4	41.9	46.1	74.0	27.9	100	1
5	1900.000	58.6	25.2	6.8	42.0	48.6	74.0	25.4	100	144
6	2262.500	65.8	26.3	7.4	42.0	57.5	74.0	16.5	100	224
7	2462.500	54.6	27.2	7.7	42.0	47.5	74.0	26.5	100	1
8	2625.000	60.4	27.7	8.0	42.1	54.0	74.0	20	100	1
9	3375.000	53.0	29.1	9.3	42.0	49.4	74.0	24.6	100	1
----- Vertical -----										
10	1137.500	60.6	24.0	5.1	41.8	47.9	74.0	26.1	100	0
11	1512.500	60.0	25.1	6.0	41.9	49.2	74.0	24.8	100	358
12	1712.500	61.4	25.2	6.4	41.9	51.1	74.0	22.9	100	358
13	1862.500	56.7	25.2	6.7	42.0	46.6	74.0	27.4	100	358
14	2137.500	58.0	25.8	7.2	42.0	49.0	74.0	25	100	21
15	2175.000	58.6	25.9	7.3	42.0	49.8	74.0	24.2	100	340
16	2262.500	61.2	26.3	7.4	42.0	52.9	74.0	21.1	100	331
17	2637.500	58.1	27.7	8.0	42.1	51.7	74.0	22.3	100	128
18	3375.000	53.8	29.1	9.3	42.0	50.2	74.0	23.8	100	236

< HDMI + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

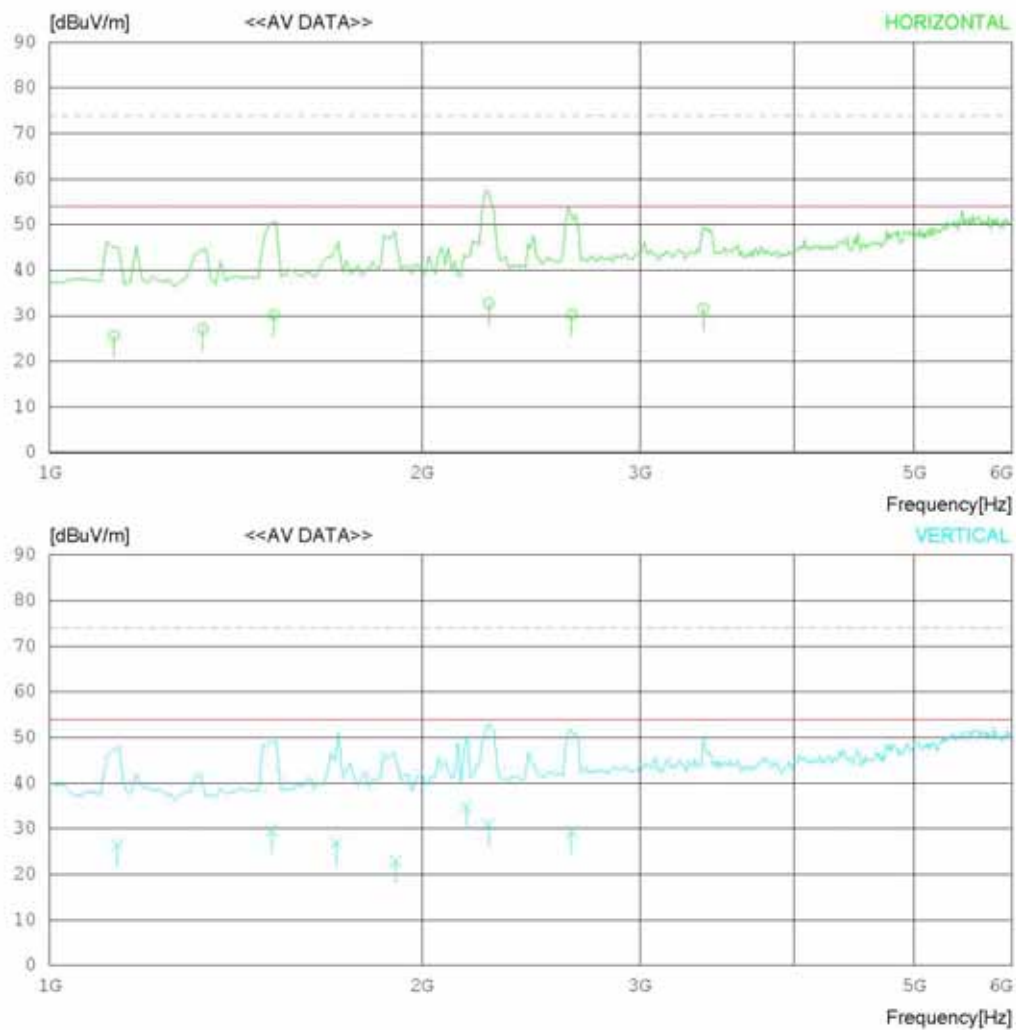
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22 °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	1127.000	38.3	24.0	5.1	41.8	25.6	54.0	28.4	100	271
2	1330.167	38.9	24.6	5.6	41.9	27.2	54.0	26.8	100	31
3	1517.500	41.1	25.1	6.0	41.9	30.3	54.0	23.7	100	234
4	2265.500	41.0	26.3	7.4	42.0	32.7	54.0	21.3	100	224
5	2643.000	36.7	27.7	8.0	42.1	30.3	54.0	23.7	100	1
6	3377.000	35.2	29.1	9.3	42.0	31.6	54.0	22.4	100	1
----- Vertical -----										
7	1134.006	39.2	24.0	5.1	41.8	26.5	54.0	27.5	100	0
8	1512.500	40.5	25.1	6.0	41.9	29.7	54.0	24.3	100	358
9	1706.750	37.1	25.2	6.4	41.9	26.8	54.0	27.2	100	36
10	1904.000	32.8	25.2	6.8	42.0	22.8	54.0	31.2	100	358
11	2171.769	43.6	25.9	7.3	42.0	34.8	54.0	19.2	100	340
12	2265.500	39.2	26.3	7.4	42.0	30.9	54.0	23.1	100	331
13	2643.000	35.8	27.7	8.0	42.1	29.4	54.0	24.6	100	128

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

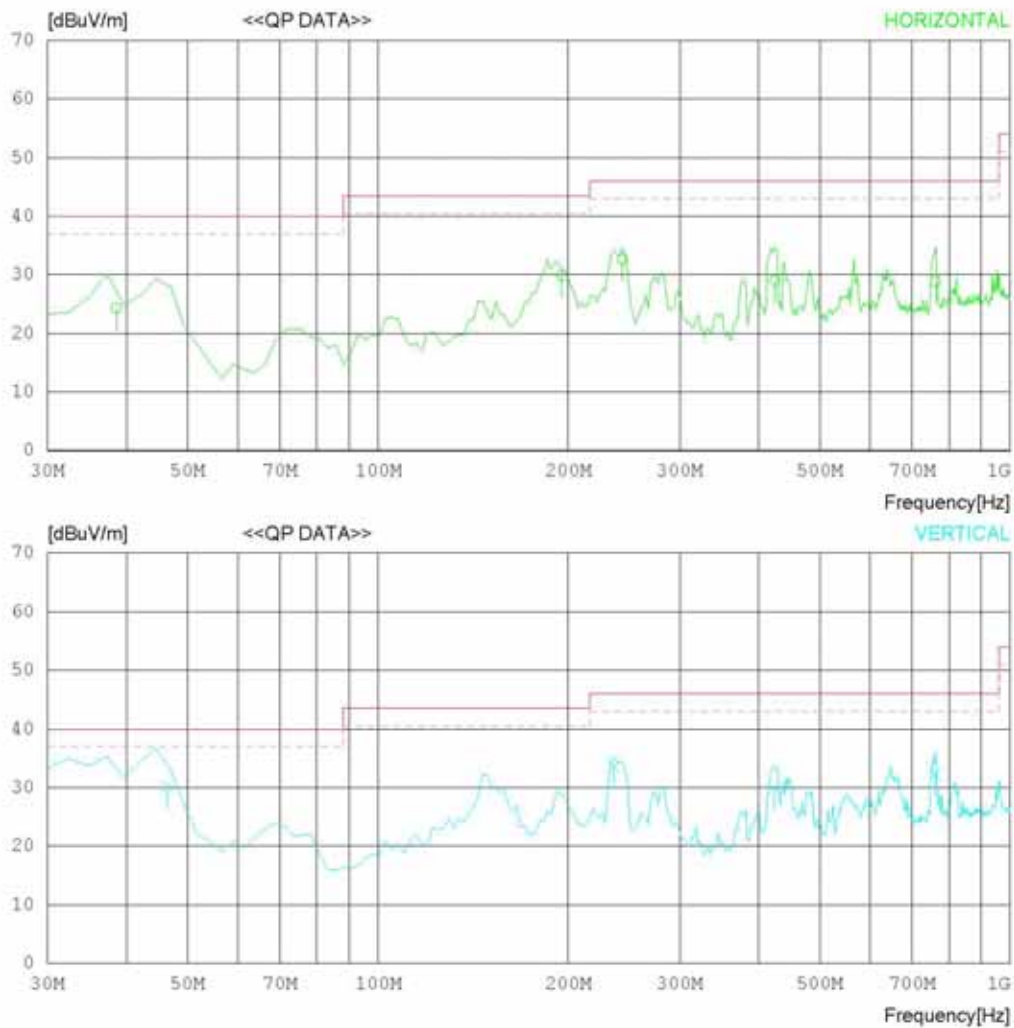
Date : 2011-12-10

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 23 °C 36 % R.H.
 Operator :

Memo :

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



< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

Date : 2011-12-10

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 36 % 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	38.550	31.3	14.7	0.9	22.6	24.3	40.0	15.7	100	358
2	195.200	41.4	9.7	2.0	23.2	29.9	43.5	13.6	100	251
3	243.400	41.2	12.6	2.3	23.5	32.6	46.0	13.4	199	51
4	424.475	33.9	16.4	3.1	24.4	29.0	46.0	17.0	100	65
5	762.125	28.5	19.7	4.4	23.8	28.8	46.0	17.2	299	72
----- Vertical -----										
6	46.425	38.9	12.8	1.0	22.6	30.1	40.0	9.9	117	41
7	236.125	42.8	12.1	2.3	23.5	33.7	46.0	12.3	197	176
8	423.475	34.8	16.4	3.1	24.4	29.9	46.0	16.1	100	1
9	761.625	31.9	19.7	4.4	23.8	32.2	46.0	13.8	100	1

< USB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

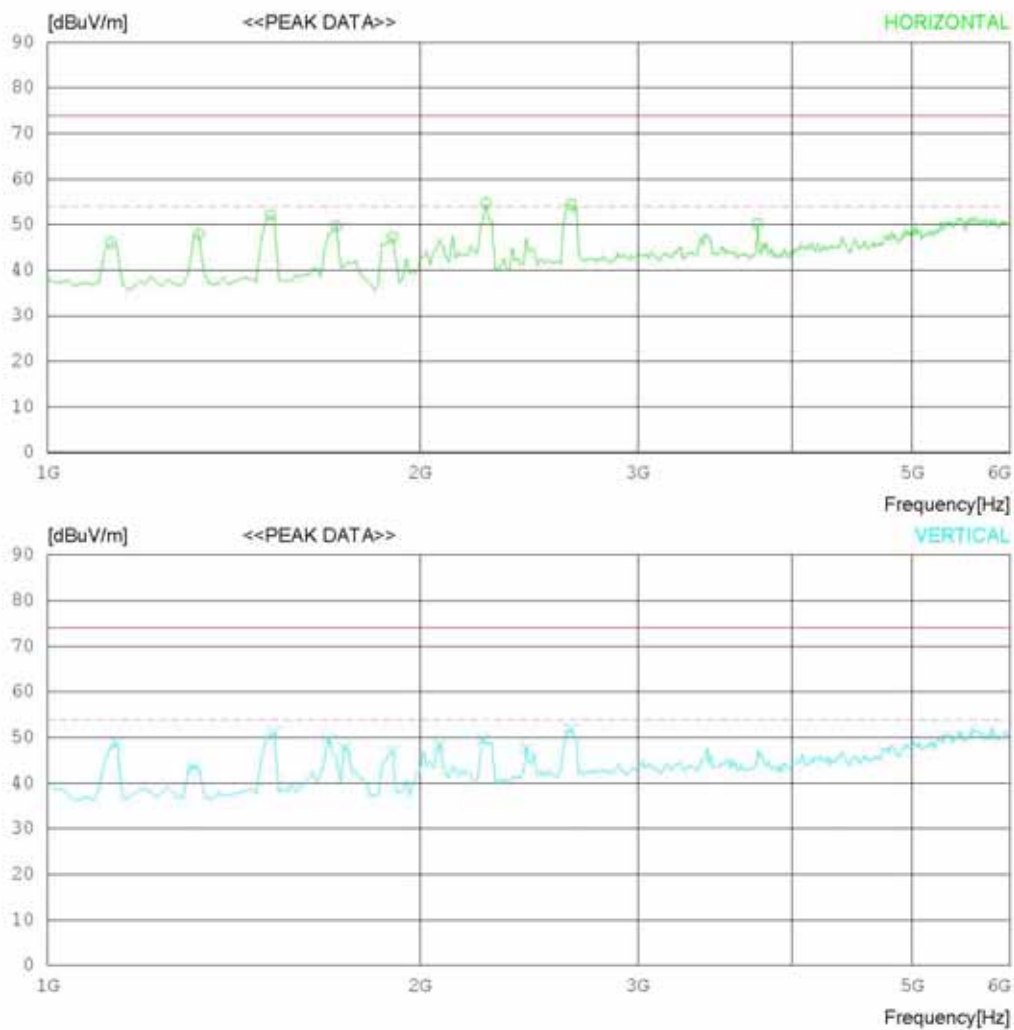
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°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	1125.000	58.7	24.0	5.1	41.8	46.0	74.0	28	100	1
2	1325.000	59.6	24.6	5.6	41.9	47.9	74.0	26.1	100	198
3	1512.500	62.9	25.1	6.0	41.9	52.1	74.0	21.9	100	233
4	1712.500	60.0	25.2	6.4	41.9	49.7	74.0	24.3	100	1
5	1900.000	57.3	25.2	6.8	42.0	47.3	74.0	26.7	100	55
6	2262.500	62.9	26.3	7.4	42.0	54.6	74.0	19.4	100	232
7	2650.000	60.7	27.8	8.1	42.1	54.5	74.0	19.5	100	232
8	3750.000	52.7	29.7	9.7	41.9	50.2	74.0	23.8	100	1
----- Vertical -----										
9	1137.500	61.3	24.0	5.1	41.8	48.6	74.0	25.4	100	358
10	1312.500	55.3	24.6	5.5	41.9	43.5	74.0	30.5	100	353
11	1525.000	61.8	25.1	6.0	41.9	51.0	74.0	23	100	358
12	1687.500	59.9	25.2	6.3	41.9	49.5	74.0	24.5	100	358
13	1737.500	58.0	25.2	6.5	41.9	47.8	74.0	26.2	100	45
14	1900.000	56.9	25.2	6.8	42.0	46.9	74.0	27.1	100	358
15	2075.000	57.7	25.5	7.1	42.0	48.3	74.0	25.7	100	358
16	2250.000	57.9	26.3	7.4	42.0	49.6	74.0	24.4	100	330
17	2437.500	54.8	27.1	7.7	42.0	47.6	74.0	26.4	100	358
18	2650.000	57.9	27.8	8.1	42.1	51.7	74.0	22.3	100	358

< USB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

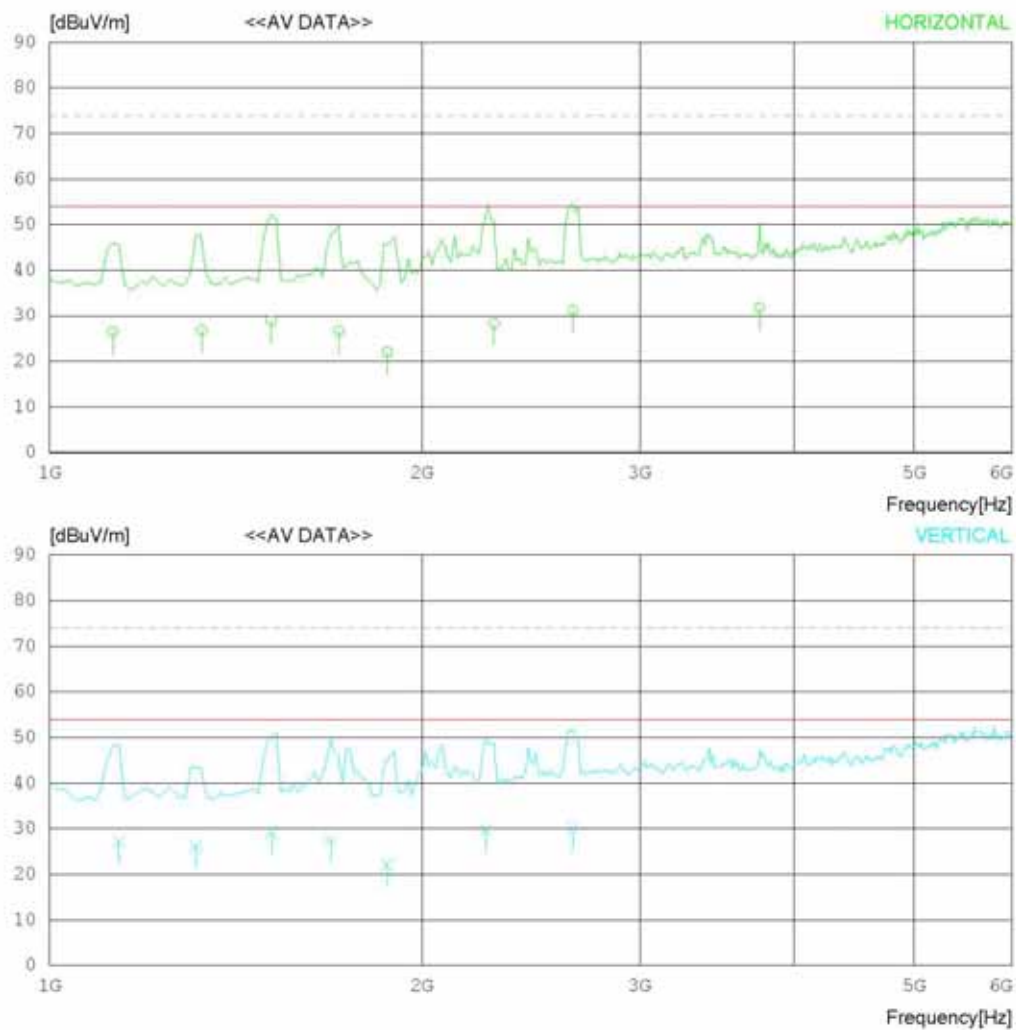
Date : 2011-12-12

Model Name : 47LM6200-UE
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2011-12-12

Model Name : 47LM6200-UE	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°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	1125.000	39.2	24.0	5.1	41.8	26.5	54.0	27.5	100	13
2	1327.300	38.5	24.6	5.6	41.9	26.8	54.0	27.2	100	198
3	1510.375	39.7	25.1	6.0	41.9	28.9	54.0	25.1	100	233
4	1714.125	37.0	25.2	6.4	41.9	26.7	54.0	27.3	100	1
5	1873.750	32.1	25.2	6.7	42.0	22.0	54.0	32.0	100	55
6	2287.000	36.5	26.4	7.4	42.0	28.3	54.0	25.7	100	232
7	2650.000	37.3	27.8	8.1	42.1	31.1	54.0	22.9	100	232
8	3750.000	34.3	29.7	9.7	41.9	31.8	54.0	22.2	100	1
----- Vertical -----										
9	1137.500	39.9	24.0	5.1	41.8	27.2	54.0	26.8	100	358
10	1312.500	37.9	24.6	5.5	41.9	26.1	54.0	27.9	100	353
11	1511.420	39.9	25.1	6.0	41.9	29.1	54.0	24.9	100	358
12	1687.500	37.9	25.2	6.3	41.9	27.5	54.0	26.5	100	358
13	1873.750	32.2	25.2	6.7	42.0	22.1	54.0	31.9	100	358
14	2254.000	38.1	26.3	7.4	42.0	29.8	54.0	24.2	100	330
15	2650.000	36.4	27.8	8.1	42.1	30.2	54.0	23.8	100	358

Appendix 1

List of Test and Measurement Instruments

1. Conducted Disturbance

Name of Instrument	Model No.	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
☒ EMI Test Receiver	ESCI	100364	Rohde & Schwarz	2011.03.08	2012.03.08
☒ LISN	LISN1600	197204	TTI	2011.07.02	2012.07.02
☒ LISN(EUT)	ESH2-Z5	828739/006	R&S	2011.09.30	2012.09.30
☒ 50 ohm Terminator	CT-01	N/A	TME	2011.01.11	2012.01.11
☐ UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	106760	R&S	2011.03.07	2012.03.07
☐ Spectrum Analyzer	8591E	3649A05889	H/P	2011.03.07	2012.03.07
☐ RFI/Field intensity Meter	KNM-2402	4N-170-3	KYORITSU	2011.07.02	2012.07.02
☐ LISN	KNW-407	8-317-8	KYORITSU	2011.01.11	2012.01.11
☐ LISN	KNW-242	8-654-15	KYORITSU	2011.07.02	2012.07.02
☐ 50 ohm Terminator	CT-01	N/A	TME	2011.01.11	2012.01.11
☐ ISN	T4A	24869	Teseq GmbH	2011.01.11	2012.01.11
☐ LISN(DC)	NNBM8125	8125-821	SCHWARZBECK	2011.07.01	2012.07.01

2. Radiated Disturbance

Name of Instrument	Model No.	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
☒ EMI Test Receiver	ESU	100014	Rohde & Schwarz	2011.01.20	2012.01.20
☒ Bilog Antenna	CBL6112B	2737	SCHAFFNER	2010.07.14	2012.07.14
☒ Horn Antenna	BBHA9120A	322	SCHWARZBECK	2010.04.13	2012.04.13
☒ Amplifier(22dB)	8447E	2945A02865	H/P	2011.01.11	2012.01.11
☒ Pre Amplifier	MLA-00108-B02-36	1518831	TSJ	2011.01.11	2012.01.11
☒ Controller	5905A	N/A	TOKIN	-	-
☒ ANT.master	N/A	N/A	TOKIN	-	-
☐ UNIVERSAL RADIO COMMUNICATION TESTER	CMU200	106760	R&S	2011.03.07	2012.03.07
☐ EMI Test Receiver	ESCI	100364	Rohde & Schwarz	2011.03.08	2012.03.08
☐ BICONICAL ANT.	VHA 9103	91031946	SCHWARZBECK	2010.12.21	2012.12.21
☐ LOG-PERIODIC ANT.	UHALP 9108A-A1	1098	SCHWARZBECK	2010.11.29	2012.11.29
☐ Pre Amplifier	MLA-100K01-B01-26	1252741	TSJ	2011.03.07	2012.03.07
☐ Position Controller	5901T	14173	TOKIN	-	-
☐ DRIVER	5902T2	14174	TOKIN	-	-
☐ Spectrum Analyzer	E4411B	US41062735	Agilent	2011.07.01	2012.07.01
☐ Amplifier (25dB)	8447D	2443A03690	Agilent	2011.07.01	2012.07.01
☐ Bilog Antenna	VULB9160	3151	SCHAFFNER	2010.08.25	2012.08.25
☐ Controller	5900	N/A	TOKIN	-	-