

EMC TEST REPORT

Test item : LED LCD TV Monitor
Model No. : 47LM5800-UC
Order No. : 1112-01863
Date of receipt : 2011-12-28
Test duration : 2011-12-30 ~ 2012-01-05
Use of report : FCC CoC Marking
Date of Issue : 2012-01-10

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 : 22 °C,
Humidity : (31 ~ 41) % 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.

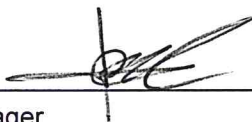
Tested by:

Witnessed by:

Reviewed by:



Assistant Manager
D.H.EUN



Manager
M.J.SONG



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.

CONTENTS

1. General Remarks	3
2. Test Laboratory	3
3. General Information of EUT	4
4. Test Summary	5
4.1 Applied standards and test results	5
4.2 Test environment and conditions	5
4.3 Test result Summary	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 Disturbance	7
6.2 Radiated Disturbance	14
Appendix 1.....	34
List of Test and Measurement Instruments	34

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	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

Model No.	47LM5800-UC
EUT Type	LED LCD TV Monitor
Serial No	NONE
FCC ID	BEJ47LM5800UC
Type of Sample Tested	Pre-Production
High Frequency	667 MHz
Rating	AC120 V~, 60 Hz, 120 W, 1.2 A
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

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720x480p	31.47 31.50	59.94 60.00
1280x720p	44.96 45.00	59.94 60.00
1920x1080i	33.72 33.75	59.94 60.00
1920x1080p	26.97 27.00 33.71 33.75 67.432 67.50	23.976 24.00 29.97 30.00 59.94 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.)	Pressure (hPa)
Conducted Disturbance	12-30	22	41	-
Radiated Disturbance	01-04	22	31	
	01-05	22	31	

4.3 Test result Summary

(1) Conducted Emission(HDMI + LAN MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
1.49800	N	34.7	Average	46.0	11.3

(2) Radiated Emission(HDMI + LAN MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
98.425	V	36.9	Quasi-Peak	43.5	6.6

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 – Resolution : 1920 x 1080 Resolution (Worst Case)
- HDMI+LAN MODE – Resolution : 1920 x 1080 Resolution (Worst Case)
- 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
				HDMI	1.8	Shield		
				DSUB	1.8	Shield		
				STEREO	1.6	Non-shield		
				USB	1.8	Non-shield		
				PS/2	1.6	Non-shield		
				PS/2	1.8	Non-shield		
				LAN	1.8	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
PRINTER	SRP-770	SRP77008060035	BICSOLON	POWER USB	1.8 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**.

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

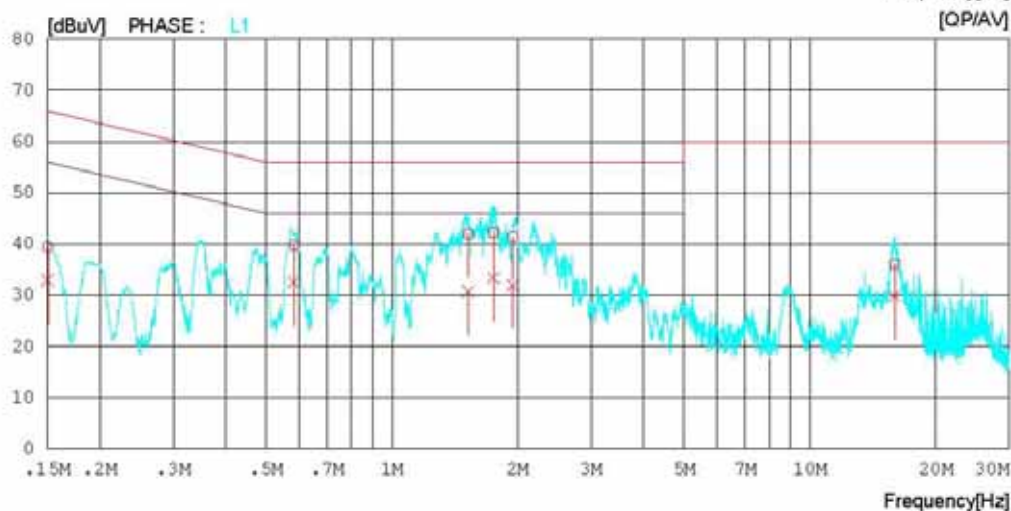
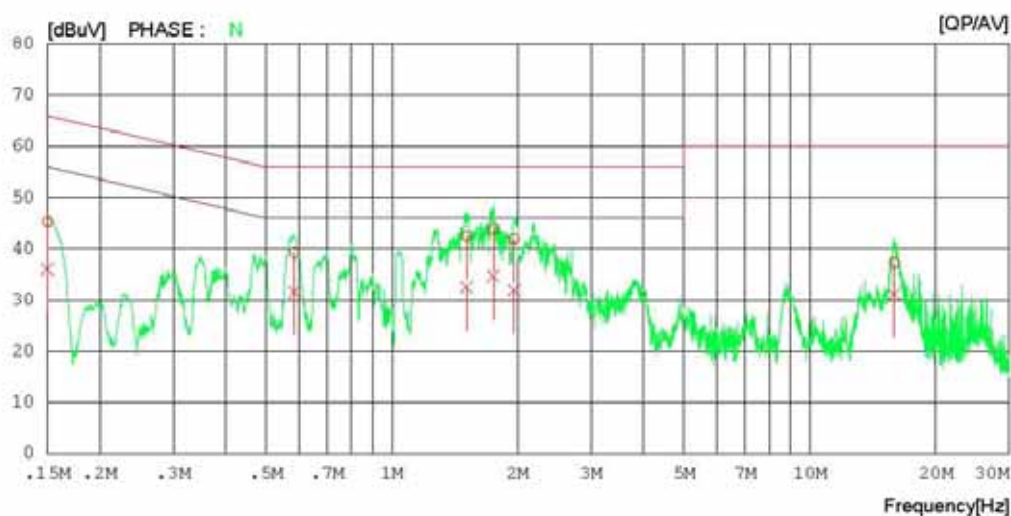
Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : DUSB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22°C 41 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : DUSB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22 °C 41 % 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	0.15018	45.1	35.8	0.2	45.3	36.0	66.0	56.0	20.7	20.0	N
2	0.58469	39.2	31.4	0.1	39.3	31.5	56.0	46.0	16.7	14.5	N
3	1.50950	42.2	32.3	0.2	42.4	32.5	56.0	46.0	13.6	13.5	N
4	1.75050	43.7	34.4	0.2	43.9	34.6	56.0	46.0	12.1	11.4	N
5	1.95950	41.7	31.7	0.2	41.9	31.9	56.0	46.0	14.1	14.1	N
6	15.92000	36.3	30.2	1.0	37.3	31.2	60.0	50.0	22.7	18.8	N
7	0.15037	39.2	32.7	0.2	39.4	32.9	66.0	56.0	26.6	23.1	L1
8	0.58354	39.7	32.4	0.1	39.8	32.5	56.0	46.0	16.2	13.5	L1
9	1.52400	41.8	30.6	0.2	42.0	30.8	56.0	46.0	14.0	15.2	L1
10	1.75200	42.1	33.2	0.2	42.3	33.4	56.0	46.0	13.7	12.6	L1
11	1.94850	41.2	31.8	0.2	41.4	32.0	56.0	46.0	14.6	14.0	L1
12	15.96600	35.1	28.9	1.0	36.1	29.9	60.0	50.0	23.9	20.1	L1

< HDMI + LAN MODE >



Results of Conducted Emission

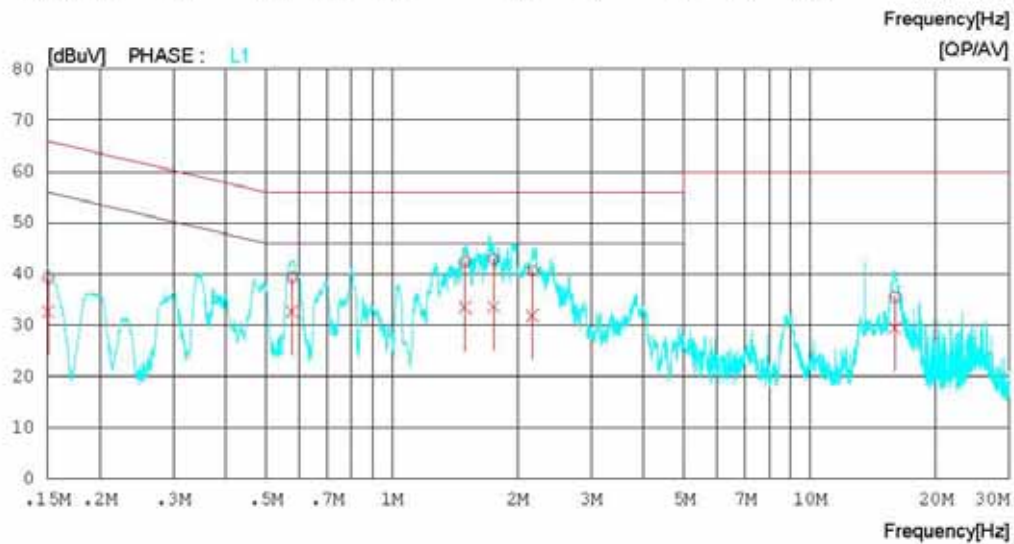
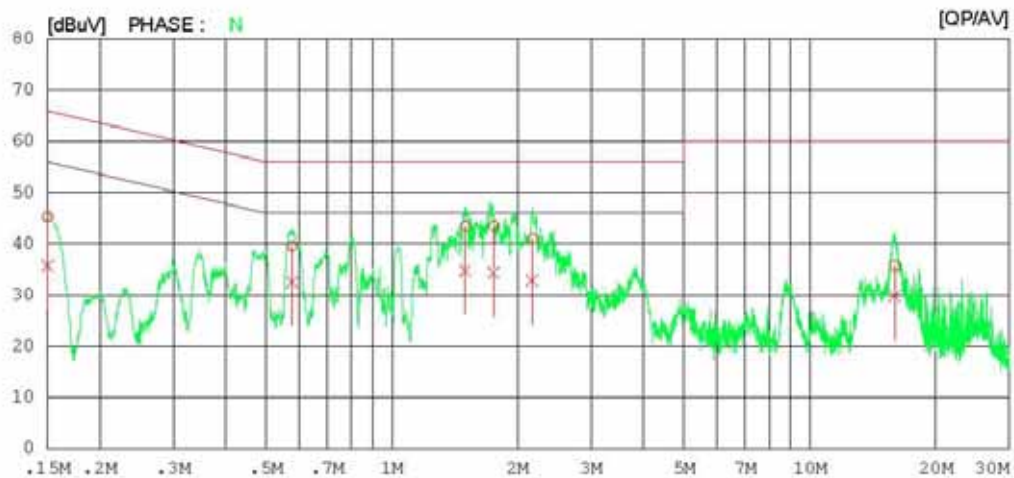
Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22°C 41% R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22 °C 41 % 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	0.15006	45.1	35.5	0.2	45.3	35.7	66.0	56.0	20.7	20.3	N
2	0.57785	39.4	32.4	0.1	39.5	32.5	56.0	46.0	16.5	13.5	N
3	1.49800	43.3	34.5	0.2	43.5	34.7	56.0	46.0	12.5	11.3	N
4	1.75250	43.3	34.1	0.2	43.5	34.3	56.0	46.0	12.5	11.7	N
5	2.17050	40.7	32.5	0.3	41.0	32.8	56.0	46.0	15.0	13.2	N
6	15.97450	34.7	28.8	1.0	35.7	29.8	60.0	50.0	24.3	20.2	N
7	0.15068	39.1	32.5	0.2	39.3	32.7	66.0	56.0	26.7	23.3	L1
8	0.57774	39.3	32.6	0.1	39.4	32.7	56.0	46.0	16.6	13.3	L1
9	1.49850	42.3	33.3	0.2	42.5	33.5	56.0	46.0	13.5	12.5	L1
10	1.75250	42.7	33.5	0.2	42.9	33.7	56.0	46.0	13.1	12.3	L1
11	2.17250	40.4	31.6	0.3	40.7	31.9	56.0	46.0	15.3	14.1	L1
12	15.97050	34.6	28.5	1.0	35.6	29.5	60.0	50.0	24.4	20.5	L1

< USB MODE >



Results of Conducted Emission

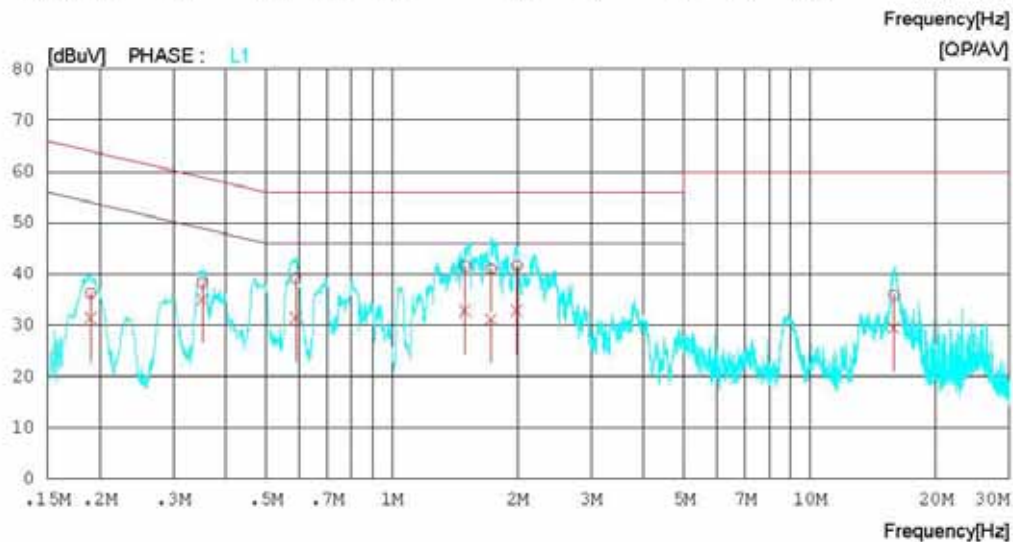
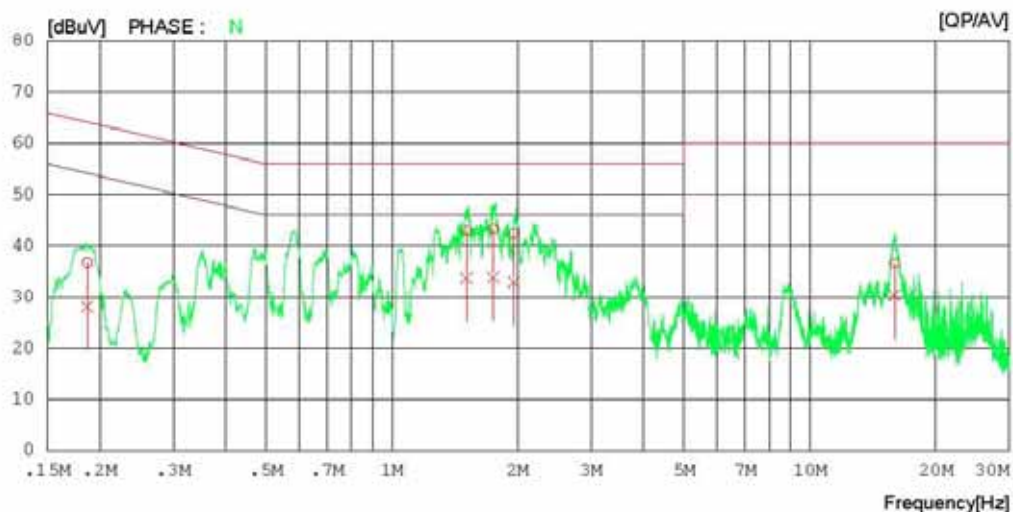
Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22°C 41% R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-30

Model No. : 47LM5800-UC
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 22 °C 41 % 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	0.18701	36.6	28.0	0.1	36.7	28.1	64.2	54.2	27.5	26.1	N
2	1.50850	42.8	33.6	0.2	43.0	33.8	56.0	46.0	13.0	12.2	N
3	1.74800	43.1	33.7	0.2	43.3	33.9	56.0	46.0	12.7	12.1	N
4	1.95800	42.2	32.7	0.2	42.4	32.9	56.0	46.0	13.6	13.1	N
5	15.94700	35.6	29.3	1.0	36.6	30.3	60.0	50.0	23.4	19.7	N
6	0.19026	36.2	31.3	0.1	36.3	31.4	64.0	54.0	27.7	22.6	L1
7	0.35256	38.1	34.8	0.2	38.3	35.0	58.9	48.9	20.6	13.9	L1
8	0.58896	39.1	31.4	0.1	39.2	31.5	56.0	46.0	16.8	14.5	L1
9	1.49650	41.4	32.7	0.2	41.6	32.9	56.0	46.0	14.4	13.1	L1
10	1.72550	40.8	31.0	0.2	41.0	31.2	56.0	46.0	15.0	14.8	L1
11	1.99000	41.4	32.7	0.2	41.6	32.9	56.0	46.0	14.4	13.1	L1
12	15.89900	34.9	28.5	1.0	35.9	29.5	60.0	50.0	24.1	20.5	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 0.8m 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 (dB μ V/m)	Quasi-peak (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.

Frequency range (MHz)	Class A Equipment (10m distance)	Class B Equipment (10m distance)
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
30 to 230	40	30
230 to 1000	47	37

(2) 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

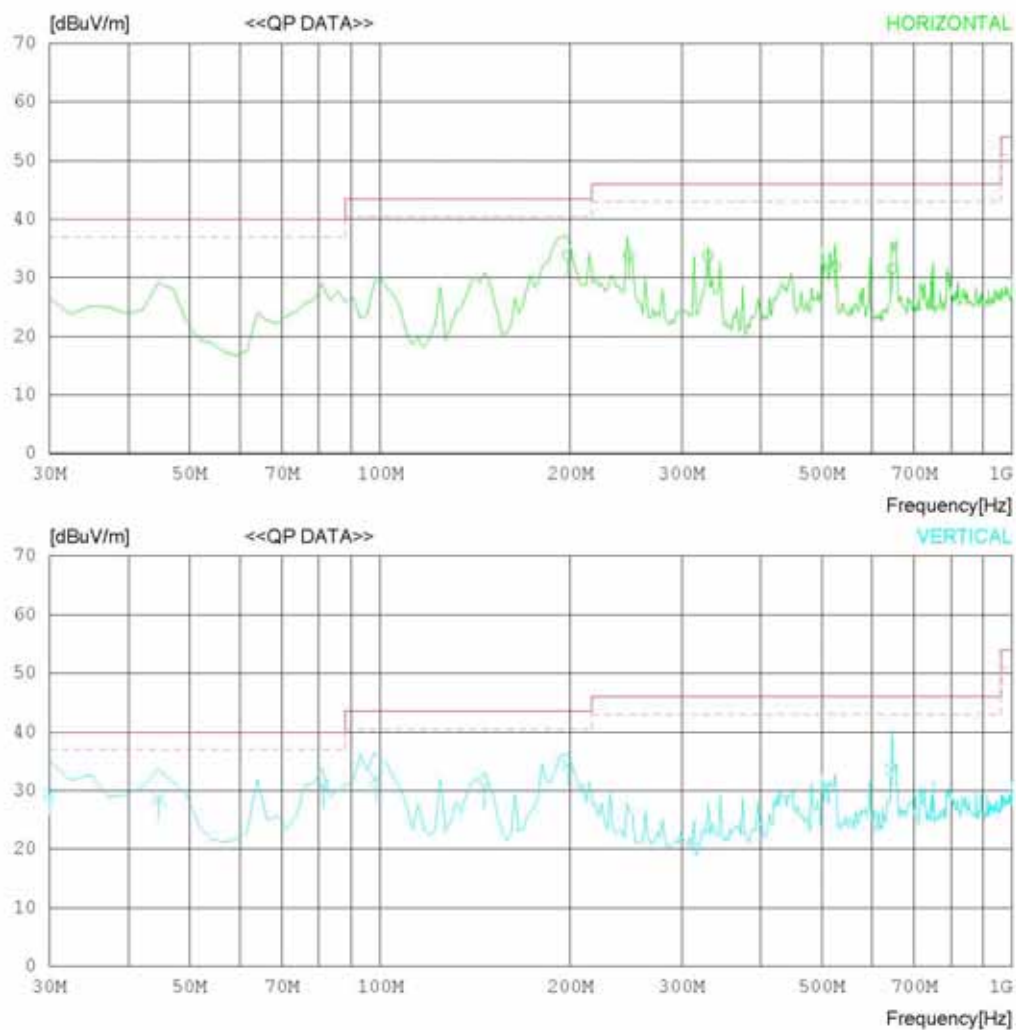
Date : 2012-01-05

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °C 31 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-01-05

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 31 % 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	198.018	45.3	9.7	2.0	23.2	33.8	43.5	9.7	158	269
2	247.500	42.1	12.9	2.3	23.5	33.8	46.0	12.2	100	105
3	329.995	40.5	14.5	2.7	24.0	33.7	46.0	12.3	126	33
4	525.405	35.1	17.9	3.5	24.6	31.9	46.0	14.1	100	101
5	645.600	32.9	18.8	4.0	24.2	31.5	46.0	14.5	100	198
----- Vertical -----										
6	30.000	33.9	17.4	0.8	22.7	29.4	40.0	10.6	100	33
7	44.550	36.0	14.2	1.0	22.6	28.6	40.0	11.4	100	358
8	81.225	44.8	7.4	1.3	22.6	30.9	40.0	9.1	100	56
9	98.475	42.7	10.5	1.5	22.7	32.0	43.5	11.5	100	358
10	146.400	41.5	10.6	1.7	23.1	30.7	43.5	12.8	100	358
11	198.000	46.0	9.7	2.0	23.2	34.5	43.5	9.0	199	1
12	644.474	35.0	18.8	4.0	24.2	33.6	46.0	12.4	100	118

< DSUB + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

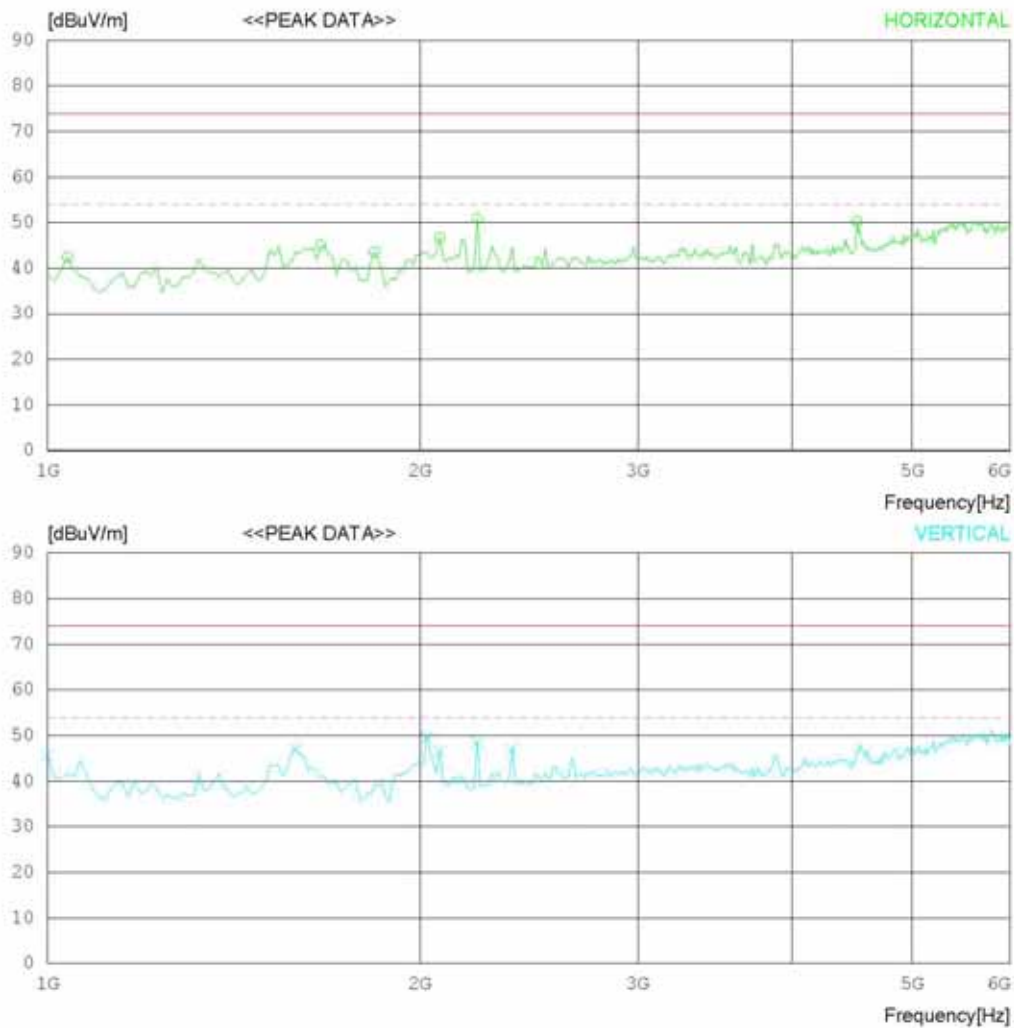
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
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	1037.500	55.6	23.7	4.9	41.8	42.4	74.0	31.6	100	1
2	1662.500	55.4	25.2	6.3	41.9	45.0	74.0	29	100	30
3	1837.500	53.7	25.2	6.7	42.0	43.6	74.0	30.4	100	1
4	2075.000	56.1	25.5	7.1	42.0	46.7	74.0	27.3	100	46
5	2225.000	59.3	26.2	7.3	42.0	50.8	74.0	23.2	100	46
6	4512.500	50.1	30.8	10.7	41.4	50.2	74.0	23.8	100	1
----- Vertical -----										
7	1000.000	58.9	23.6	4.8	41.8	45.5	74.0	28.5	100	159
8	1587.500	57.5	25.2	6.1	41.9	46.9	74.0	27.1	100	358
9	2025.000	59.3	25.3	7.0	42.0	49.6	74.0	24.4	100	358
10	2075.000	55.9	25.5	7.1	42.0	46.5	74.0	27.5	100	353
11	2225.000	57.0	26.2	7.3	42.0	48.5	74.0	25.5	100	358
12	2375.000	54.5	26.8	7.6	42.0	46.9	74.0	27.1	100	56

< DSUB + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

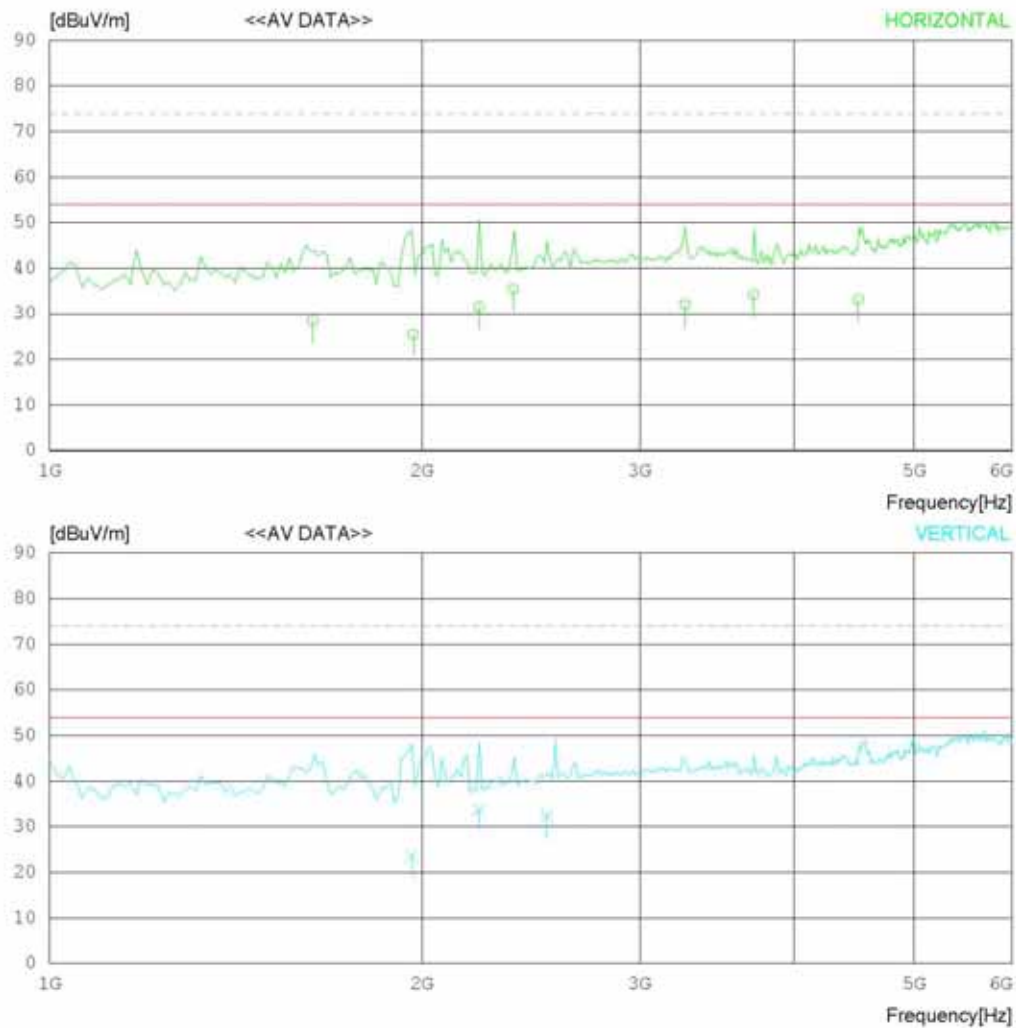
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 31 % 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	1631.493	39.0	25.2	6.2	41.9	28.5	54.0	25.5	100	23
2	1967.500	35.4	25.2	6.9	42.0	25.5	54.0	28.5	100	333
3	2225.000	40.0	26.2	7.3	42.0	31.5	54.0	22.5	100	358
4	2369.400	43.0	26.8	7.6	42.0	35.4	54.0	18.6	100	23
5	3264.013	35.9	29.0	9.1	42.0	32.0	54.0	22.0	100	51
6	3709.000	36.8	29.6	9.7	41.9	34.2	54.0	19.8	100	292
7	4505.397	33.2	30.7	10.7	41.4	33.2	54.0	20.8	100	358
----- Vertical -----										
8	1962.500	33.5	25.2	6.9	42.0	23.6	54.0	30.4	100	1
9	2225.000	42.2	26.2	7.3	42.0	33.7	54.0	20.3	100	1
10	2522.109	39.2	27.4	7.8	42.1	32.3	54.0	21.7	100	135

< HDMI + LAN MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

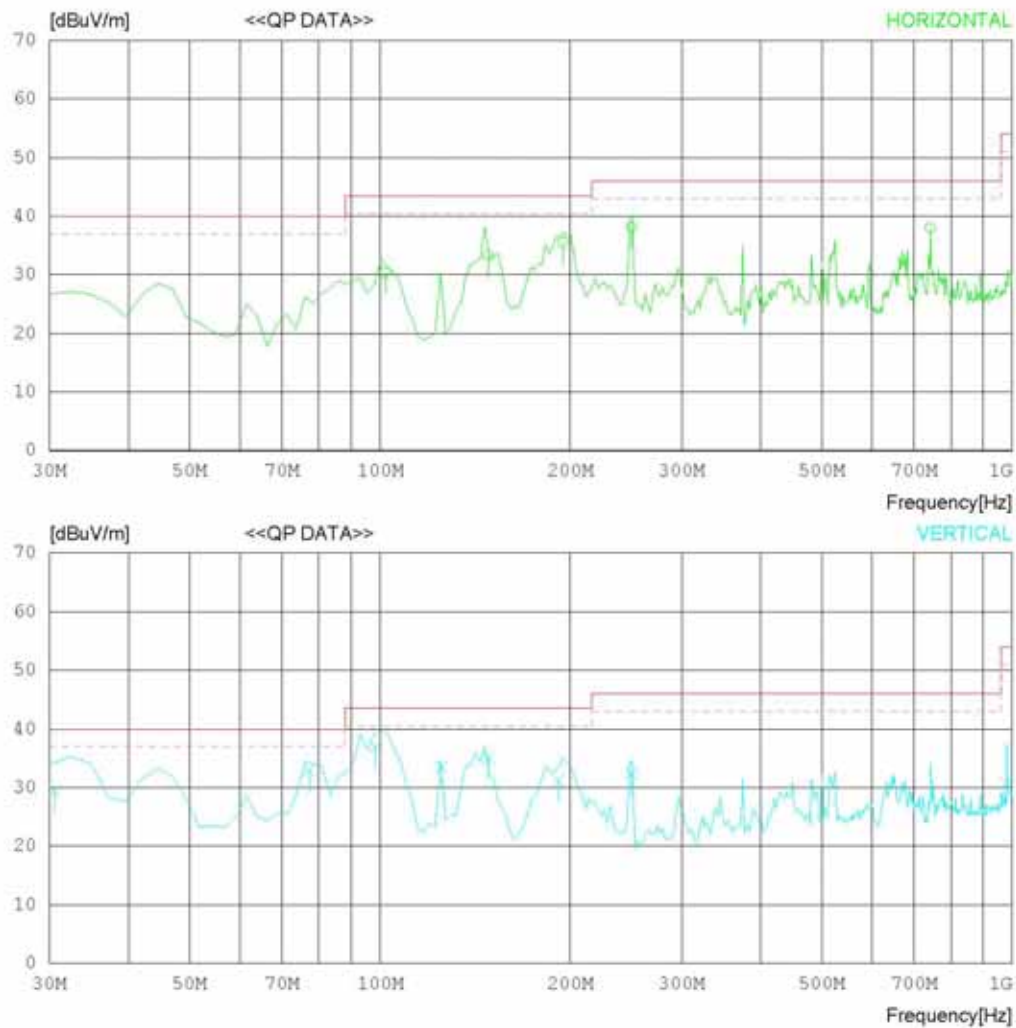
Date : 2012-01-05

Model Name : 47LM5800-UC
 Model No.
 Serial No.
 Test Condition : HDMI

Reference No.
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °C 31 % R.H.
 Operator

Memo :

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



RADIATED EMISSION

Date : 2012-01-05

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°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	101.884	40.8	10.8	1.5	22.7	30.4	43.5	13.1	212	308
2	148.400	44.2	10.5	1.7	23.1	33.3	43.5	10.2	226	1
3	194.815	47.0	9.7	2.0	23.2	35.5	43.5	8.0	100	89
4	250.000	46.1	13.1	2.4	23.5	38.1	46.0	7.9	143	358
5	741.775	38.0	19.5	4.4	23.9	38.0	46.0	8.0	100	334
----- Vertical -----										
6	30.550	33.9	17.4	0.8	22.6	29.5	40.0	10.5	199	258
7	77.200	47.3	6.9	1.3	22.6	32.9	40.0	7.1	100	1
8	98.425	47.6	10.5	1.5	22.7	36.9	43.5	6.6	100	164
9	125.000	43.0	11.8	1.6	22.9	33.5	43.5	10.0	100	86
10	148.117	46.0	10.5	1.7	23.1	35.1	43.5	8.4	100	1
11	191.275	42.8	9.7	2.0	23.2	31.3	43.5	12.2	132	115
12	250.000	40.4	13.1	2.4	23.5	32.4	46.0	13.6	100	1
13	978.775	27.6	21.1	4.9	22.9	30.7	54.0	23.3	144	146

< HDMI + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

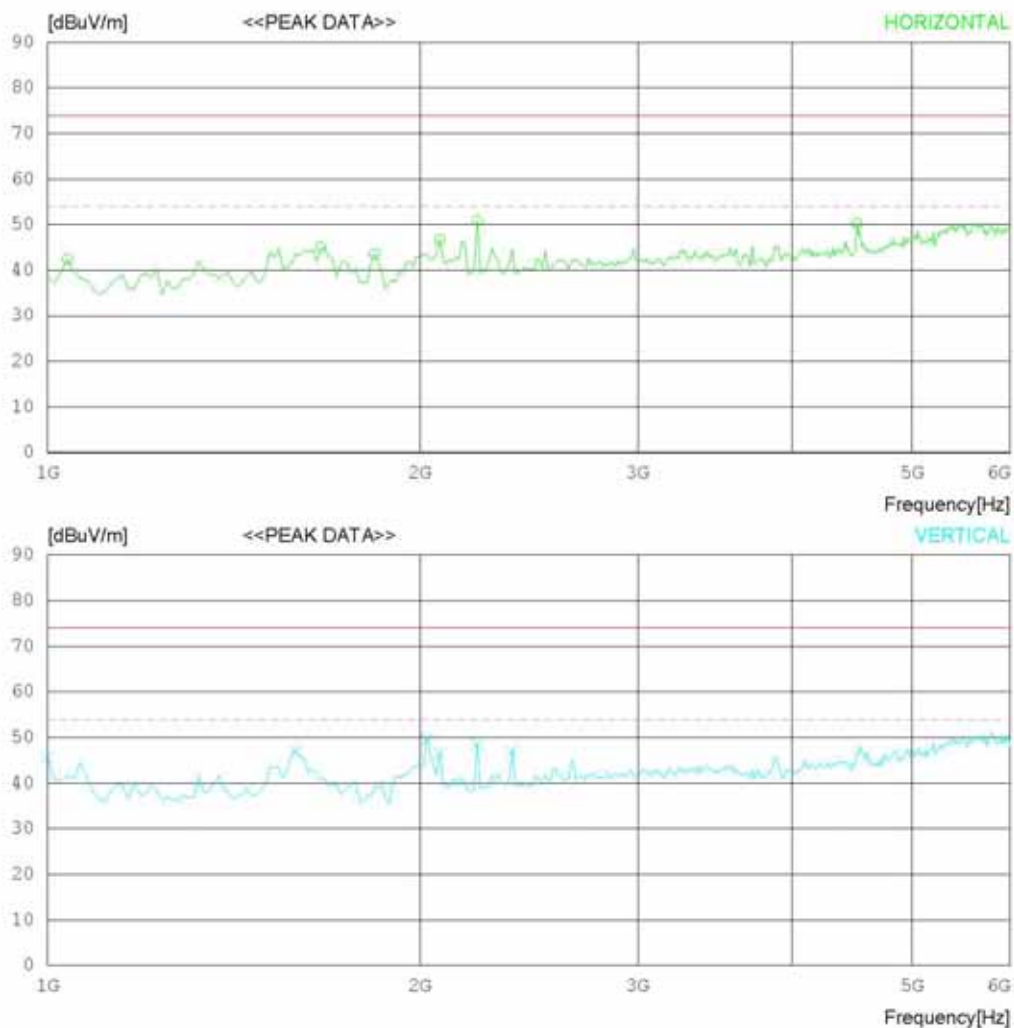
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
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	1037.500	55.6	23.7	4.9	41.8	42.4	74.0	31.6	100	1
2	1662.500	55.4	25.2	6.3	41.9	45.0	74.0	29	100	30
3	1837.500	53.7	25.2	6.7	42.0	43.6	74.0	30.4	100	1
4	2075.000	56.1	25.5	7.1	42.0	46.7	74.0	27.3	100	46
5	2225.000	59.3	26.2	7.3	42.0	50.8	74.0	23.2	100	46
6	4512.500	50.1	30.8	10.7	41.4	50.2	74.0	23.8	100	1
----- Vertical -----										
7	1000.000	58.9	23.6	4.8	41.8	45.5	74.0	28.5	100	159
8	1587.500	57.5	25.2	6.1	41.9	46.9	74.0	27.1	100	358
9	2025.000	59.3	25.3	7.0	42.0	49.6	74.0	24.4	100	358
10	2075.000	55.9	25.5	7.1	42.0	46.5	74.0	27.5	100	353
11	2225.000	57.0	26.2	7.3	42.0	48.5	74.0	25.5	100	358
12	2375.000	54.5	26.8	7.6	42.0	46.9	74.0	27.1	100	56

< HDMI + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

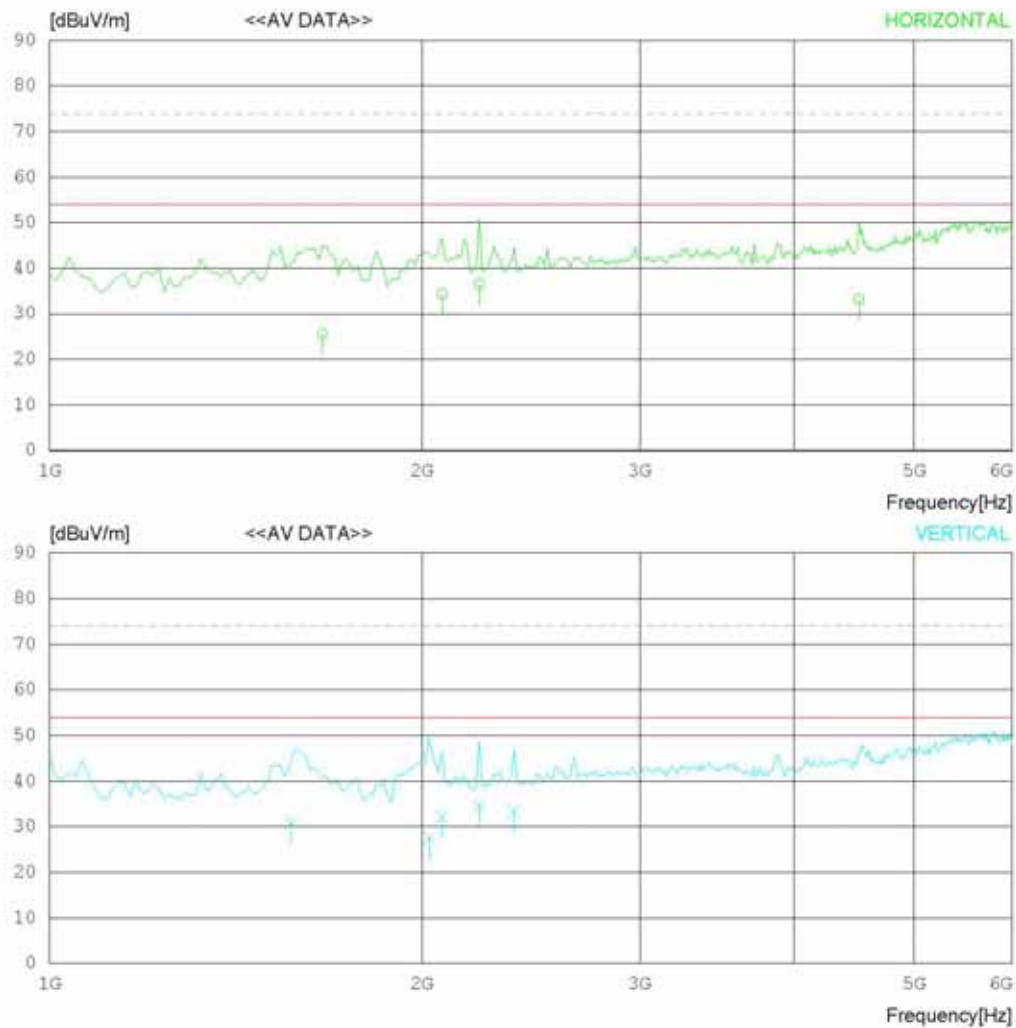
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
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	1662.500	36.0	25.2	6.3	41.9	25.6	54.0	28.4	100	30
2	2076.947	43.7	25.5	7.1	42.0	34.3	54.0	19.7	100	46
3	2225.283	45.1	26.2	7.3	42.0	36.6	54.0	17.4	100	46
4	4514.125	33.1	30.8	10.7	41.4	33.2	54.0	20.8	100	1
----- Vertical -----										
5	1568.250	41.5	25.1	6.1	41.9	30.8	54.0	23.2	100	358
6	2027.475	37.1	25.3	7.1	42.0	27.5	54.0	26.5	100	159
7	2076.925	41.6	25.5	7.1	42.0	32.2	54.0	21.8	100	358
8	2225.275	43.1	26.2	7.3	42.0	34.6	54.0	19.4	100	353
9	2373.681	41.0	26.8	7.6	42.0	33.4	54.0	20.6	100	56

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

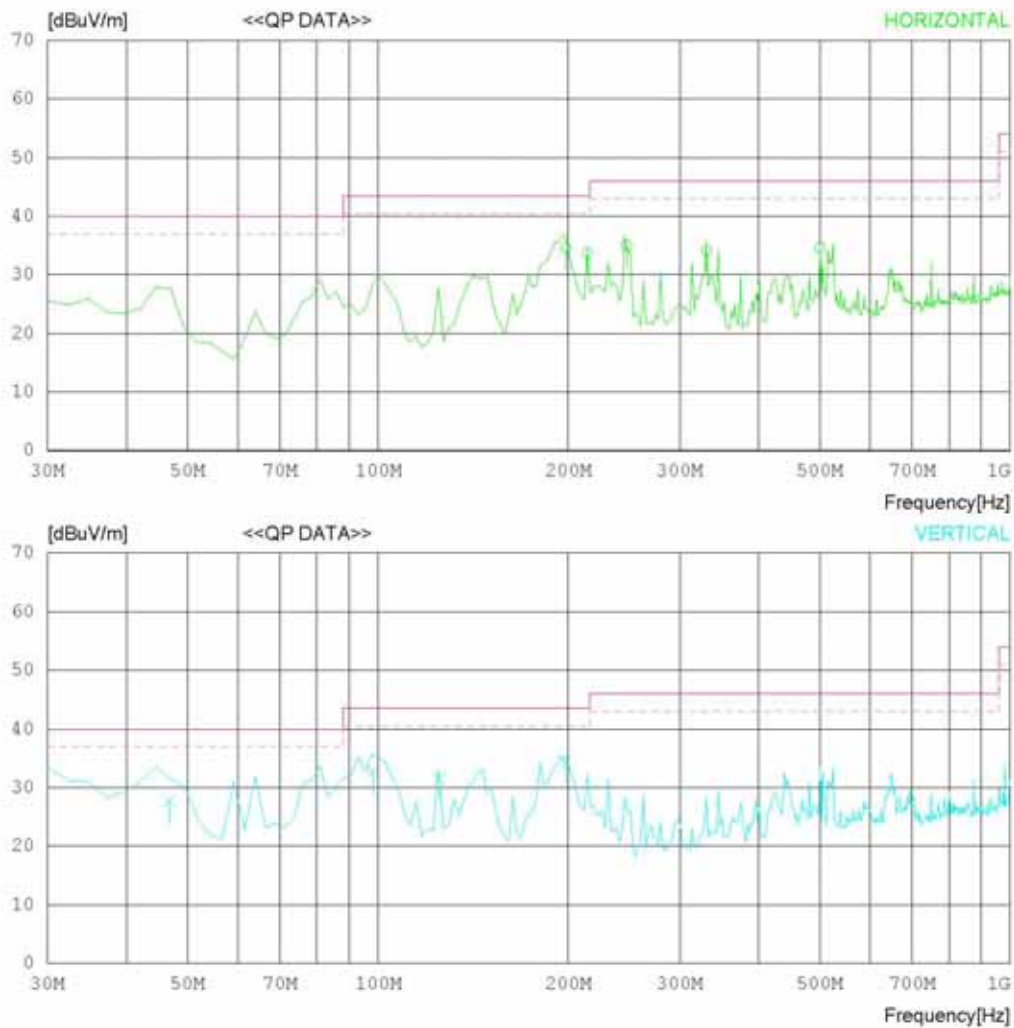
Date : 2012-01-05

Model Name : 47LM5800-UC
 Model No.
 Serial No.
 Test Condition : USB

Reference No.
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °C 31 % R.H.
 Operator

Memo :

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



RADIATED EMISSION

Date : 2012-01-05

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 31 % 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	198.016	46.1	9.7	2.0	23.2	34.6	43.5	8.9	100	300
2	214.300	44.3	10.6	2.1	23.3	33.7	43.5	9.8	100	306
3	247.509	43.4	12.9	2.3	23.5	35.1	46.0	10.9	100	1
4	330.700	40.9	14.5	2.7	24.0	34.1	46.0	11.9	100	343
5	500.449	38.1	17.7	3.4	24.6	34.6	46.0	11.4	100	323
----- Vertical -----										
6	46.750	36.8	12.5	1.0	22.6	27.7	40.0	12.3	100	20
7	98.439	43.4	10.5	1.5	22.7	32.7	43.5	10.8	100	98
8	125.000	41.1	11.8	1.6	22.9	31.6	43.5	11.9	100	107
9	198.016	45.9	9.7	2.0	23.2	34.4	43.5	9.1	100	158

< USB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

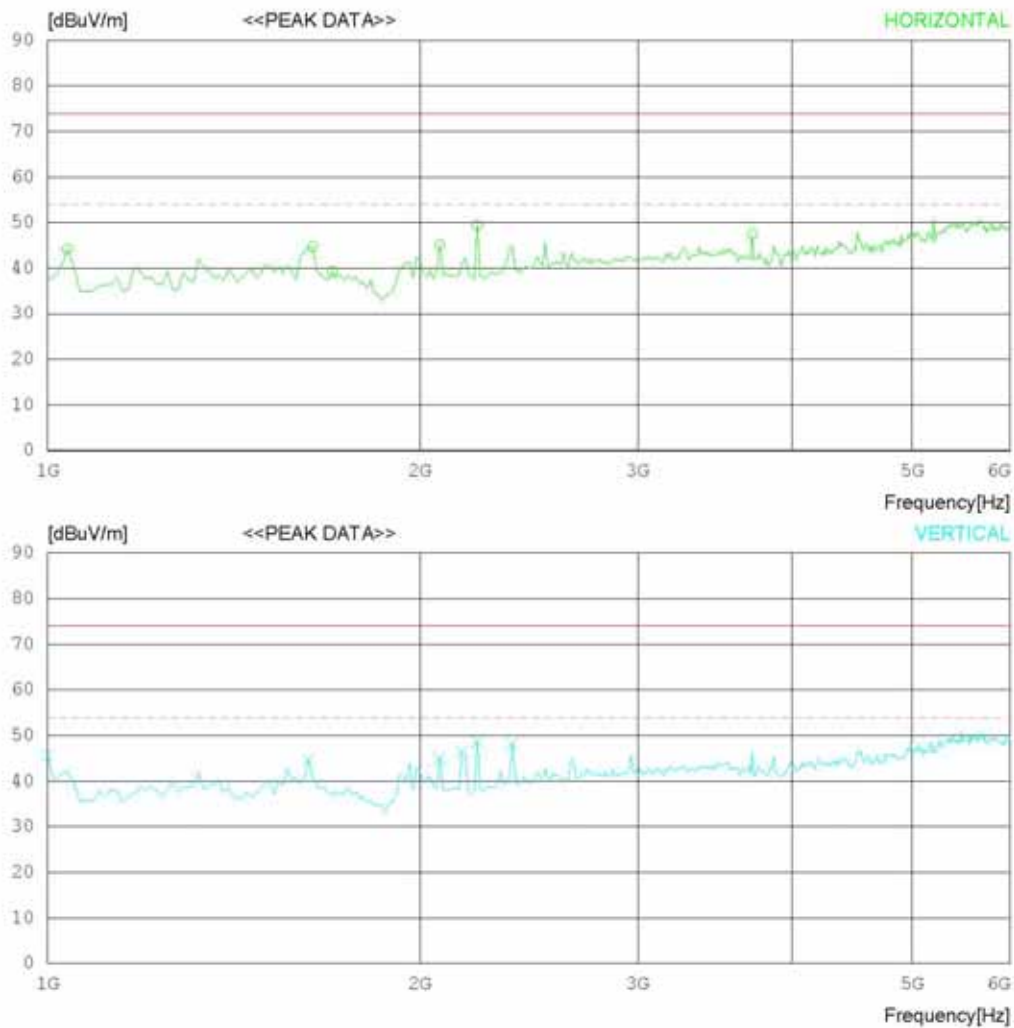
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
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	1037.500	57.4	23.7	4.9	41.8	44.2	74.0	29.8	100	1
2	1637.500	55.2	25.2	6.2	41.9	44.7	74.0	29.3	100	21
3	1700.000	49.6	25.2	6.4	41.9	39.3	74.0	34.7	100	180
4	2075.000	54.5	25.5	7.1	42.0	45.1	74.0	28.9	100	46
5	2225.000	57.9	26.2	7.3	42.0	49.4	74.0	24.6	100	28
6	3712.500	50.0	29.6	9.7	41.9	47.4	74.0	26.6	100	1
----- Vertical -----										
7	1000.000	59.0	23.6	4.8	41.8	45.6	74.0	28.4	100	176
8	1625.000	55.0	25.2	6.2	41.9	44.5	74.0	29.5	100	358
9	2075.000	54.4	25.5	7.1	42.0	45.0	74.0	29	100	358
10	2162.500	55.1	25.9	7.3	42.0	46.3	74.0	27.7	100	358
11	2225.000	57.2	26.2	7.3	42.0	48.7	74.0	25.3	100	339
12	2375.000	55.8	26.8	7.6	42.0	48.2	74.0	25.8	100	358

< USB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

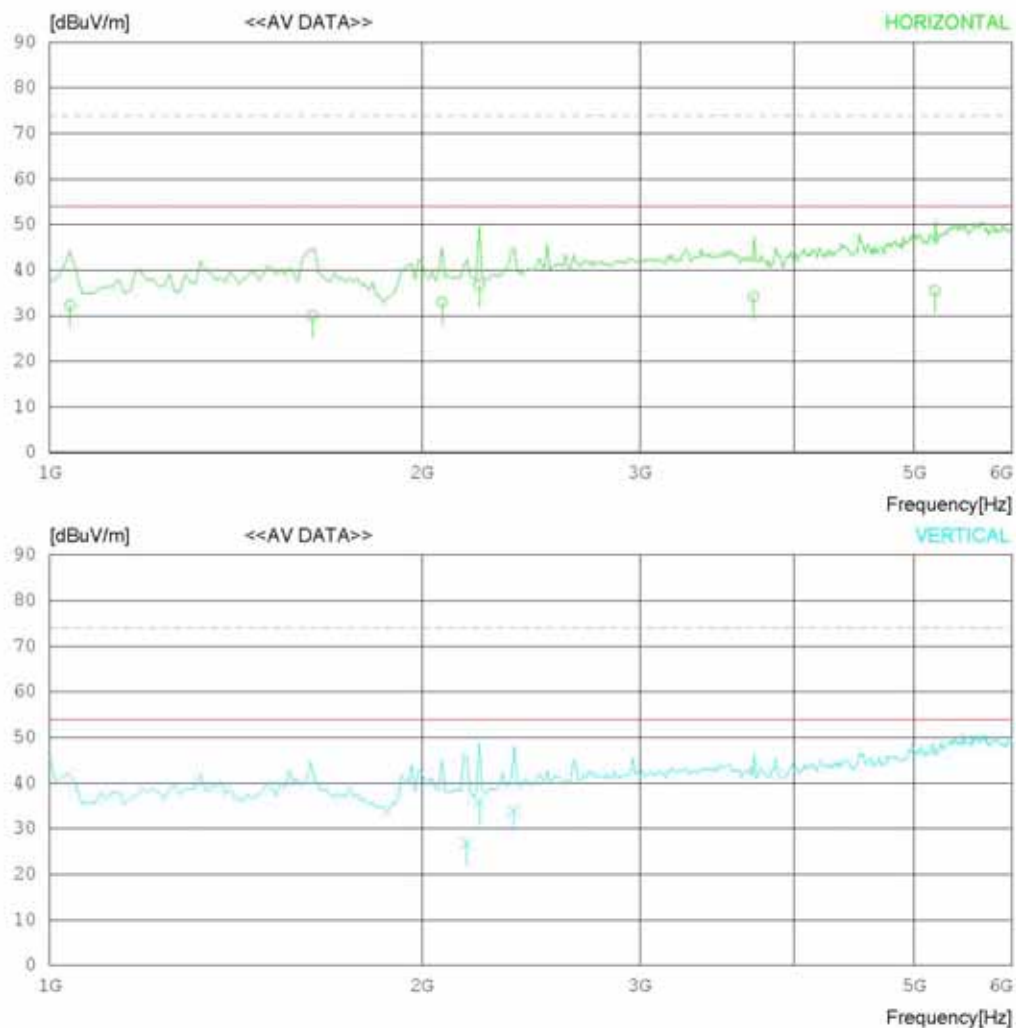
Date : 2012-01-04

Model Name : 47LM5800-UC
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 22 °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 : 2012-01-04

Model Name : 47LM5800-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
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	1038.519	45.4	23.7	4.9	41.8	32.2	54.0	21.8	100	339
2	1632.000	40.5	25.2	6.2	41.9	30.0	54.0	24.0	100	21
3	2077.089	42.4	25.5	7.1	42.0	33.0	54.0	21.0	100	46
4	2225.400	45.2	26.2	7.3	42.0	36.7	54.0	17.3	100	28
5	3708.800	36.8	29.6	9.7	41.9	34.2	54.0	19.8	100	1
6	5197.350	31.2	33.7	11.4	40.8	35.5	54.0	18.5	100	180
----- Vertical -----										
7	2173.500	35.6	25.9	7.3	42.0	26.8	54.0	27.2	100	212
8	2225.400	44.3	26.2	7.3	42.0	35.8	54.0	18.2	100	179
9	2373.812	41.5	26.8	7.6	42.0	33.9	54.0	20.1	100	358

Appendix 1

List of Test and Measurement Instruments

1. Conducted Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☐ SPECTRUM ANALYZER	8591E	H/P	3649A05889	2011.03.07	2012.03.07
☐ RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2011.07.02	2012.07.02
☐ LISN	KNW-407	KYORITSU	8-317-8	2011.01.11	2012.01.11
☐ LISN	KNW-242	KYORITSU	8-654-15	2011.07.01	2012.07.01
☐ 50 OHM TERMINATOR	CT-01	TME	N/A	2011.01.11	2012.01.11
☒ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2011.03.08	2012.03.08
☒ LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2011.09.30	2012.09.30
☒ LISN	LISN1600	TTI	197204	2011.07.02	2012.07.02
☒ 50 OHM TERMINATOR	CT-01	TME	N/A	2011.01.11	2012.01.11

2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☒ EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2011.01.20	2012.01.20
☒ BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2010.07.14	2012.07.14
☒ HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2010.04.13	2012.04.13
☒ AMPLIFIER	8447E	H/P	2945A02865	2011.01.11	2012.01.11
☒ AMPLIFIER	MLA-00108-B02-36	TSJ	1518831	2011.01.11	2012.01.11
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2011.07.01	2012.07.01
☐ AMPLIFIER	8447D	AGILENT	2443A03690	2011.07.01	2012.07.01
☐ BILOG ANTENNA	VULB9160	SCHAFFNER	3151	2010.08.25	2012.08.25
☐ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2011.03.08	2012.03.08
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2010.11.29	2012.11.29
☐ LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2010.07.07	2012.07.07
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2010.12.21	2012.12.21
☐ LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2010.11.29	2012.11.29
☐ AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2011.03.07	2012.03.07