

EMC TEST REPORT

Test item : LED LCD TV Monitor
Model No. : 47LM8600-UC
Order No. : 1112-01715
Date of receipt : 2011-12-08
Test duration : 2011-12-14 ~ 2011-12-20
Use of report : FCC CoC Marking
Date of Issue : 2011-12-22

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 : (20 ~ 22) °C,
Humidity : (37 ~ 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:



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.

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.	47LM8600-UC
EUT Type	LED LCD TV Monitor
Serial No	NONE
FCC ID	BEJ47LM8600UC
Type of Sample Tested	Pre-Production
High Frequency	800 MHz
Rating	AC100-240 V~, 50/60 Hz, 1.4 A, 140 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	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	12-14	21	37	-
Radiated Disturbance	12-19	22	41	
	12-20	20	41	

4.3 Test result Summary

(1) Conducted Emission(HDMI + LAN MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
1.88500	N	39.1	Average	46.0	6.9

(2) Radiated Emission(HDMI + LAN MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
891.116	H	42.6	Quasi-Peak	46.0	3.4

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
				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**.

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

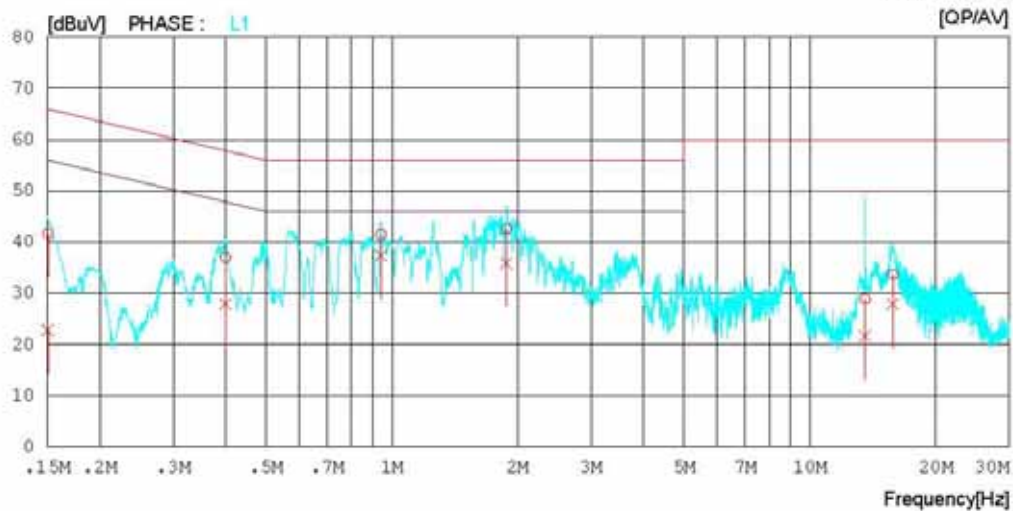
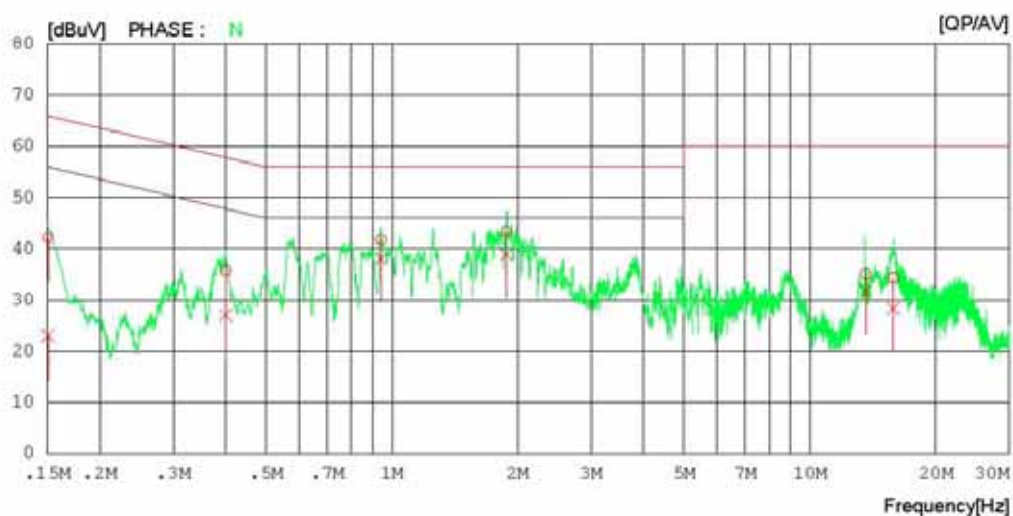
Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % 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	0.15056	42.0	22.8	0.2	42.2	23.0	66.0	56.0	23.8	33.0	N
2	0.40069	35.6	26.8	0.2	35.8	27.0	57.8	47.8	22.0	20.8	N
3	0.94210	41.6	37.9	0.2	41.8	38.1	56.0	46.0	14.2	7.9	N
4	1.88300	43.2	38.7	0.2	43.4	38.9	56.0	46.0	12.6	7.1	N
5	13.61100	34.2	30.8	0.9	35.1	31.7	60.0	50.0	24.9	18.3	N
6	15.83550	33.3	27.3	1.0	34.3	28.3	60.0	50.0	25.7	21.7	N
7	0.15050	41.4	22.7	0.2	41.6	22.9	66.0	56.0	24.4	33.1	L1
8	0.40045	36.8	27.7	0.2	37.0	27.9	57.8	47.8	20.8	19.9	L1
9	0.94194	41.3	37.2	0.2	41.5	37.4	56.0	46.0	14.5	8.6	L1
10	1.88100	42.4	35.6	0.2	42.6	35.8	56.0	46.0	13.4	10.2	L1
11	13.56100	28.0	20.8	0.9	28.9	21.7	60.0	50.0	31.1	28.3	L1
12	15.79550	32.7	26.8	1.0	33.7	27.8	60.0	50.0	26.3	22.2	L1

< HDMI + LAN MODE >



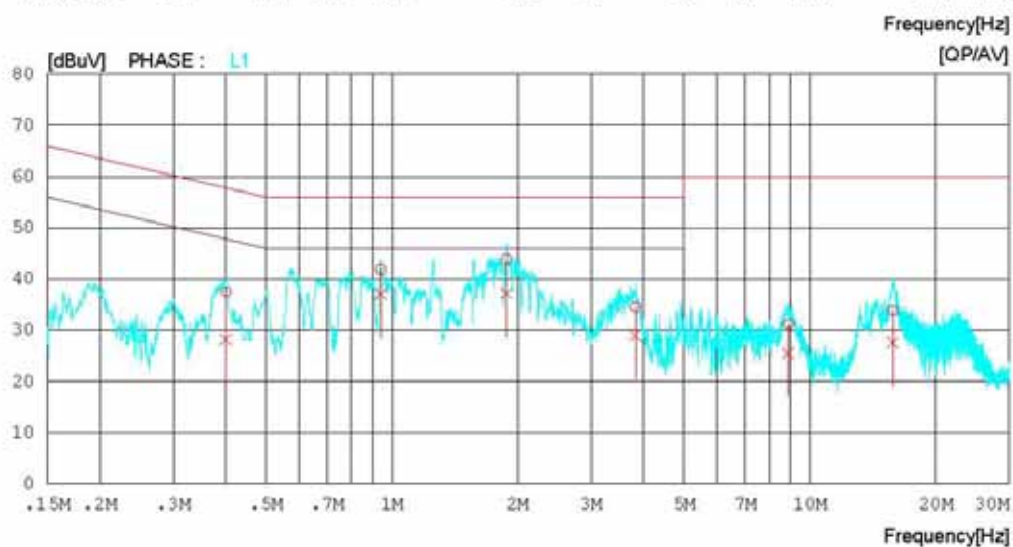
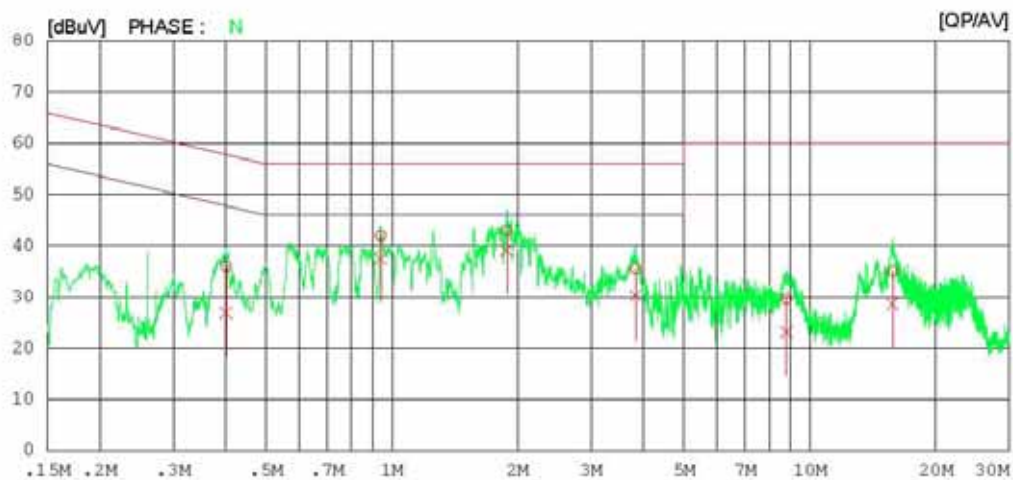
Results of Conducted Emission

Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % R.H.
 Operator :

Memo :
 LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % 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	0.40138	35.8	26.8	0.2	36.0	27.0	57.8	47.8	21.8	20.8	N
2	0.94045	41.8	37.3	0.2	42.0	37.5	56.0	46.0	14.0	8.5	N
3	1.88500	42.7	38.9	0.2	42.9	39.1	56.0	46.0	13.1	6.9	N
4	3.83300	35.2	29.8	0.4	35.6	30.2	56.0	46.0	20.4	15.8	N
5	8.79550	29.1	22.5	0.6	29.7	23.1	60.0	50.0	30.3	26.9	N
6	15.76850	34.0	27.7	1.0	35.0	28.7	60.0	50.0	25.0	21.3	N
7	0.40079	37.3	28.1	0.2	37.5	28.3	57.8	47.8	20.3	19.5	L1
8	0.94033	41.7	36.9	0.2	41.9	37.1	56.0	46.0	14.1	8.9	L1
9	1.88100	43.7	37.0	0.2	43.9	37.2	56.0	46.0	12.1	8.8	L1
10	3.83100	34.1	28.6	0.4	34.5	29.0	56.0	46.0	21.5	17.0	L1
11	8.87950	30.7	25.0	0.6	31.3	25.6	60.0	50.0	28.7	24.4	L1
12	15.80750	32.9	26.6	1.0	33.9	27.6	60.0	50.0	26.1	22.4	L1

< USB MODE >



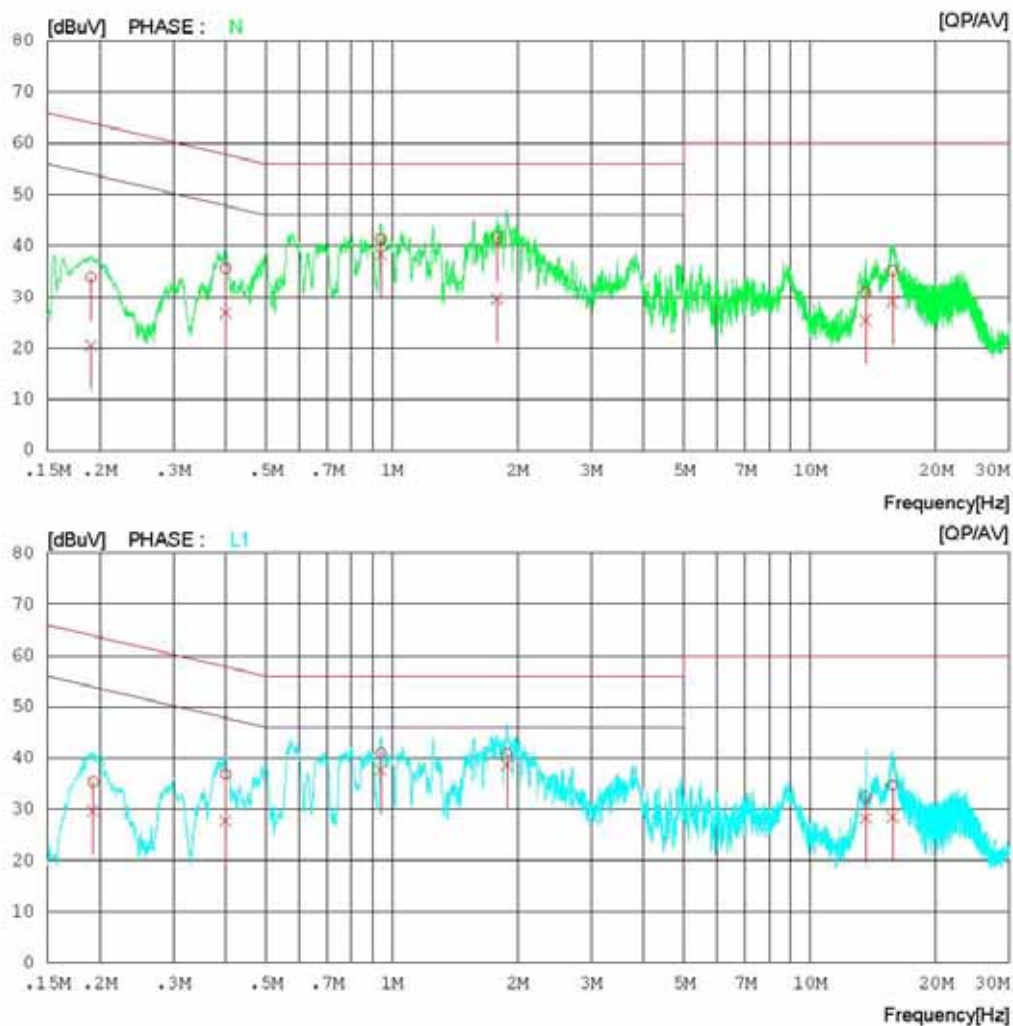
Results of Conducted Emission

Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % R.H.
 Operator :

Memo :
 LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-14

Model No. : 47LM8600-UC
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 21 °C 37 % 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	0.19068	33.8	20.5	0.1	33.9	20.6	64.0	54.0	30.1	33.4	N
2	0.40036	35.4	26.7	0.2	35.6	26.9	57.8	47.8	22.2	20.9	N
3	0.94223	41.1	38.2	0.2	41.3	38.4	56.0	46.0	14.7	7.6	N
4	1.78400	41.4	29.5	0.2	41.6	29.7	56.0	46.0	14.4	16.3	N
5	13.61150	30.0	24.6	0.9	30.9	25.5	60.0	50.0	29.1	24.5	N
6	15.77000	34.1	28.1	1.0	35.1	29.1	60.0	50.0	24.9	20.9	N
7	0.19294	35.3	29.6	0.1	35.4	29.7	63.9	53.9	28.5	24.2	L1
8	0.40043	36.7	27.5	0.2	36.9	27.7	57.8	47.8	20.9	20.1	L1
9	0.94199	40.7	37.4	0.2	40.9	37.6	56.0	46.0	15.1	8.4	L1
10	1.88500	40.7	38.5	0.2	40.9	38.7	56.0	46.0	15.1	7.3	L1
11	13.60950	31.5	27.4	0.9	32.4	28.3	60.0	50.0	27.6	21.7	L1
12	15.77850	33.7	27.6	1.0	34.7	28.6	60.0	50.0	25.3	21.4	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 (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 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 (dBμV/m)	Quasi-peak (dBμV/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 (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)
1 to 40	80	60	74	54

Test Result

< DSUB + LAN MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

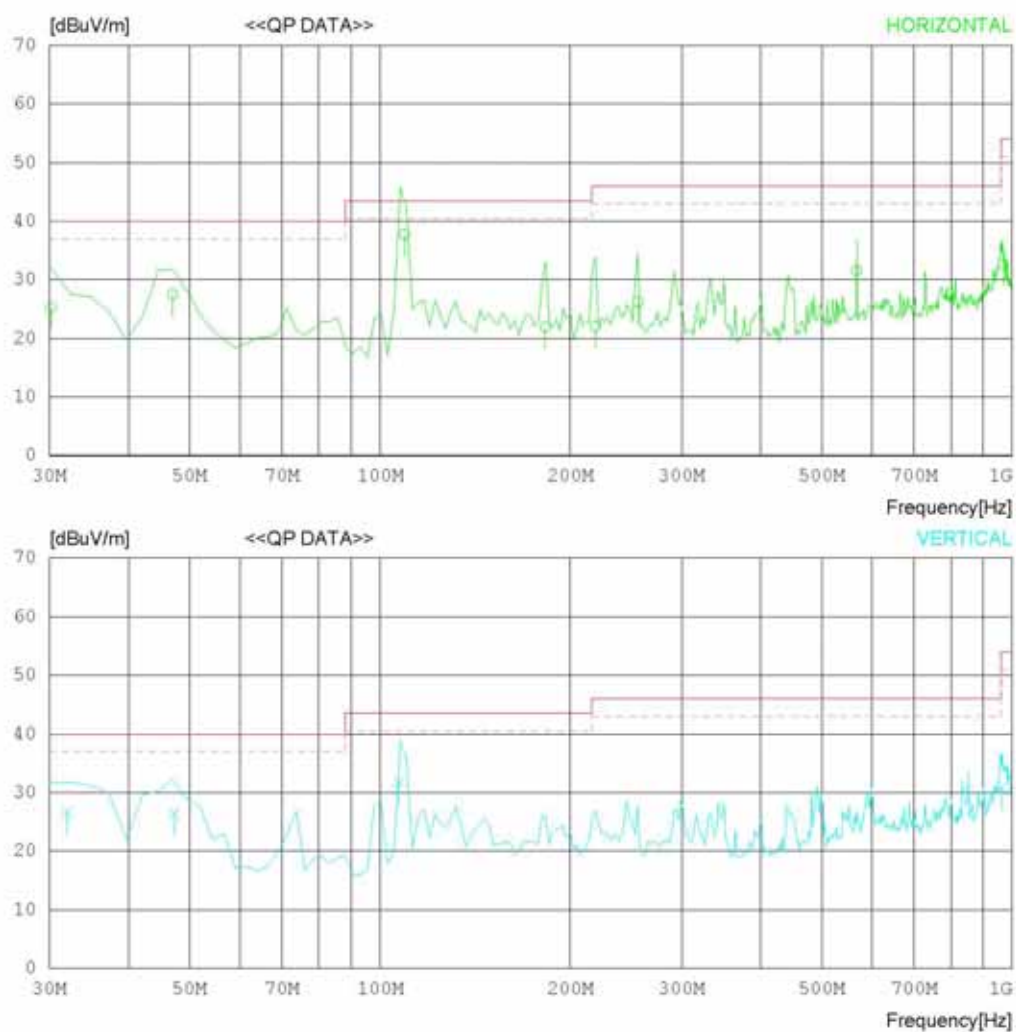
Date : 2011-12-19

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : DSUB

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

Memo :

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



RADIATED EMISSION

Date : 2011-12-19

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 41% 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	30.125	29.6	17.4	0.8	22.6	25.2	40.0	14.8	400	106
2	46.958	36.8	12.3	1.0	22.6	27.5	40.0	12.5	140	220
3	109.425	47.8	11.1	1.5	22.7	37.7	43.5	5.8	241	46
4	182.495	33.3	9.8	2.0	23.2	21.9	43.5	21.6	200	92
5	218.944	32.2	10.9	2.2	23.3	22.0	46.0	24.0	100	186
6	256.124	34.2	13.2	2.4	23.6	26.2	46.0	19.8	100	158
7	567.033	33.9	18.4	3.7	24.4	31.6	46.0	14.4	400	154
8	967.842	29.6	21.1	4.9	23.0	32.6	54.0	21.4	100	181
----- Vertical -----										
9	31.985	31.3	17.1	0.9	22.6	26.7	40.0	13.3	300	103
10	47.262	36.0	12.0	1.0	22.6	26.4	40.0	13.6	100	97
11	107.165	42.0	11.0	1.5	22.7	31.8	43.5	11.7	110	122
12	962.084	27.8	21.0	4.9	23.0	30.7	54.0	23.3	100	116

< DSUB + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

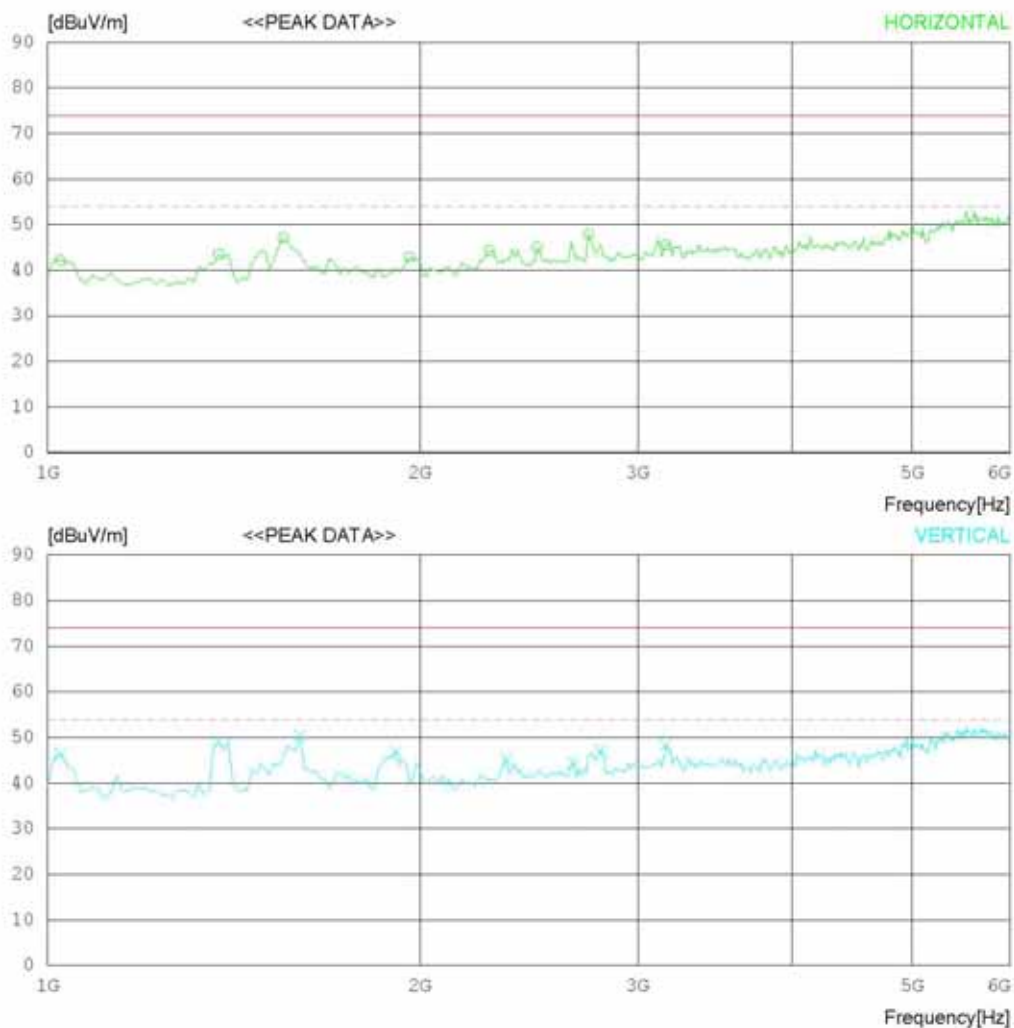
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	1025.000	55.3	23.7	4.9	41.8	42.1	74.0	31.9	100	358
2	1375.000	55.0	24.8	5.7	41.9	43.6	74.0	30.4	100	225
3	1550.000	57.8	25.1	6.1	41.9	47.1	74.0	26.9	100	358
4	1962.500	52.8	25.2	6.9	42.0	42.9	74.0	31.1	100	154
5	2275.000	52.5	26.4	7.4	42.0	44.3	74.0	29.7	100	358
6	2487.500	52.0	27.3	7.7	42.0	45.0	74.0	29	100	68
7	2737.500	53.8	28.0	8.2	42.1	47.9	74.0	26.1	100	130
8	3162.500	49.8	28.9	9.0	42.1	45.6	74.0	28.4	100	358
----- Vertical -----										
9	1025.000	59.5	23.7	4.9	41.8	46.3	74.0	27.7	100	165
10	1375.000	60.4	24.8	5.7	41.9	49.0	74.0	25	100	171
11	1600.000	60.9	25.2	6.2	41.9	50.4	74.0	23.6	100	127
12	1912.500	56.8	25.2	6.8	42.0	46.8	74.0	27.2	100	180
13	2350.000	53.0	26.7	7.5	42.0	45.2	74.0	28.8	100	1
14	2662.500	50.6	27.8	8.1	42.1	44.4	74.0	29.6	100	337
15	2800.000	52.5	28.2	8.4	42.1	47.0	74.0	27	100	1
16	3162.500	52.4	28.9	9.0	42.1	48.2	74.0	25.8	100	1

< DSUB + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

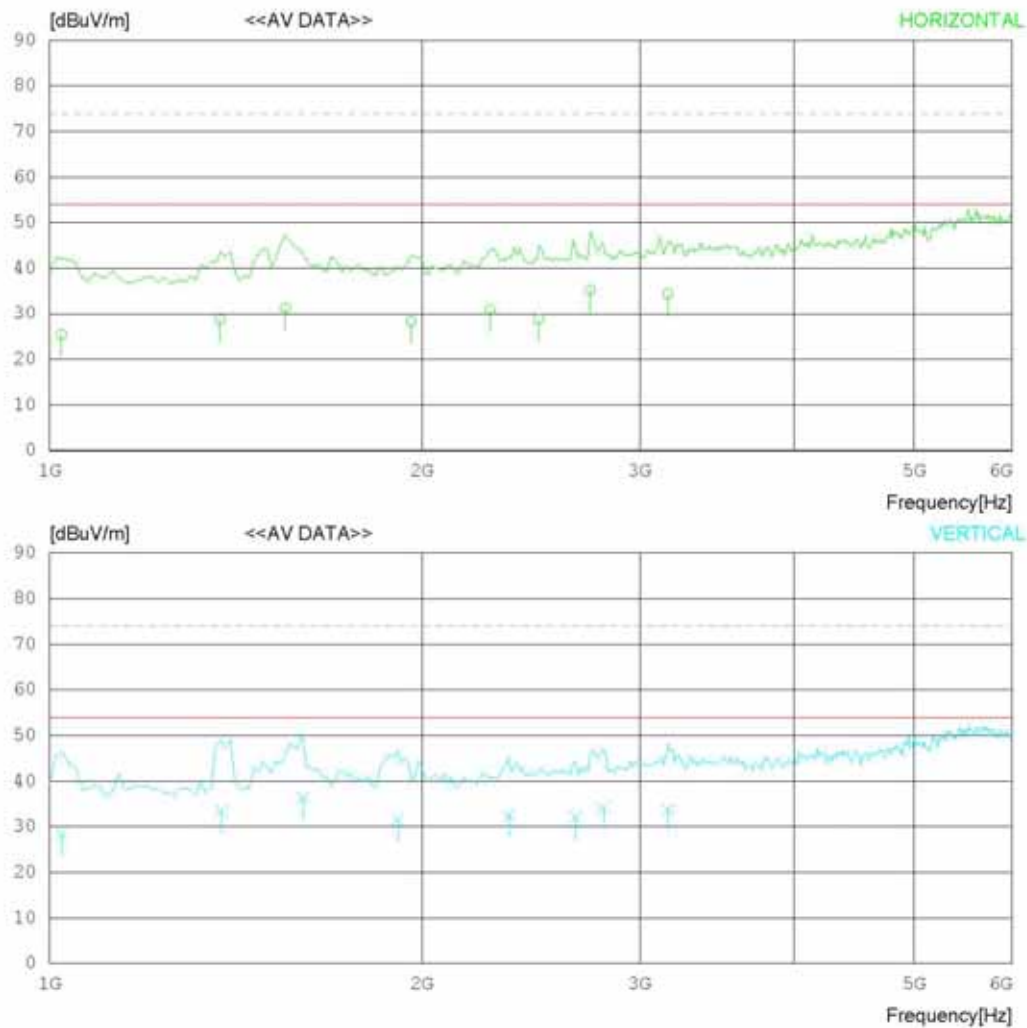
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	1022.145	38.7	23.7	4.9	41.8	25.5	54.0	28.5	100	358
2	1373.695	40.1	24.8	5.7	41.9	28.7	54.0	25.3	100	225
3	1551.202	42.0	25.1	6.1	41.9	31.3	54.0	22.7	100	358
4	1961.165	38.2	25.2	6.9	42.0	28.3	54.0	25.7	100	154
5	2271.169	39.1	26.3	7.4	42.0	30.8	54.0	23.2	100	358
6	2485.216	35.8	27.3	7.7	42.0	28.8	54.0	25.2	100	68
7	2733.693	41.1	28.0	8.2	42.1	35.2	54.0	18.8	100	130
8	3161.132	38.5	28.9	9.0	42.1	34.3	54.0	19.7	100	358
----- Vertical -----										
9	1023.390	41.6	23.7	4.9	41.8	26.4	54.0	25.6	100	165
10	1377.154	44.8	24.8	5.7	41.9	33.4	54.0	20.6	100	171
11	1603.458	46.8	25.2	6.2	41.9	36.3	54.0	17.7	100	127
12	1911.336	41.6	25.2	6.8	42.0	31.6	54.0	22.4	100	180
13	2351.547	40.3	26.7	7.5	42.0	32.5	54.0	21.5	100	1
14	2661.498	38.2	27.8	8.1	42.1	32.0	54.0	22.0	100	337
15	2801.363	39.6	28.2	8.4	42.1	34.1	54.0	19.9	100	1
16	3161.557	37.9	28.9	9.0	42.1	33.7	54.0	20.3	100	1

< HDMI + LAN MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

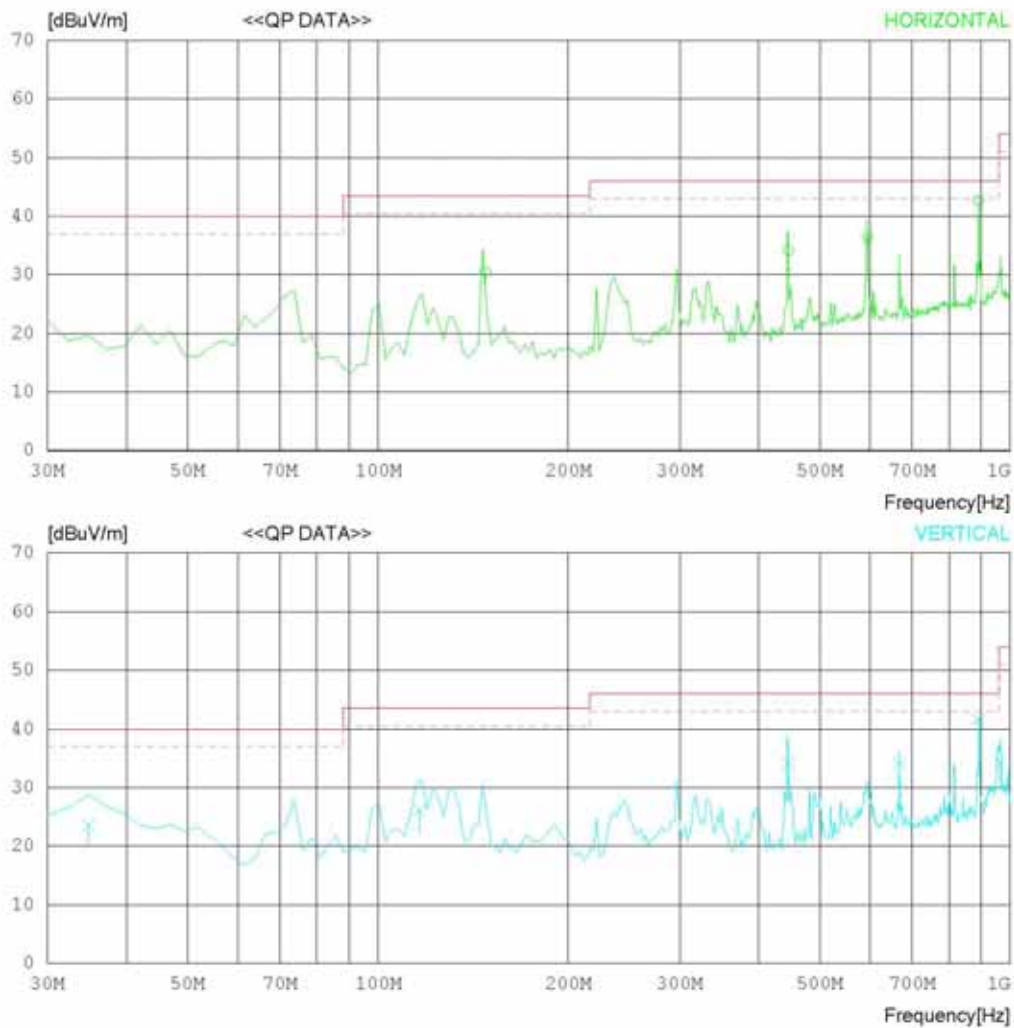
Date : 2011-12-19

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

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

Memo :

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



RADIATED EMISSION

Date : 2011-12-19

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 41% 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	147.798	41.3	10.6	1.7	23.1	30.5	43.5	13.0	400	181
2	445.958	38.6	16.8	3.2	24.5	34.1	46.0	11.9	199	134
3	594.303	38.3	18.7	3.9	24.4	36.5	46.0	9.5	300	188
4	891.116	40.5	20.6	4.8	23.3	42.6	46.0	3.4	100	179
----- Vertical -----										
5	34.822	28.6	16.7	0.9	22.6	23.6	40.0	16.4	100	103
6	116.335	36.0	11.4	1.5	22.8	26.1	43.5	17.4	100	155
7	445.512	38.6	16.8	3.2	24.5	34.1	46.0	11.9	100	158
8	668.821	35.1	18.9	4.1	24.1	34.0	46.0	12.0	200	172
9	890.125	39.6	20.6	4.8	23.3	41.7	46.0	4.3	100	168
10	965.963	31.2	21.1	4.9	23.0	34.2	54.0	19.8	100	194

< HDMI + LAN MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

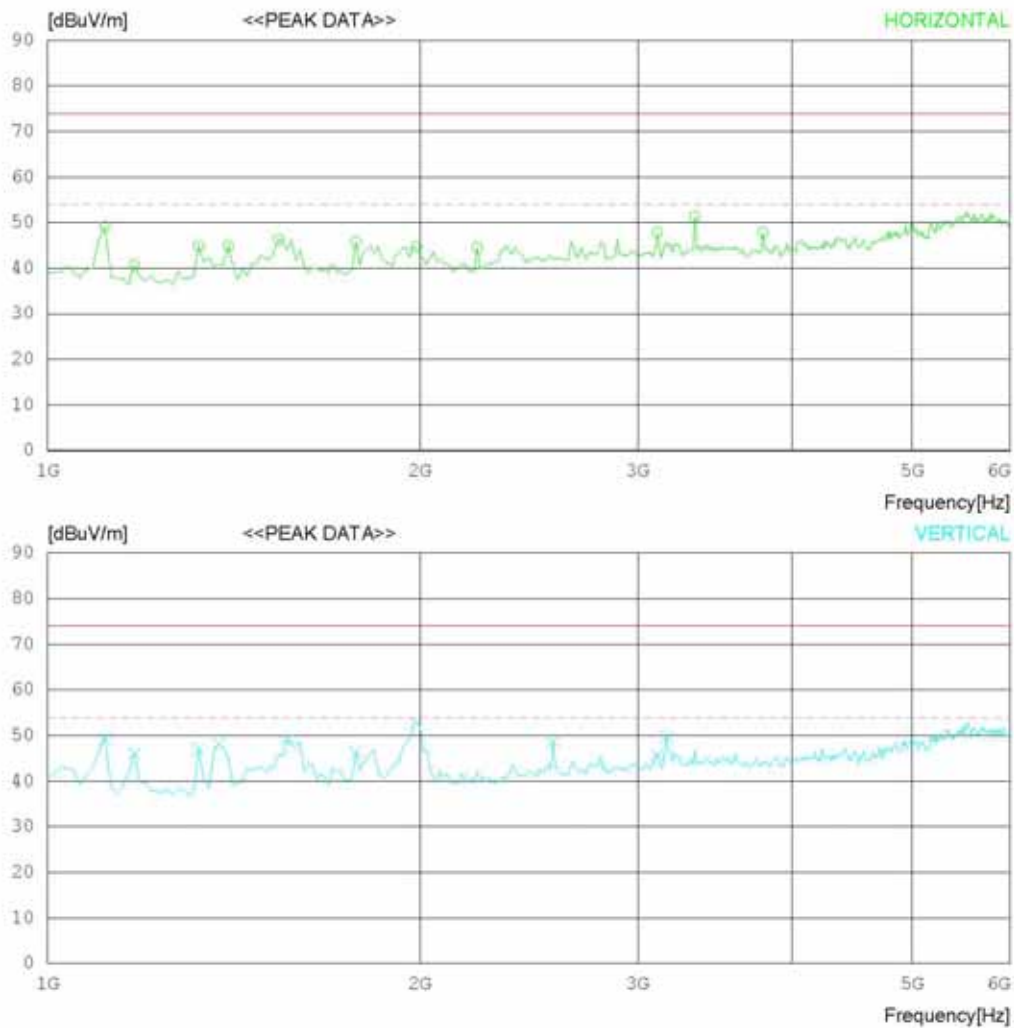
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	61.8	24.0	5.1	41.8	49.1	74.0	24.9	100	358
2	1175.000	53.0	24.2	5.2	41.8	40.6	74.0	33.4	100	132
3	1325.000	56.6	24.6	5.6	41.9	44.9	74.0	29.1	100	143
4	1400.000	56.3	24.8	5.7	41.9	44.9	74.0	29.1	100	358
5	1537.500	57.1	25.1	6.0	41.9	46.3	74.0	27.7	100	232
6	1775.000	56.1	25.2	6.5	42.0	45.8	74.0	28.2	100	358
7	1987.500	54.5	25.2	7.0	42.0	44.7	74.0	29.3	100	358
8	2225.000	53.0	26.2	7.3	42.0	44.5	74.0	29.5	100	358
9	3112.500	52.1	28.9	8.9	42.1	47.8	74.0	26.2	100	358
10	3337.500	55.1	29.0	9.2	42.0	51.3	74.0	22.7	100	358
11	3787.500	50.3	29.7	9.8	41.9	47.9	74.0	26.1	100	358
----- Vertical -----										
12	1112.500	62.0	24.0	5.1	41.8	49.3	74.0	24.7	100	89
13	1175.000	58.4	24.2	5.2	41.8	46.0	74.0	28	100	358
14	1325.000	58.7	24.6	5.6	41.9	47.0	74.0	27	100	358
15	1375.000	59.5	24.8	5.7	41.9	48.1	74.0	25.9	100	10
16	1562.500	59.6	25.1	6.1	41.9	48.9	74.0	25.1	100	142
17	1775.000	56.6	25.2	6.5	42.0	46.3	74.0	27.7	100	358
18	1987.500	62.6	25.2	7.0	42.0	52.8	74.0	21.2	100	358
19	2562.500	55.5	27.5	7.9	42.1	48.8	74.0	25.2	100	358
20	3112.500	50.1	28.9	8.9	42.1	45.8	74.0	28.2	100	358
21	3162.500	53.9	28.9	9.0	42.1	49.7	74.0	24.3	100	217

< HDMI + LAN MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

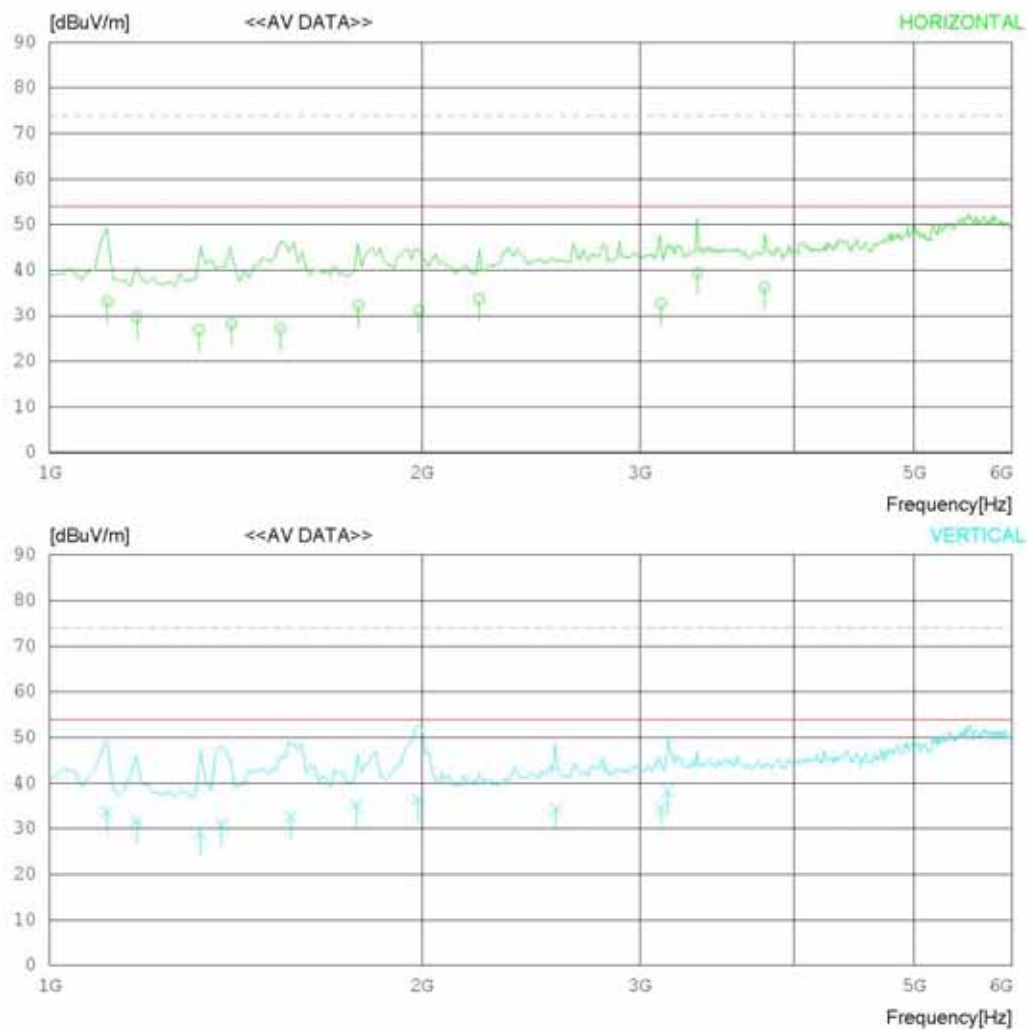
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	1113.322	45.8	24.0	5.1	41.8	33.1	54.0	20.9	100	358
2	1176.847	42.1	24.2	5.2	41.8	29.7	54.0	24.3	100	132
3	1321.165	38.6	24.6	5.5	41.9	26.8	54.0	27.2	100	143
4	1403.369	39.6	24.8	5.7	41.9	28.2	54.0	25.8	100	358
5	1536.989	38.0	25.1	6.0	41.9	27.2	54.0	26.8	100	232
6	1777.140	42.5	25.2	6.5	42.0	32.2	54.0	21.8	100	358
7	1988.894	40.9	25.2	7.0	42.0	31.1	54.0	22.9	100	358
8	2224.112	42.2	26.2	7.3	42.0	33.7	54.0	20.3	100	358
9	3118.220	37.0	28.9	8.9	42.1	32.7	54.0	21.3	100	358
10	3340.035	43.2	29.0	9.2	42.0	39.4	54.0	14.6	100	358
11	3784.168	38.6	29.7	9.8	41.9	36.2	54.0	17.8	100	358
----- Vertical -----										
12	1113.515	46.3	24.0	5.1	41.8	33.6	54.0	20.4	100	89
13	1176.894	44.1	24.2	5.2	41.8	31.7	54.0	22.3	100	358
14	1324.165	40.6	24.6	5.6	41.9	28.9	54.0	25.1	100	358
15	1376.815	42.2	24.8	5.7	41.9	30.8	54.0	23.2	100	10
16	1566.654	43.3	25.1	6.1	41.9	32.6	54.0	21.4	100	142
17	1771.002	45.5	25.2	6.5	42.0	35.2	54.0	18.8	100	358
18	1986.320	46.3	25.2	7.0	42.0	36.5	54.0	17.5	100	358
19	2568.114	41.1	27.5	7.9	42.1	34.4	54.0	19.6	100	358
20	3118.202	38.6	28.9	8.9	42.1	34.3	54.0	19.7	100	358
21	3161.996	42.3	28.9	9.0	42.1	38.1	54.0	15.9	100	217

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

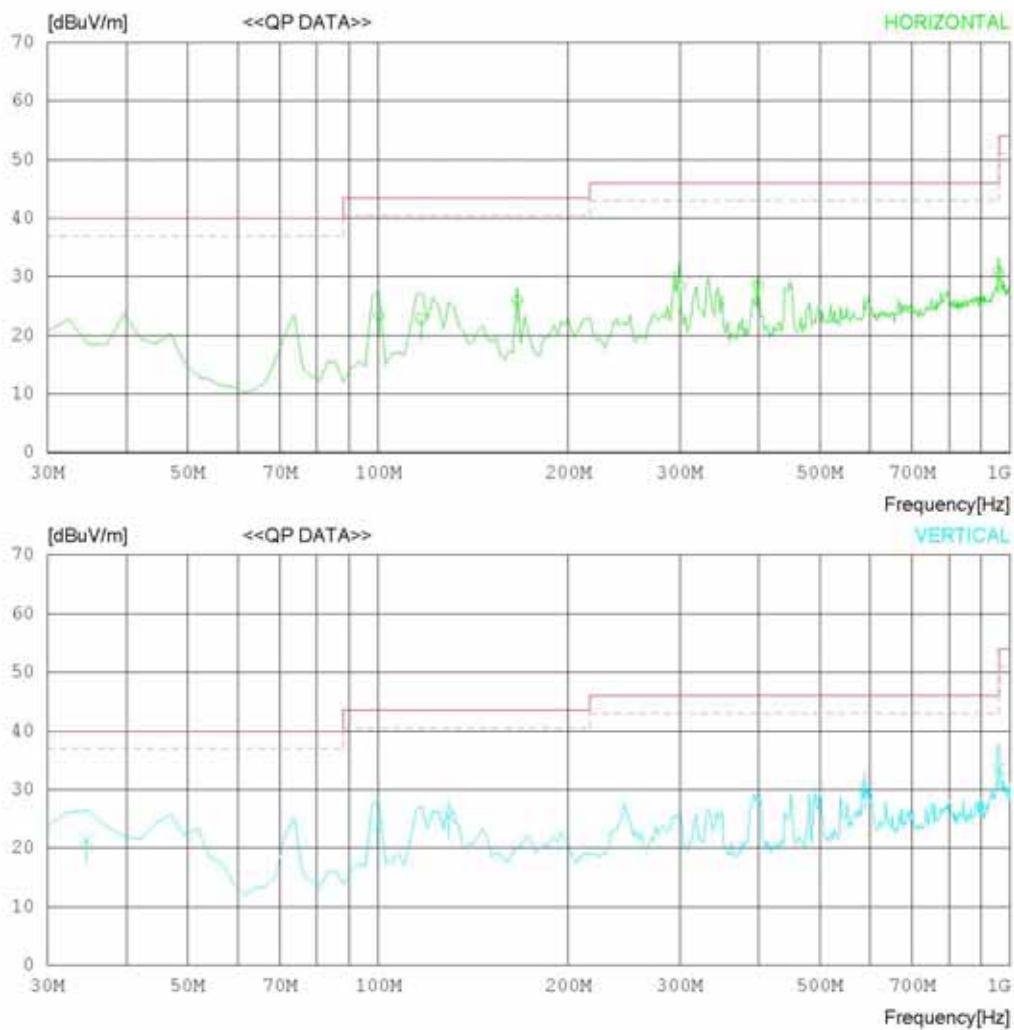
Date : 2011-12-19

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : USB

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

Memo :

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



< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

Date : 2011-12-19

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 22°C 41% 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	100.336	33.8	10.8	1.5	22.7	23.4	43.5	20.1	300	176
2	116.892	32.6	11.5	1.5	22.8	22.8	43.5	20.7	314	183
3	166.036	37.1	10.1	1.8	23.1	25.9	43.5	17.6	100	200
4	300.251	35.8	13.9	2.6	23.9	28.4	46.0	17.6	100	331
5	399.156	33.9	16.0	3.0	24.3	28.6	46.0	17.4	400	163
6	958.741	28.0	21.0	4.9	23.0	30.9	46.0	15.1	200	172
----- Vertical -----										
7	34.512	26.3	16.8	0.9	22.6	21.4	40.0	18.6	100	168
8	99.816	34.2	10.7	1.5	22.7	23.7	43.5	19.8	100	221
9	129.447	35.2	11.5	1.6	22.9	25.4	43.5	18.1	200	311
10	589.916	32.0	18.6	3.9	24.4	30.1	46.0	15.9	100	158
11	958.625	30.6	21.0	4.9	23.0	33.5	46.0	12.5	100	173

< USB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

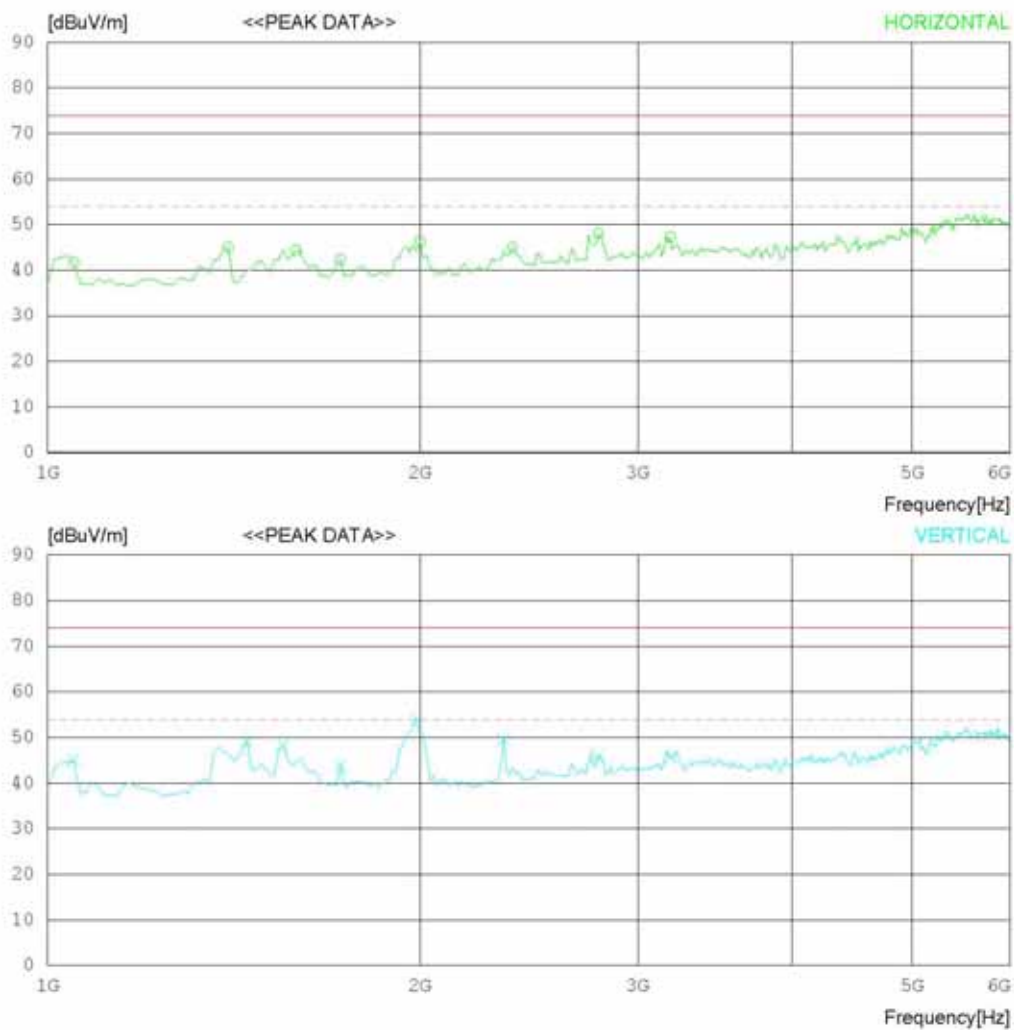
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	1050.000	54.8	23.8	4.9	41.8	41.7	74.0	32.3	201	358
2	1400.000	56.4	24.8	5.7	41.9	45.0	74.0	29	201	358
3	1587.500	55.0	25.2	6.1	41.9	44.4	74.0	29.6	201	358
4	1725.000	52.6	25.2	6.4	41.9	42.3	74.0	31.7	201	358
5	2000.000	56.1	25.2	7.0	42.0	46.3	74.0	27.7	201	358
6	2375.000	52.6	26.8	7.6	42.0	45.0	74.0	29	100	166
7	2787.500	53.7	28.2	8.3	42.1	48.1	74.0	25.9	100	272
8	3187.500	51.4	28.9	9.0	42.0	47.3	74.0	26.7	201	358
----- Vertical -----										
9	1050.000	58.1	23.8	4.9	41.8	45.0	74.0	29	100	358
10	1450.000	60.1	25.0	5.8	41.9	49.0	74.0	25	100	205
11	1550.000	58.9	25.1	6.1	41.9	48.2	74.0	25.8	100	231
12	1725.000	54.0	25.2	6.4	41.9	43.7	74.0	30.3	100	161
13	1987.500	63.8	25.2	7.0	42.0	54.0	74.0	20	100	196
14	2337.500	57.4	26.6	7.5	42.0	49.5	74.0	24.5	100	358
15	2787.500	51.5	28.2	8.3	42.1	45.9	74.0	28.1	100	171
16	3187.500	49.9	28.9	9.0	42.0	45.8	74.0	28.2	100	137

< USB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

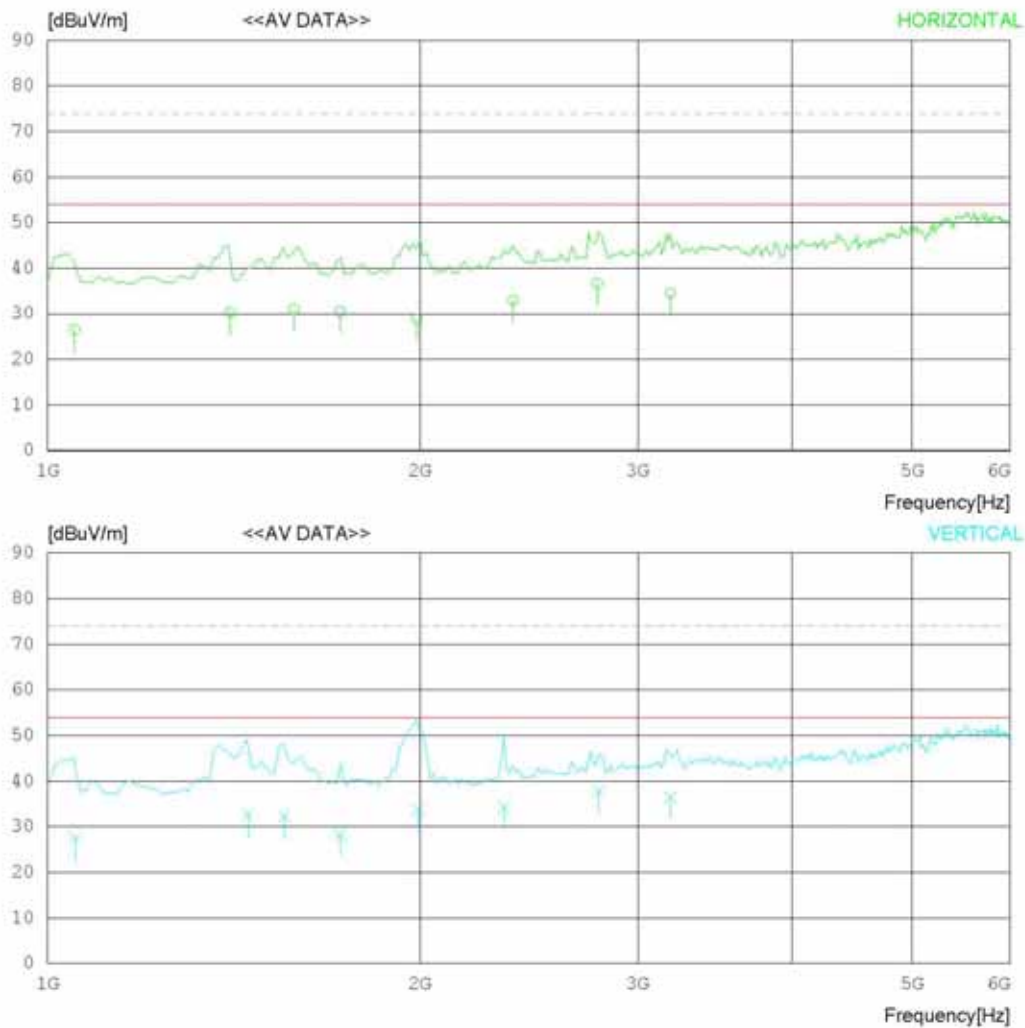
Date : 2011-12-20

Model Name : 47LM8600-UC
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 20 °C 41% 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 : 2011-12-20

Model Name : 47LM8600-UC	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 20 °C 41% 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	1051.696	39.6	23.8	4.9	41.8	26.5	54.0	27.5	201	358
2	1404.685	41.6	24.9	5.7	41.9	30.3	54.0	23.7	201	358
3	1582.633	41.6	25.1	6.1	41.9	30.9	54.0	23.1	201	358
4	1722.658	40.8	25.2	6.4	41.9	30.5	54.0	23.5	201	358
5	1989.936	38.6	25.2	7.0	42.0	28.8	54.0	25.2	201	358
6	2378.369	40.6	26.8	7.6	42.0	33.0	54.0	21.0	100	166
7	2781.165	42.2	28.2	8.3	42.1	36.6	54.0	17.4	100	272
8	3188.800	38.6	28.9	9.0	42.0	34.5	54.0	19.5	201	358
----- Vertical -----										
9	1053.125	40.6	23.8	4.9	41.8	27.5	54.0	26.5	100	358
10	1452.114	43.6	25.0	5.8	41.9	32.5	54.0	21.5	100	205
11	1554.870	43.0	25.1	6.1	41.9	32.3	54.0	21.7	100	231
12	1722.169	38.6	25.2	6.4	41.9	28.3	54.0	25.7	100	161
13	1992.502	43.6	25.2	7.0	42.0	33.8	54.0	20.2	100	196
14	2339.125	42.2	26.6	7.5	42.0	34.3	54.0	19.7	100	358
15	2788.669	43.3	28.2	8.3	42.1	37.7	54.0	16.3	100	171
16	3188.554	40.6	28.9	9.0	42.0	36.5	54.0	17.5	100	137

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