

EMC TEST REPORT

Test item : LCD TV Monitor
Model No. : 47CS570-UD
Order No. : 1112-01814
Date of receipt : 2011-12-22
Test duration : 2011-12-26 ~ 2011-12-30
Use of report : FCC CoC Marking
Date of Issue : 2012-01-03

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 : (18 ~ 19) °C,
Humidity : (31 ~ 33) % 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.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.	47CS570-UD
EUT Type	LCD TV Monitor
Serial No	NONE
FCC ID	BEJ47CS570UD
Type of Sample Tested	Pre-Production
High Frequency	667 MHz
Rating	AC100-240 V~, 50/60 Hz, 2.5 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)
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1360x768	47.712	60.015
1280x1024	63.981	60.02
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 ()	Humidity (% R.H.)	Pressure (hPa)
Conducted Disturbance	12-26	19	33	-
Radiated Disturbance	12-28	18	32	
	12-29	19	31	
	12-30	19	31	

4.3 Test result Summary

(1) Conducted Emission(HDMI MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
2.04300	N	39.5	Average	46.0	6.5

(2) Radiated Emission(USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
827.000	V	40.9	Quasi-Peak	46.0	5.1

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 MODE – Resolution : 1920 x 1080 Resolution (Worst Case)
- HDMI 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		
				USB	1.8	Non-shield		
				PS/2	1.6	Non-shield		
				PS/2	1.8	Non-shield		
				STEREO	1.6	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	1.8	Non-shield	Plastic	DOC
				USB	1.8			
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 MODE >



Results of Conducted Emission

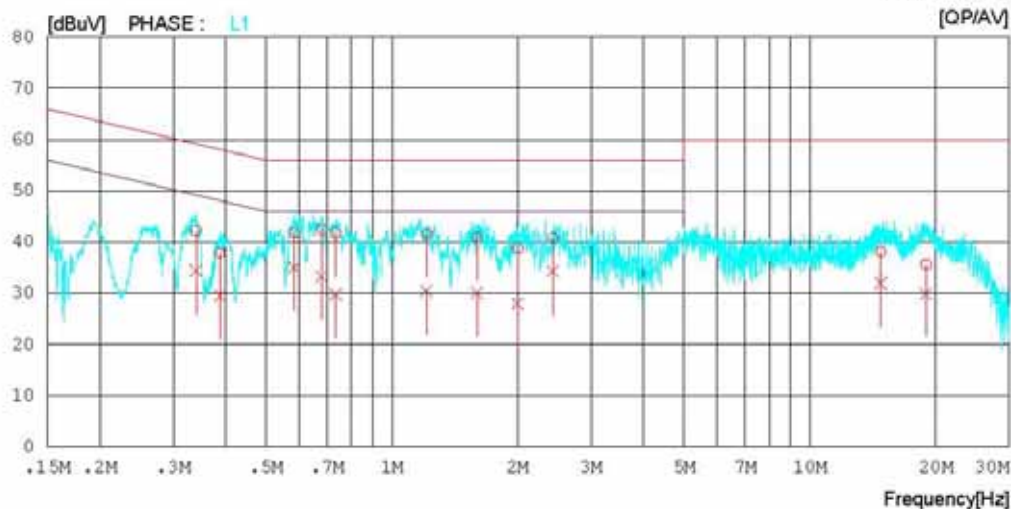
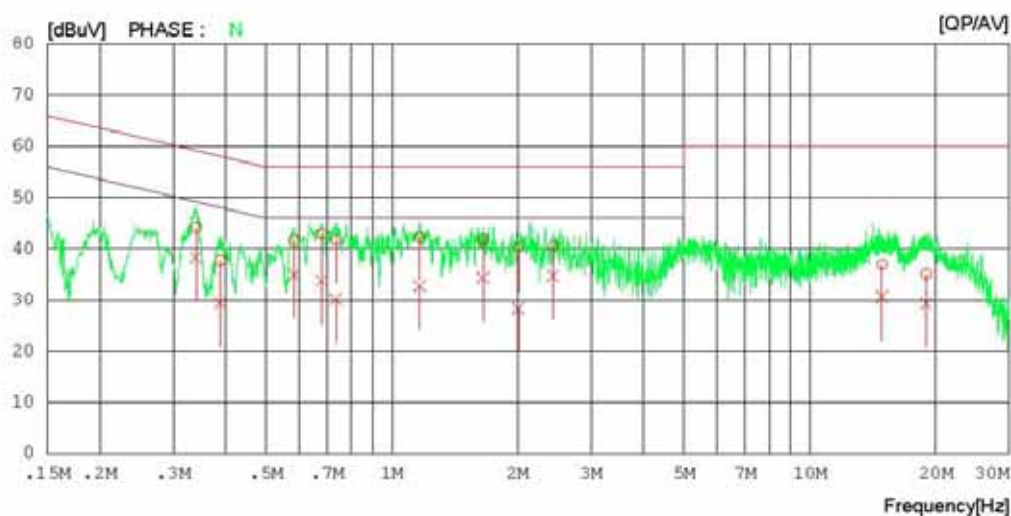
Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B QP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % 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	0.34064	44.0	38.1	0.2	44.2	38.3	59.2	49.2	15.0	10.9	N
2	0.38885	37.5	29.2	0.2	37.7	29.4	58.1	48.1	20.4	18.7	N
3	0.58374	41.6	34.8	0.1	41.7	34.9	56.0	46.0	14.3	11.1	N
4	0.68009	42.8	33.7	0.1	42.9	33.8	56.0	46.0	13.1	12.2	N
5	0.73506	41.7	30.1	0.1	41.8	30.2	56.0	46.0	14.2	15.8	N
6	1.16600	42.0	32.5	0.2	42.2	32.7	56.0	46.0	13.8	13.3	N
7	1.65350	41.7	34.1	0.2	41.9	34.3	56.0	46.0	14.1	11.7	N
8	2.00750	39.8	28.0	0.3	40.1	28.3	56.0	46.0	15.9	17.7	N
9	2.43250	40.2	34.3	0.3	40.5	34.6	56.0	46.0	15.5	11.4	N
10	14.88750	36.1	29.7	0.9	37.0	30.6	60.0	50.0	23.0	19.4	N
11	18.98100	34.0	28.2	1.1	35.1	29.3	60.0	50.0	24.9	20.7	N
12	0.34023	42.1	34.2	0.2	42.3	34.4	59.2	49.2	16.9	14.8	L1
13	0.38855	37.7	29.2	0.2	37.9	29.4	58.1	48.1	20.2	18.7	L1
14	0.58396	41.7	34.9	0.1	41.8	35.0	56.0	46.0	14.2	11.0	L1
15	0.68033	42.4	33.2	0.1	42.5	33.3	56.0	46.0	13.5	12.7	L1
16	0.73436	41.6	29.7	0.1	41.7	29.8	56.0	46.0	14.3	16.2	L1
17	1.21200	41.4	30.3	0.2	41.6	30.5	56.0	46.0	14.4	15.5	L1
18	1.60000	40.7	30.0	0.2	40.9	30.2	56.0	46.0	15.1	15.8	L1
19	2.00050	38.5	27.7	0.3	38.8	28.0	56.0	46.0	17.2	18.0	L1
20	2.43100	40.5	34.0	0.3	40.8	34.3	56.0	46.0	15.2	11.7	L1
21	14.78750	37.3	31.0	0.9	38.2	31.9	60.0	50.0	21.8	18.1	L1
22	18.95950	34.5	28.9	1.1	35.6	30.0	60.0	50.0	24.4	20.0	L1

< HDMI MODE >



Results of Conducted Emission

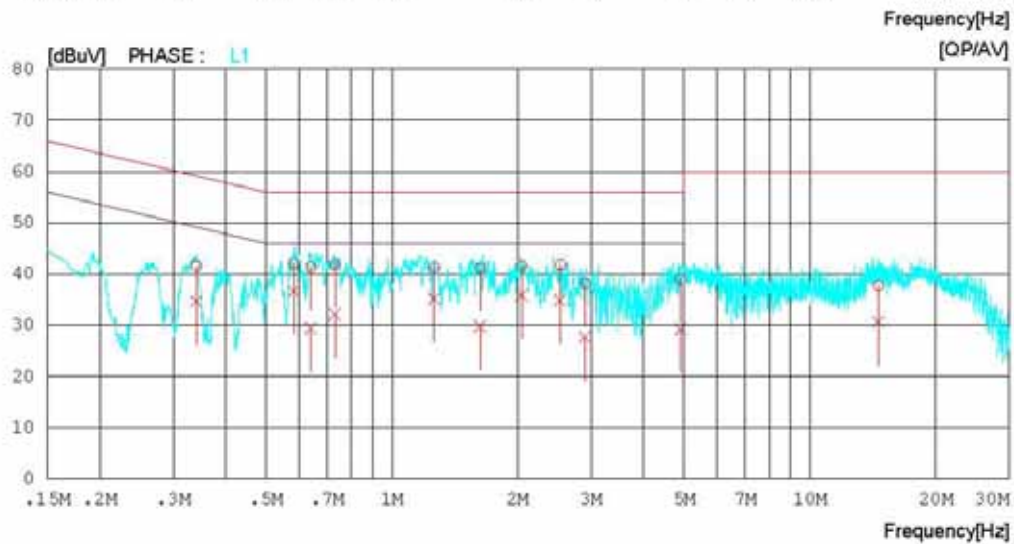
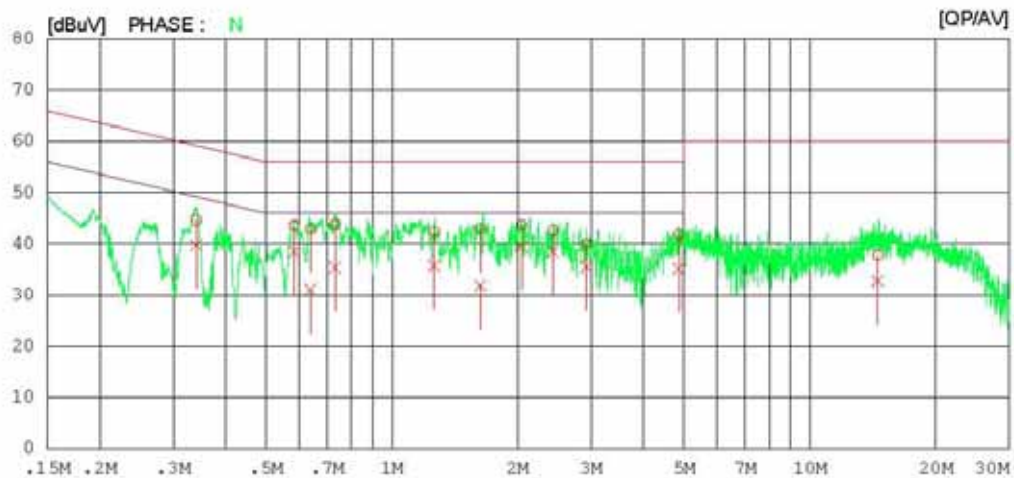
Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % 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	0.34059	44.5	39.6	0.2	44.7	39.8	59.2	49.2	14.5	9.4	N
2	0.58349	43.4	38.4	0.1	43.5	38.5	56.0	46.0	12.5	7.5	N
3	0.63940	42.8	30.9	0.1	42.9	31.0	56.0	46.0	13.1	15.0	N
4	0.73128	43.6	35.3	0.1	43.7	35.4	56.0	46.0	12.3	10.6	N
5	1.26350	42.1	35.5	0.2	42.3	35.7	56.0	46.0	13.7	10.3	N
6	1.62700	42.8	31.6	0.2	43.0	31.8	56.0	46.0	13.0	14.2	N
7	2.04300	43.5	39.2	0.3	43.8	39.5	56.0	46.0	12.2	6.5	N
8	2.43300	42.4	38.2	0.3	42.7	38.5	56.0	46.0	13.3	7.5	N
9	2.91900	39.7	35.2	0.3	40.0	35.5	56.0	46.0	16.0	10.5	N
10	4.86150	41.4	34.7	0.4	41.8	35.1	56.0	46.0	14.2	10.9	N
11	14.54150	36.8	31.8	0.9	37.7	32.7	60.0	50.0	22.3	17.3	N
12	0.34070	41.4	34.4	0.2	41.6	34.6	59.2	49.2	17.6	14.6	L1
13	0.58285	41.9	36.7	0.1	42.0	36.8	56.0	46.0	14.0	9.2	L1
14	0.63940	41.3	29.3	0.1	41.4	29.4	56.0	46.0	14.6	16.6	L1
15	0.73115	41.8	32.1	0.1	41.9	32.2	56.0	46.0	14.1	13.8	L1
16	1.26350	41.1	35.0	0.2	41.3	35.2	56.0	46.0	14.7	10.8	L1
17	1.62600	41.0	29.7	0.2	41.2	29.9	56.0	46.0	14.8	16.1	L1
18	2.04300	41.4	35.6	0.3	41.7	35.9	56.0	46.0	14.3	10.1	L1
19	2.52950	41.5	34.6	0.3	41.8	34.9	56.0	46.0	14.2	11.1	L1
20	2.90500	37.8	27.4	0.3	38.1	27.7	56.0	46.0	17.9	18.3	L1
21	4.90450	38.6	28.8	0.4	39.0	29.2	56.0	46.0	17.0	16.8	L1
22	14.59650	36.9	29.8	0.9	37.8	30.7	60.0	50.0	22.2	19.3	L1

< USB MODE >



Results of Conducted Emission

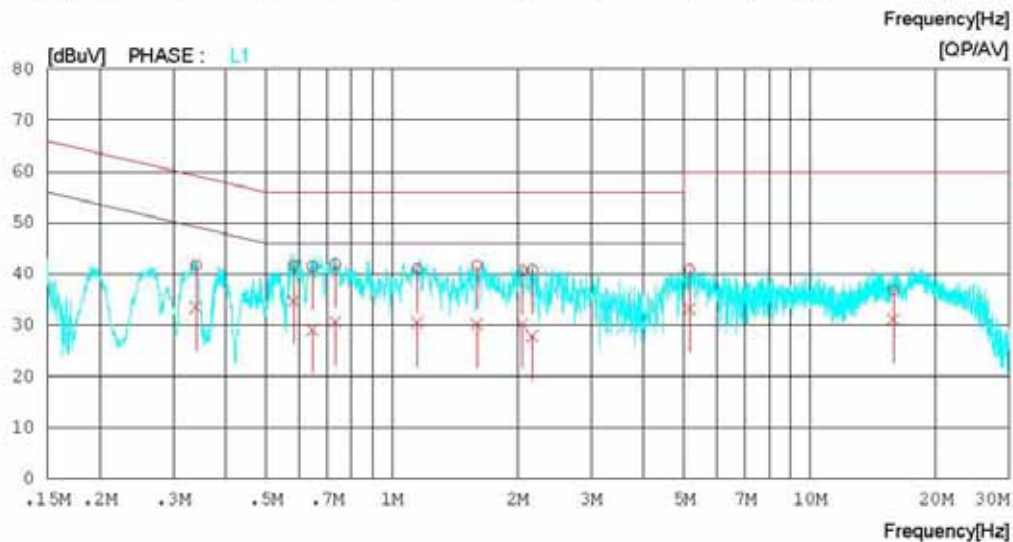
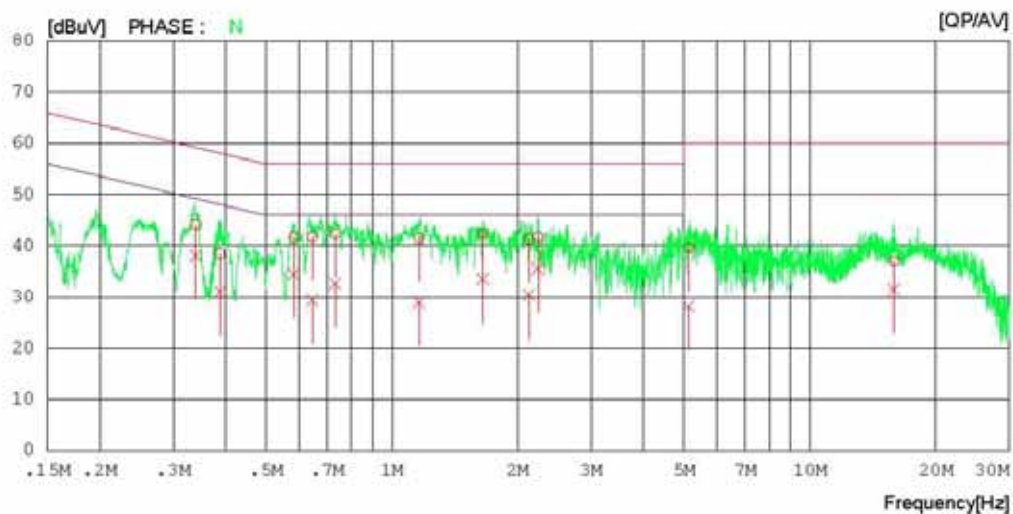
Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % R.H.
 Operator :

Memo :

LIMIT : CISPR22_B OP
 CISPR22_B AV



Results of Conducted Emission

Digital EMC
 Date : 2011-12-26

Model No. : 47CS570-UD
 Type :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi. : 19 °C 33 % 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	0.34004	43.9	37.9	0.2	44.1	38.1	59.2	49.2	15.1	11.1	N
2	0.38813	38.3	30.8	0.2	38.5	31.0	58.1	48.1	19.6	17.1	N
3	0.58354	41.5	34.3	0.1	41.6	34.4	56.0	46.0	14.4	11.6	N
4	0.64606	41.6	29.3	0.1	41.7	29.4	56.0	46.0	14.3	16.6	N
5	0.73201	42.3	32.5	0.1	42.4	32.6	56.0	46.0	13.6	13.4	N
6	1.16150	41.4	28.8	0.2	41.6	29.0	56.0	46.0	14.4	17.0	N
7	1.65200	42.2	33.2	0.2	42.4	33.4	56.0	46.0	13.6	12.6	N
8	2.13200	40.9	30.1	0.3	41.2	30.4	56.0	46.0	14.8	15.6	N
9	2.23750	41.4	35.3	0.3	41.7	35.6	56.0	46.0	14.3	10.4	N
10	5.13350	39.2	27.8	0.4	39.6	28.2	60.0	50.0	20.4	21.8	N
11	15.90050	36.0	30.4	1.0	37.0	31.4	60.0	50.0	23.0	18.6	N
12	0.34033	41.5	33.3	0.2	41.7	33.5	59.2	49.2	17.5	15.7	L1
13	0.58301	41.6	34.7	0.1	41.7	34.8	56.0	46.0	14.3	11.2	L1
14	0.64519	41.4	29.0	0.1	41.5	29.1	56.0	46.0	14.5	16.9	L1
15	0.73241	41.9	30.5	0.1	42.0	30.6	56.0	46.0	14.0	15.4	L1
16	1.15000	40.8	30.3	0.2	41.0	30.5	56.0	46.0	15.0	15.5	L1
17	1.59900	41.4	30.0	0.2	41.6	30.2	56.0	46.0	14.4	15.8	L1
18	2.04900	40.4	29.9	0.3	40.7	30.2	56.0	46.0	15.3	15.8	L1
19	2.17100	40.5	27.6	0.3	40.8	27.9	56.0	46.0	15.2	18.1	L1
20	5.15550	40.4	32.8	0.4	40.8	33.2	60.0	50.0	19.2	16.8	L1
21	15.85350	35.8	30.2	1.0	36.8	31.2	60.0	50.0	23.2	18.8	L1

6.2 Radiated Disturbance

6.2.1 Measurement Procedure

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

If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8m 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 MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

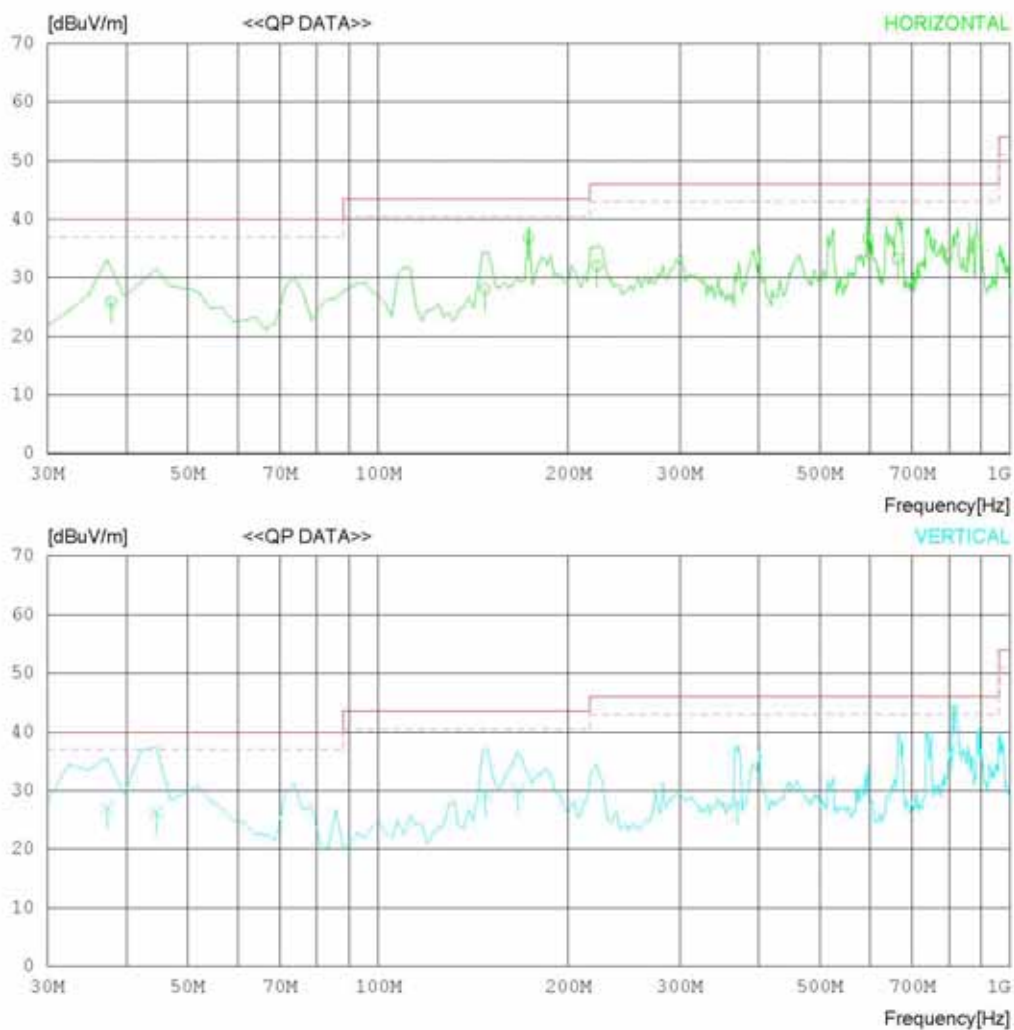
Date : 2011-12-28

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 32 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-28

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 18 °C 32 % 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	37.823	32.5	15.1	0.9	22.6	25.9	40.0	14.1	100	66
2	147.310	38.9	10.6	1.7	23.1	28.1	43.5	15.4	200	66
3	173.075	48.1	9.9	1.9	23.1	36.8	43.5	6.7	190	354
4	222.000	42.0	11.2	2.2	23.4	32.0	46.0	14.0	100	59
5	594.575	38.5	18.7	3.9	24.4	36.7	46.0	9.3	100	7
6	663.513	34.5	18.9	4.0	24.2	33.2	46.0	12.8	100	16
----- Vertical -----										
7	37.275	33.3	15.4	0.9	22.6	27.0	40.0	13.0	100	358
8	44.550	33.7	14.2	1.0	22.6	26.3	40.0	13.7	100	17
9	147.943	40.1	10.6	1.7	23.1	29.3	43.5	14.2	100	356
10	166.800	41.2	10.1	1.8	23.1	30.0	43.5	13.5	219	15
11	370.650	33.8	15.4	2.9	24.2	27.9	46.0	18.1	169	1
12	809.900	36.0	20.3	4.5	23.6	37.2	46.0	8.8	100	24

< DSUB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

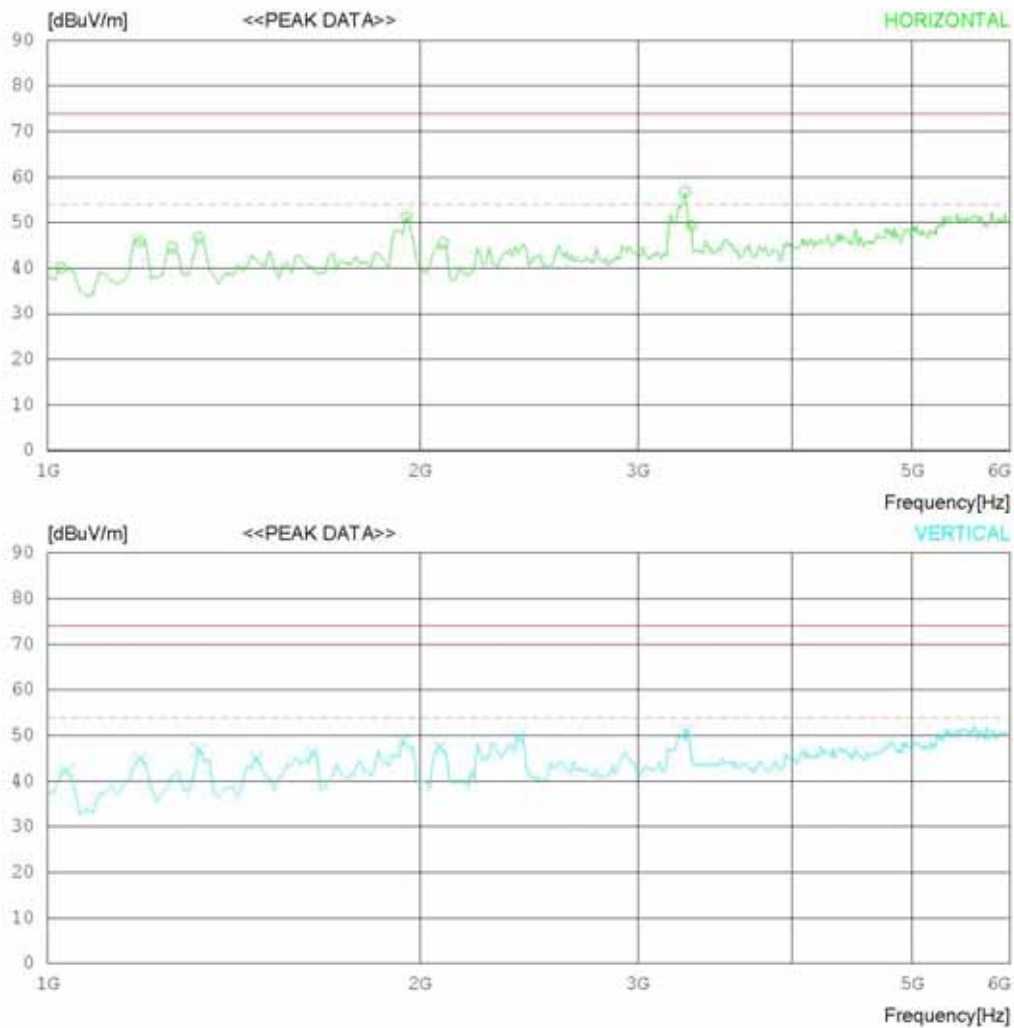
Date : 2011-12-29

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-29

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °C 31 % 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	53.4	23.7	4.9	41.8	40.2	74.0	33.8	100	20
2	1187.500	58.5	24.2	5.2	41.8	46.1	74.0	27.9	100	65
3	1262.500	56.7	24.4	5.4	41.9	44.6	74.0	29.4	100	358
4	1325.000	58.4	24.6	5.6	41.9	46.7	74.0	27.3	100	358
5	1950.000	61.1	25.2	6.9	42.0	51.2	74.0	22.8	100	358
6	2087.500	54.8	25.6	7.1	42.0	45.5	74.0	28.5	100	15
7	3275.000	60.6	29.0	9.1	42.0	56.7	74.0	17.3	100	17
8	3312.500	53.1	29.0	9.2	42.0	49.3	74.0	24.7	100	358
----- Vertical -----										
9	1037.500	55.5	23.7	4.9	41.8	42.3	74.0	31.7	100	324
10	1187.500	57.2	24.2	5.2	41.8	44.8	74.0	29.2	100	359
11	1325.000	58.6	24.6	5.6	41.9	46.9	74.0	27.1	100	358
12	1475.000	56.0	25.1	5.9	41.9	45.1	74.0	28.9	100	1
13	1637.500	56.7	25.2	6.2	41.9	46.2	74.0	27.8	100	1
14	1937.500	58.6	25.2	6.9	42.0	48.7	74.0	25.3	100	1
15	2075.000	56.9	25.5	7.1	42.0	47.5	74.0	26.5	100	356
16	2400.000	57.1	26.9	7.6	42.0	49.6	74.0	24.4	100	7
17	3287.500	54.9	29.0	9.2	42.0	51.1	74.0	22.9	100	10

< DSUB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

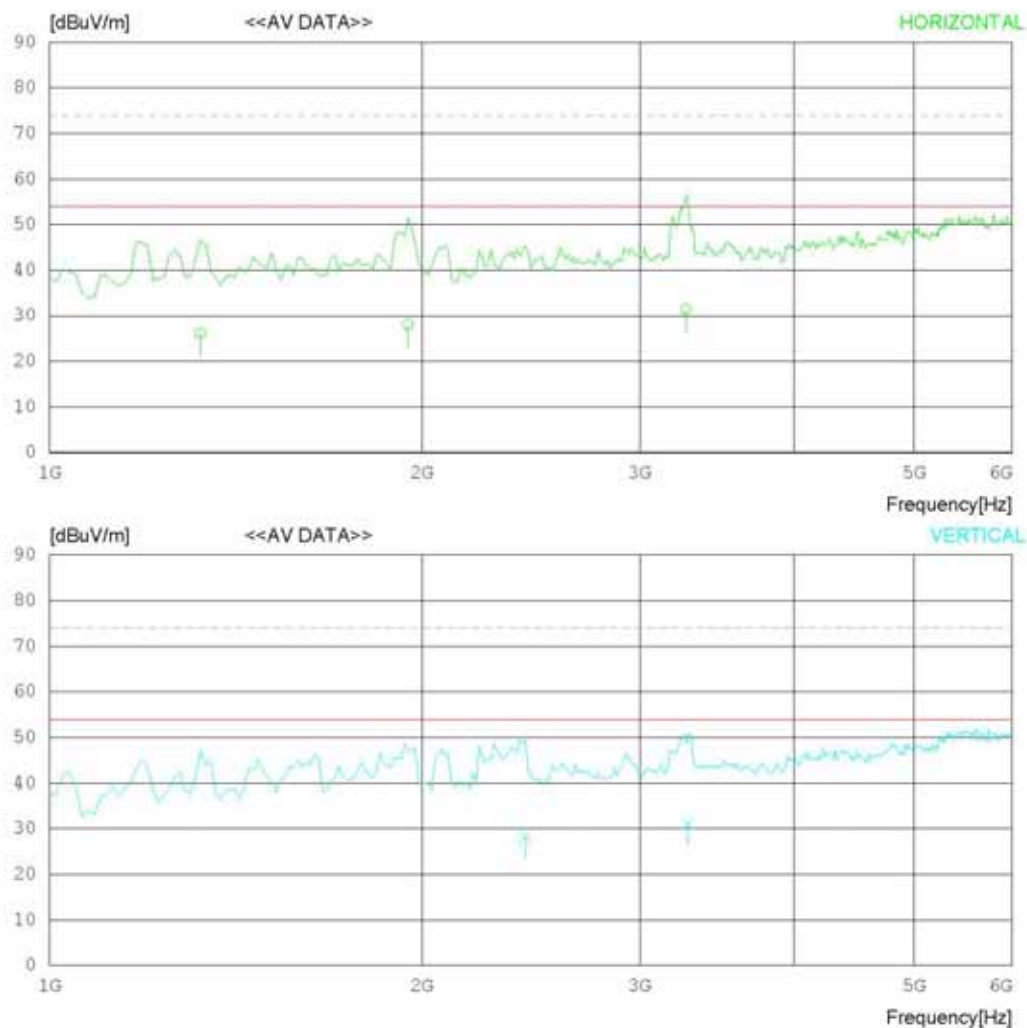
Date : 2011-12-29

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-29

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	AV [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1323.410	37.9	24.6	5.6	41.9	26.2	54.0	27.8	100	358
2	1949.093	38.0	25.2	6.9	42.0	28.1	54.0	25.9	100	358
3	3269.096	35.3	29.0	9.1	42.0	31.4	54.0	22.6	100	17
----- Vertical -----										
4	2426.540	35.8	27.0	7.6	42.0	28.4	54.0	25.6	100	7
5	3279.000	35.1	29.0	9.1	42.0	31.2	54.0	22.8	100	10

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

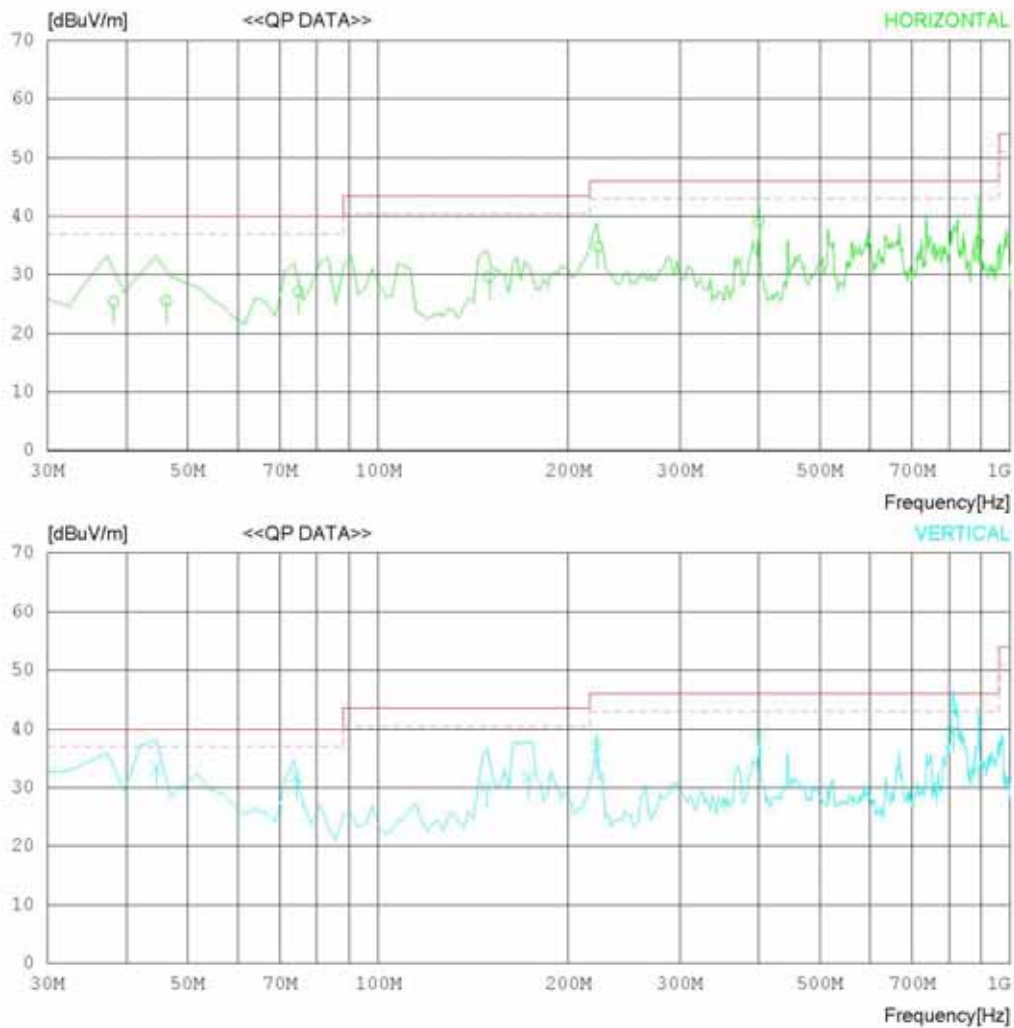
Date : 2011-12-28

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 32 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-28

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 32 % R.H.
 Operator :

Memo :

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

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	38.165	32.1	14.9	0.9	22.6	25.3	40.0	14.7	114	74
2	46.205	34.1	13.0	1.0	22.6	25.5	40.0	14.5	298	20
3	74.799	41.8	6.7	1.3	22.6	27.2	40.0	12.8	223	311
4	149.859	40.6	10.4	1.7	23.1	29.6	43.5	13.9	143	313
5	222.524	44.8	11.2	2.2	23.4	34.8	46.0	11.2	124	53
6	400.036	44.5	16.0	3.0	24.4	39.1	46.0	6.9	100	178
7	890.250	33.4	20.6	4.8	23.3	35.5	46.0	10.5	100	1
----- Vertical -----										
8	44.633	40.9	14.2	1.0	22.6	33.5	40.0	6.5	100	352
9	74.175	46.3	6.7	1.3	22.6	31.7	40.0	8.3	197	32
10	148.400	41.1	10.5	1.7	23.1	30.2	43.5	13.3	199	26
11	172.900	43.1	9.9	1.9	23.1	31.8	43.5	11.7	198	1
12	222.525	47.0	11.2	2.2	23.4	37.0	46.0	9.0	100	189
13	401.025	44.5	16.0	3.0	24.4	39.1	46.0	6.9	199	132
14	810.848	38.3	20.3	4.5	23.6	39.5	46.0	6.5	100	27
15	890.872	31.1	20.6	4.8	23.3	33.2	46.0	12.8	100	339

< HDMI MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

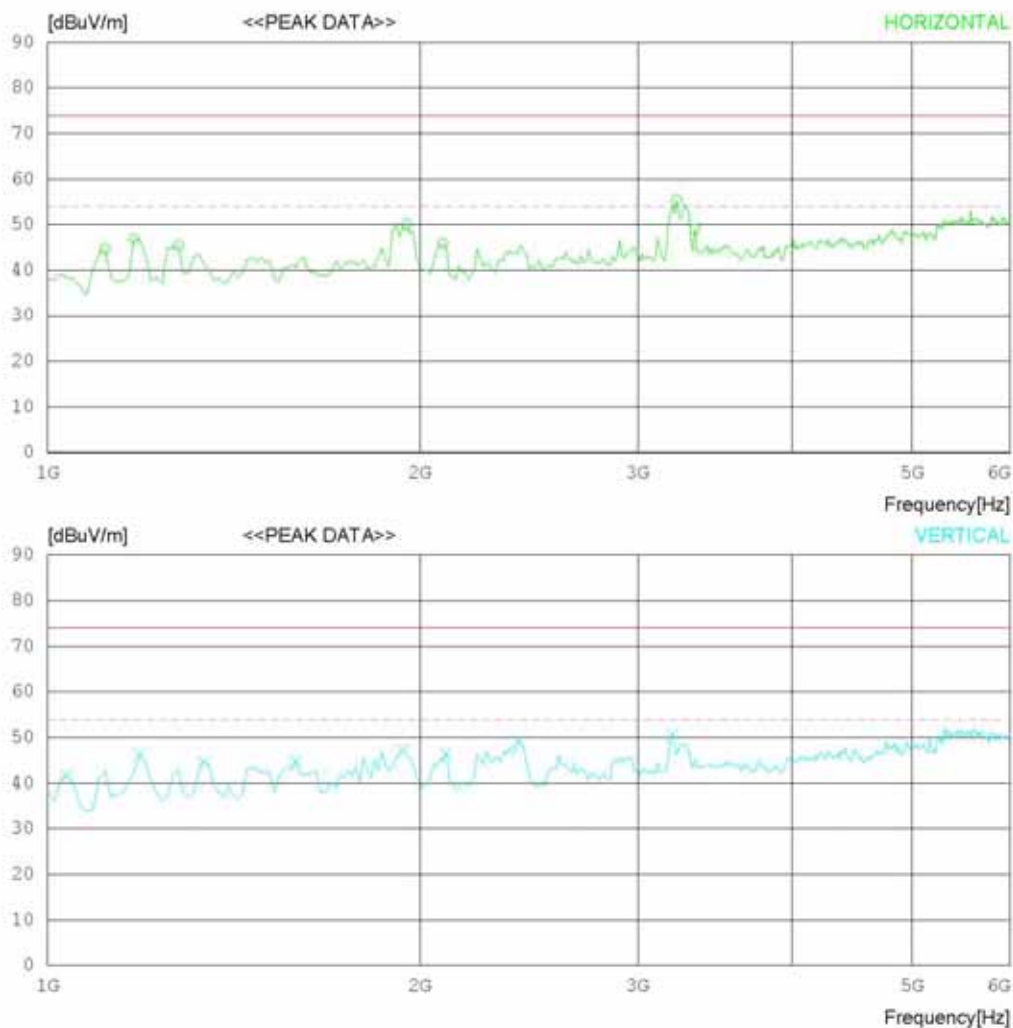
Date : 2011-12-29

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-29

Model Name	: 47CS570-UD	Reference No.	:
Model No.	:	Power Supply	: 120V 60Hz
Serial No.	:	Temp/Humi	: 19 °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	1112.500	57.3	24.0	5.1	41.8	44.6	74.0	29.4	100	58
2	1175.000	59.3	24.2	5.2	41.8	46.9	74.0	27.1	100	58
3	1275.000	57.4	24.5	5.4	41.9	45.4	74.0	28.6	100	358
4	1950.000	60.0	25.2	6.9	42.0	50.1	74.0	23.9	100	358
5	2087.500	55.1	25.6	7.1	42.0	45.8	74.0	28.2	100	15
6	3225.000	59.3	29.0	9.1	42.0	55.4	74.0	18.6	100	358
7	3337.500	52.8	29.0	9.2	42.0	49.0	74.0	25	100	328
----- Vertical -----										
8	1037.500	54.8	23.7	4.9	41.8	41.6	74.0	32.4	100	1
9	1187.500	58.6	24.2	5.2	41.8	46.2	74.0	27.8	100	1
10	1337.500	56.4	24.6	5.6	41.9	44.7	74.0	29.3	100	1
11	1587.500	55.5	25.2	6.1	41.9	44.9	74.0	29.1	100	358
12	1937.500	57.0	25.2	6.9	42.0	47.1	74.0	26.9	100	1
13	2100.000	55.7	25.6	7.2	42.0	46.5	74.0	27.5	100	37
14	2400.000	56.6	26.9	7.6	42.0	49.1	74.0	24.9	100	1
15	3200.000	54.8	28.9	9.0	42.0	50.7	74.0	23.3	100	328

< HDMI MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

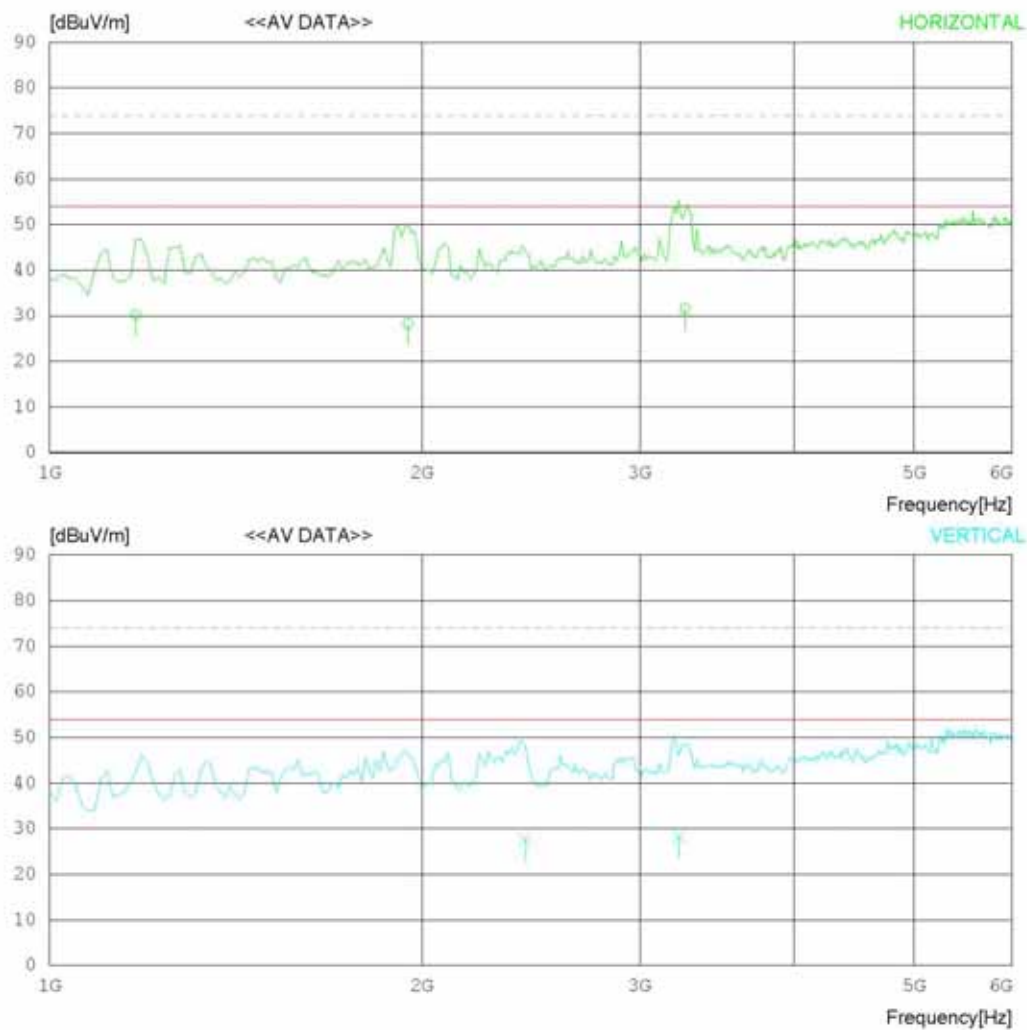
Date : 2011-12-29

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-29

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	AV [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1173.669	42.8	24.1	5.2	41.8	30.3	54.0	23.7	100	58
2	1949.558	38.2	25.2	6.9	42.0	28.3	54.0	25.7	100	358
3	3263.256	35.5	29.0	9.1	42.0	31.6	54.0	22.4	100	358
----- Vertical -----										
4	2426.500	35.0	27.0	7.6	42.0	27.6	54.0	26.4	100	1
5	3228.469	32.2	29.0	9.1	42.0	28.3	54.0	25.7	100	328

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

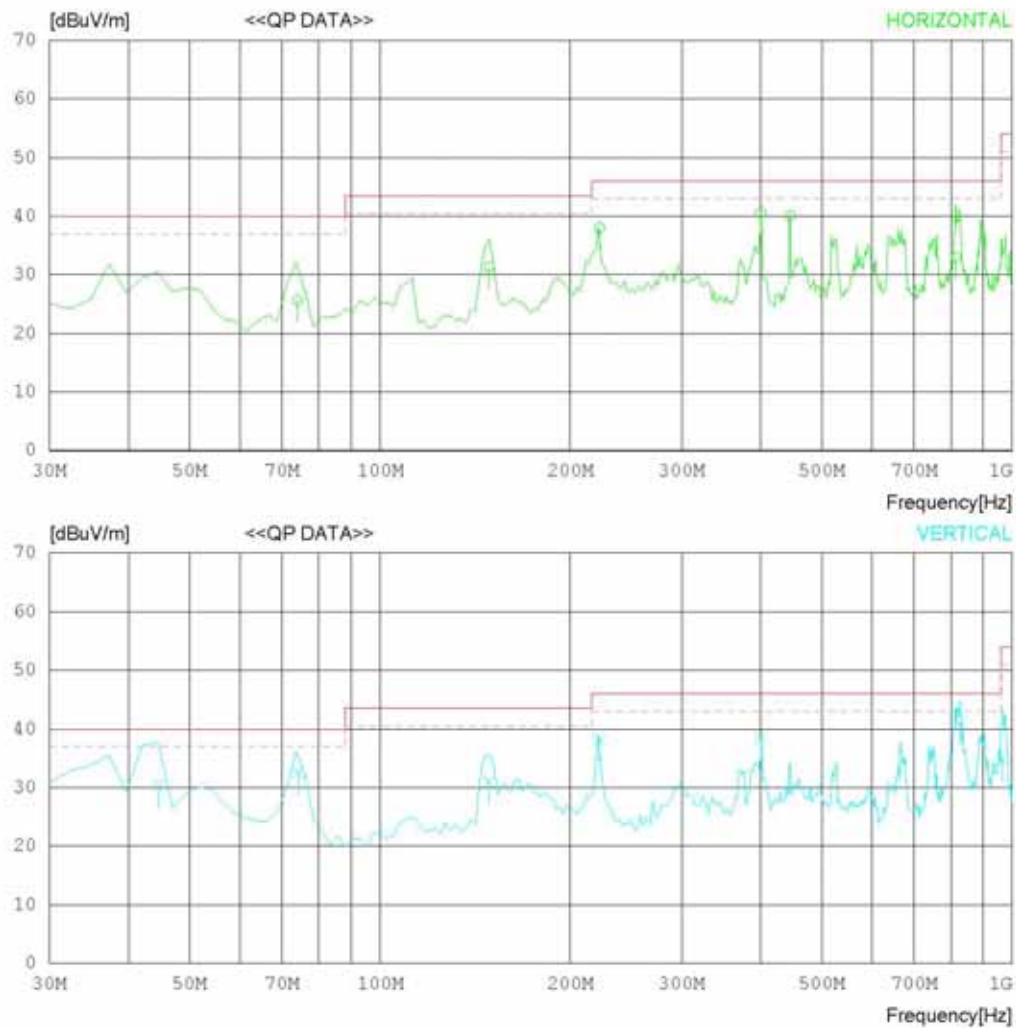
Date : 2011-12-28

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 32 % R.H.
 Operator :

Memo :

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



RADIATED EMISSION

Date : 2011-12-28

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 18 °C 32 % R.H.
 Operator :

Memo :

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

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	74.063	40.2	6.7	1.3	22.6	25.6	40.0	14.4	189	46
2	148.825	42.2	10.5	1.7	23.1	31.3	43.5	12.2	100	358
3	222.575	48.0	11.2	2.2	23.4	38.0	46.0	8.0	100	277
4	400.010	46.0	16.0	3.0	24.4	40.6	46.0	5.4	100	178
5	445.064	44.7	16.7	3.2	24.5	40.1	46.0	5.9	175	38
6	814.900	31.7	20.3	4.5	23.6	32.9	46.0	13.1	100	321
----- Vertical -----										
7	44.550	37.6	14.2	1.0	22.6	30.2	40.0	9.8	100	1
8	74.150	47.1	6.7	1.3	22.6	32.5	40.0	7.5	180	157
9	148.825	41.9	10.5	1.7	23.1	31.0	43.5	12.5	199	358
10	222.500	48.1	11.2	2.2	23.4	38.1	46.0	7.9	100	180
11	400.000	43.9	16.0	3.0	24.4	38.5	46.0	7.5	179	125
12	827.000	39.5	20.4	4.5	23.5	40.9	46.0	5.1	100	179
13	965.500	31.8	21.1	4.9	23.0	34.8	54.0	19.2	100	359

< USB MODE_1 GHz ~ 6 GHz_PEAK >

RADIATED EMISSION

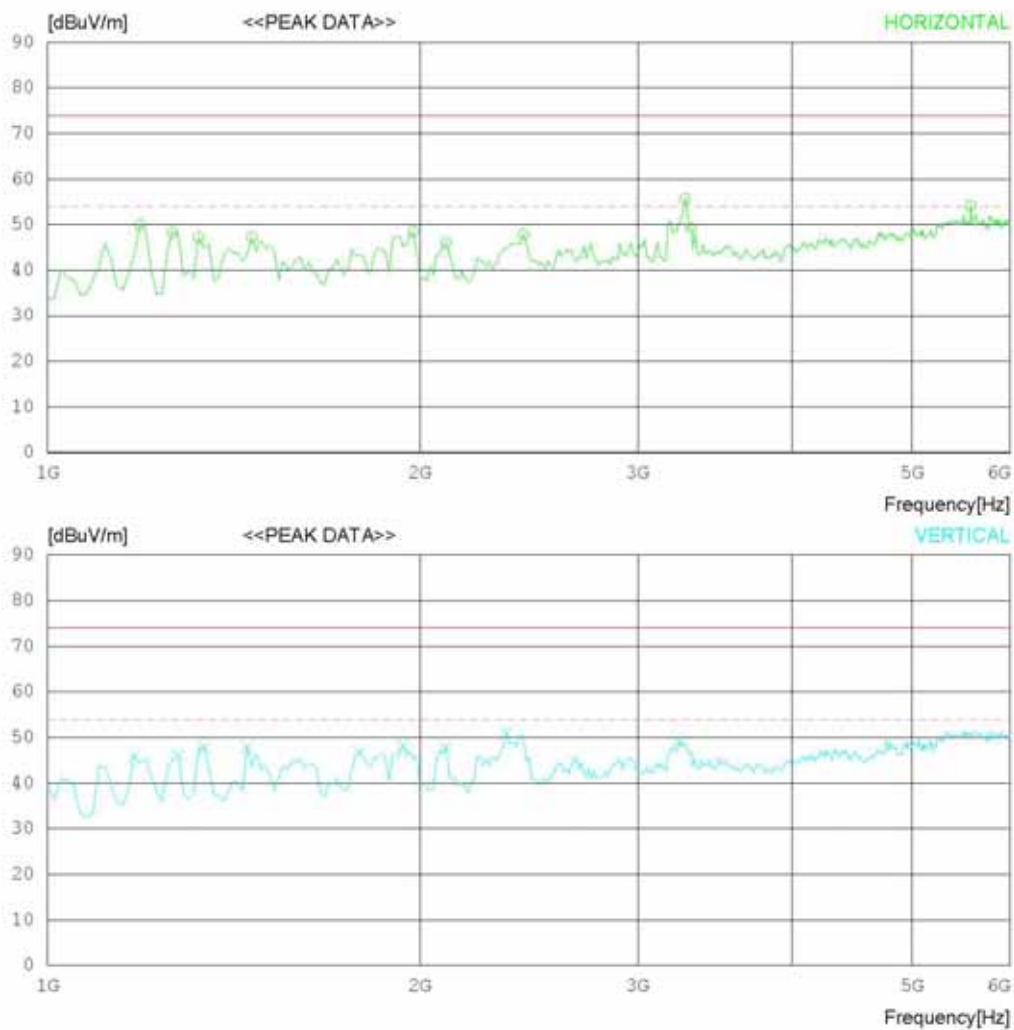
Date : 2011-12-30

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-30

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19°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	1187.500	62.4	24.2	5.2	41.8	50.0	74.0	24	100	358
2	1262.500	60.4	24.4	5.4	41.9	48.3	74.0	25.7	100	358
3	1325.000	58.9	24.6	5.6	41.9	47.2	74.0	26.8	100	66
4	1462.500	58.2	25.0	5.9	41.9	47.2	74.0	26.8	100	66
5	1975.000	58.3	25.2	7.0	42.0	48.5	74.0	25.5	100	358
6	2100.000	55.2	25.6	7.2	42.0	46.0	74.0	28	100	358
7	2425.000	55.3	27.0	7.6	42.0	47.9	74.0	26.1	100	352
8	3275.000	59.5	29.0	9.1	42.0	55.6	74.0	18.4	100	16
9	3312.500	53.1	29.0	9.2	42.0	49.3	74.0	24.7	100	25
10	5575.000	47.7	34.7	12.0	40.3	54.1	74.0	19.9	100	346
----- Vertical -----										
11	1175.000	58.3	24.2	5.2	41.8	45.9	74.0	28.1	100	1
12	1275.000	58.1	24.5	5.4	41.9	46.1	74.0	27.9	100	4
13	1337.500	59.5	24.6	5.6	41.9	47.8	74.0	26.2	100	359
14	1450.000	59.0	25.0	5.8	41.9	47.9	74.0	26.1	100	41
15	1787.500	56.9	25.2	6.6	42.0	46.7	74.0	27.3	100	1
16	1937.500	58.2	25.2	6.9	42.0	48.3	74.0	25.7	100	1
17	2100.000	57.0	25.6	7.2	42.0	47.8	74.0	26.2	100	39
18	2350.000	58.8	26.7	7.5	42.0	51.0	74.0	23	100	13
19	3237.500	53.0	29.0	9.1	42.0	49.1	74.0	24.9	100	1

< USB MODE_1 GHz ~ 6 GHz_AV >

RADIATED EMISSION

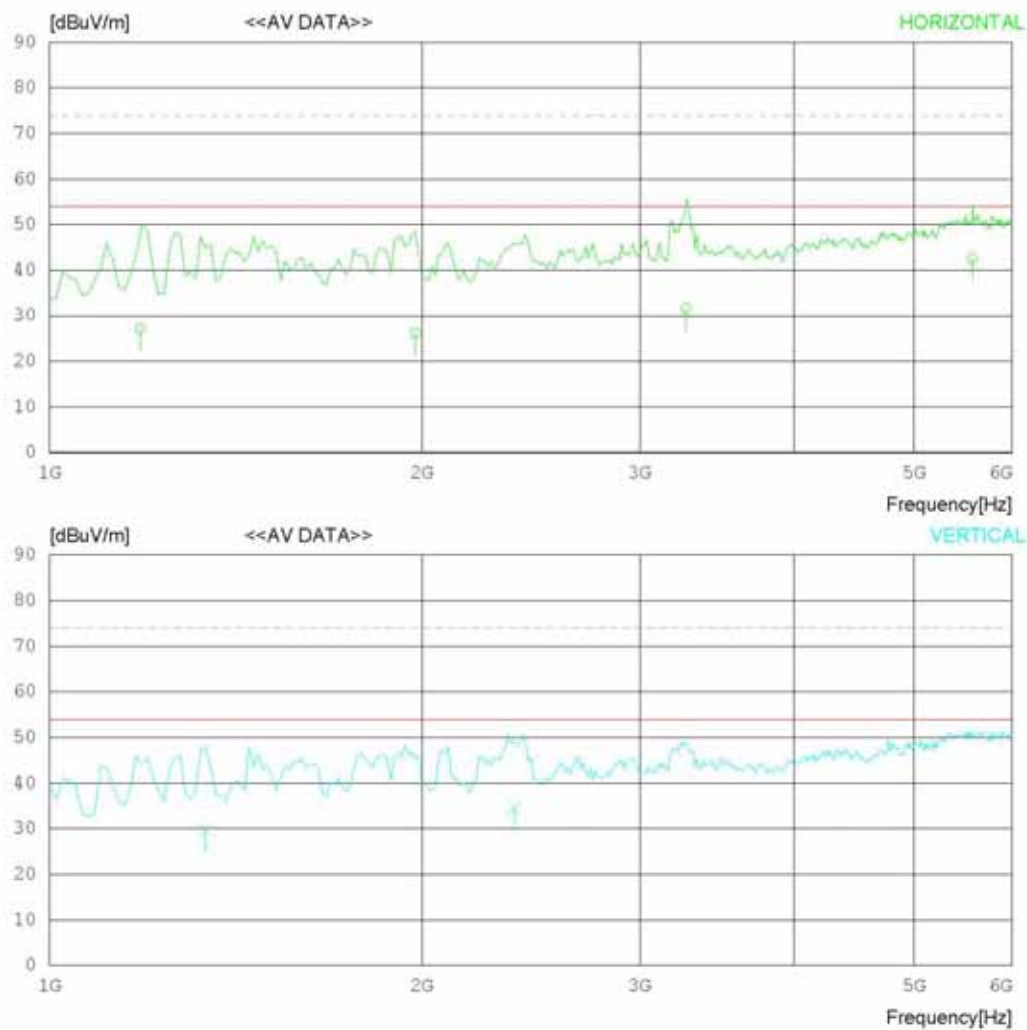
Date : 2011-12-30

Model Name : 47CS570-UD
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V 60Hz
 Temp/Humi : 19 °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 : 2011-12-30

Model Name : 47CS570-UD	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 19 °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	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	AV [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1184.655	39.6	24.2	5.2	41.8	27.2	54.0	26.8	100	358
2	1974.400	35.9	25.2	7.0	42.0	26.1	54.0	27.9	100	358
3	3268.750	35.5	29.0	9.1	42.0	31.6	54.0	22.4	100	16
4	5568.767	36.3	34.7	11.9	40.3	42.6	54.0	11.4	100	346
----- Vertical -----										
5	1336.503	41.4	24.6	5.6	41.9	29.7	54.0	24.3	100	359
6	2376.063	42.1	26.8	7.6	42.0	34.5	54.0	19.5	100	13

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