

EMC TEST REPORT

Test item : LED LCD TV monitor
Model No. : 60LS5700-UA
Order No. : 1203-00181
Date of receipt : 2012-03-27
Test duration : 2012-03-28 ~ 2012-03-29
Use of report : FCC CoC Marking
Date of Issue : 2012-04-06

Applicant : LG Electronics Inc.

19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

Test laboratory : Digital EMC Co., Ltd.

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

Test specification : ANSI C 63.4:2003
FCC Part 15 Subpart B
(Type of Device : Class B Personal Computers
and Peripherals (JBP))

Test environment : Temperature : (21 ~ 23) °C,
Humidity : (35 ~ 38) % R.H.

Test result : ☒ Comply ☐ Not Comply

The test results presented in this test report are limited only to the sample supplied by applicant and
the use of this test report is inhibited other than its purpose.

This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:



Engineer
H.J.KIM

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	ROK1124C	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.	60LS5700-UA
EUT Type	LED LCD TV monitor
Serial No	NONE
FCC ID	BEJ60LS5700UA
Type of Sample Tested	Pre-Production
High Frequency	756 MHz
Rating	AC 120 V, ~ 50/60 Hz
Supplied Power for Test	AC120 V, 60 Hz
Applicant	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, 451-713, Korea

*** Resolution.**

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720X480	31.469 31.5	59.94 60
1280X720	44.96 45	59.94 60
1920X1080	33.72 33.75 26.97 27 33.716 33.75 67.43 67.5	59.94 60 23.97 24 29.976 30.00 59.94 60

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	03-28	22	35	-
Radiated Disturbance	03-29	23	38	
	03-29	21	37	

4.3 Test result Summary

(1) Conducted Emission(DSUB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
3.70800	L1	43.0	Average	46.0	3.0

(2) Radiated Emission(USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
960.00	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

- HDMI MODE – Resolution : 1920 x 1080 Resolution (Worst Case)
- DSUB 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	DCSCMF	G3RZKBX	DELL	POWER	1.8	Non-shield	Plastic	DOC
				HDMI	1.8	Shield		
				DSUB	1.8	Shield		
				USB	1.8	Shield		
				PS/2	1.8	Shield		
KEYBOARD	SKG-3000UB	TAKSB24503Y	MONITEREY INTERNATIONAL CORP	USB	1.8	Shield	Plastic	DOC
MOUSE	SML-510PB	TAKS903519Z	MONITEREY INTERNATIONAL CORP	PS/2	1.8	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	POWER AV	1.8 1.6	Non-shield Non-shield	Plastic	VER
USB MEMORY	JEWERLY	N/A	AXXEN	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

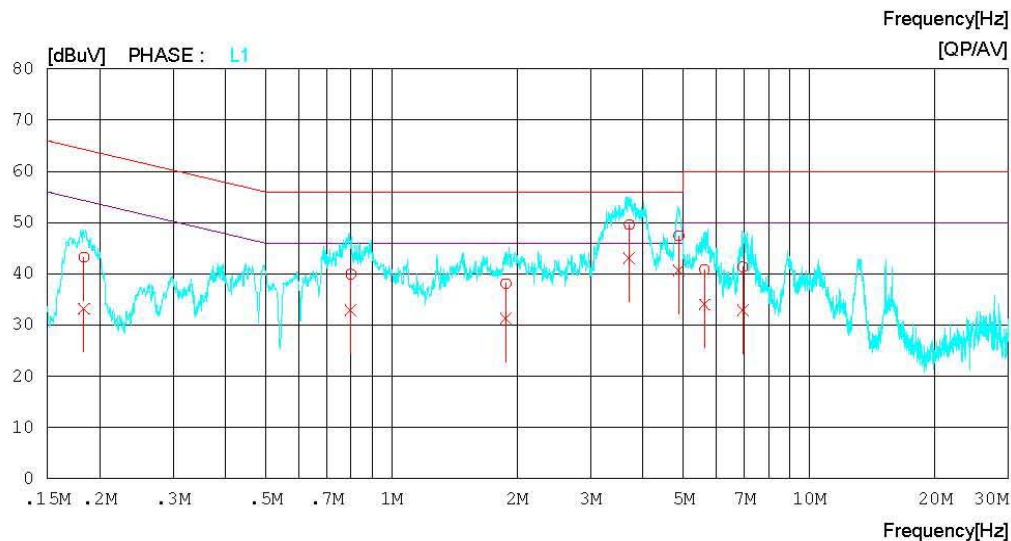
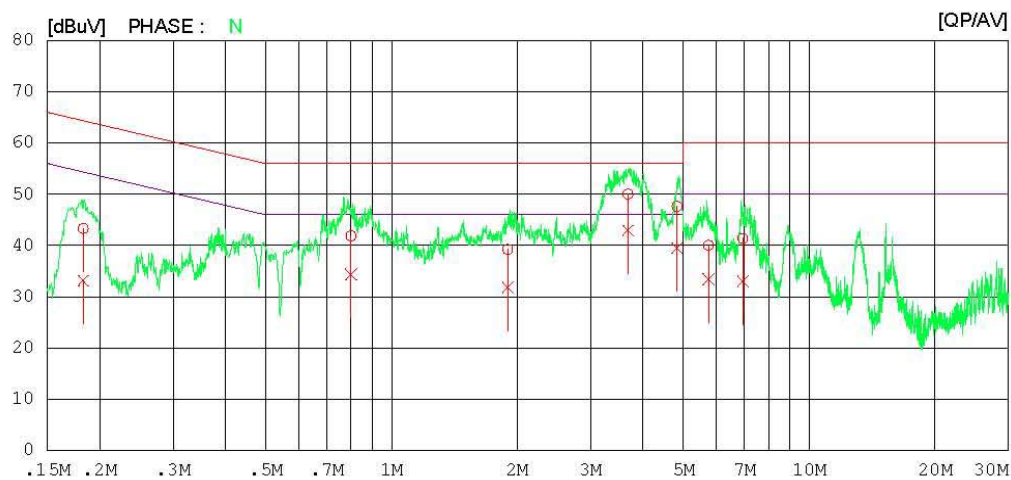
Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22°C 35 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22 °C 35 % 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	0.18298	43.1	32.9	0.2	43.3	33.1	64.3	54.3	21.0	21.2	N
2	0.80033	41.6	34.1	0.3	41.9	34.4	56.0	46.0	14.1	11.6	N
3	1.89850	38.9	31.5	0.3	39.2	31.8	56.0	46.0	16.8	14.2	N
4	3.68450	49.6	42.5	0.4	50.0	42.9	56.0	46.0	6.0	3.1	N
5	4.82450	47.2	39.1	0.4	47.6	39.5	56.0	46.0	8.4	6.5	N
6	5.74050	39.6	33.0	0.4	40.0	33.4	60.0	50.0	20.0	16.6	N
7	6.93600	41.0	32.6	0.4	41.4	33.0	60.0	50.0	18.6	17.0	N
8	0.18339	43.0	33.0	0.2	43.2	33.2	64.3	54.3	21.1	21.1	L1
9	0.79893	39.7	32.7	0.2	39.9	32.9	56.0	46.0	16.1	13.1	L1
10	1.88000	37.8	31.0	0.3	38.1	31.3	56.0	46.0	17.9	14.7	L1
11	3.70800	49.2	42.6	0.4	49.6	43.0	56.0	46.0	6.4	3.0	L1
12	4.87700	47.1	40.2	0.4	47.5	40.6	56.0	46.0	8.5	5.4	L1
13	5.61800	40.5	33.6	0.4	40.9	34.0	60.0	50.0	19.1	16.0	L1
14	6.93700	41.0	32.5	0.4	41.4	32.9	60.0	50.0	18.6	17.1	L1

< HDMI MODE >



Results of Conducted Emission

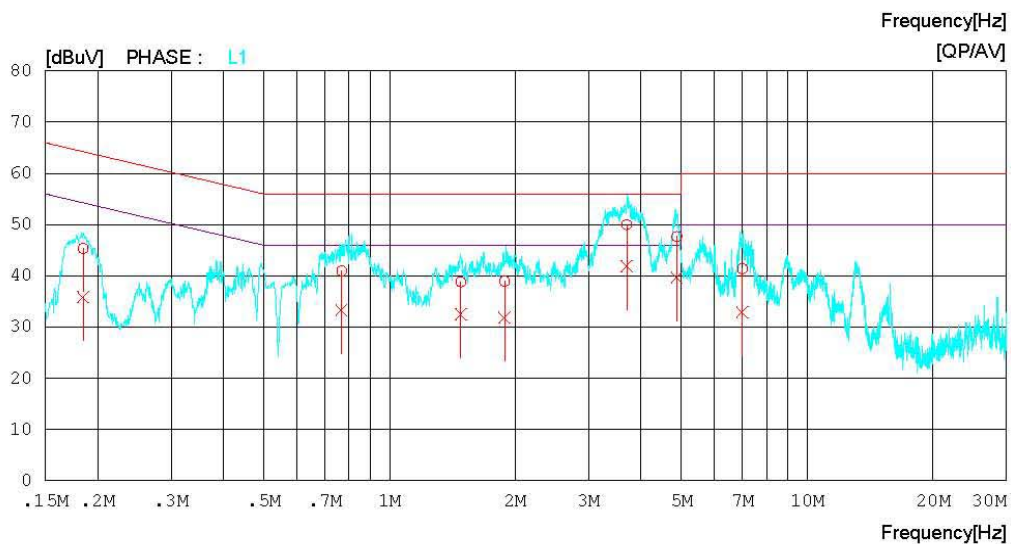
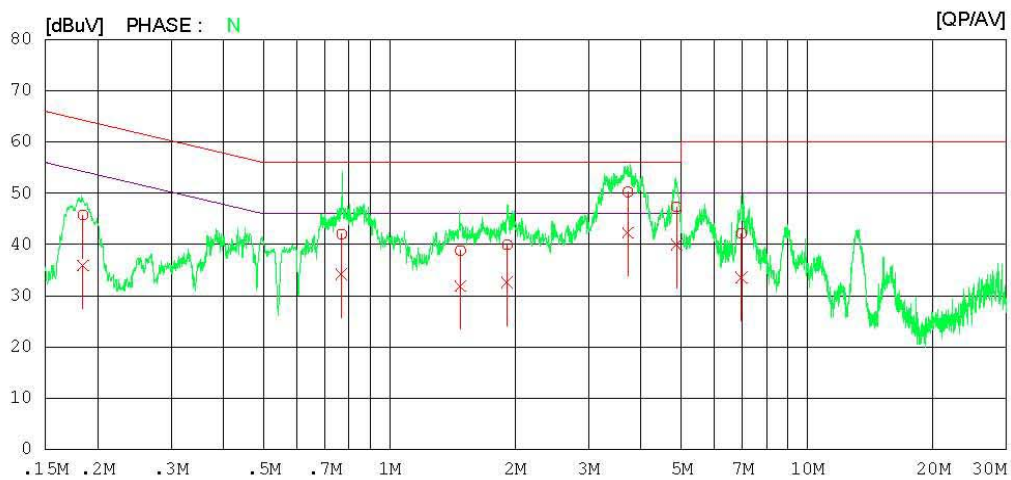
Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22°C 35 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22 °C 35 % 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	0.18451	45.5	35.7	0.2	45.7	35.9	64.3	54.3	18.6	18.4	N
2	0.76838	41.8	34.0	0.2	42.0	34.2	56.0	46.0	14.0	11.8	N
3	1.47950	38.5	31.6	0.3	38.8	31.9	56.0	46.0	17.2	14.1	N
4	1.91500	39.6	32.3	0.3	39.9	32.6	56.0	46.0	16.1	13.4	N
5	3.72200	49.8	41.9	0.4	50.2	42.3	56.0	46.0	5.8	3.7	N
6	4.86950	46.9	39.5	0.4	47.3	39.9	56.0	46.0	8.7	6.1	N
7	6.96150	41.8	33.2	0.4	42.2	33.6	60.0	50.0	17.8	16.4	N
8	0.18475	45.1	35.6	0.2	45.3	35.8	64.3	54.3	19.0	18.5	L1
9	0.76803	40.8	33.1	0.2	41.0	33.3	56.0	46.0	15.0	12.7	L1
10	1.48250	38.5	32.2	0.3	38.8	32.5	56.0	46.0	17.2	13.5	L1
11	1.88500	38.7	31.6	0.3	39.0	31.9	56.0	46.0	17.0	14.1	L1
12	3.69850	49.6	41.5	0.4	50.0	41.9	56.0	46.0	6.0	4.1	L1
13	4.87300	47.3	39.3	0.4	47.7	39.7	56.0	46.0	8.3	6.3	L1
14	6.99300	41.0	32.5	0.4	41.4	32.9	60.0	50.0	18.6	17.1	L1

< USB MODE >



Results of Conducted Emission

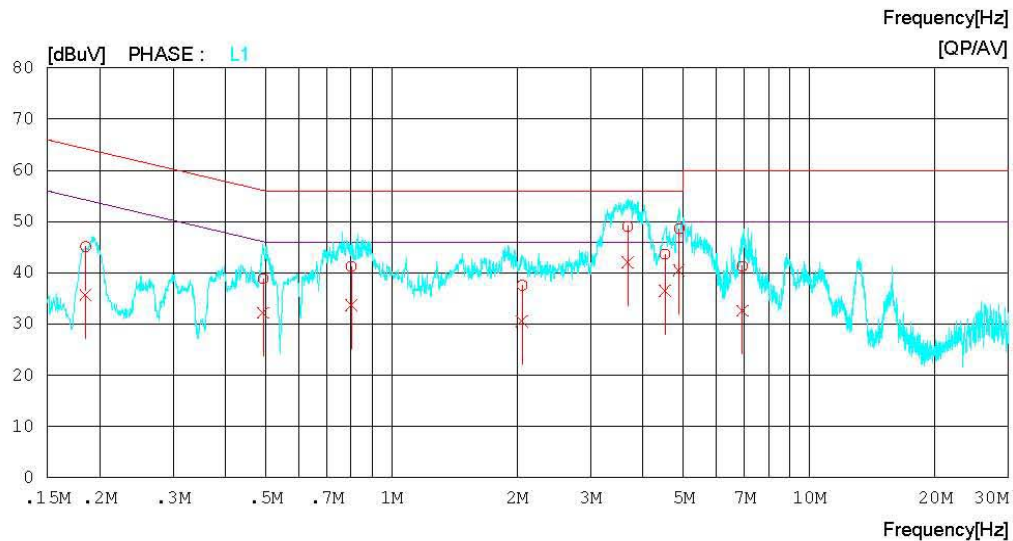
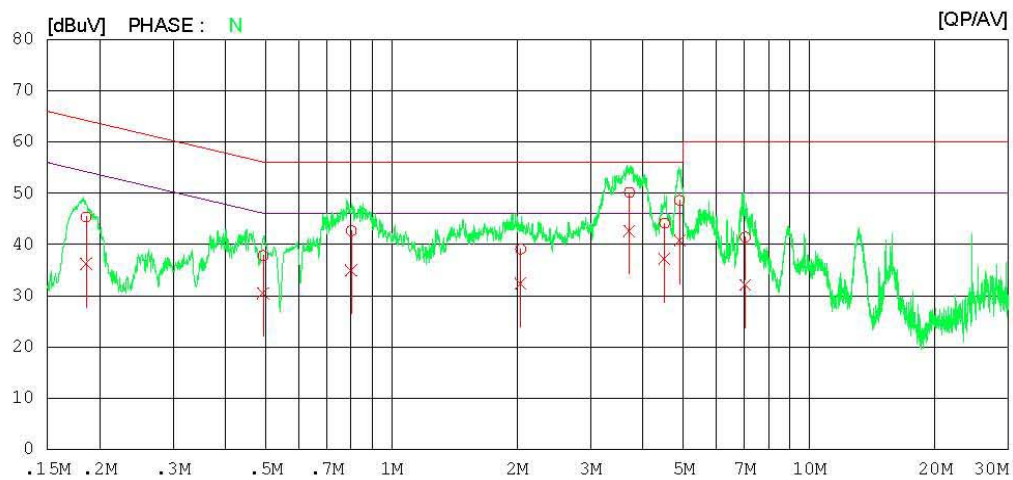
Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22°C 35 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-03-28

Model No. : 60LS5700-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 22 °C 35 % 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	0.18578	45.2	36.0	0.2	45.4	36.2	64.2	54.2	18.8	18.0	N
2	0.49296	37.6	30.3	0.2	37.8	30.5	56.1	46.1	18.3	15.6	N
3	0.80146	42.4	34.6	0.3	42.7	34.9	56.0	46.0	13.3	11.1	N
4	2.03900	38.8	32.1	0.3	39.1	32.4	56.0	46.0	16.9	13.6	N
5	3.71150	49.8	42.2	0.4	50.2	42.6	56.0	46.0	5.8	3.4	N
6	4.50500	43.7	36.8	0.4	44.1	37.2	56.0	46.0	11.9	8.8	N
7	4.89750	48.2	40.4	0.4	48.6	40.8	56.0	46.0	7.4	5.2	N
8	7.03150	41.0	31.7	0.4	41.4	32.1	60.0	50.0	18.6	17.9	N
9	0.18530	44.9	35.5	0.2	45.1	35.7	64.2	54.2	19.1	18.5	L1
10	0.49296	38.6	32.0	0.2	38.8	32.2	56.1	46.1	17.3	13.9	L1
11	0.80110	40.9	33.4	0.3	41.2	33.7	56.0	46.0	14.8	12.3	L1
12	2.05550	37.3	30.3	0.3	37.6	30.6	56.0	46.0	18.4	15.4	L1
13	3.67850	48.7	41.6	0.4	49.1	42.0	56.0	46.0	6.9	4.0	L1
14	4.51700	43.2	36.1	0.4	43.6	36.5	56.0	46.0	12.4	9.5	L1
15	4.88250	48.2	40.1	0.4	48.6	40.5	56.0	46.0	7.4	5.5	L1
16	6.91650	40.9	32.2	0.4	41.3	32.6	60.0	50.0	18.7	17.4	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 (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

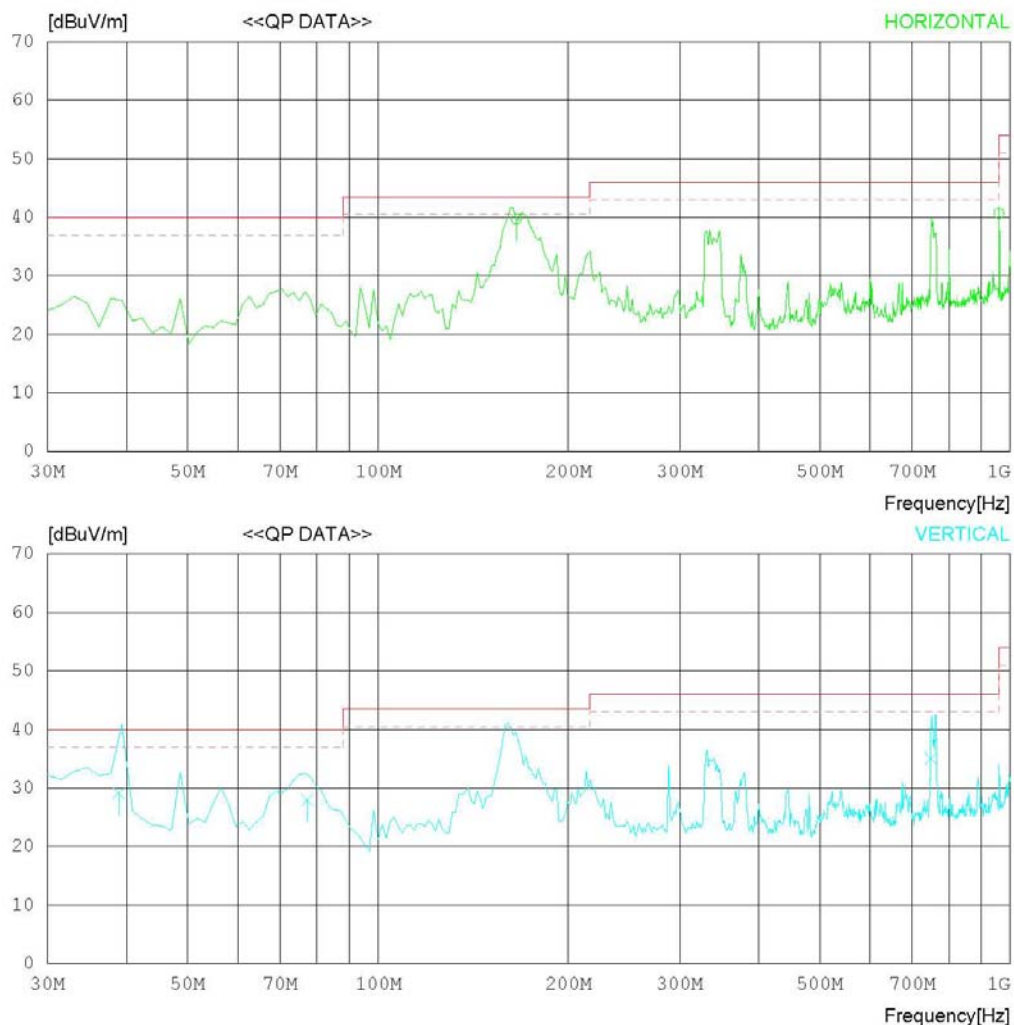
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 °C 38 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 'C 38 % 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	165.379	51.0	10.1	1.8	23.2	39.7	43.5	3.8	100	3
2	960.000	37.8	21.0	4.9	23.0	40.7	46.0	5.3	100	358
----- Vertical -----										
3	38.927	36.7	14.5	0.9	23.0	29.1	40.0	10.9	100	30
4	77.250	42.6	6.9	1.3	22.8	28.0	40.0	12.0	100	359
5	748.966	35.1	19.6	4.4	24.0	35.1	46.0	10.9	100	1

< DSUB MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

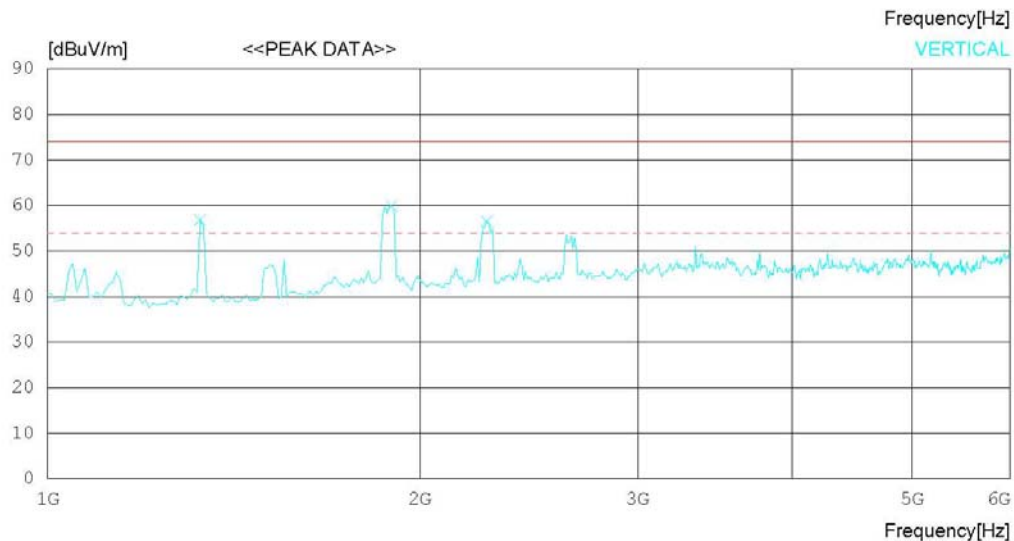
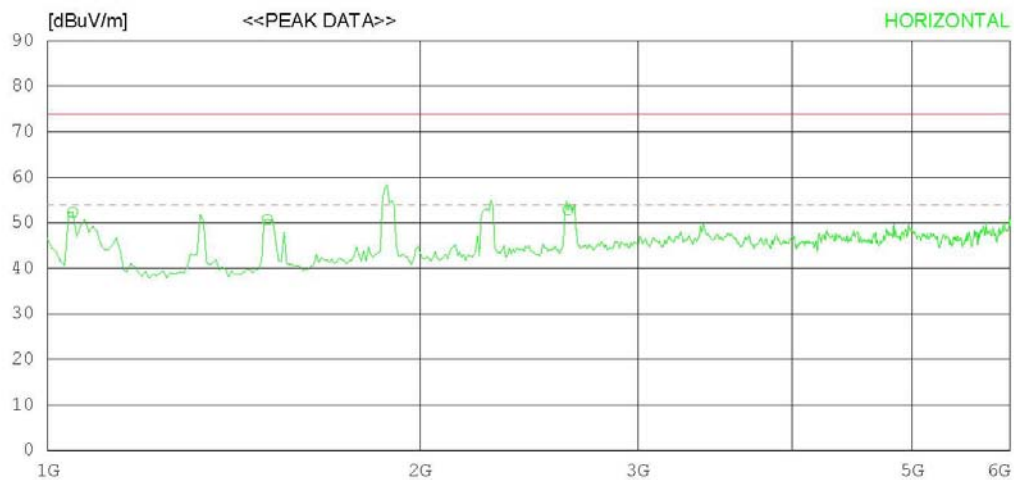
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

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

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1048.077	64.8	24.4	4.9	41.8	52.3	74.0	21.7	100	358
2	1504.807	60.2	26.1	6.0	41.6	50.7	74.0	23.3	100	358
3	2634.624	57.4	29.2	8.0	41.8	52.8	74.0	21.2	100	358
----- Vertical -----										
4	1328.526	67.5	25.5	5.6	41.7	56.9	74.0	17.1	100	213
5	1897.436	67.2	27.6	6.8	41.7	59.9	74.0	14.1	100	122
6	2266.029	62.4	28.5	7.4	41.8	56.5	74.0	17.5	100	1

< DSUB MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

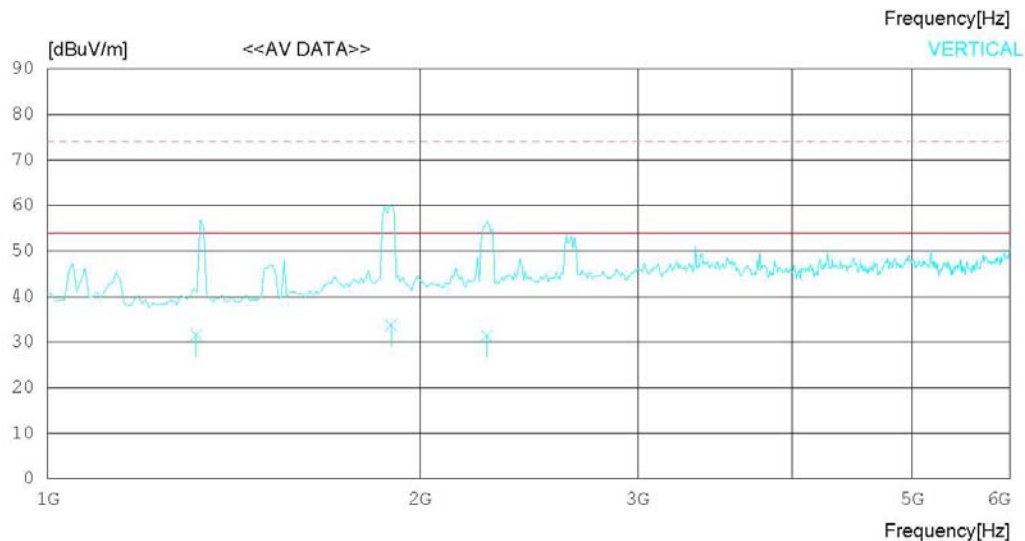
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : DSUB

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

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1048.649	42.8	24.4	4.9	41.8	30.3	54.0	23.7	100	358
2	1504.807	40.5	26.1	6.0	41.6	31.0	54.0	23.0	100	358
3	2634.346	36.4	29.2	8.0	41.8	31.8	54.0	22.2	100	358
----- Vertical -----										
4	1318.596	42.5	25.4	5.5	41.8	31.6	54.0	22.4	100	213
5	1895.605	41.0	27.6	6.8	41.7	33.7	54.0	20.3	100	122
6	2266.000	37.2	28.5	7.4	41.8	31.3	54.0	22.7	100	1

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

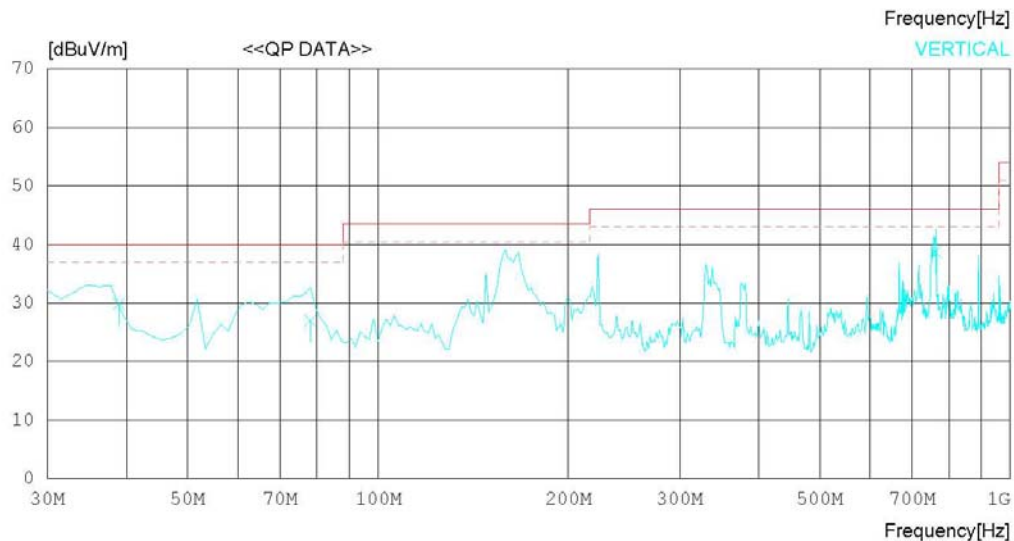
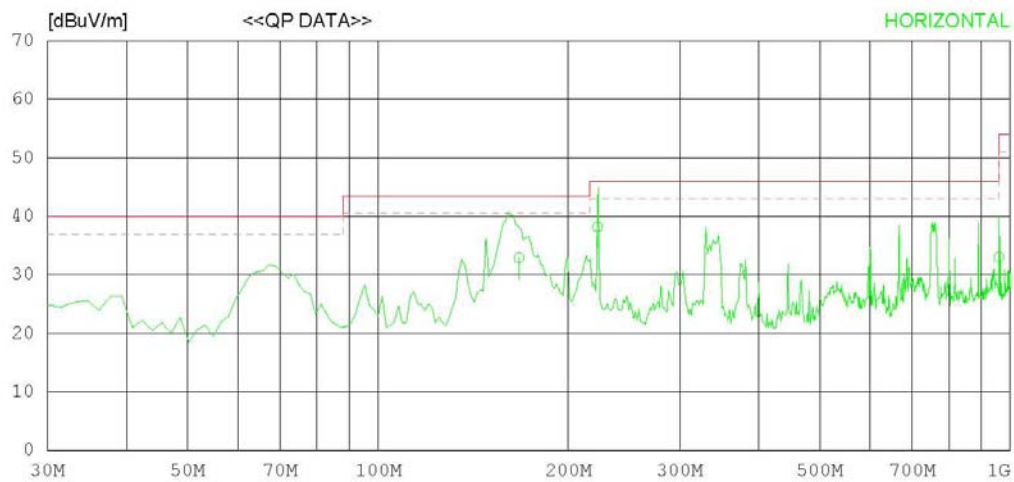
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 °C 38 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 °C 38 % 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	167.046	44.2	10.1	1.8	23.2	32.9	43.5	10.6	100	286
2	222.528	48.3	11.2	2.2	23.5	38.2	46.0	7.8	100	358
3	960.000	30.1	21.0	4.9	23.0	33.0	46.0	13.0	100	358
----- Vertical -----										
4	38.947	37.5	14.5	0.9	23.0	29.9	40.0	10.1	100	1
5	78.187	41.5	7.0	1.3	22.8	27.0	40.0	13.0	100	323
6	762.615	38.7	19.7	4.4	24.0	38.8	46.0	7.2	200	182

< HDMI MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

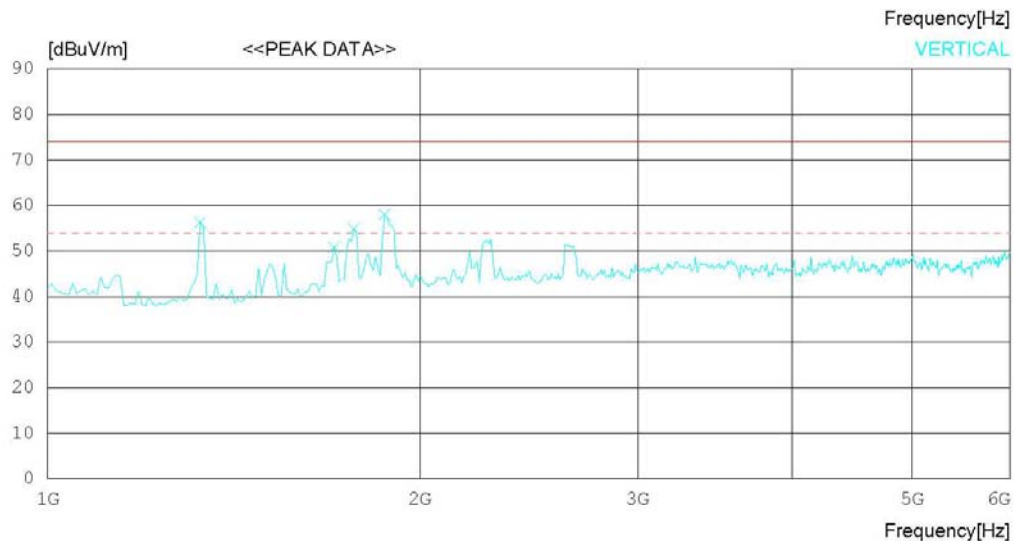
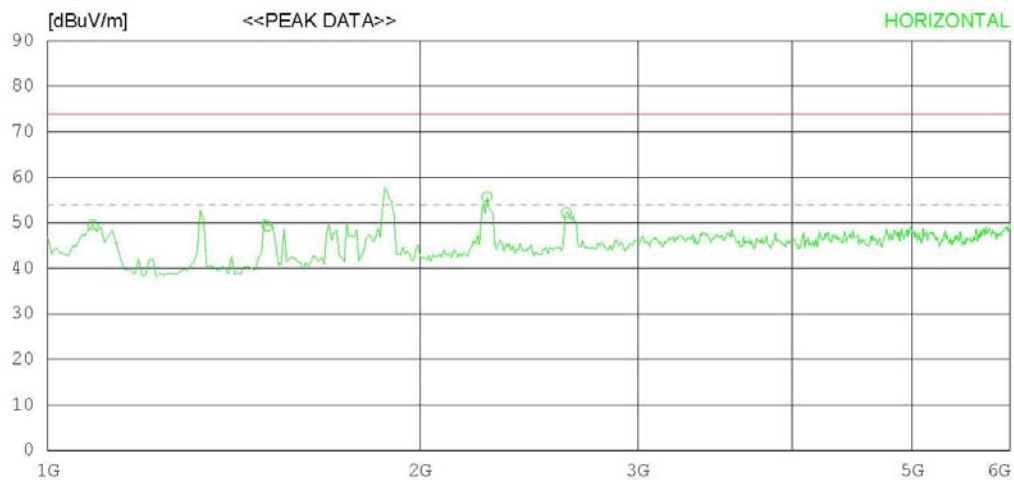
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 21 °C 37 % 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	1088.141	61.7	24.6	5.0	41.8	49.5	74.0	24.5	100	350
2	1504.807	58.8	26.1	6.0	41.6	49.3	74.0	24.7	100	179
3	2266.029	61.6	28.5	7.4	41.8	55.7	74.0	18.3	100	203
4	2626.611	56.8	29.2	8.0	41.8	52.2	74.0	21.8	100	1
----- Vertical -----										
5	1328.526	66.9	25.5	5.6	41.7	56.3	74.0	17.7	100	358
6	1705.128	59.2	26.9	6.4	41.7	50.8	74.0	23.2	100	358
7	1769.230	63.1	27.1	6.5	41.8	54.9	74.0	19.1	100	358
8	1873.397	65.5	27.5	6.7	41.7	58.0	74.0	16	100	358

< HDMI MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

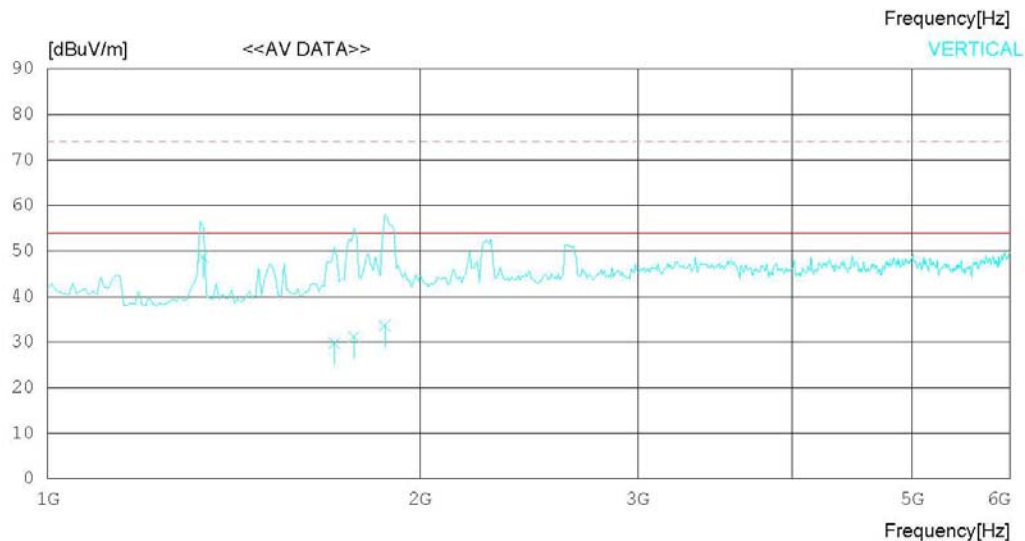
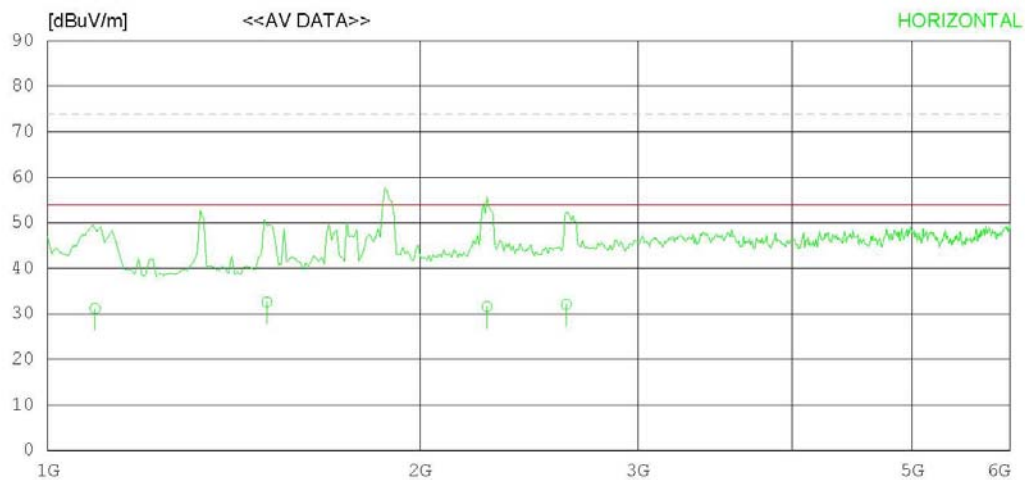
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 21 °C 37 % 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	1092.500	43.4	24.6	5.0	41.8	31.2	54.0	22.8	100	350
2	1504.000	42.1	26.1	6.0	41.6	32.6	54.0	21.4	100	179
3	2266.029	37.5	28.5	7.4	41.8	31.6	54.0	22.4	100	203
4	2626.611	36.7	29.2	8.0	41.8	32.1	54.0	21.9	100	1
----- Vertical -----										
5	1335.259	59.4	25.5	5.6	41.7	48.8	54.0	5.2	100	358
6	1705.128	38.2	26.9	6.4	41.7	29.8	54.0	24.2	100	358
7	1769.230	39.4	27.1	6.5	41.8	31.2	54.0	22.8	100	358
8	1873.397	41.1	27.5	6.7	41.7	33.6	54.0	20.4	100	358

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

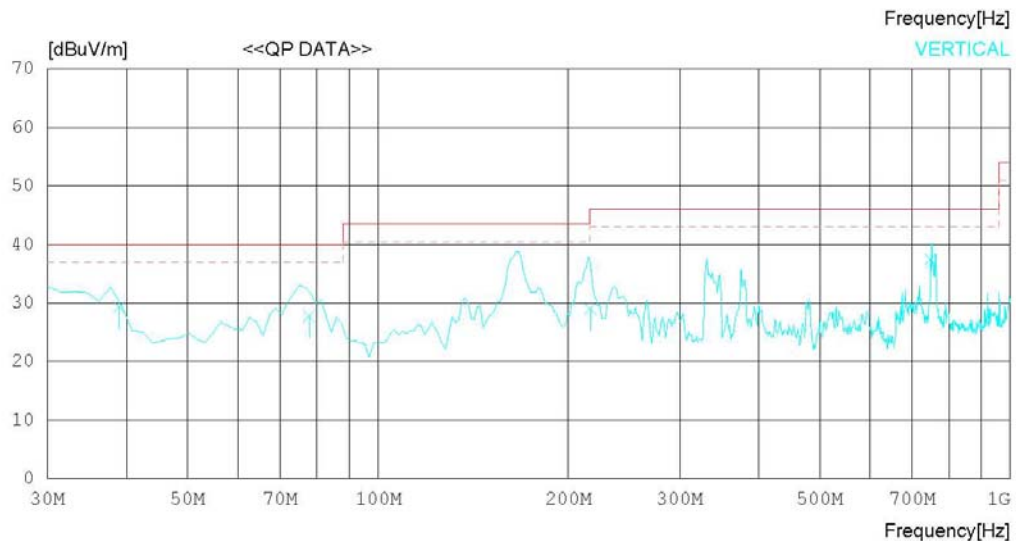
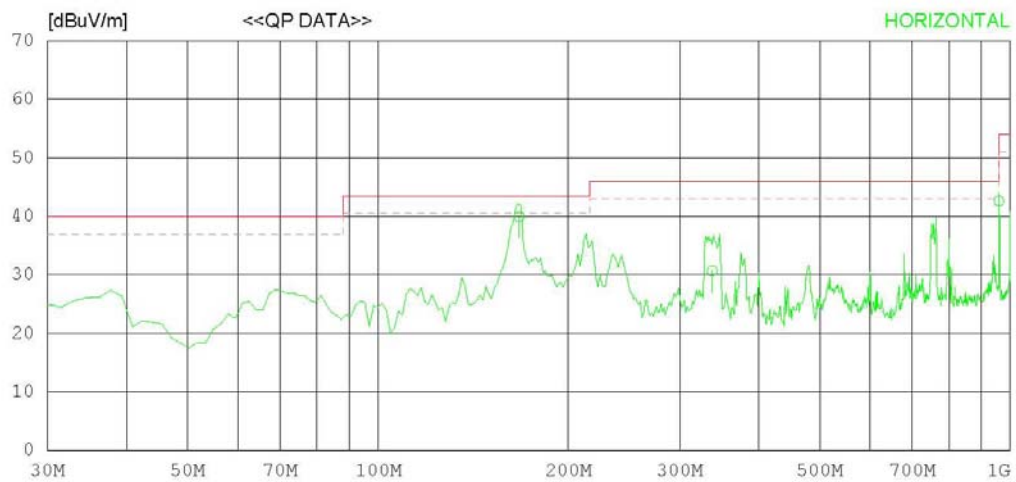
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 °C 38 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 23 °C 38 % 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	167.269	51.2	10.1	1.8	23.2	39.9	43.5	3.6	201	1
2	337.600	37.4	14.7	2.7	24.1	30.7	46.0	15.3	100	358
3	960.000	39.7	21.0	4.9	23.0	42.6	46.0	3.4	100	358
----- Vertical -----										
4	38.966	36.9	14.5	0.9	23.0	29.3	40.0	10.7	100	1
5	77.836	42.3	7.0	1.3	22.8	27.8	40.0	12.2	100	1
6	216.822	39.4	10.8	2.2	23.4	29.0	46.0	17.0	100	312
7	748.932	37.5	19.6	4.4	24.0	37.5	46.0	8.5	100	1

< USB MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

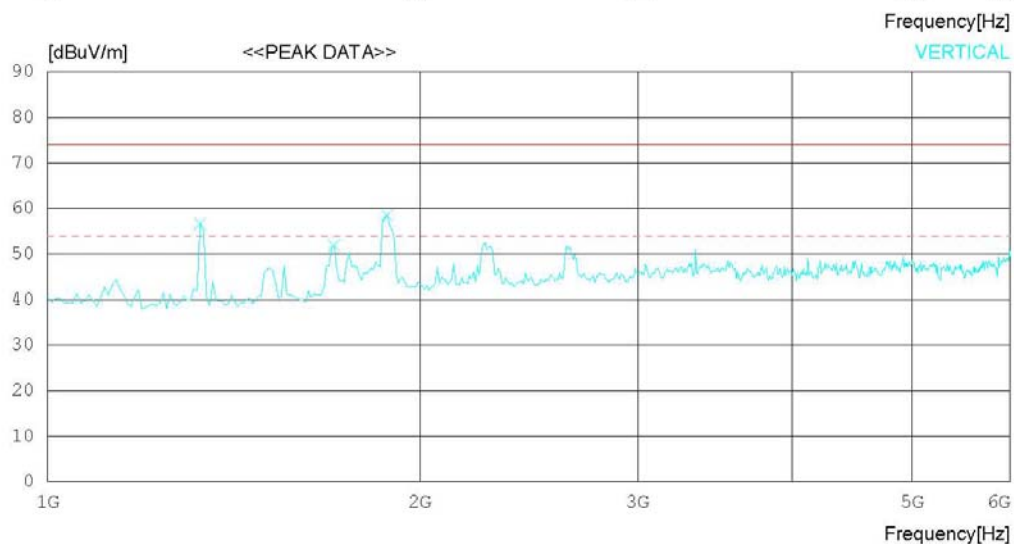
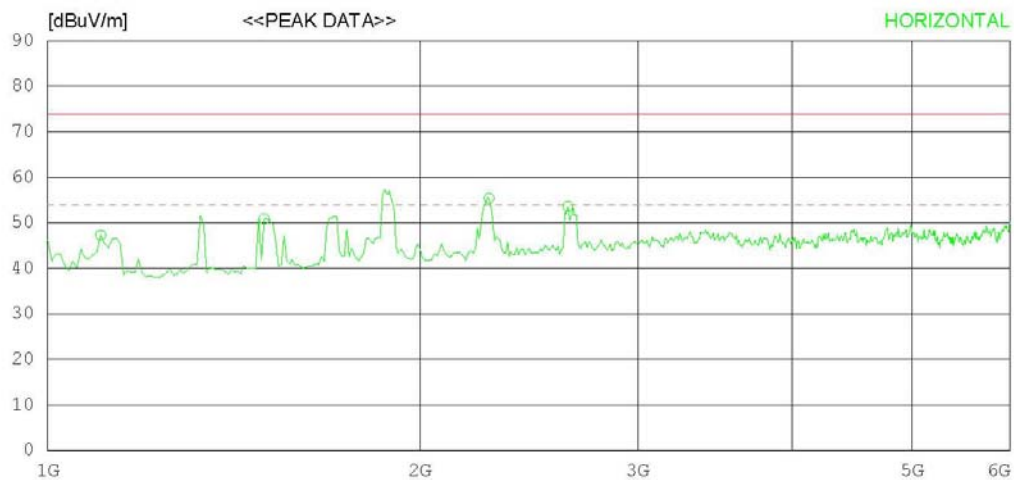
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

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

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1104.167	59.4	24.6	5.1	41.8	47.3	74.0	26.7	100	358
2	1496.795	60.5	26.1	5.9	41.6	50.9	74.0	23.1	100	183
3	2274.042	61.3	28.5	7.4	41.8	55.4	74.0	18.6	100	199
4	2634.624	58.2	29.2	8.0	41.8	53.6	74.0	20.4	100	208
----- Vertical -----										
5	1328.526	67.2	25.5	5.6	41.7	56.6	74.0	17.4	100	1
6	1705.128	60.3	26.9	6.4	41.7	51.9	74.0	22.1	100	220
7	1881.410	65.9	27.5	6.8	41.7	58.5	74.0	15.5	100	170

< USB MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

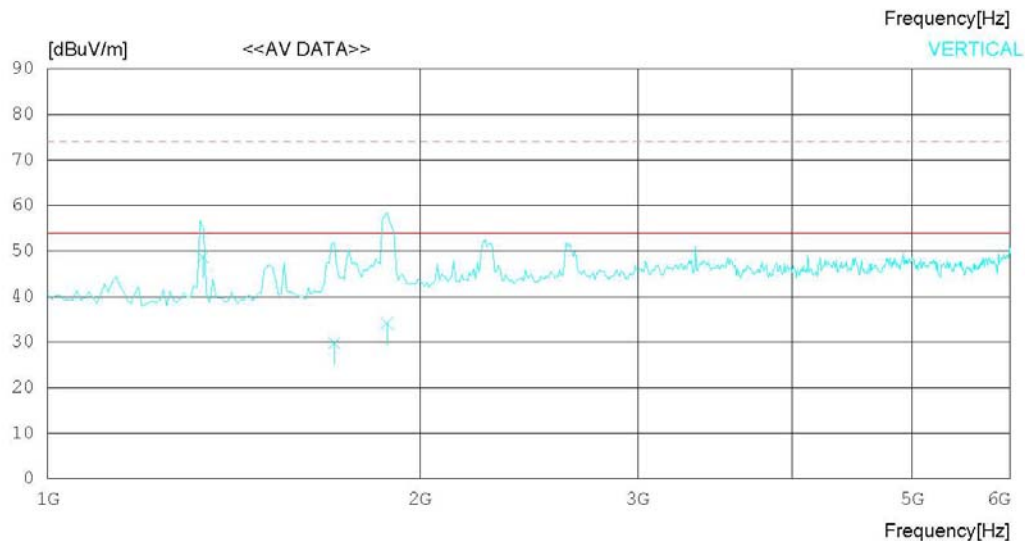
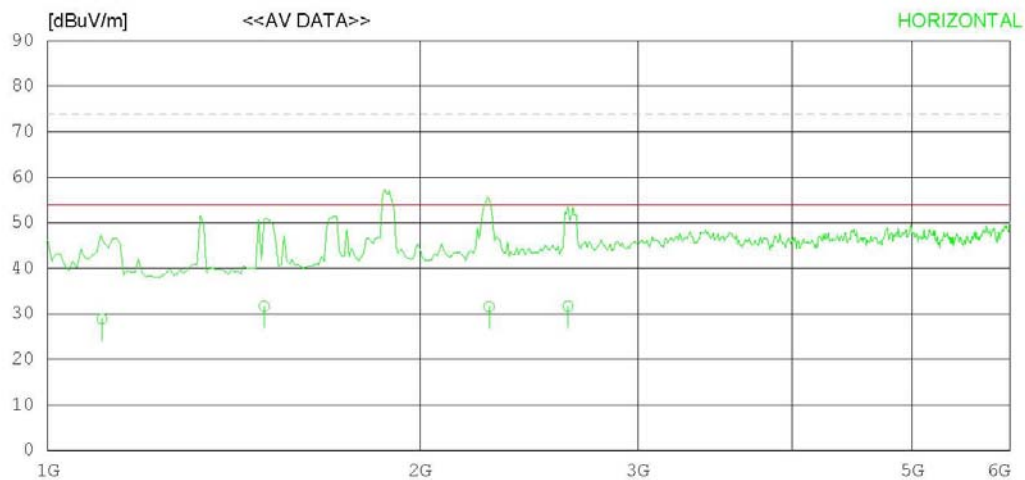
Date : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 21 'C 37 % 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 : 2012-03-29

Model Name : 60LS5700-UA
Model No. :
Serial No. :
Test Condition : USB

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

Memo :

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1106.750	41.0	24.6	5.1	41.8	28.9	54.0	25.1	100	358
2	1496.795	41.3	26.1	5.9	41.6	31.7	54.0	22.3	100	183
3	2274.042	37.5	28.5	7.4	41.8	31.6	54.0	22.4	100	199
4	2634.624	36.3	29.2	8.0	41.8	31.7	54.0	22.3	100	208
----- Vertical -----										
5	1335.187	59.4	25.5	5.6	41.7	48.8	54.0	5.2	100	1
6	1705.128	38.2	26.9	6.4	41.7	29.8	54.0	24.2	100	220
7	1881.410	41.5	27.5	6.8	41.7	34.1	54.0	19.9	100	170

Appendix 1

List of Test and Measurement Instruments

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment is identified by the Test Laboratory.

1. Conducted Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☐ SPECTRUM ANALYZER	8591E	H/P	3649A05889	2012.03.05	2013.03.05
☐ RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2011.07.02	2012.07.02
☐ LISN	KNW-407	KYORITSU	8-317-8	2012.01.09	2013.01.09
☐ LISN	KNW-242	KYORITSU	8-654-15	2011.09.19	2012.09.19
☐ 50 OHM TERMINATOR	CT-01	TME	N/A	2012.01.09	2013.01.09
☒ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2012.03.06	2013.03.06
☒ 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	2012.01.09	2013.01.09

2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☒ EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2012.01.09	2013.01.09
☒ BILOG ANTENNA	VULB9160	SCHAFFNER	3151	2010.08.25	2012.08.25
☒ Horn Antenna	BBHA9120A	SCHWARZBECK	322	2010.04.13	2012.04.13
☒ AMPLIFIER	8447E	H/P	2945A02865	2012.01.09	2013.01.09
☒ AMPLIFIER	MLA-00108-B02-36	TSJ	1518831	2012.01.09	2013.01.09
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2011.07.11	2012.07.11
☐ 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	2012.03.06	2013.03.06
☐ 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	2012.03.05	2013.03.05