

EMC TEST REPORT

Test item : LED LCD TV monitor
Model No. : 32LS3450-UA
Order No. : 1205-00683
Date of receipt : 2012-05-18
Test duration : 2012-05-31 ~ 2012-06-01
Use of report : FCC CoC Marking
Date of Issue : 2012-06-01

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 : (22 ~ 23) °C,
Humidity : (43 ~ 45) % 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:

Manager
M.J.SONG

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.digitalemccom>

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.	32LS3450-UA
EUT Type	LED LCD TV monitor
Serial No	N/A
FCC ID	BEJ32LS3450UA
Type of Sample Tested	Pre-Production
High Frequency	650Mhz
Rating	AC 100-240 ~ 50/60Hz, 0.9A
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	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
640 x 350	31.468	70.09
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1360 x 768	47.712	60.015
1152 x 864	54.348	60.053

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	06-01	22	43	-
Radiated Disturbance	05-31	23	45	

4.3 Test result Summary

(1) Conducted Emission(USB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.18438	L1	47.8	Average	54.3	6.5

(2) Radiated Emission(USB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
215.339	H	39.3	Quasi-Peak	43.5	4.2

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 : 1152 x 864 Resolution (Worst Case)
- USB MODE

5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
PC	D10M	N/A	DELL	POWER	1.6	Not use	Non-shield	Plastic	DOC
				LAN	20.0	Not use	Non-shield		
				USB	1.6	Not use	Shield		
				USB	1.6	Not use	Shield		
				USB	1.8	Not use	Shield		
				e-SATA	0.5	Not use	Shield		
Printer	L471A	LWTZ180552	EPSON	HDMI	1.0	Not use	Shield	Plastic	DOC
				Power	1.6	Not use	Non-shield		
Keyboard	SKG-3300UB	TAKZ200032W	MONITEREY INTERNATIONAL CORP	USB	1.6	Not use	Shield	Plastic	DOC
MOUSE	MOS-3500X	N/A	Enbizone Co., Ltd.	USB	1.6	Not use	Shield	Plastic	DOC
DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	Component	1.6	Not use	Non-shield	Plastic	VER
				Stereo	1.6	Not use	Non-shield		
				HDMI	1.6	Not use	Shield		
USB MEMORY	SDCZ3T	N/A	Sandisk	USB	-	-	-	-	DOC
External HDD	9ZR8N1-500	NA0H2L7Z	Seagate	e-SATA	0.5	Not use	Shield	Plastic	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

< HDMI MODE >



Results of Conducted Emission

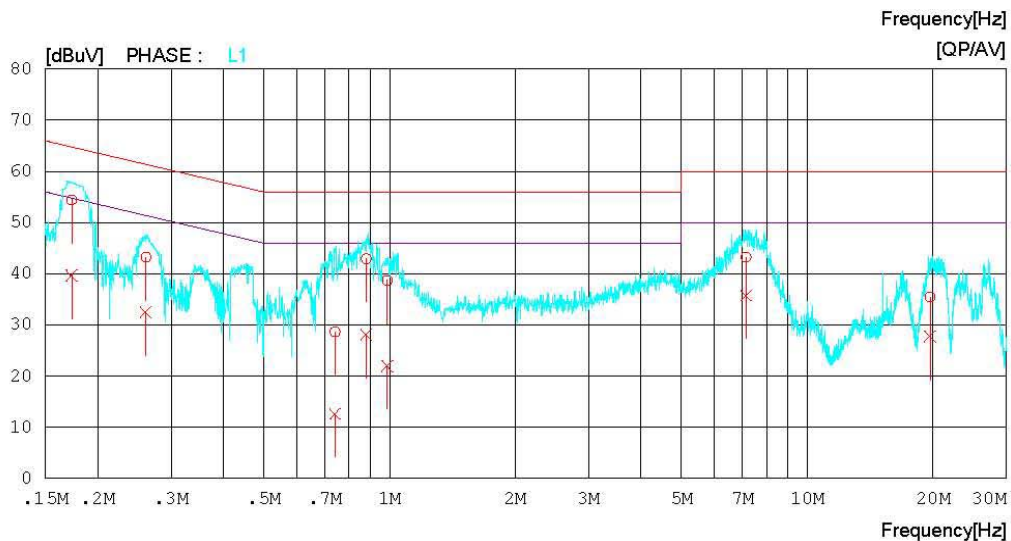
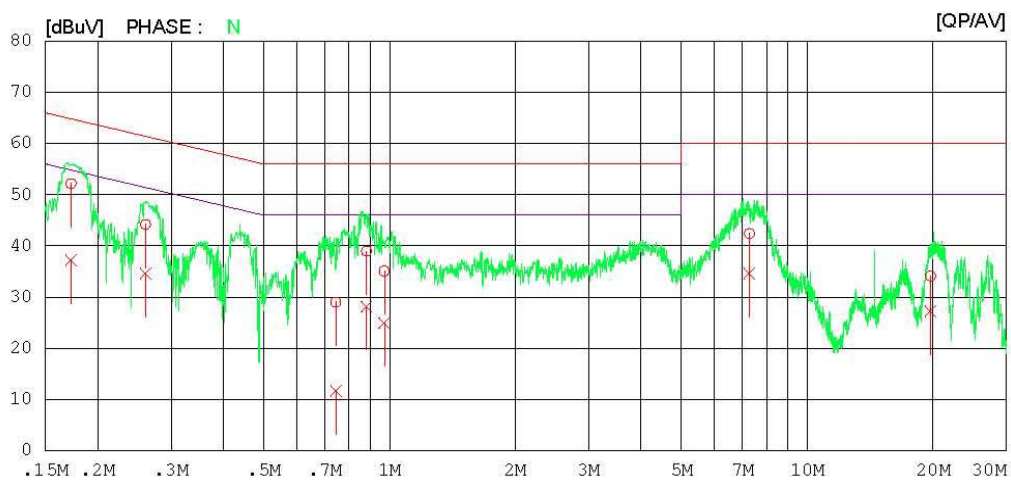
Digital EMC
Date : 2012-06-01

Model No. : 32LS3450-UA
Type :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 22°C 43% R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-06-01

Model No. : 32LS3450-UA
Type :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 22°C 43% 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	0.17291	52.0	37.0	0.2	52.2	37.2	64.8	54.8	12.6	17.6	N
2	0.26066	44.0	34.4	0.2	44.2	34.6	61.4	51.4	17.2	16.8	N
3	0.74451	28.8	11.4	0.2	29.0	11.6	56.0	46.0	27.0	34.4	N
4	0.88099	38.7	27.8	0.3	39.0	28.1	56.0	46.0	17.0	17.9	N
5	0.97200	34.8	24.6	0.3	35.1	24.9	56.0	46.0	20.9	21.1	N
6	7.27500	42.0	34.2	0.4	42.4	34.6	60.0	50.0	17.6	15.4	N
7	19.74800	33.0	26.1	1.1	34.1	27.2	60.0	50.0	25.9	22.8	N
8	0.17333	54.3	39.5	0.2	54.5	39.7	64.8	54.8	10.3	15.1	L1
9	0.26125	43.0	32.3	0.2	43.2	32.5	61.4	51.4	18.2	18.9	L1
10	0.74101	28.4	12.4	0.2	28.6	12.6	56.0	46.0	27.4	33.4	L1
11	0.88000	42.7	27.9	0.3	43.0	28.2	56.0	46.0	13.0	17.8	L1
12	0.98750	38.4	21.7	0.3	38.7	22.0	56.0	46.0	17.3	24.0	L1
13	7.14050	42.8	35.4	0.4	43.2	35.8	60.0	50.0	16.8	14.2	L1
14	19.70150	34.4	26.6	1.1	35.5	27.7	60.0	50.0	24.5	22.3	L1

< USB MODE >



Results of Conducted Emission

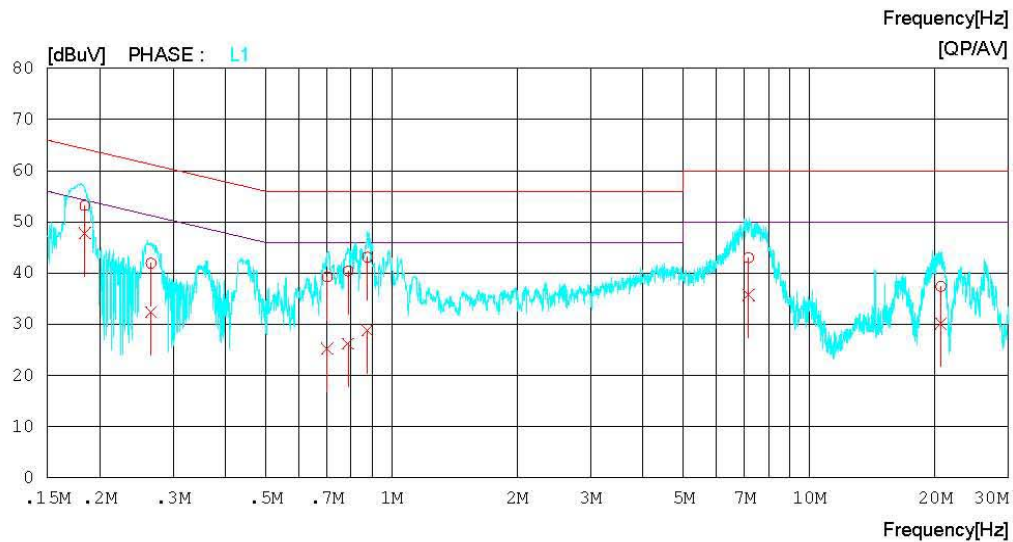
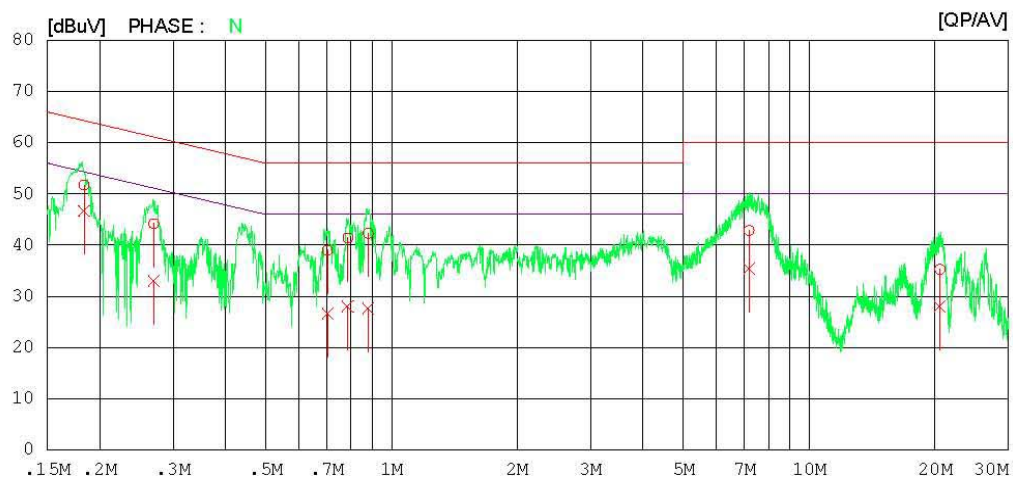
Digital EMC
Date : 2012-06-01

Model No. : 32LS3450-UA
Type :
Serial No. :
Test Condition : USB PLAY MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 22°C 43% R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-06-01

Model No. : 32LS3450-UA
Type :
Serial No. :
Test Condition : USB PLAY MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi. : 22°C 43% 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	0.18358	51.5	46.5	0.2	51.7	46.7	64.3	54.3	12.6	7.6	N
2	0.26969	44.0	32.8	0.2	44.2	33.0	61.1	51.1	16.9	18.1	N
3	0.70296	38.8	26.4	0.2	39.0	26.6	56.0	46.0	17.0	19.4	N
4	0.78610	41.2	27.8	0.2	41.4	28.0	56.0	46.0	14.6	18.0	N
5	0.87921	42.0	27.3	0.3	42.3	27.6	56.0	46.0	13.7	18.4	N
6	7.18300	42.4	35.0	0.4	42.8	35.4	60.0	50.0	17.2	14.6	N
7	20.56250	34.2	26.9	1.1	35.3	28.0	60.0	50.0	24.7	22.0	N
8	0.18438	53.0	47.6	0.2	53.2	47.8	64.3	54.3	11.1	6.5	L1
9	0.26550	41.7	32.2	0.2	41.9	32.4	61.3	51.3	19.4	18.9	L1
10	0.70191	39.0	25.1	0.2	39.2	25.3	56.0	46.0	16.8	20.7	L1
11	0.78728	40.2	26.0	0.2	40.4	26.2	56.0	46.0	15.6	19.8	L1
12	0.87609	42.8	28.6	0.3	43.1	28.9	56.0	46.0	12.9	17.1	L1
13	7.15900	42.6	35.4	0.4	43.0	35.8	60.0	50.0	17.0	14.2	L1
14	20.68250	36.3	29.1	1.1	37.4	30.2	60.0	50.0	22.6	19.8	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

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

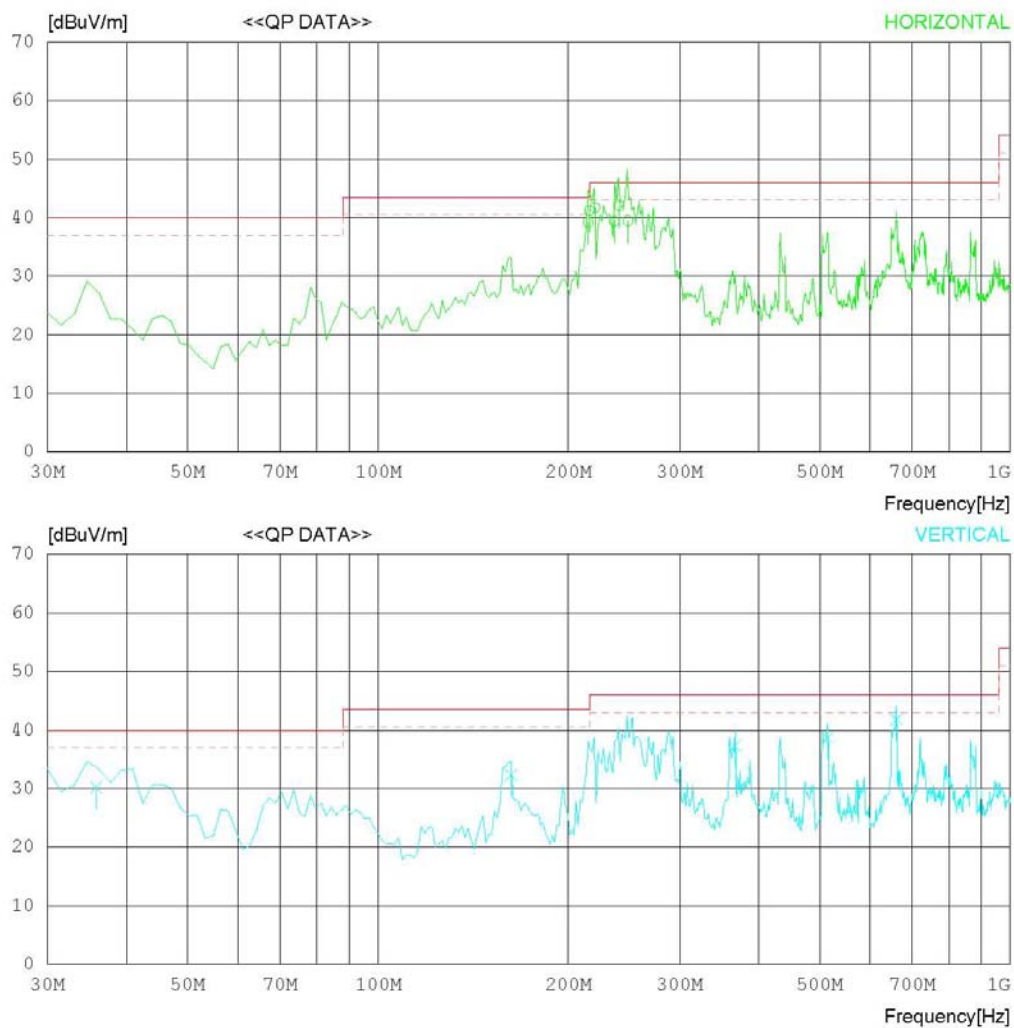
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23°C 45 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 °C 45 % 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	214.999	50.1	10.1	2.4	23.4	39.2	43.5	4.3	100	358
2	216.089	52.0	10.2	2.4	23.4	41.2	46.0	4.8	100	235
3	220.255	52.4	10.4	2.4	23.5	41.7	46.0	4.3	100	358
4	236.317	49.0	11.4	2.5	23.5	39.4	46.0	6.6	100	358
5	240.885	51.4	11.7	2.5	23.6	42.0	46.0	4.0	100	358
6	248.240	48.3	12.2	2.6	23.6	39.5	46.0	6.5	100	202
----- Vertical -----										
7	35.858	36.6	15.6	1.1	23.1	30.2	40.0	9.8	100	167
8	162.378	43.7	9.9	1.9	23.2	32.3	43.5	11.2	100	340
9	367.089	43.4	14.8	3.4	24.3	37.3	46.0	8.7	100	1
10	514.026	41.9	17.7	3.9	24.8	38.7	46.0	7.3	100	1
11	660.942	43.1	18.8	4.3	24.4	41.8	46.0	4.2	100	216

< HDMI MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

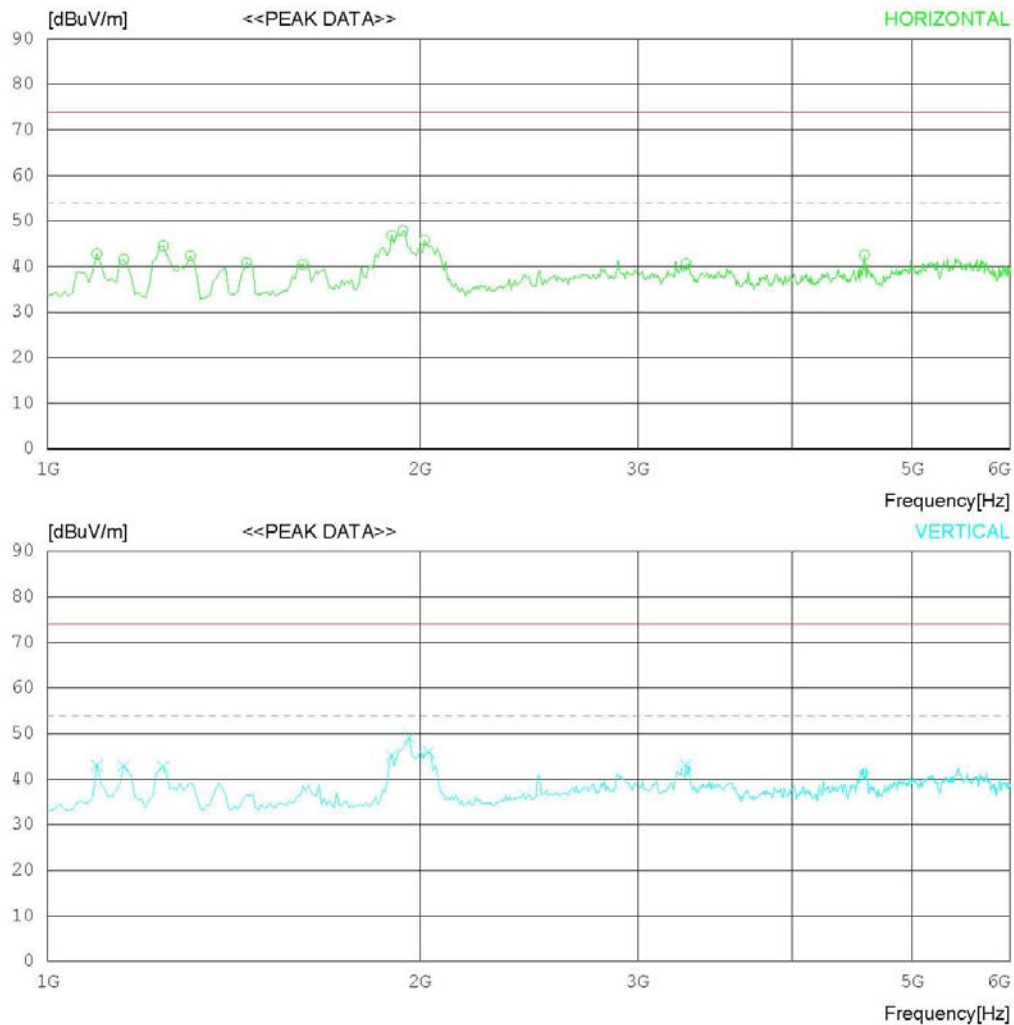
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 'C 45 % 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 : 2012-05-31

Model Name : 32LS3450-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 45 % R.H.
Test Condition : HDMI MODE	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	1096.154	58.4	24.0	2.2	41.8	42.8	74.0	31.2	100	187
2	1152.244	57.0	24.1	2.3	41.8	41.6	74.0	32.4	100	123
3	1240.385	59.7	24.3	2.4	41.8	44.6	74.0	29.4	100	219
4	1304.487	57.3	24.4	2.5	41.8	42.4	74.0	31.6	100	358
5	1448.718	54.9	24.8	2.7	41.6	40.8	74.0	33.2	100	157
6	1608.974	54.4	24.9	2.8	41.6	40.5	74.0	33.5	100	358
7	1897.436	60.5	25.1	3.0	41.7	46.9	74.0	27.1	100	214
8	1937.500	61.4	25.1	3.1	41.7	47.9	74.0	26.1	100	358
9	2017.628	59.2	25.2	3.1	41.7	45.8	74.0	28.2	100	358
10	3283.672	49.6	28.9	4.0	41.9	40.6	74.0	33.4	100	358
11	4573.741	48.7	30.9	5.0	42.0	42.6	74.0	31.4	100	358
----- Vertical -----										
12	1096.154	58.6	24.0	2.2	41.8	43.0	74.0	31	100	277
13	1152.244	58.3	24.1	2.3	41.8	42.9	74.0	31.1	100	189
14	1240.385	57.8	24.3	2.4	41.8	42.7	74.0	31.3	100	212
15	1897.436	58.8	25.1	3.0	41.7	45.2	74.0	28.8	100	227
16	1961.538	62.6	25.1	3.1	41.7	49.1	74.0	24.9	100	1
17	2033.653	59.2	25.3	3.1	41.7	45.9	74.0	28.1	100	210
18	3283.672	52.1	28.9	4.0	41.9	43.1	74.0	30.9	100	215
19	4573.741	46.4	30.9	5.0	42.0	40.3	74.0	33.7	100	198

< HDMI MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

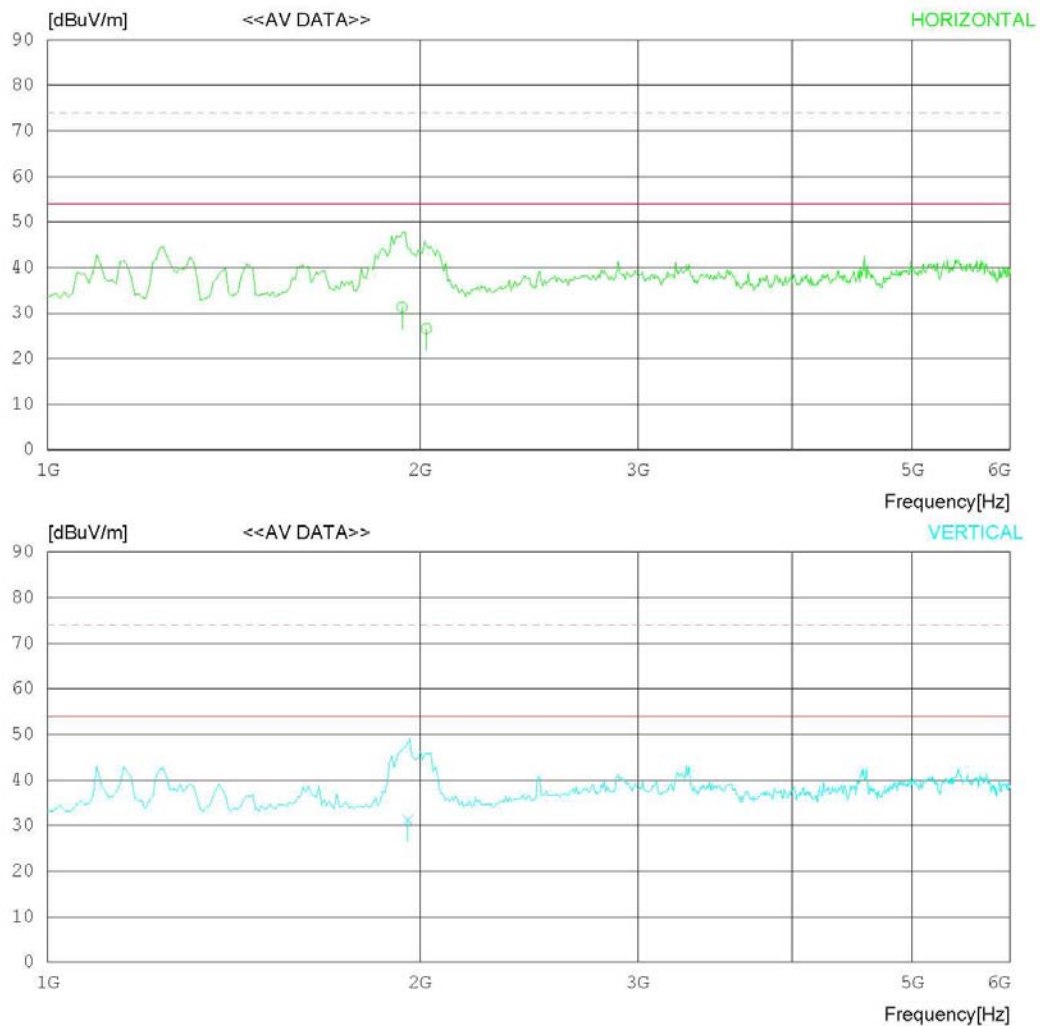
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : HDMI MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 °C 45 % 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 : 2012-05-31

Model Name : 32LS3450-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 45 % R.H.
Test Condition : HDMI MODE	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	1934.115	44.8	25.1	3.1	41.7	31.3	54.0	22.7	100	358
2	2023.679	40.0	25.2	3.1	41.7	26.6	54.0	27.4	100	358
----- Vertical -----										
3	1956.026	44.8	25.1	3.1	41.7	31.3	54.0	22.7	100	1

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

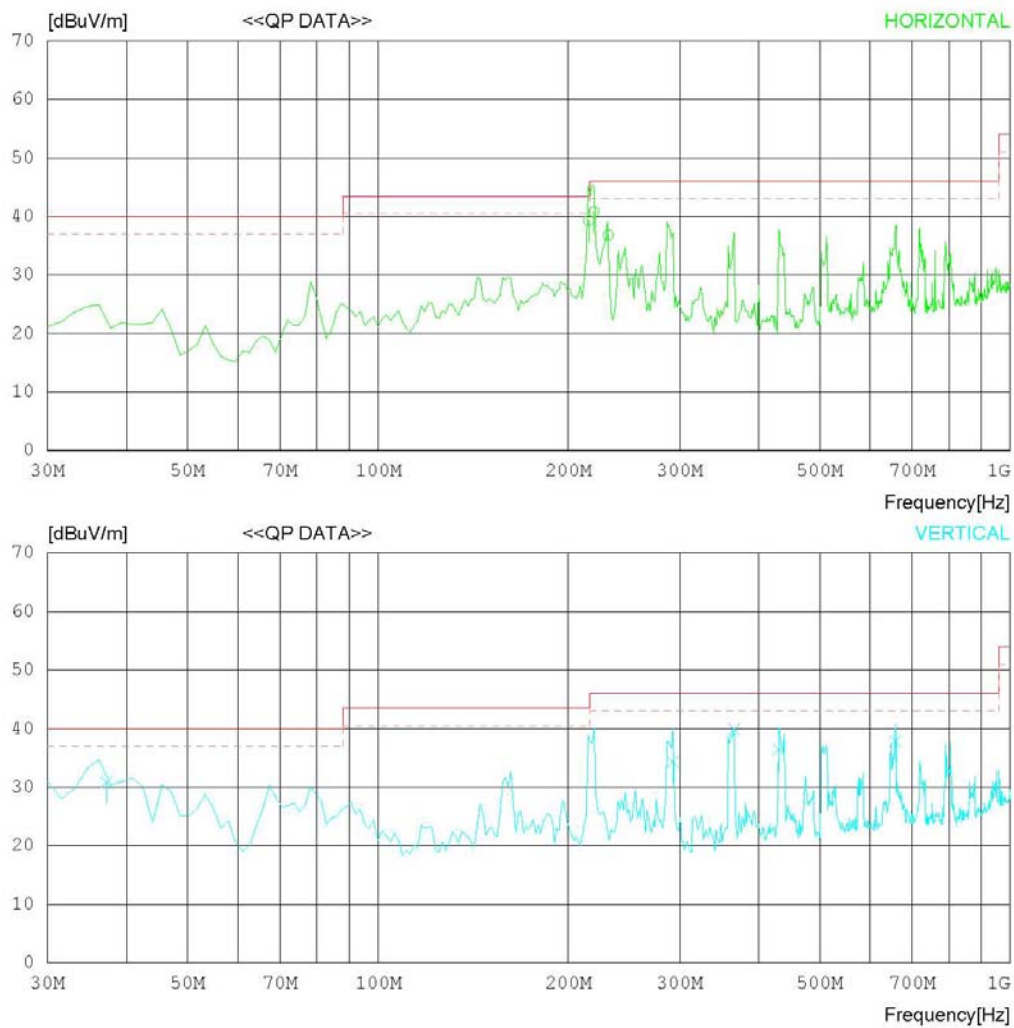
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : USB PLAY MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 °C 45 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-05-31

Model Name : 32LS3450-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 45 % R.H.
Test Condition : USB PLAY MODE	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	215.339	50.2	10.1	2.4	23.4	39.3	43.5	4.2	100	358
2	219.482	51.4	10.4	2.4	23.4	40.8	46.0	5.2	100	358
3	231.245	46.7	11.1	2.5	23.5	36.8	46.0	9.2	100	358
----- Vertical -----										
4	37.210	38.0	14.9	1.1	23.1	30.9	40.0	9.1	100	176
5	292.647	42.3	13.0	2.8	23.8	34.3	46.0	11.7	199	181
6	365.851	46.0	14.8	3.4	24.3	39.9	46.0	6.1	100	1
7	430.537	41.3	16.2	3.5	24.6	36.4	46.0	9.6	199	358
8	658.631	39.3	18.8	4.3	24.5	37.9	46.0	8.1	100	1

< USB MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

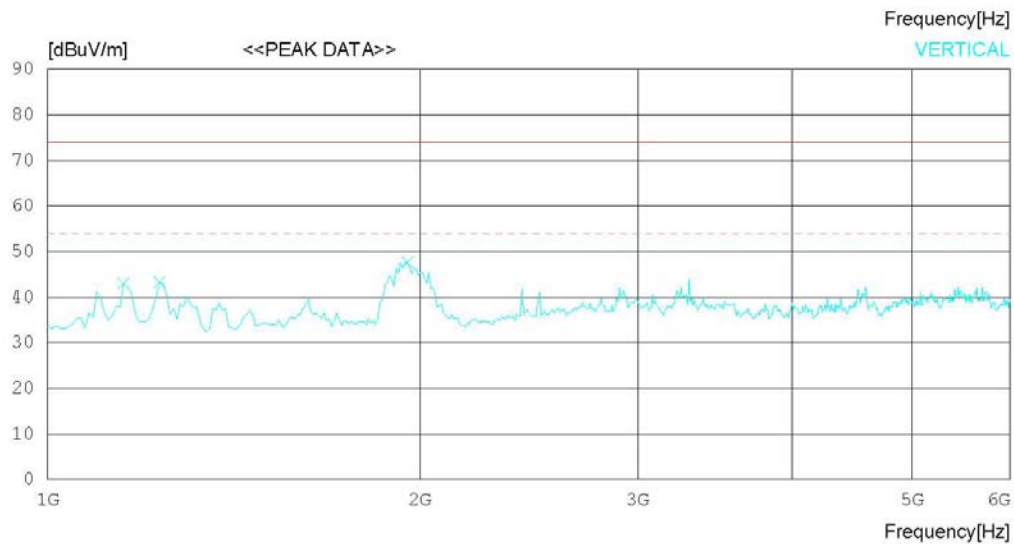
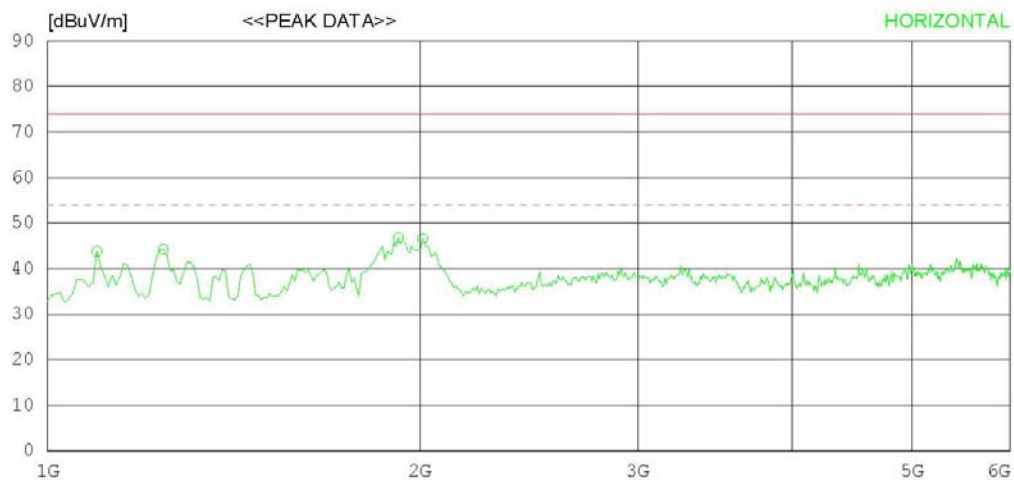
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : USB PLAY MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 'C 45 % 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 : 2012-05-31

Model Name : 32LS3450-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23°C 45 % R.H.
Test Condition : USB PLAY MODE	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	1096.154	59.4	24.0	2.2	41.8	43.8	74.0	30.2	100	1
2	1240.385	59.4	24.3	2.4	41.8	44.3	74.0	29.7	100	246
3	1921.474	60.4	25.1	3.0	41.7	46.8	74.0	27.2	100	162
4	2009.615	60.0	25.2	3.1	41.7	46.6	74.0	27.4	100	1
----- Vertical -----										
5	1152.244	58.5	24.1	2.3	41.8	43.1	74.0	30.9	100	358
6	1232.372	58.4	24.3	2.4	41.8	43.3	74.0	30.7	100	211
7	1953.525	61.2	25.1	3.1	41.7	47.7	74.0	26.3	100	358

< USB MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

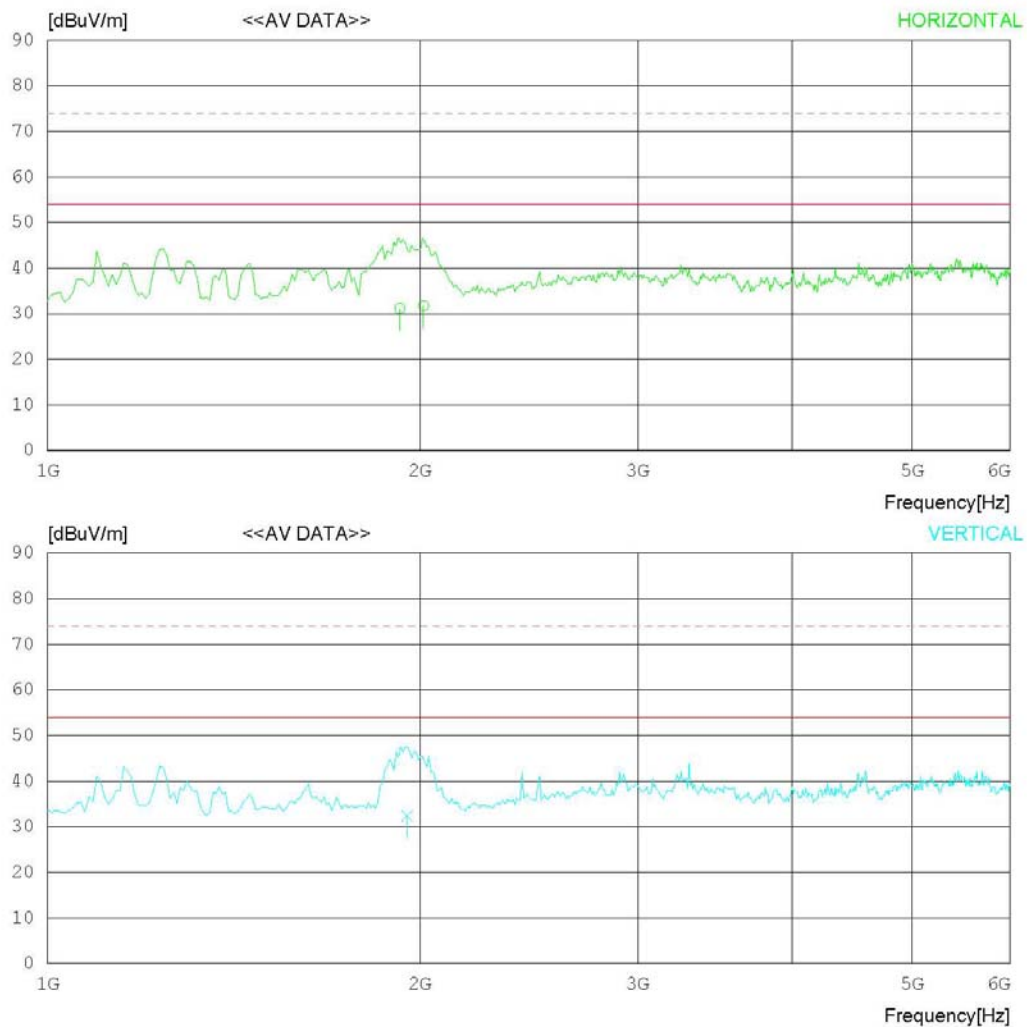
Date : 2012-05-31

Model Name : 32LS3450-UA
Model No. :
Serial No. :
Test Condition : USB PLAY MODE

Reference No. :
Power Supply : 120V 60Hz
Temp/Humi : 23 'C 45 % 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 : 2012-05-31

Model Name : 32LS3450-UA	Reference No. :
Model No. :	Power Supply : 120V 60Hz
Serial No. :	Temp/Humi : 23 °C 45 % R.H.
Test Condition : HDMI MODE	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
		AV	FACTOR							
	[MHz]	[dBuV]	[dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1934.115	44.8	25.1	3.1	41.7	31.3	54.0	22.7	100	358
2	2023.679	40.0	25.2	3.1	41.7	26.6	54.0	27.4	100	358
----- Vertical -----										
3	1956.026	44.8	25.1	3.1	41.7	31.3	54.0	22.7	100	1

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	2012.05.15	2014.05.15
☒ 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