

EMC TEST REPORT

Test item : LED LCD TV monitor
Model No. : 32LT670H-UA
Order No. : 1204-00383
Date of receipt : 2012-04-17
Test duration : 2012-04-20 ~ 2012-04-24
Use of report : FCC CoC Marking
Date of Issue : 2012-04-25

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 ~ 25) °C,
Humidity : (37 ~ 39) % 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:

Reviewed by:



Manager
M.J.SONG



General Manager
C.H.LEE

The above test report is the accredited test results by Korea Laboratory Accreditation Scheme,
which signed the ILAC-MRA.

PRESIDENT OF DIGITAL EMC CO., LTD.

CONTENTS

1. General Remarks	3
2. Test Laboratory	3
3. General Information of EUT	4
4. Test Summary	5
4.1 Applied standards and test results	5
4.2 Test environment and conditions	5
4.3 Test result Summary	5
5. Test Set-up and operation mode	6
5.1 Principle of Configuration Selection.....	6
5.2 Test Operation Mode	6
5.3 Support Equipment Used.....	6
6. Test Results : Emission	7
6.1 Conducted Disturbance	7
6.2 Radiated Disturbance	14
Appendix 1.....	34
List of Test and Measurement Instruments	34

1. General Remarks

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

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

<http://www.digitalemcc.com>

Tel: +82-31-321-2664 Fax: +82-31-321-1664

2. Test Laboratory

Digital EMC Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Mark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
Site Filing	USA	FCC	101842 678747	Test Facility list & NSA Data
	Canada	IC	5740A-1 5740A-2	Test Facility list & NSA Data
	Japan	VCCI	C-1427 R-1364, R-3385 T-1442, G-338	Test Facility list & NSA Data
Certification	Korea	KC	KR0034	Test Facility list & NSA Data
	Germany	TUV	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.	32LT670H-UA
EUT Type	LED LCD TV monitor
Serial No	N/A
FCC ID	BEJ32LT670HUA
Type of Sample Tested	Pre-Production
High Frequency	667 MHz
Rating	AC 100-240 ~ 50/60Hz
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)
640x350	31.46	70.09
720x400	31.46	70.08
640x480	31.46	59.94
800x600	37.87	60.31
1024x768	48.36	60.00
1280x768	47.77	59.87
1360x768	47.71	60.01
1280x1024	63.98	60.02
1600x1200	75.00	60.00
1920x1080 RGB-PC	66.58	59.93
1920x1080 HDMI-PC	67.50	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	04-20	25	39	-
Radiated Disturbance	04-24	22	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]
0.18686	N	47.6	Average	54.2	6.6

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
1709.588	H	48.6	Average	54.0	5.4

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 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)	ferrite core	shield		
PC	DCSCMF	G3RZKBX	DELL	POWER HDMI DSUB USB USB	1.8 1.8 1.8 1.8 1.8	Not use Not use Not use Not use Not use	Non-shield Shield Shield Shield Shield	Plastic	DOC
KEYBOARD	SKG-2000UB	TAKB401425B	MONITEREY INTERNATIONAL CORP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	M-SBF96	LZ948B105W1	LOGITECH Inc.	PS/2	1.8	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS	POWER AV	1.8 1.6	Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	CRUZER SLICE	N/A	SANDISK	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

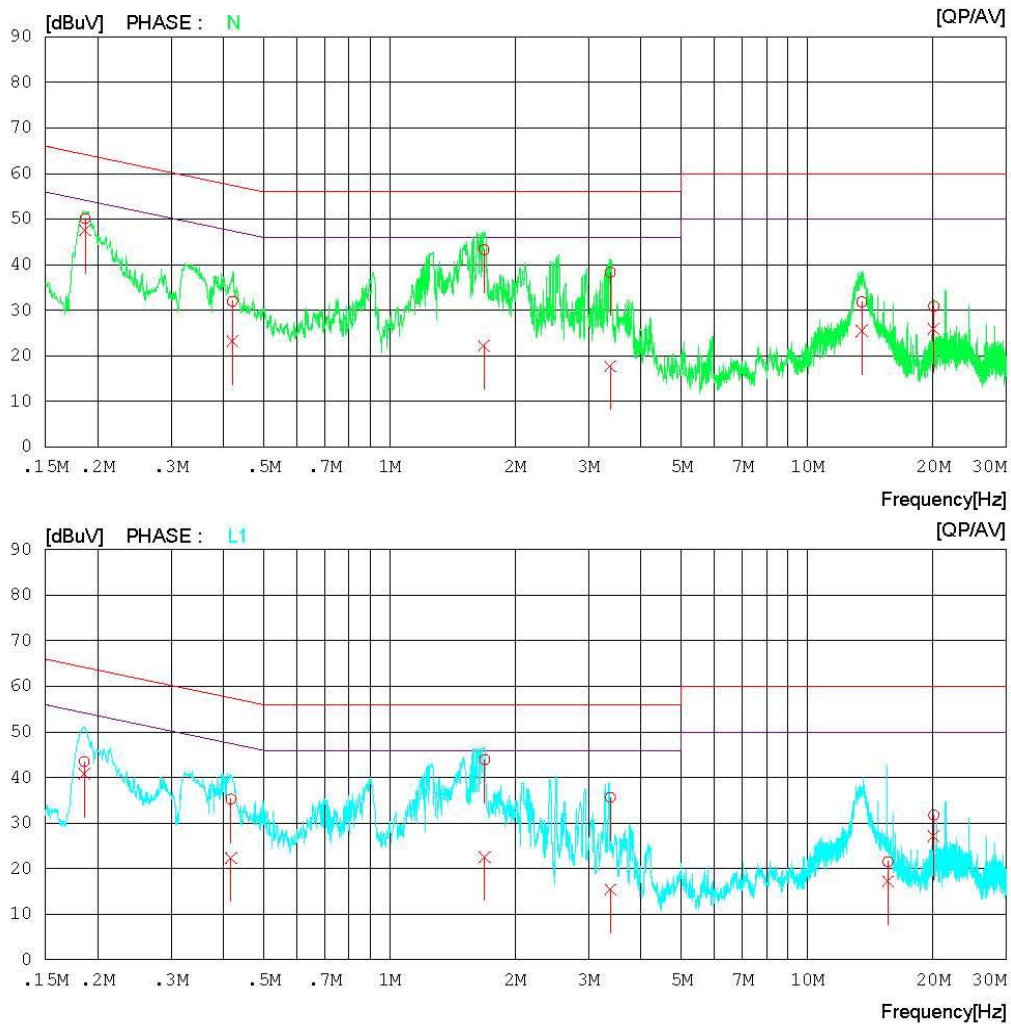
Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % 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	0.18686	49.9	47.4	0.2	50.1	47.6	64.2	54.2	14.1	6.6	N
2	0.42109	31.7	22.9	0.3	32.0	23.2	57.4	47.4	25.4	24.2	N
3	1.68400	43.0	21.9	0.3	43.3	22.2	56.0	46.0	12.7	23.8	N
4	3.37850	37.9	17.3	0.4	38.3	17.7	56.0	46.0	17.7	28.3	N
5	13.51250	30.9	24.6	0.9	31.8	25.5	60.0	50.0	28.2	24.5	N
6	20.09900	29.8	24.9	1.1	30.9	26.0	60.0	50.0	29.1	24.0	N
7	0.18593	43.3	40.6	0.2	43.5	40.8	64.2	54.2	20.7	13.4	L1
8	0.41728	35.0	22.0	0.3	35.3	22.3	57.5	47.5	22.2	25.2	L1
9	1.68950	43.6	22.3	0.3	43.9	22.6	56.0	46.0	12.1	23.4	L1
10	3.37950	35.2	15.0	0.4	35.6	15.4	56.0	46.0	20.4	30.6	L1
11	15.61600	20.6	16.2	1.0	21.6	17.2	60.0	50.0	38.4	32.8	L1
12	20.09800	30.7	26.1	1.1	31.8	27.2	60.0	50.0	28.2	22.8	L1

< HDMI MODE >



Results of Conducted Emission

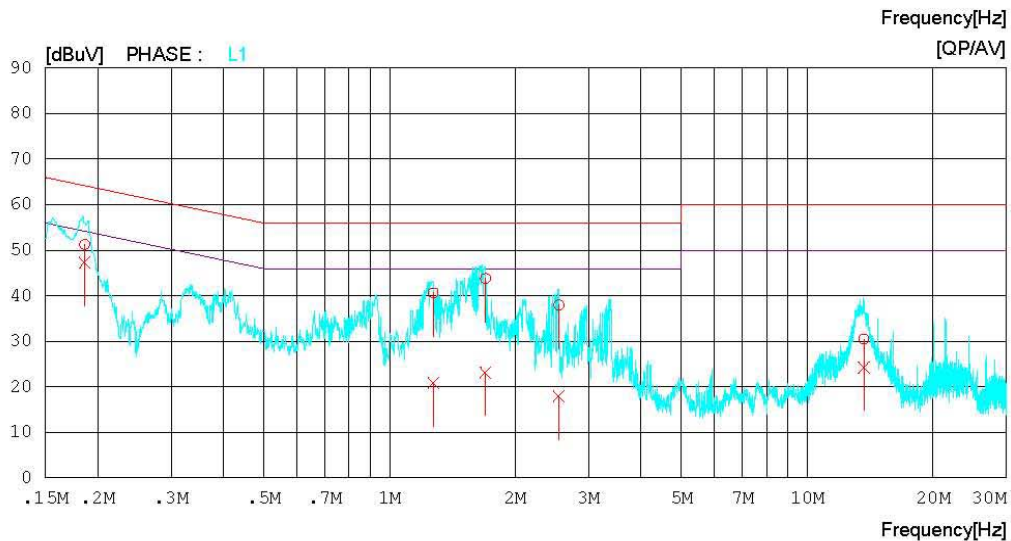
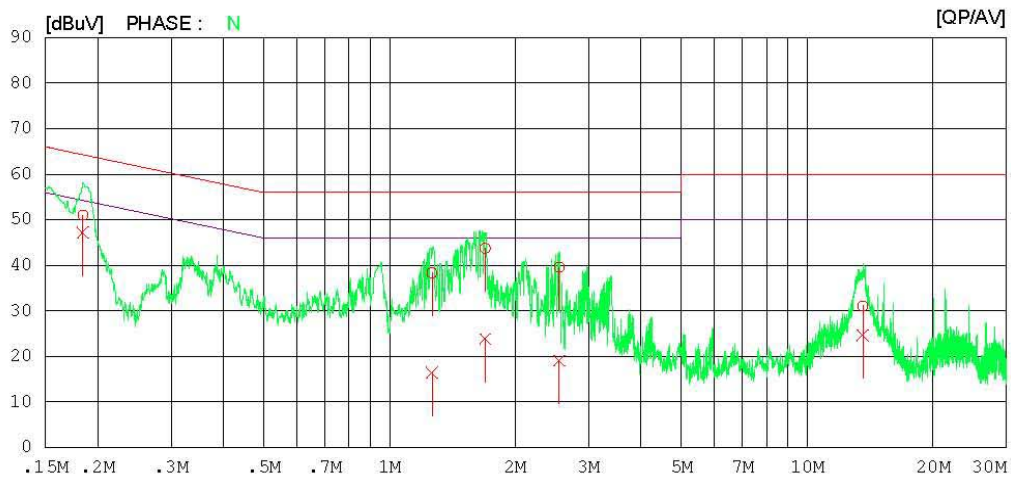
Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % 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	0.18446	50.8	47.0	0.2	51.0	47.2	64.3	54.3	13.3	7.1	N
2	1.26400	38.0	16.2	0.3	38.3	16.5	56.0	46.0	17.7	29.5	N
3	1.69550	43.4	23.5	0.3	43.7	23.8	56.0	46.0	12.3	22.2	N
4	2.54800	39.3	18.7	0.3	39.6	19.0	56.0	46.0	16.4	27.0	N
5	13.59150	30.2	23.7	0.9	31.1	24.6	60.0	50.0	28.9	25.4	N
6	0.18644	51.0	47.1	0.2	51.2	47.3	64.2	54.2	13.0	6.9	L1
7	1.27350	40.3	20.5	0.3	40.6	20.8	56.0	46.0	15.4	25.2	L1
8	1.69700	43.5	22.9	0.3	43.8	23.2	56.0	46.0	12.2	22.8	L1
9	2.54450	37.7	17.6	0.3	38.0	17.9	56.0	46.0	18.0	28.1	L1
10	13.67350	29.6	23.4	0.9	30.5	24.3	60.0	50.0	29.5	25.7	L1

< USB MODE >



Results of Conducted Emission

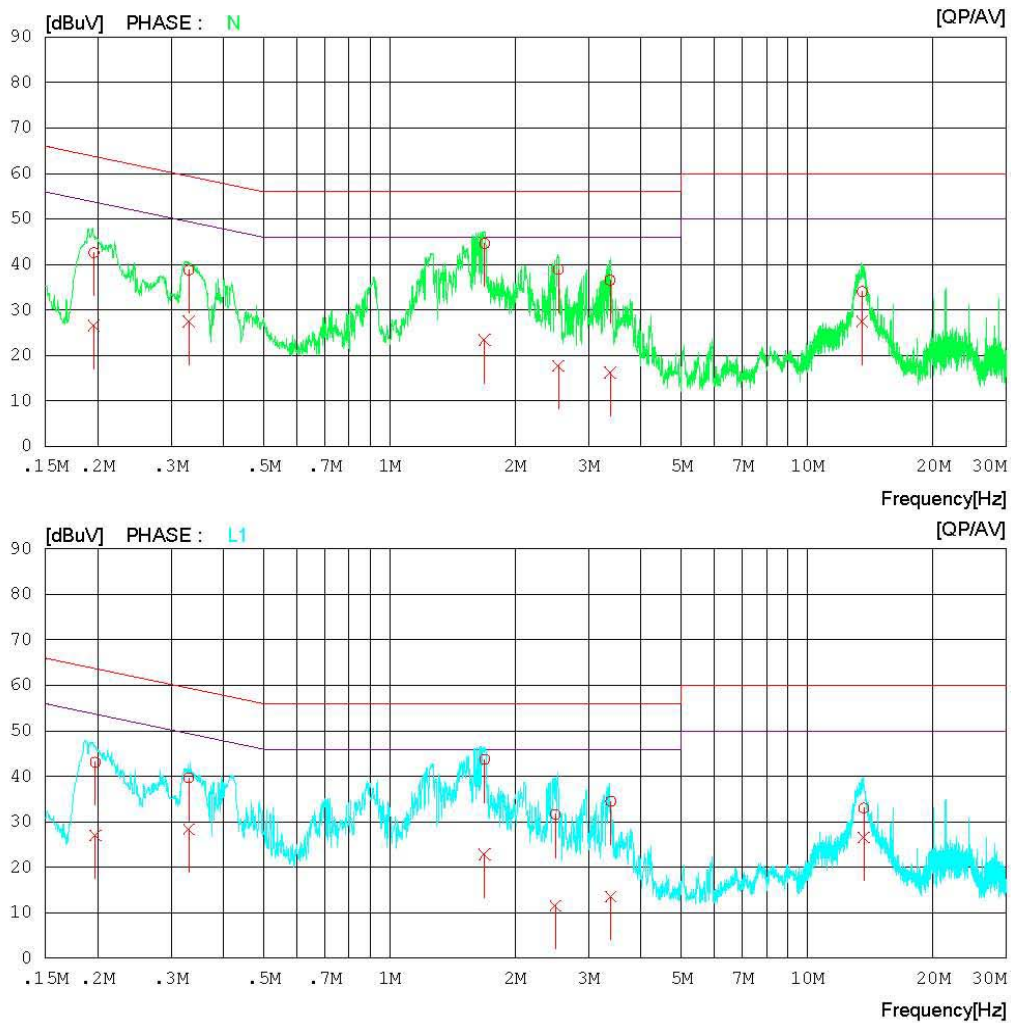
Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2012-04-20

Model No. : 32LT670H-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 39 % 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	0.19610	42.4	26.4	0.2	42.6	26.6	63.8	53.8	21.2	27.2	N
2	0.33074	38.6	27.3	0.2	38.8	27.5	59.4	49.4	20.6	21.9	N
3	1.69000	44.3	23.1	0.3	44.6	23.4	56.0	46.0	11.4	22.6	N
4	2.53550	38.6	17.4	0.3	38.9	17.7	56.0	46.0	17.1	28.3	N
5	3.37450	36.2	15.8	0.4	36.6	16.2	56.0	46.0	19.4	29.8	N
6	13.54500	33.2	26.5	0.9	34.1	27.4	60.0	50.0	25.9	22.6	N
7	0.19744	42.9	26.8	0.2	43.1	27.0	63.7	53.7	20.6	26.7	L1
8	0.33091	39.4	28.2	0.2	39.6	28.4	59.4	49.4	19.8	21.0	L1
9	1.68850	43.4	22.6	0.3	43.7	22.9	56.0	46.0	12.3	23.1	L1
10	2.49500	31.4	11.2	0.3	31.7	11.5	56.0	46.0	24.3	34.5	L1
11	3.38600	34.1	13.1	0.4	34.5	13.5	56.0	46.0	21.5	32.5	L1
12	13.67150	32.1	25.6	0.9	33.0	26.5	60.0	50.0	27.0	23.5	L1

6.2 Radiated Disturbance

6.2.1 Measurement Procedure

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

If the EUT is tabletop equipment, it was placed on a wooden table with a height of 0.8m above the reference ground plane and 3m away from the interference receiving antenna in the **10m semi-anechoic chamber**.

Also if the EUT is floor-standing equipment, it was placed on a non-conducted support with a height up to 0.15m above the reference ground plane.

Rotate the EUT from 0° to 360° and position the receiving antenna at heights from 1 to 4m above the reference ground plane continuously to determine associated with higher emission levels and record them.

The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report.

For below 1GHz frequency range, Quasi-Peak detector with 120kHz RBW was used.

Also Peak and Average detector with 1MHz RBW were used for above 1GHz frequency range.

For further description of the configuration refer to the picture of the test set-up.

6.2.2 Limit for Radiated Disturbance

- The test frequency range of Radiated Disturbance measurements are listed below.

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 th harmonic of the highest frequency or 40GHz, whichever is lower

(1) Limit for Radiated Emission below 1000MHz

Frequency range (MHz)	Class A Equipment (10m distance)	Class B Equipment (3m distance)
	Quasi-peak (dB μ V/m)	Quasi-peak (dB μ V/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1000	49.5	54

Note 1 The lower limit shall apply at the transition frequency.

Note 2 Additional provisions may be required for cases where interference occurs.

Note 3 According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards(CISPR), Pub. 22 shown as below.

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

(2) Limits for Radiated Emission above 1000MHz at a measuring distance of 3m

Frequency (GHz)	Class A Equipment		Class B Equipment	
	Peak (dB μ V/m)	Average (dB μ V/m)	Peak (dB μ V/m)	Average (dB μ V/m)
1 to 40	80	60	74	54

Test Result

< DSUB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

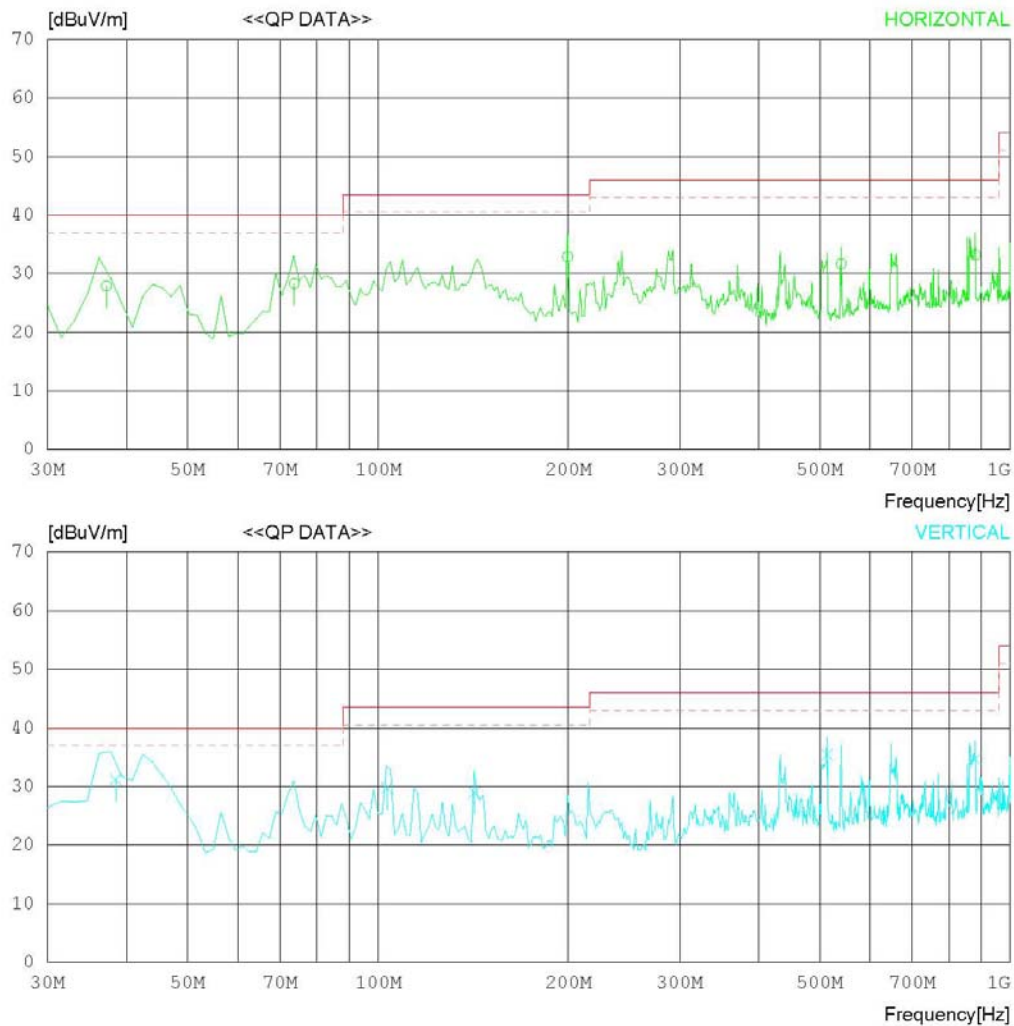
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °C 37 % 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	37.155	34.6	15.5	0.9	23.1	27.9	40.0	12.1	150	230
2	73.699	43.2	6.6	1.3	22.8	28.3	40.0	11.7	225	314
3	199.523	44.5	9.7	2.0	23.3	32.9	43.5	10.6	110	210
4	540.113	34.9	18.1	3.5	24.8	31.7	46.0	14.3	205	119
5	880.591	31.1	20.6	4.7	23.2	33.2	46.0	12.8	210	305
----- Vertical -----										
6	38.466	38.6	14.7	0.9	23.0	31.2	40.0	8.8	110	165
7	103.361	40.1	10.9	1.5	22.8	29.7	43.5	13.8	100	210
8	142.132	39.5	10.9	1.6	23.0	29.0	43.5	14.5	100	195
9	513.687	39.0	17.8	3.4	24.8	35.4	46.0	10.6	100	187
10	880.615	32.6	20.6	4.7	23.2	34.7	46.0	11.3	105	168

< DSUB MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

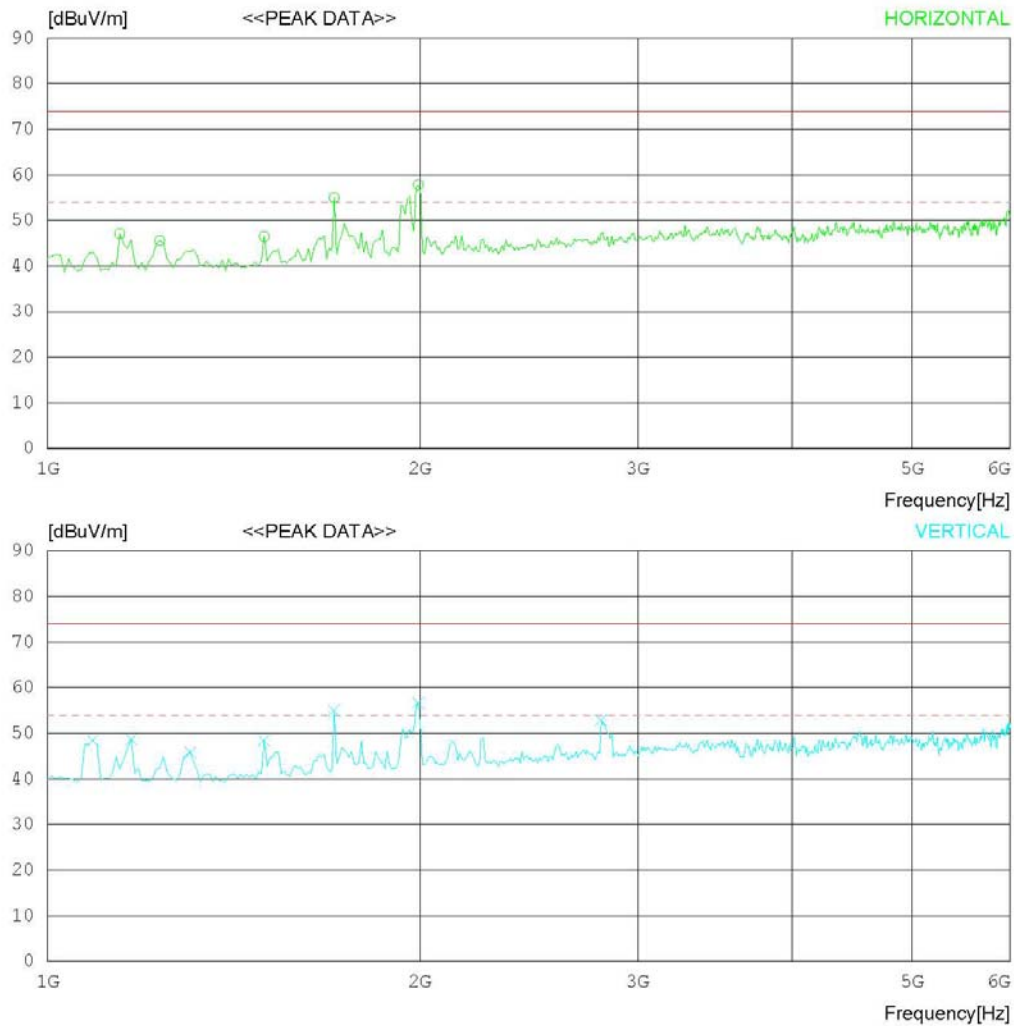
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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)



* Remark : There are not found emissions above 6GHz

RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22°C 37 % 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	1144.231	59.0	24.8	5.1	41.8	47.1	74.0	26.9	100	358
2	1232.372	57.0	25.1	5.3	41.8	45.6	74.0	28.4	100	358
3	1496.795	56.1	26.1	5.9	41.6	46.5	74.0	27.5	100	358
4	1705.128	63.4	26.9	6.4	41.7	55.0	74.0	19	100	148
5	1993.589	64.6	27.9	7.0	41.7	57.8	74.0	16.2	100	358
----- Vertical -----										
6	1088.141	60.7	24.6	5.0	41.8	48.5	74.0	25.5	100	1
7	1168.269	60.5	24.9	5.2	41.9	48.7	74.0	25.3	100	229
8	1304.487	56.7	25.4	5.5	41.8	45.8	74.0	28.2	100	1
9	1496.795	58.1	26.1	5.9	41.6	48.5	74.0	25.5	100	1
10	1705.128	63.4	26.9	6.4	41.7	55.0	74.0	19	100	123
11	1993.589	63.5	27.9	7.0	41.7	56.7	74.0	17.3	100	237
12	2802.896	56.6	29.6	8.4	41.7	52.9	74.0	21.1	100	1

< DSUB MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

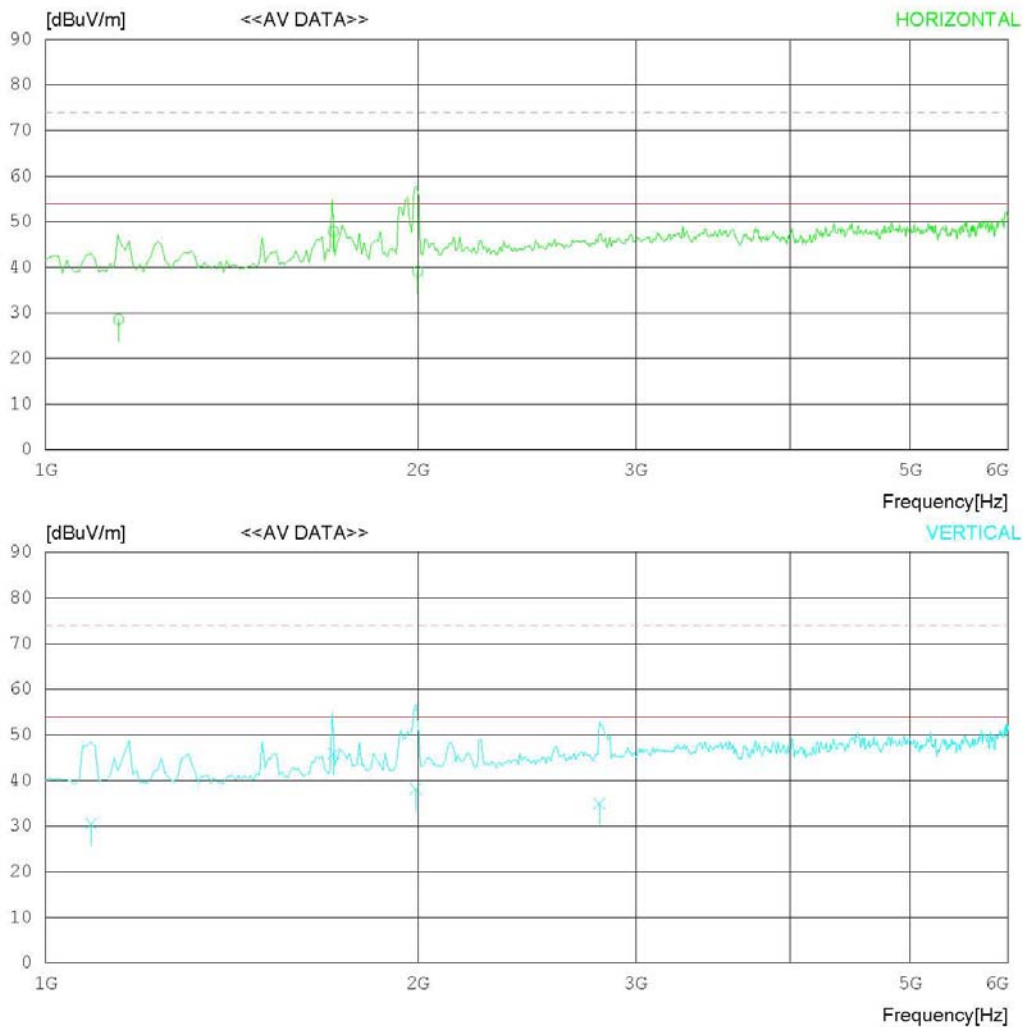
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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 : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22 'C 37 % 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	1145.608	40.5	24.8	5.1	41.8	28.6	54.0	25.4	100	187
2	1709.115	56.3	26.9	6.4	41.7	47.9	54.0	6.1	100	177
3	1998.642	45.8	28.0	7.0	41.7	39.1	54.0	14.9	100	171
----- Vertical -----										
4	1089.115	42.7	24.6	5.0	41.8	30.5	54.0	23.5	100	156
5	1708.699	54.3	26.9	6.4	41.7	45.9	54.0	8.1	100	164
6	1992.321	45.0	27.9	7.0	41.7	38.2	54.0	15.8	100	199
7	2802.905	38.6	29.6	8.4	41.7	34.9	54.0	19.1	100	166

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

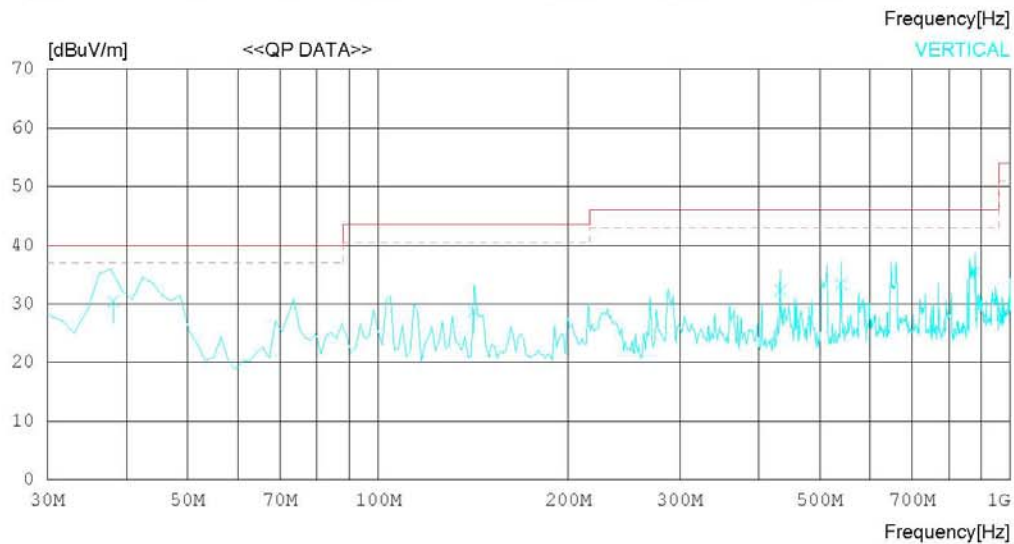
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22 °C 37 % 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	44.100	36.8	14.1	1.0	22.9	29.0	40.0	11.0	305	211
2	73.810	43.8	6.7	1.3	22.8	29.0	40.0	11.0	200	305
3	104.808	39.7	11.0	1.5	22.8	29.4	43.5	14.1	310	169
4	199.876	45.2	9.7	2.0	23.3	33.6	43.5	9.9	198	154
5	513.864	35.2	17.8	3.4	24.8	31.6	46.0	14.4	345	165
6	647.663	34.4	18.8	4.0	24.5	32.7	46.0	13.3	180	147
7	880.129	31.8	20.6	4.7	23.2	33.9	46.0	12.1	200	301
----- Vertical -----										
8	38.124	37.6	14.9	0.9	23.0	30.4	40.0	9.6	105	201
9	141.674	39.3	10.9	1.6	23.0	28.8	43.5	14.7	110	194
10	433.120	37.3	16.5	3.2	24.6	32.4	46.0	13.6	120	187
11	540.115	36.6	18.1	3.5	24.8	33.4	46.0	12.6	115	305
12	880.126	33.5	20.6	4.7	23.2	35.6	46.0	10.4	100	166

< HDMI MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

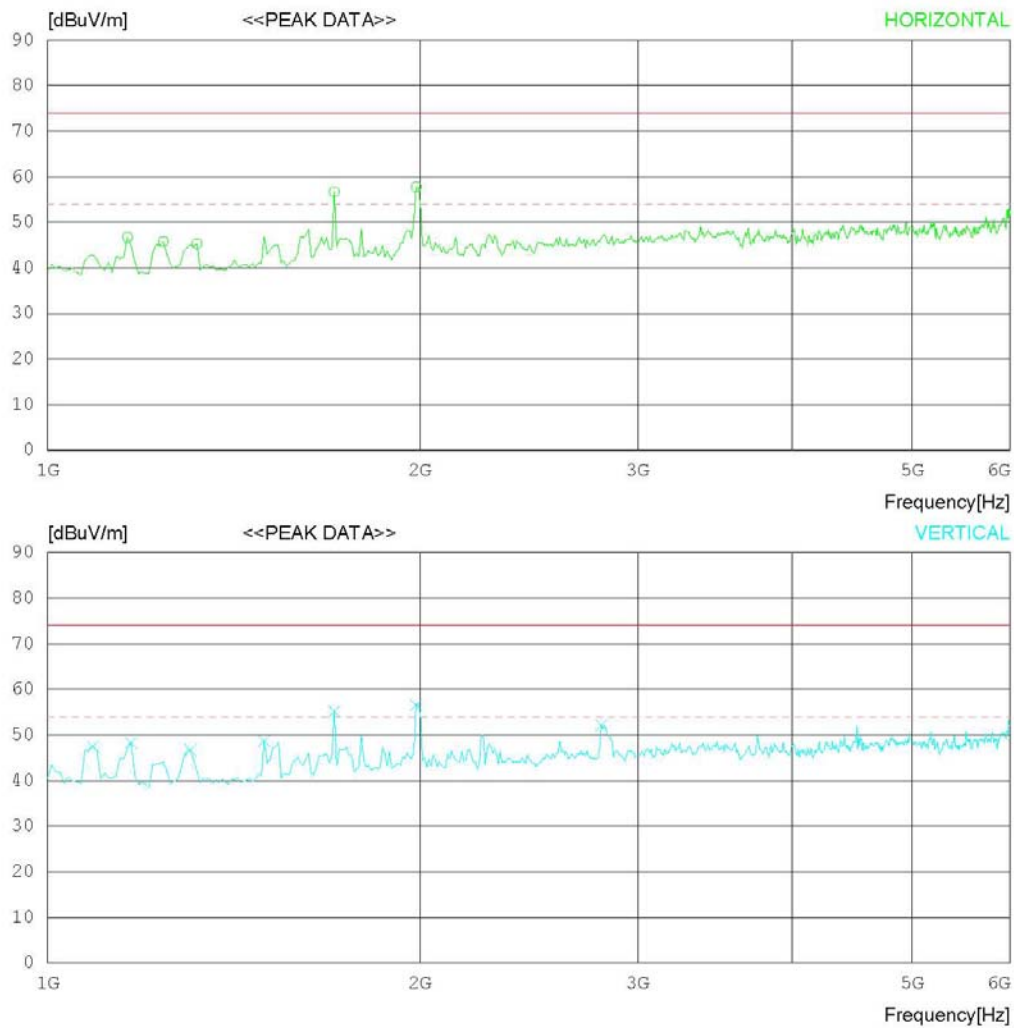
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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)



* Remark : There are not found emissions above 6GHz

RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22°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	1160.256	58.6	24.8	5.2	41.9	46.7	74.0	27.3	100	358
2	1240.385	57.1	25.1	5.4	41.8	45.8	74.0	28.2	100	235
3	1320.513	56.2	25.4	5.5	41.8	45.3	74.0	28.7	100	220
4	1705.128	65.1	26.9	6.4	41.7	56.7	74.0	17.3	100	147
5	1985.577	64.6	27.9	7.0	41.7	57.8	74.0	16.2	100	213
----- Vertical -----										
6	1088.141	59.7	24.6	5.0	41.8	47.5	74.0	26.5	100	1
7	1168.269	60.1	24.9	5.2	41.9	48.3	74.0	25.7	100	1
8	1304.487	57.6	25.4	5.5	41.8	46.7	74.0	27.3	100	1
9	1496.795	58.3	26.1	5.9	41.6	48.7	74.0	25.3	100	1
10	1705.128	63.6	26.9	6.4	41.7	55.2	74.0	18.8	100	122
11	1985.577	63.4	27.9	7.0	41.7	56.6	74.0	17.4	100	1
12	2802.896	55.8	29.6	8.4	41.7	52.1	74.0	21.9	100	1

< HDMI MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

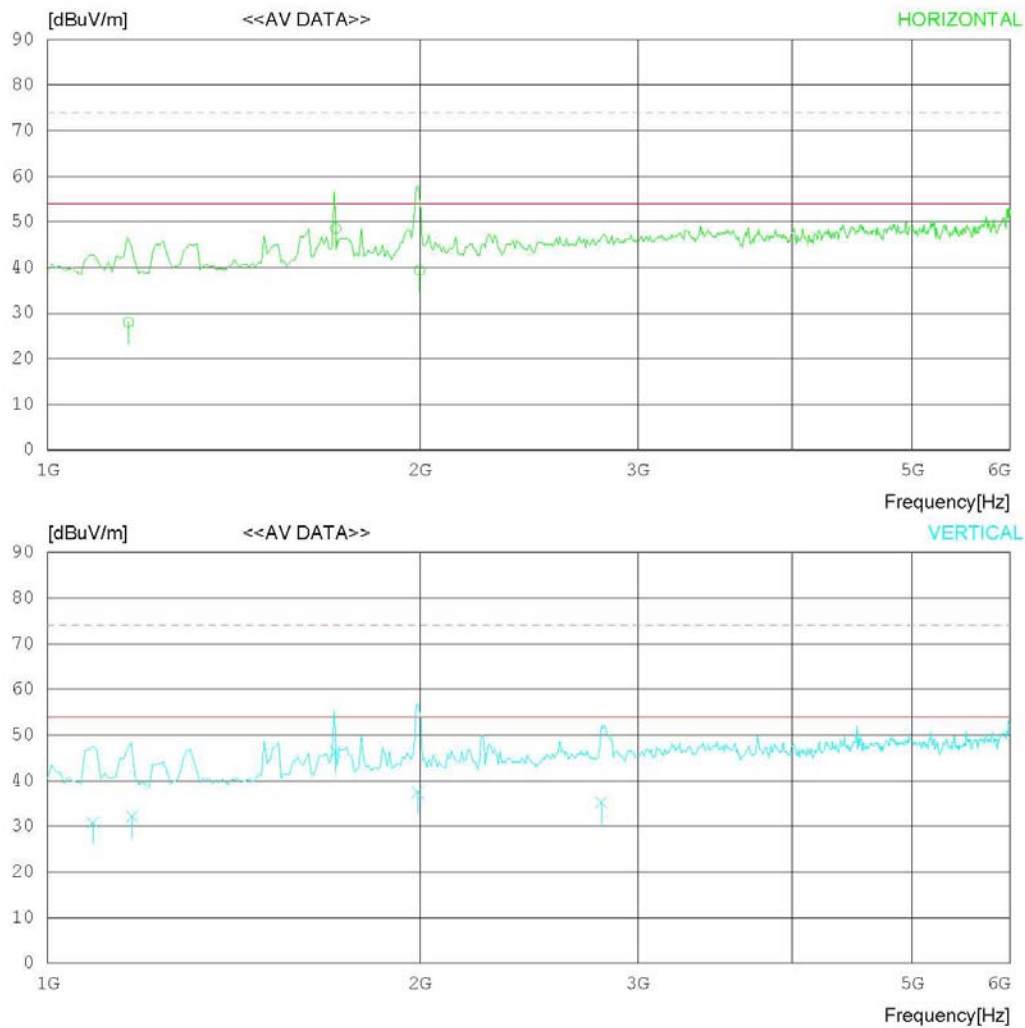
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 '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 : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22 '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	1162.215	39.9	24.8	5.2	41.9	28.0	54.0	26.0	100	243
2	1709.588	57.0	26.9	6.4	41.7	48.6	54.0	5.4	100	265
3	1998.591	46.1	28.0	7.0	41.7	39.4	54.0	14.6	100	233
----- Vertical -----										
4	1088.211	43.0	24.6	5.0	41.8	30.8	54.0	23.2	100	135
5	1170.130	44.0	24.9	5.2	41.9	32.2	54.0	21.8	100	167
6	1709.233	54.9	26.9	6.4	41.7	46.5	54.0	7.5	100	155
7	1991.255	44.3	27.9	7.0	41.7	37.5	54.0	16.5	100	196
8	2802.864	39.0	29.6	8.4	41.7	35.3	54.0	18.7	100	201

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

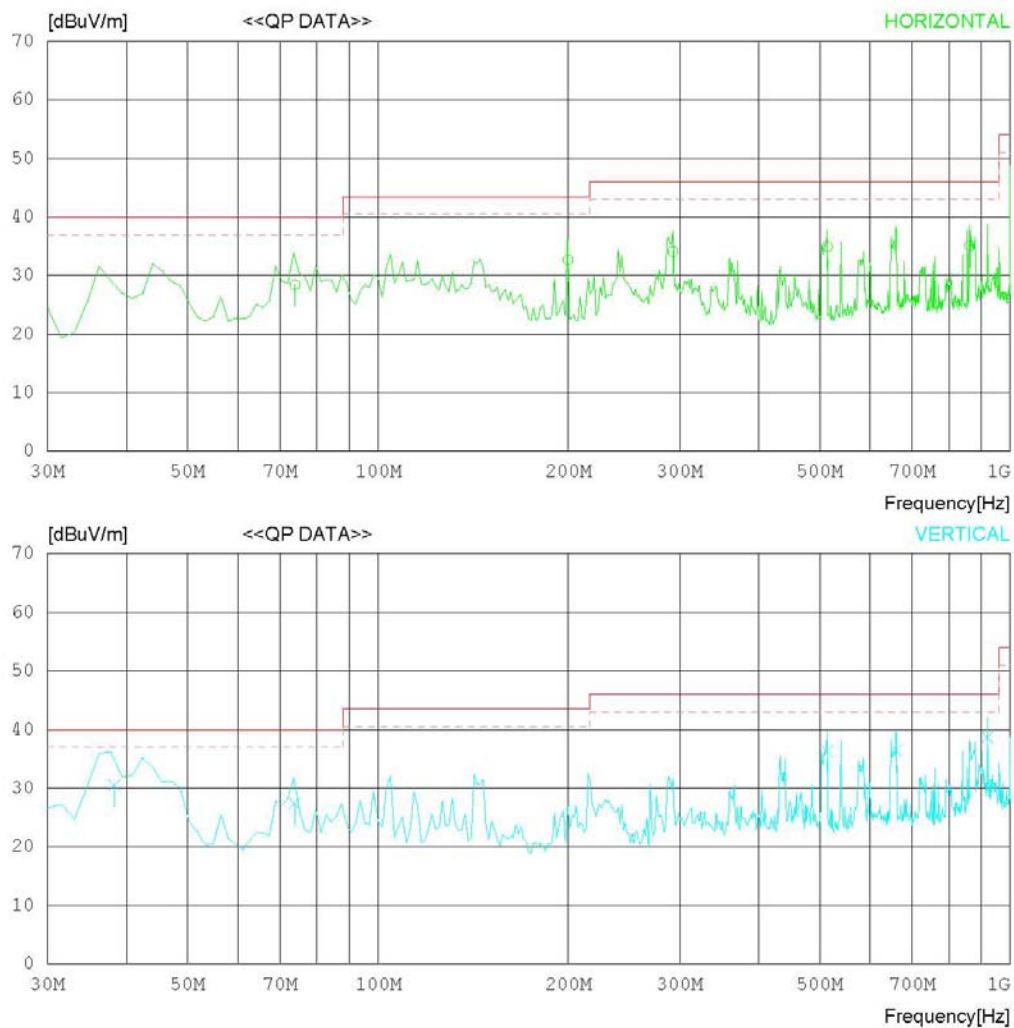
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °C 37 % R.H.
Operator :

Memo :

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



RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22 'C 37 % 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	73.845	43.2	6.7	1.3	22.8	28.4	40.0	11.6	305	294
2	199.782	44.3	9.7	2.0	23.3	32.7	43.5	10.8	105	168
3	292.689	41.6	13.7	2.6	23.8	34.1	46.0	11.9	110	230
4	513.699	38.5	17.8	3.4	24.8	34.9	46.0	11.1	330	314
5	863.505	33.3	20.6	4.5	23.3	35.1	46.0	10.9	100	187
----- Vertical -----										
6	38.268	37.7	14.9	0.9	23.0	30.5	40.0	9.5	100	151
7	73.776	42.3	6.6	1.3	22.8	27.4	40.0	12.6	205	216
8	513.674	39.9	17.8	3.4	24.8	36.3	46.0	9.7	110	219
9	659.988	38.1	18.8	4.0	24.4	36.5	46.0	9.5	100	221
10	920.891	36.1	20.7	4.9	23.0	38.7	46.0	7.3	100	235

< USB MODE_1 GHz ~ 6 GHz_Peak >

RADIATED EMISSION

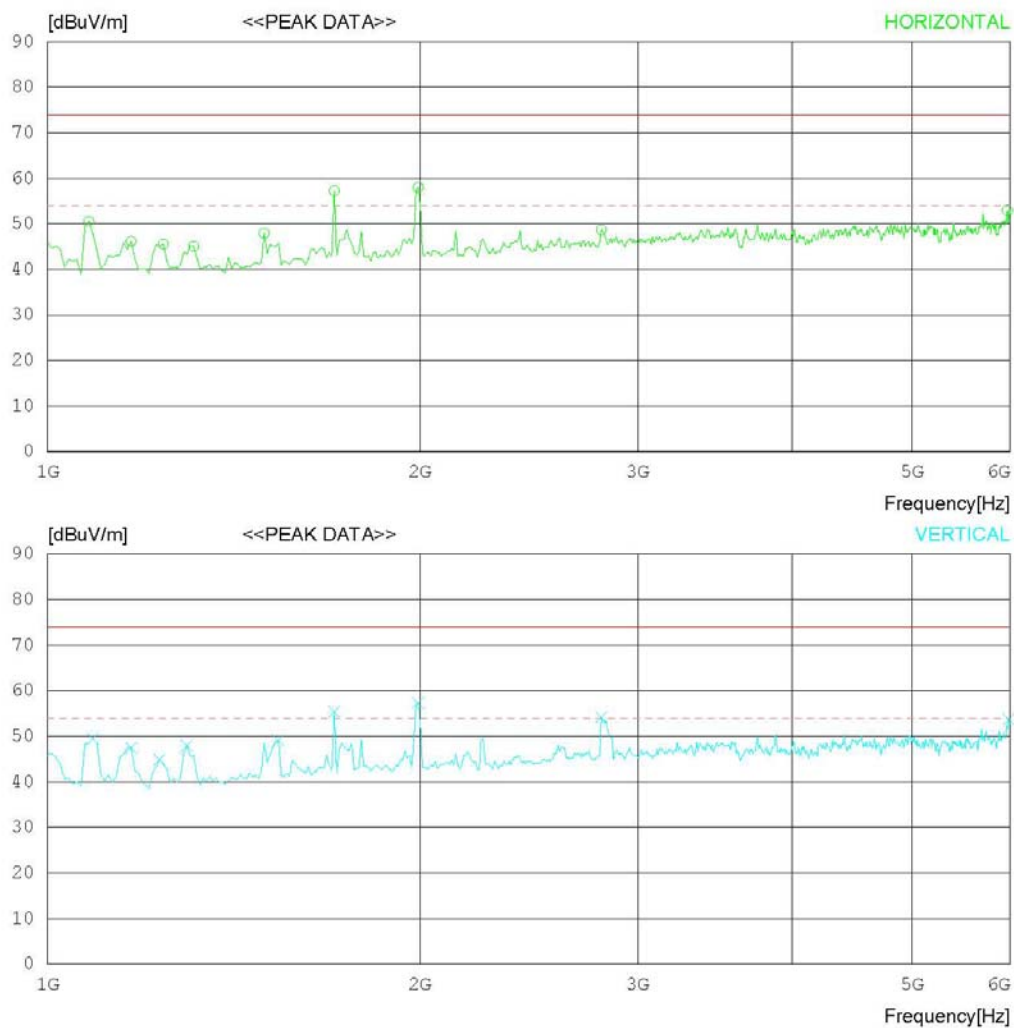
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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)



* Remark : There are not found emissions above 6GHz

RADIATED EMISSION

Date : 2012-04-24

Model Name : 32LT670H-UA	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 22°C 37 % 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	1080.128	62.9	24.5	5.0	41.8	50.6	74.0	23.4	100	229
2	1168.269	58.0	24.9	5.2	41.9	46.2	74.0	27.8	100	238
3	1240.385	56.9	25.1	5.4	41.8	45.6	74.0	28.4	100	1
4	1312.500	56.0	25.4	5.5	41.8	45.1	74.0	28.9	100	1
5	1496.795	57.6	26.1	5.9	41.6	48.0	74.0	26	100	1
6	1705.128	65.7	26.9	6.4	41.7	57.3	74.0	16.7	100	145
7	1993.589	64.8	27.9	7.0	41.7	58.0	74.0	16	100	212
8	2802.896	52.4	29.6	8.4	41.7	48.7	74.0	25.3	100	1
9	5967.950	48.3	34.3	12.5	42.1	53.0	74.0	21	100	359
----- Vertical -----										
10	1088.141	61.7	24.6	5.0	41.8	49.5	74.0	24.5	100	162
11	1168.269	59.3	24.9	5.2	41.9	47.5	74.0	26.5	100	358
12	1232.372	56.3	25.1	5.3	41.8	44.9	74.0	29.1	100	358
13	1296.474	58.9	25.3	5.5	41.8	47.9	74.0	26.1	100	172
14	1536.859	58.5	26.2	6.0	41.6	49.1	74.0	24.9	100	269
15	1705.128	63.8	26.9	6.4	41.7	55.4	74.0	18.6	100	358
16	1993.589	64.1	27.9	7.0	41.7	57.3	74.0	16.7	100	358
17	2802.896	57.9	29.6	8.4	41.7	54.2	74.0	19.8	100	207
18	5983.975	49.0	34.3	12.5	42.1	53.7	74.0	20.3	100	351

< USB MODE_1 GHz ~ 6 GHz_Average >

RADIATED EMISSION

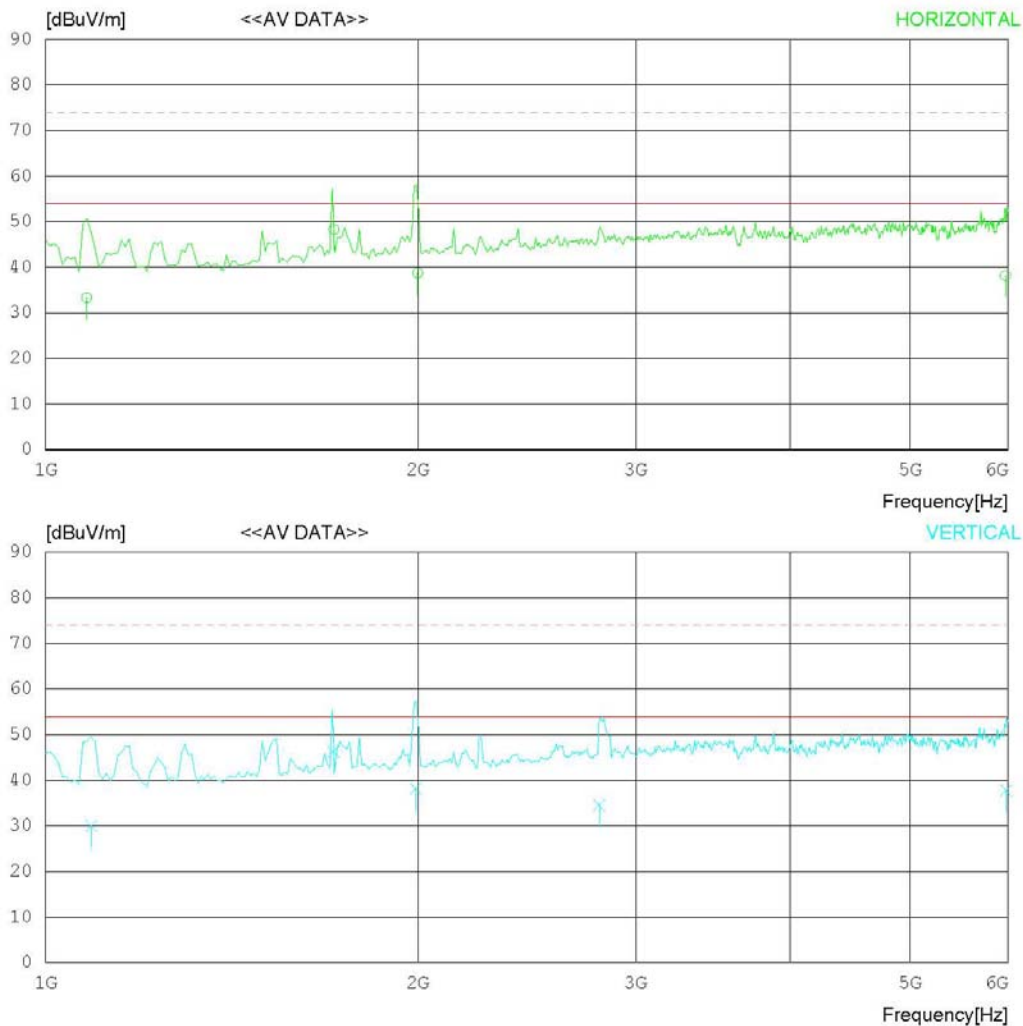
Date : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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 : 2012-04-24

Model Name : 32LT670H-UA
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 22 °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	1080.003	45.6	24.5	5.0	41.8	33.3	54.0	20.7	100	201
2	1709.999	56.7	26.9	6.4	41.7	48.3	54.0	5.7	100	230
3	1998.429	45.5	28.0	7.0	41.7	38.8	54.0	15.2	100	249
4	5968.303	33.5	34.3	12.5	42.1	38.2	54.0	15.8	100	235
----- Vertical -----										
5	1088.505	42.2	24.6	5.0	41.8	30.0	54.0	24.0	100	169
6	1709.807	54.6	26.9	6.4	41.7	46.2	54.0	7.8	100	189
7	1991.717	44.9	27.9	7.0	41.7	38.1	54.0	15.9	100	195
8	2802.801	38.2	29.6	8.4	41.7	34.5	54.0	19.5	100	168
9	5975.788	33.1	34.3	12.5	42.1	37.8	54.0	16.2	100	201

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	556	2011.06.14	2013.06.14
☒ 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