

# EMC TEST REPORT

Test item : LED TV Monitor  
Model No. : 32LN570B-UH  
Order No. : DEMC1308-02460  
Date of receipt : 2013-08-08  
Test duration : 2013-08-13 ~ 2013-08-14  
Use of report : FCC CoC Marking  
Date of Issue : 2013-08-19

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 : 25 °C,  
Humidity : (54 ~ 56) % 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.

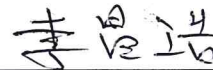
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Tested by:



Manager  
DaeHwa Eun

Reviewed by:



Technical Manager  
ChangHo Lee

**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.digitalemc.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	ROK1221C	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.	32LN570B-UH
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ32LN570BUH
Type of Sample Tested	Pre-Production
High Frequency	790 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.3 A
Supplied Power for Test	AC 120 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

#### HDMI (PC) supported mode

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
1152 x 864	54.348	60.053
1360 x 768	47.712	60.015
1280 x 1024	63.981	60.020
1920 x 1080	67.5	60.00

## 4. Test Summary

### 4.1 Applied standards and test results

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4:2003	C
Radiated Disturbance	ANSI C63.4:2003	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

### 4.2 Test environment and conditions

Test Items	Test date (MM-DD)	Temp (°C)	Humidity (% R.H.)
Conducted Disturbance	08-13	25	54
Radiated Disturbance	08-13	25	56
	08-14	25	56

### 4.3 Test result Summary

#### (1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dB $\mu$ V]	Detector	Limit [dB $\mu$ V]	Margin [dB]
0.15892	L1	51.7	Quasi-Peak	65.5	13.8

#### (2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB( $\mu$ V/m)]	Detector	Limit [dB( $\mu$ V/m)]	Margin [dB]
742.504	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 : 'H' Pattern mode, 1920 x 1080 Resolution
- USB MODE : USB recorded file play

### 5.3 Support Equipment Used

Unit	Model No.	Serial No.	Manufacturer	CABLE				Backshell	FCC ID
				Connect type	Length (m)	ferrite core	shield		
PC	VOSTRO460	7L7JXBX	DELL	POWER	1.8	Not use	Non-shield	Plastic	DOC
				USB	1.7	Not use	Non-shield		
				USB	1.6	Not use	Non-shield		
				USB	2.0	Not use	Non-shield		
				HDMI	1.9	Not use	Shield		
KEYBOARD	SKG-3000UB	TAKB601241E	MONITEREY INTERNATIONAL CORP	USB	1.7	Not use	Non-shield	Plastic	DOC
MOUSE	1484	3527000 21372	MICROSOFT CORPORATION	USB	1.6	Not use	Non-shield	Plastic	DOC
PRINT	SRP-770	N/A	BICSOLON	POWER USB	1.8 2.0	Not use Not use	Non-shield Non-shield	Plastic	DOC
Adaptor (PRINT)	N60-24025011	N/A	JIANGSU LEADER ELECTRONICS CO., LTD.	POWER POWER	1.8 1.8	Not use Not use	Non-shield Non-shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS.	POWER AV	1.8 1.5	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	CRUZER 4GB	N/A	SANDISK	USB	-	-	-	Plastic	DOC
Remote control	AKB737 56542	N/A	OHSUNG ELECTRONICS CO., LTD	-	-	-	-	-	-
Headset	COV903	N/A	COSY	STEREO	2.0	Not use	Non-shield	Plastic	DOC

## 6. Test Results : Emission

### 6.1 Conducted Disturbance

#### 6.1.1 Measurement Procedure

In the range of 0.15 MHz to 30 MHz, 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 0.8 m above the reference ground plane and 0.4 m 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 0.15 m 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 2<sup>nd</sup> 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 0.15 MHz to 0.5 MHz.

- Note) 1. Emission Level = Reading Value + Correction Factor.  
 2. Correction Factor = Cable Loss + Insertion Loss of LISN  
 3. Margin = Limit - Emission level

Test Result

< HDMI MODE >



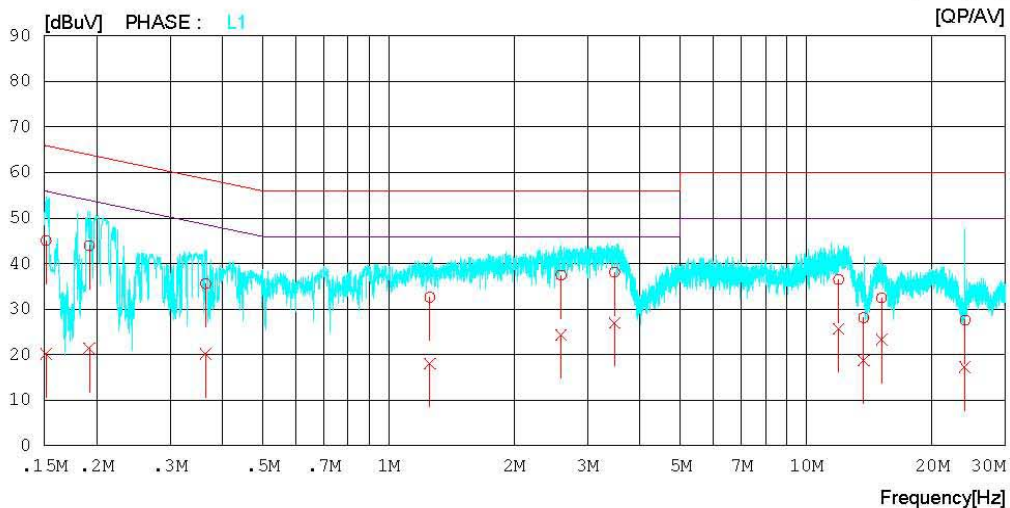
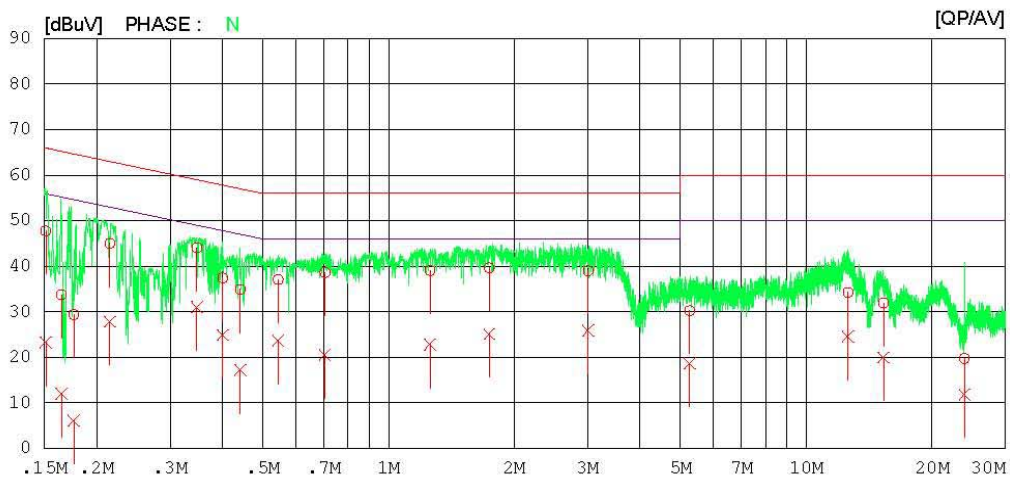
Results of Conducted Emission

Digital EMC  
Date : 2013-08-13

Model No. : 32LN570B-UH  
Type :  
Serial No. :  
Test Condition : HDMI

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi. : 25 °C 54 % R.H.  
Operator :

Memo :  
LIMIT : CISPR22\_B QP  
CISPR22\_B AV



## Results of Conducted Emission

Digital EMC  
 Date : 2013-08-13

Model No.	: 32LN570B-UH	Reference No.	:
Type	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi.	: 25 °C 54 % R.H.
Test Condition	: HDMI	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	0.15120	47.7	23.1	0.1	47.8	23.2	65.9	55.9	18.1	32.7	N
2	0.16476	33.6	11.9	0.1	33.7	12.0	65.2	55.2	31.5	43.2	N
3	0.17650	29.3	6.0	0.1	29.4	6.1	64.6	54.6	35.2	48.5	N
4	0.21531	44.9	27.7	0.1	45.0	27.8	63.0	53.0	18.0	25.2	N
5	0.34804	43.9	31.0	0.1	44.0	31.1	59.0	49.0	15.0	17.9	N
6	0.40097	37.3	24.8	0.1	37.4	24.9	57.8	47.8	20.4	22.9	N
7	0.44199	34.8	17.1	0.1	34.9	17.2	57.0	47.0	22.1	29.8	N
8	0.54438	37.0	23.6	0.1	37.1	23.7	56.0	46.0	18.9	22.3	N
9	0.70487	38.4	20.4	0.2	38.6	20.6	56.0	46.0	17.4	25.4	N
10	1.25740	38.7	22.5	0.3	39.0	22.8	56.0	46.0	17.0	23.2	N
11	1.74240	39.4	24.8	0.3	39.7	25.1	56.0	46.0	16.3	20.9	N
12	3.00720	38.7	25.6	0.3	39.0	25.9	56.0	46.0	17.0	20.1	N
13	5.26540	29.7	18.2	0.5	30.2	18.7	60.0	50.0	29.8	31.3	N
14	12.59600	33.5	23.8	0.7	34.2	24.5	60.0	50.0	25.8	25.5	N
15	15.31380	31.1	19.2	0.8	31.9	20.0	60.0	50.0	28.1	30.0	N
16	23.92440	18.9	10.9	0.9	19.8	11.8	60.0	50.0	40.2	38.2	N
17	0.15156	44.9	20.1	0.1	45.0	20.2	65.9	55.9	20.9	35.7	L1
18	0.19229	43.9	21.3	0.1	44.0	21.4	63.9	53.9	19.9	32.5	L1
19	0.36517	35.5	20.1	0.1	35.6	20.2	58.6	48.6	23.0	28.4	L1
20	1.25600	32.3	17.7	0.3	32.6	18.0	56.0	46.0	23.4	28.0	L1
21	2.59000	37.2	24.1	0.3	37.5	24.4	56.0	46.0	18.5	21.6	L1
22	3.48040	37.8	26.7	0.3	38.1	27.0	56.0	46.0	17.9	19.0	L1
23	11.95500	35.8	25.0	0.7	36.5	25.7	60.0	50.0	23.5	24.3	L1
24	13.73840	27.4	18.0	0.7	28.1	18.7	60.0	50.0	31.9	31.3	L1
25	15.16460	31.7	22.5	0.8	32.5	23.3	60.0	50.0	27.5	26.7	L1
26	23.99980	26.7	16.4	0.9	27.6	17.3	60.0	50.0	32.4	32.7	L1

< USB MODE >



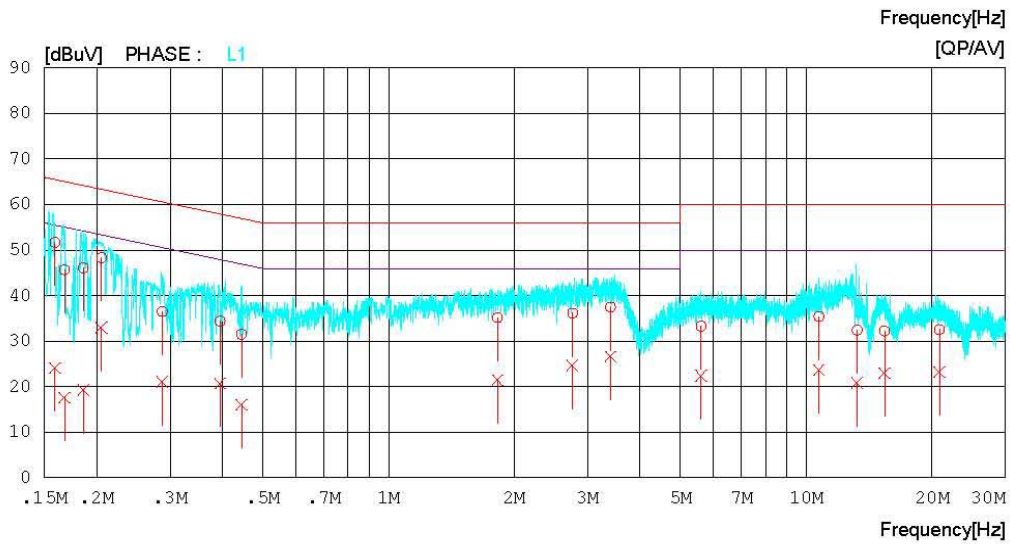
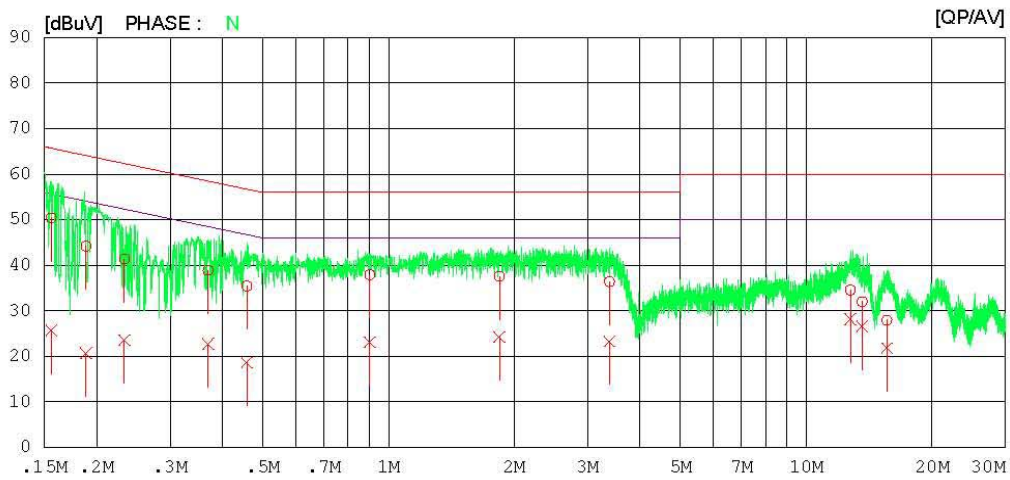
### Results of Conducted Emission

Digital EMC  
 Date : 2013-08-13

Model No.	: 32LN570B-UH	Reference No.	:
Type	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi.	: 25 °C 54 % R.H.
Test Condition	: USB	Operator	:

Memo :

LIMIT : CISPR22\_B QP  
 CISPR22\_B AV



## Results of Conducted Emission

Digital EMC  
 Date : 2013-08-13

Model No. : 32LN570B-UH	Reference No. :
Type :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi. : 25 °C 54 % R.H.
Test Condition : USB	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	0.15593	50.3	25.5	0.1	50.4	25.6	65.7	55.7	15.3	30.1	N
2	0.18875	44.1	20.6	0.1	44.2	20.7	64.1	54.1	19.9	33.4	N
3	0.23320	41.3	23.4	0.1	41.4	23.5	62.3	52.3	20.9	28.8	N
4	0.36996	38.8	22.6	0.1	38.9	22.7	58.5	48.5	19.6	25.8	N
5	0.45800	35.3	18.5	0.1	35.4	18.6	56.7	46.7	21.3	28.1	N
6	0.90217	37.7	22.9	0.2	37.9	23.1	56.0	46.0	18.1	22.9	N
7	1.84280	37.2	23.9	0.3	37.5	24.2	56.0	46.0	18.5	21.8	N
8	3.38200	36.1	23.0	0.3	36.4	23.3	56.0	46.0	19.6	22.7	N
9	12.75440	33.8	27.4	0.7	34.5	28.1	60.0	50.0	25.5	21.9	N
10	13.62140	31.3	25.9	0.7	32.0	26.6	60.0	50.0	28.0	23.4	N
11	15.60860	27.1	21.0	0.8	27.9	21.8	60.0	50.0	32.1	28.2	N
12	0.15892	51.6	24.0	0.1	51.7	24.1	65.5	55.5	13.8	31.4	L1
13	0.16758	45.6	17.5	0.1	45.7	17.6	65.1	55.1	19.4	37.5	L1
14	0.18596	46.0	19.2	0.1	46.1	19.3	64.2	54.2	18.1	34.9	L1
15	0.20559	48.2	32.9	0.1	48.3	33.0	63.4	53.4	15.1	20.4	L1
16	0.28740	36.4	20.9	0.1	36.5	21.0	60.6	50.6	24.1	29.6	L1
17	0.39527	34.3	20.6	0.1	34.4	20.7	58.0	48.0	23.6	27.3	L1
18	0.44452	31.4	15.9	0.1	31.5	16.0	57.0	47.0	25.5	31.0	L1
19	1.82520	34.9	21.1	0.3	35.2	21.4	56.0	46.0	20.8	24.6	L1
20	2.75800	35.9	24.4	0.3	36.2	24.7	56.0	46.0	19.8	21.3	L1
21	3.40000	37.2	26.3	0.3	37.5	26.6	56.0	46.0	18.5	19.4	L1
22	5.60460	32.8	21.9	0.5	33.3	22.4	60.0	50.0	26.7	27.6	L1
23	10.73220	34.7	23.0	0.7	35.4	23.7	60.0	50.0	24.6	26.3	L1
24	13.24240	31.7	20.1	0.7	32.4	20.8	60.0	50.0	27.6	29.2	L1
25	15.39240	31.4	22.1	0.8	32.2	22.9	60.0	50.0	27.8	27.1	L1
26	20.84520	31.7	22.3	0.9	32.6	23.2	60.0	50.0	27.4	26.8	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 0.8 m above the reference ground plane and 3 m or 10 m 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 0.15 m above the reference ground plane.

Rotate the EUT from (0 - 360)° and position the receiving antenna at heights from (1 - 4) m 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 1 GHz frequency range, Quasi-Peak detector with 120 kHz RBW was used.

Also Peak and Average detector with 1 MHz RBW were used for above 1 GHz 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	1 000
108 – 500	2 000
500 – 1 000	5 000
Above 1 000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

### (1) Limit for Radiated Emission below 1 000MHz

Frequency range (MHz)	Class A Equipment (10 m distance)	Class B Equipment (3 m distance)
	Quasi-peak (dB $\mu$ V/m)	Quasi-peak (dB $\mu$ V/m)
30 to 88	39.1	40
88 to 216	43.5	43.5
216 to 960	46.4	46
960 to 1 000	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 (10 m distance)	Class B Equipment (10 m distance)
	Quasi-peak (dB $\mu$ V/m)	Quasi-peak (dB $\mu$ V/m)
30 to 230	40	30
230 to 1 000	47	37

### (2) Limits for Radiated Emission above 1 000MHz at a measuring distance of 3 m

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

Note) 1. Emission Level = Reading Value + Correction Factor.

2. Correction Factor = Cable loss - Amp gain + Antenna Factor

3. Margin = Limit - Emission level

**Test Result**

< HDMI MODE\_30 MHz ~ 1 GHz >

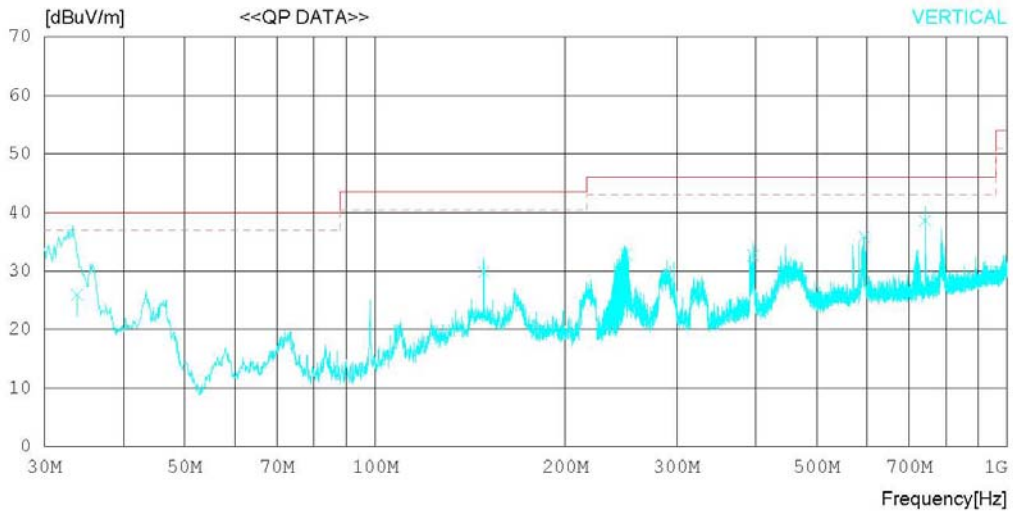
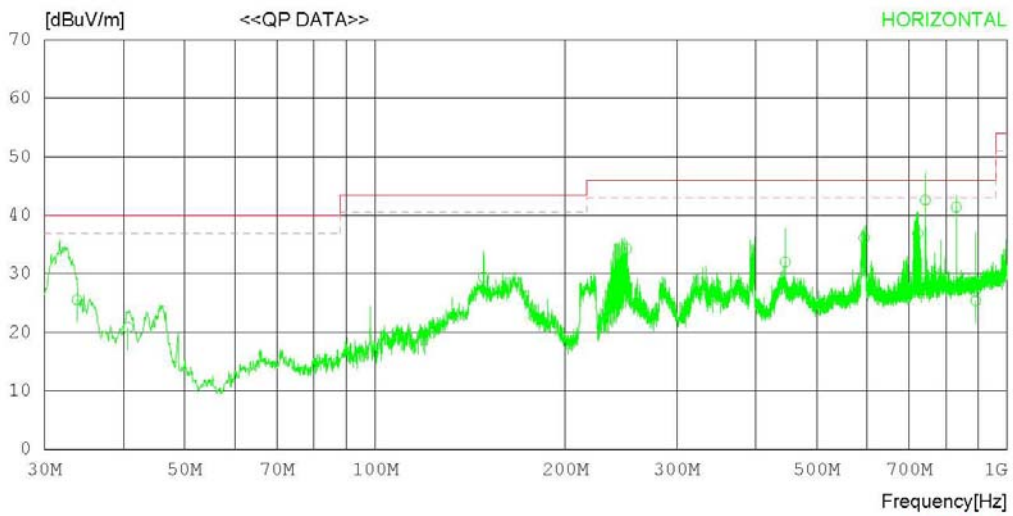
**RADIATED EMISSION**

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 °C 56 % R.H.
Test Condition	: HDMI	Operator	:

Memo :

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



## RADIATED EMISSION

Date : 2013-08-13

Model Name : 32LN570B-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 25 °C 56 % 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	33.783	31.6	15.9	1.9	23.9	25.5	40.0	14.5	400	360
2	40.639	30.1	13.0	1.9	24.2	20.8	40.0	19.2	400	360
3	148.502	40.0	10.5	3.1	24.2	29.4	43.5	14.1	300	120
4	249.747	41.5	12.7	3.9	23.8	34.3	46.0	11.7	100	150
5	445.534	33.2	16.6	5.5	23.3	32.0	46.0	14.0	200	220
6	594.000	33.7	18.6	6.7	22.9	36.1	46.0	9.9	100	160
7	722.120	33.4	18.9	7.4	22.8	36.9	46.0	9.1	100	200
8	742.504	38.8	19.2	7.4	22.8	42.6	46.0	3.4	200	230
9	830.420	36.2	20.2	7.8	22.8	41.4	46.0	4.6	200	360
10	891.975	19.3	20.7	8.2	22.8	25.4	46.0	20.6	100	260
----- Vertical -----										
11	33.783	32.1	15.9	1.9	23.9	26.0	40.0	14.0	100	250
12	148.502	40.4	10.5	3.1	24.2	29.8	43.5	13.7	100	30
13	249.747	40.1	12.7	3.9	23.8	32.9	46.0	13.1	200	290
14	396.999	34.9	16.0	5.2	23.5	32.6	46.0	13.4	100	360
15	594.000	33.5	18.6	6.7	22.9	35.9	46.0	10.1	100	170
16	742.504	34.8	19.2	7.4	22.8	38.6	46.0	7.4	100	360

< HDMI MODE \_ (1 ~ 6) GHz \_ Peak >

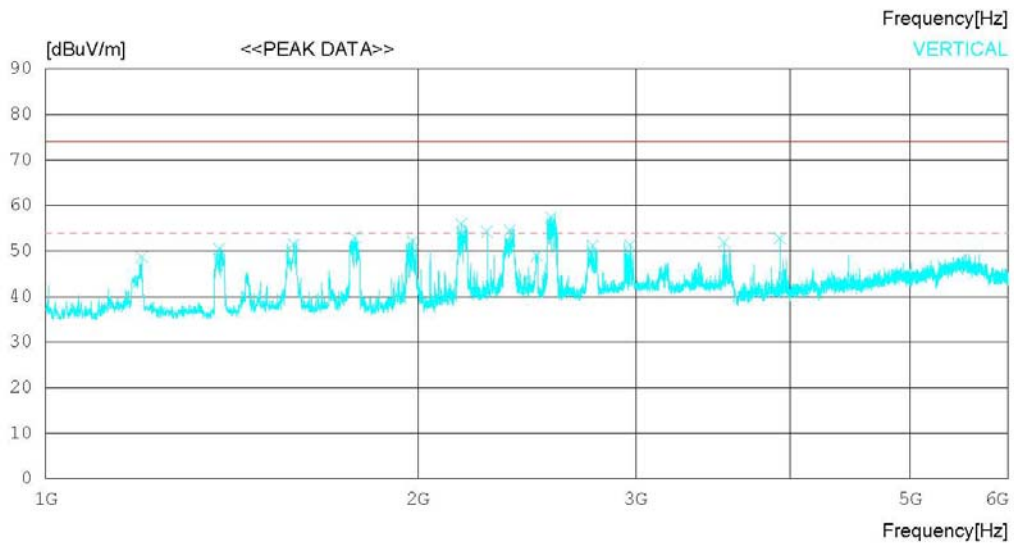
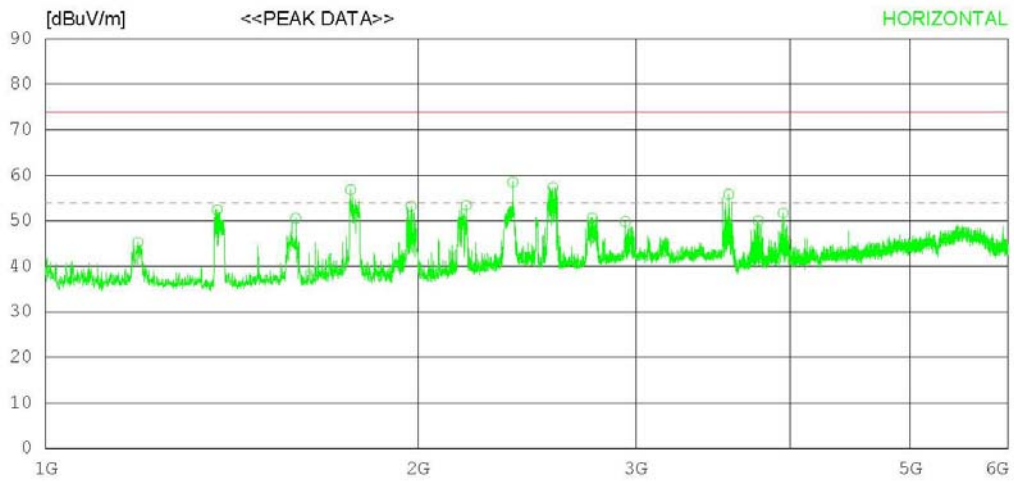
**RADIATED EMISSION**

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 'C 56 % 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)



## RADIATED EMISSION

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 °C 56 % 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	1187.500	58.3	24.2	3.6	40.8	45.3	74.0	28.7	100	147
2	1376.250	64.3	24.5	3.9	40.3	52.4	74.0	21.6	100	358
3	1593.125	61.7	24.6	4.2	40.0	50.5	74.0	23.5	100	156
4	1764.375	67.6	24.6	4.4	39.8	56.8	74.0	17.2	100	358
5	1973.750	63.4	24.6	4.7	39.5	53.2	74.0	20.8	100	358
6	2188.125	62.3	25.6	4.9	39.4	53.4	74.0	20.6	100	358
7	2386.250	65.9	26.8	5.1	39.3	58.5	74.0	15.5	100	358
8	2571.250	63.6	27.7	5.3	39.3	57.3	74.0	16.7	100	358
9	2766.875	56.1	28.3	5.5	39.3	50.6	74.0	23.4	100	252
10	2942.500	54.7	28.8	5.6	39.3	49.8	74.0	24.2	100	358
11	3566.250	59.4	29.0	6.3	38.9	55.8	74.0	18.2	100	227
12	3768.125	52.6	29.6	6.5	38.7	50.0	74.0	24	100	358
13	3946.875	53.5	30.0	6.6	38.4	51.7	74.0	22.3	100	218
----- Vertical -----										
14	1195.625	61.6	24.2	3.6	40.7	48.7	74.0	25.3	100	191
15	1381.250	62.4	24.5	3.9	40.3	50.5	74.0	23.5	100	135
16	1587.500	62.8	24.6	4.2	40.0	51.6	74.0	22.4	100	0
17	1778.125	63.7	24.6	4.4	39.7	53.0	74.0	21	100	0
18	1980.000	62.4	24.6	4.7	39.5	52.2	74.0	21.8	100	0
19	2168.750	65.0	25.5	4.9	39.4	56.0	74.0	18	100	200
20	2274.375	62.6	26.1	5.0	39.4	54.3	74.0	19.7	100	0
21	2373.125	62.0	26.7	5.1	39.3	54.5	74.0	19.5	100	185
22	2493.750	55.7	27.4	5.2	39.3	49.0	74.0	25	100	185
23	2561.875	63.8	27.6	5.3	39.3	57.4	74.0	16.6	100	0
24	2768.125	56.7	28.3	5.5	39.3	51.2	74.0	22.8	100	191
25	2968.750	56.1	28.9	5.6	39.3	51.3	74.0	22.7	100	0
26	3535.625	55.7	29.0	6.2	39.0	51.9	74.0	22.1	100	175
27	3925.000	54.6	30.0	6.6	38.4	52.8	74.0	21.2	100	0

< HDMI MODE \_ (1 ~ 6) GHz \_ Average >

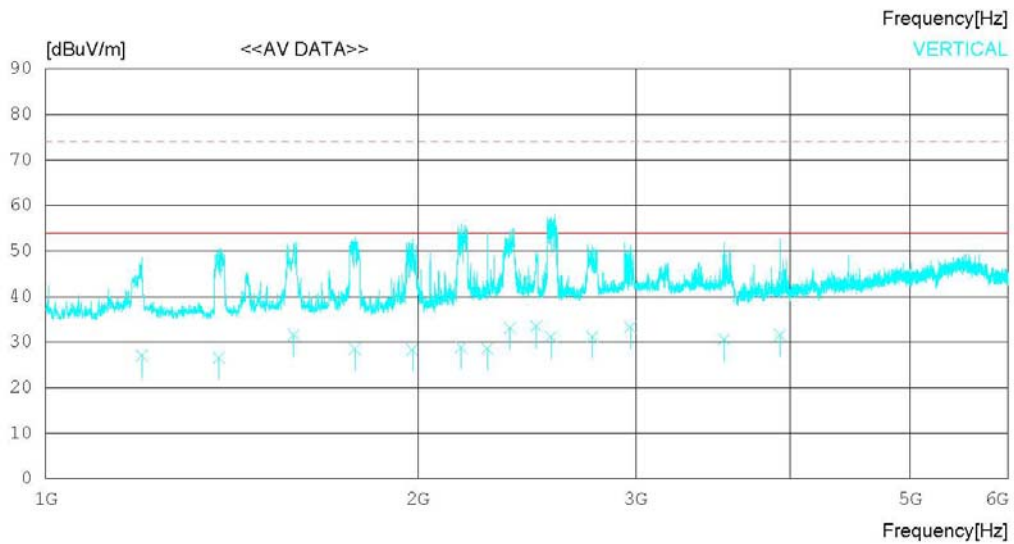
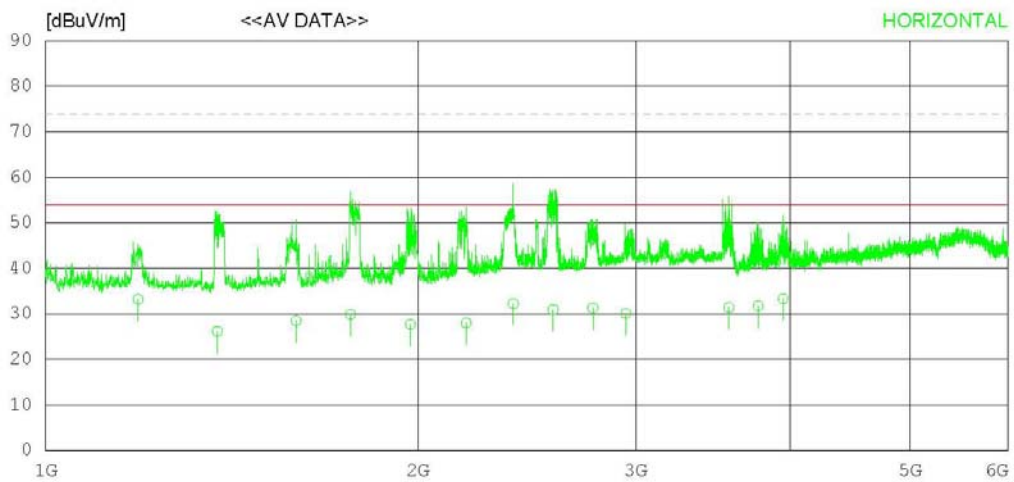
**RADIATED EMISSION**

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 'C 56 % 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)



## RADIATED EMISSION

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 °C 56 % 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	1188.003	46.2	24.2	3.6	40.8	33.2	54.0	20.8	100	150
2	1376.835	38.1	24.5	3.9	40.3	26.2	54.0	27.8	100	360
3	1594.096	39.7	24.6	4.2	40.0	28.5	54.0	25.5	100	160
4	1764.329	40.7	24.6	4.4	39.8	29.9	54.0	24.1	100	360
5	1971.803	37.9	24.6	4.7	39.5	27.7	54.0	26.3	100	360
6	2188.607	36.9	25.6	4.9	39.4	28.0	54.0	26.0	100	360
7	2388.688	39.6	26.8	5.1	39.3	32.2	54.0	21.8	100	350
8	2571.879	37.2	27.7	5.3	39.3	30.9	54.0	23.1	100	350
9	2768.745	36.8	28.3	5.5	39.3	31.3	54.0	22.7	100	250
10	2944.390	35.0	28.8	5.6	39.3	30.1	54.0	23.9	100	360
11	3566.853	35.0	29.0	6.3	38.9	31.4	54.0	22.6	100	230
12	3767.523	34.4	29.6	6.5	38.7	31.8	54.0	22.2	100	360
13	3947.113	35.1	30.0	6.6	38.4	33.3	54.0	20.7	100	220
----- Vertical -----										
14	1196.494	39.9	24.2	3.6	40.7	27.0	54.0	27.0	100	190
15	1380.957	38.5	24.5	3.9	40.3	26.6	54.0	27.4	100	140
16	1587.052	42.8	24.6	4.2	40.0	31.6	54.0	22.4	100	180
17	1778.034	39.2	24.6	4.4	39.7	28.5	54.0	25.5	100	180
18	1978.826	38.6	24.6	4.7	39.5	28.4	54.0	25.6	100	180
19	2167.214	37.8	25.5	4.9	39.4	28.8	54.0	25.2	100	200
20	2274.622	36.9	26.1	5.0	39.4	28.6	54.0	25.4	100	360
21	2374.260	40.6	26.7	5.1	39.3	33.1	54.0	20.9	100	190
22	2492.722	40.2	27.4	5.2	39.3	33.5	54.0	20.5	100	190
23	2561.251	37.6	27.6	5.3	39.3	31.2	54.0	22.8	100	200
24	2767.771	36.7	28.3	5.5	39.3	31.2	54.0	22.8	100	190
25	2968.643	38.1	28.9	5.6	39.3	33.3	54.0	20.7	100	210
26	3535.457	34.4	29.0	6.2	39.0	30.6	54.0	23.4	100	180
27	3924.572	33.4	30.0	6.6	38.4	31.6	54.0	22.4	100	170

< USB MODE\_30 MHz ~ 1 GHz >

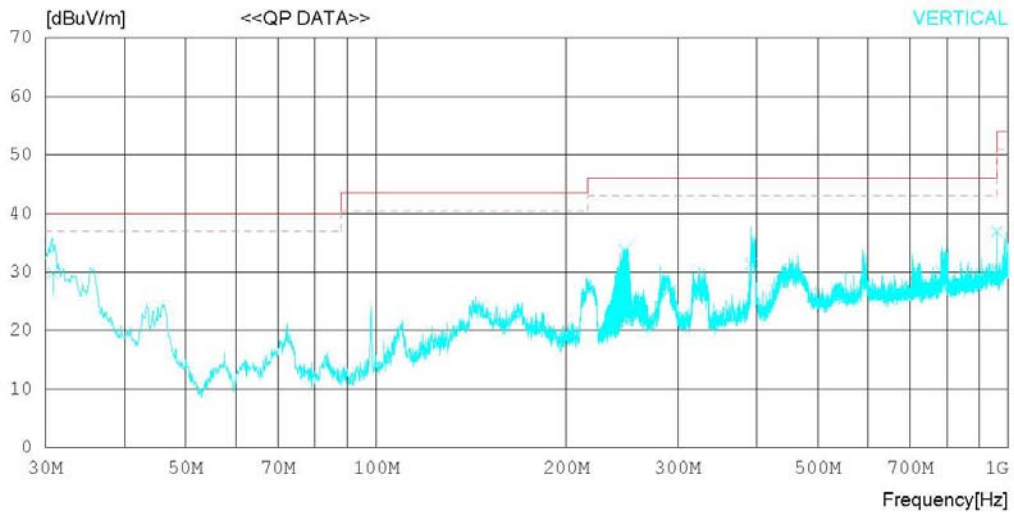
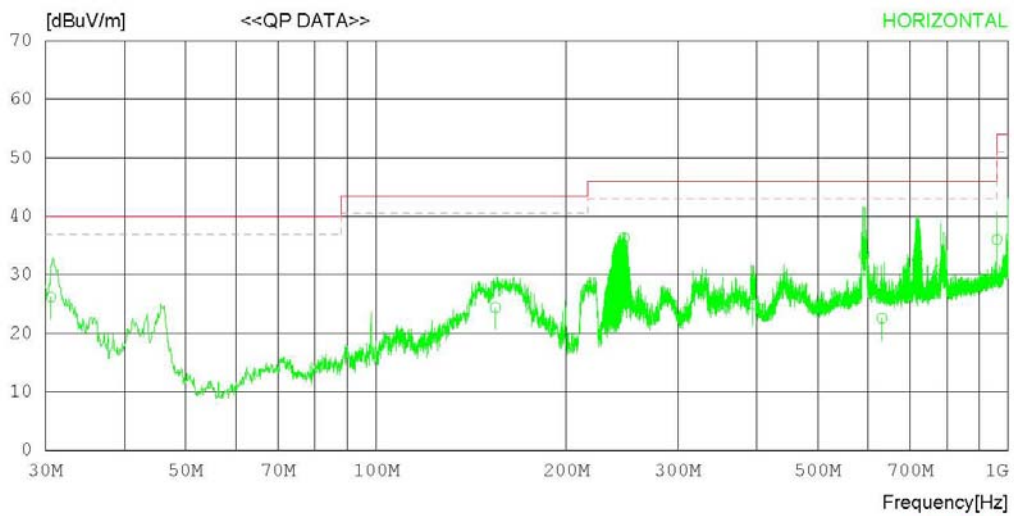
**RADIATED EMISSION**

Date : 2013-08-14

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 °C 56 % R.H.
Test Condition	: USB	Operator	:

Memo :

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



## RADIATED EMISSION

Date : 2013-08-14

Model Name : 32LN570B-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 25 °C 56 % 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	30.577	30.4	17.6	2.0	23.8	26.2	40.0	13.8	400	270
2	154.400	35.2	10.3	3.1	24.2	24.4	43.5	19.1	200	360
3	246.994	43.8	12.5	3.8	23.8	36.3	46.0	9.7	100	240
4	394.789	27.4	15.9	5.2	23.5	25.0	46.0	21.0	200	360
5	591.868	31.1	18.6	6.6	22.9	33.4	46.0	12.6	100	220
6	631.544	20.0	18.6	6.9	22.9	22.6	46.0	23.4	200	130
7	718.175	29.3	18.8	7.4	22.8	32.7	46.0	13.3	200	360
8	783.494	26.4	19.8	7.5	22.8	30.9	46.0	15.1	200	350
9	960.052	28.6	21.7	8.4	22.7	36.0	46.0	18.0	100	220
----- Vertical -----										
10	30.841	34.3	17.4	1.9	23.8	29.8	40.0	10.2	100	280
11	247.862	41.1	12.6	3.9	23.8	33.8	46.0	12.2	200	220
12	391.853	33.9	15.9	5.1	23.5	31.4	46.0	14.6	100	210
13	784.336	25.6	19.8	7.5	22.8	30.1	46.0	15.9	100	210
14	959.964	29.6	21.7	8.4	22.7	37.0	46.0	9.0	100	360

< USB MODE \_ (1 ~ 6) GHz \_ Peak >

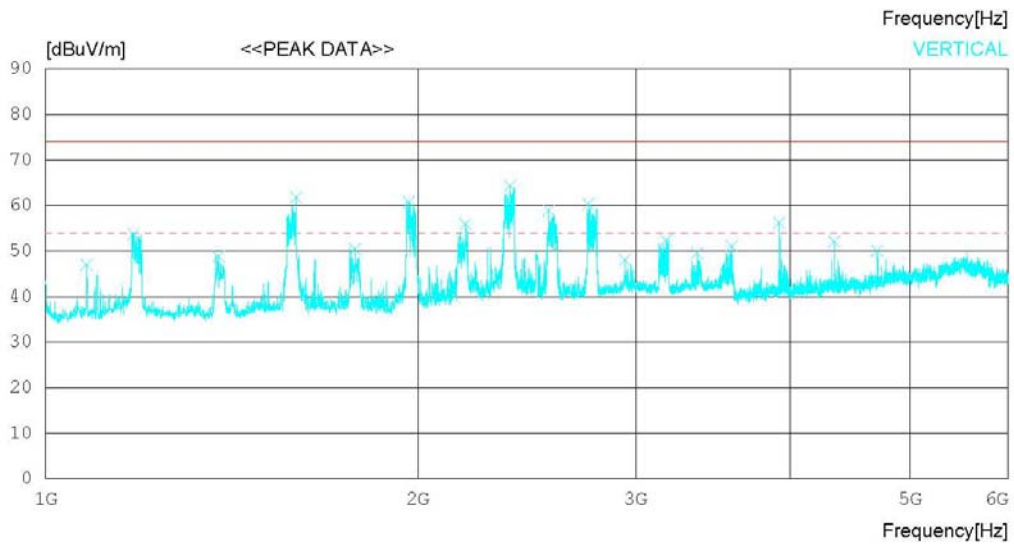
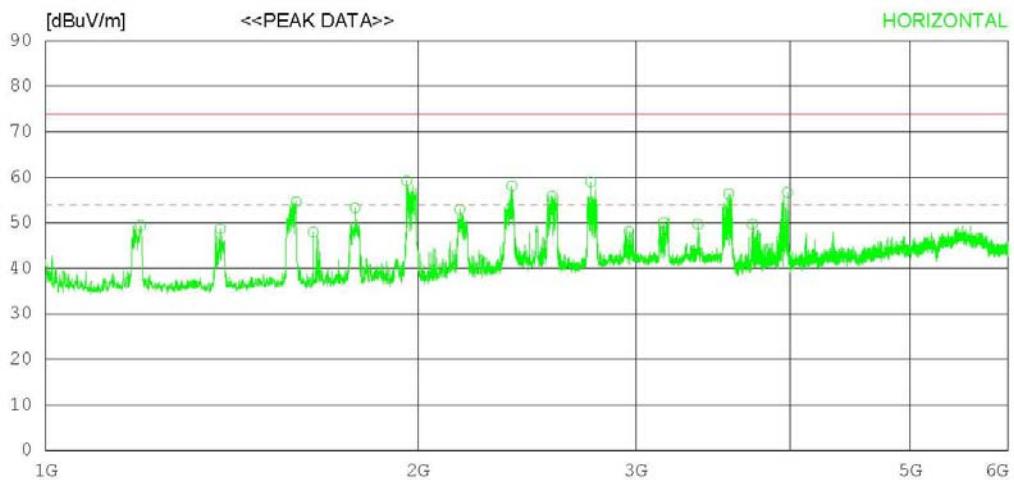
**RADIATED EMISSION**

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 'C 56 % 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)



## RADIATED EMISSION

Date : 2013-08-13

Model Name : 32LN570B-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 25 °C 56 % 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	1193.125	62.3	24.2	3.6	40.7	49.4	74.0	24.6	100	359
2	1384.375	60.6	24.5	3.9	40.3	48.7	74.0	25.3	100	222
3	1594.375	65.8	24.6	4.2	40.0	54.6	74.0	19.4	100	227
4	1645.625	59.0	24.6	4.3	39.9	48.0	74.0	26	100	359
5	1778.750	64.0	24.6	4.4	39.7	53.3	74.0	20.7	100	359
6	1958.750	69.4	24.6	4.7	39.5	59.2	74.0	14.8	100	183
7	2161.875	61.9	25.5	4.9	39.4	52.9	74.0	21.1	100	359
8	2381.875	65.5	26.8	5.1	39.3	58.1	74.0	15.9	100	183
9	2568.125	62.1	27.7	5.3	39.3	55.8	74.0	18.2	100	212
10	2758.750	64.6	28.2	5.5	39.3	59.0	74.0	15	100	359
11	2963.125	52.9	28.9	5.6	39.3	48.1	74.0	25.9	100	193
12	3159.375	54.5	28.9	5.8	39.2	50.0	74.0	24	100	359
13	3368.125	53.8	28.9	6.1	39.1	49.7	74.0	24.3	100	227
14	3565.625	60.0	29.0	6.3	38.9	56.4	74.0	17.6	100	222
15	3726.875	52.5	29.5	6.4	38.7	49.7	74.0	24.3	100	178
16	3978.750	58.3	30.1	6.7	38.4	56.7	74.0	17.3	100	232
----- Vertical -----										
17	1079.375	60.5	24.0	3.5	41.0	47.0	74.0	27	100	0
18	1178.125	66.9	24.1	3.6	40.8	53.8	74.0	20.2	100	181
19	1380.000	60.7	24.5	3.9	40.3	48.8	74.0	25.2	100	138
20	1594.375	73.0	24.6	4.2	40.0	61.8	74.0	12.2	100	0
21	1778.750	61.2	24.6	4.4	39.7	50.5	74.0	23.5	100	0
22	1966.875	71.0	24.6	4.7	39.5	60.8	74.0	13.2	100	197
23	2186.875	64.8	25.6	4.9	39.4	55.9	74.0	18.1	100	202
24	2374.375	71.8	26.7	5.1	39.3	64.3	74.0	9.7	100	202
25	2551.875	65.3	27.6	5.3	39.3	58.9	74.0	15.1	100	212
26	2747.500	65.9	28.2	5.5	39.3	60.3	74.0	13.7	100	202
27	2940.625	53.0	28.8	5.6	39.3	48.1	74.0	25.9	100	0
28	3175.000	56.8	28.9	5.9	39.2	52.4	74.0	21.6	100	0
29	3363.750	53.6	28.9	6.1	39.1	49.5	74.0	24.5	100	0
30	3588.125	54.6	29.1	6.3	38.9	51.1	74.0	22.9	100	202
31	3917.500	58.2	29.9	6.6	38.5	56.2	74.0	17.8	100	0
32	4343.125	52.9	30.7	7.0	38.5	52.1	74.0	21.9	100	0
33	4700.000	49.9	31.5	7.4	38.7	50.1	74.0	23.9	100	158

< USB MODE \_ (1 ~ 6) GHz \_ Average >

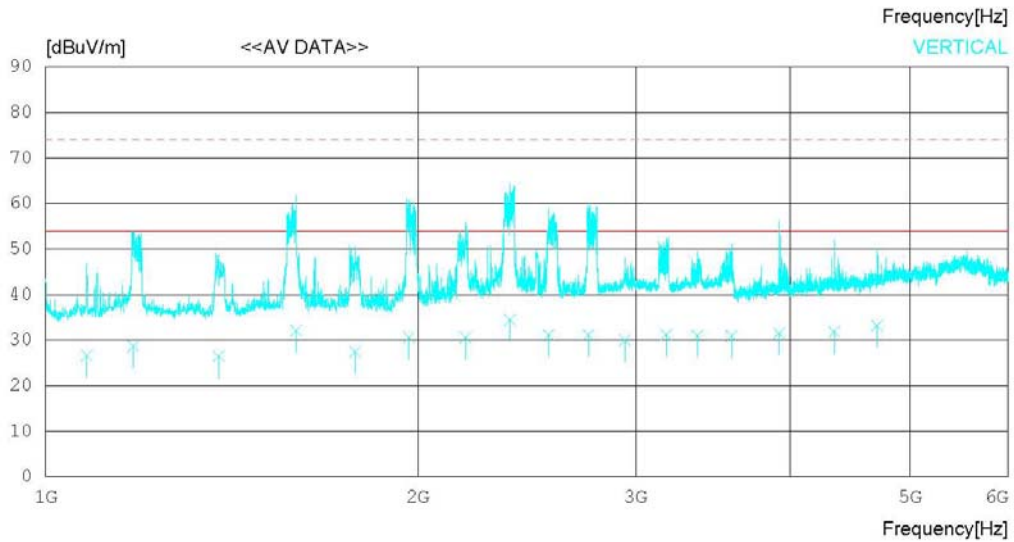
**RADIATED EMISSION**

Date : 2013-08-13

Model Name	: 32LN570B-UH	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 25 'C 56 % 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)



## RADIATED EMISSION

Date : 2013-08-13

Model Name : 32LN570B-UH	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 25 °C 56 % R.H.
Test Condition : USB	Operator :

Memo :

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

No.	FREQ [MHz]	READING AV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1193.424	38.5	24.2	3.6	40.7	25.6	54.0	28.4	100	350
2	1387.624	37.6	24.5	3.9	40.3	25.7	54.0	28.3	100	220
3	1594.143	39.5	24.6	4.2	40.0	28.3	54.0	25.7	100	230
4	1645.243	36.3	24.6	4.3	39.9	25.3	54.0	28.7	100	360
5	1777.778	38.1	24.6	4.4	39.7	27.4	54.0	26.6	100	360
6	1958.397	38.5	24.6	4.7	39.5	28.3	54.0	25.7	100	180
7	2160.754	38.4	25.5	4.9	39.4	29.4	54.0	24.6	100	360
8	2381.172	38.6	26.8	5.1	39.3	31.2	54.0	22.8	100	190
9	2567.589	37.5	27.7	5.3	39.3	31.2	54.0	22.8	100	210
10	2758.573	36.6	28.2	5.5	39.3	31.0	54.0	23.0	100	360
11	2963.270	34.9	28.9	5.6	39.3	30.1	54.0	23.9	100	190
12	3160.250	34.8	28.9	5.8	39.2	30.3	54.0	23.7	100	350
13	3368.185	34.9	28.9	6.1	39.1	30.8	54.0	23.2	100	230
14	3565.490	35.6	29.0	6.3	38.9	32.0	54.0	22.0	100	220
15	3726.536	34.3	29.5	6.4	38.7	31.5	54.0	22.5	100	180
16	3977.943	34.8	30.1	6.7	38.4	33.2	54.0	20.8	100	240
----- Vertical -----										
17	1079.938	40.2	24.0	3.5	41.0	26.7	54.0	27.3	100	360
18	1178.067	41.8	24.1	3.6	40.8	28.7	54.0	25.3	100	180
19	1380.315	38.4	24.5	3.9	40.3	26.5	54.0	27.5	100	140
20	1594.183	43.3	24.6	4.2	40.0	32.1	54.0	21.9	100	360
21	1779.741	38.2	24.6	4.4	39.7	27.5	54.0	26.5	100	360
22	1967.151	40.8	24.6	4.7	39.5	30.6	54.0	23.4	100	200
23	2186.084	39.4	25.6	4.9	39.4	30.5	54.0	23.5	100	200
24	2374.320	42.0	26.7	5.1	39.3	34.5	54.0	19.5	100	210
25	2551.860	37.5	27.6	5.3	39.3	31.1	54.0	22.9	100	210
26	2747.059	36.7	28.2	5.5	39.3	31.1	54.0	22.9	100	200
27	2940.956	34.9	28.8	5.6	39.3	30.0	54.0	24.0	100	360
28	3175.999	35.6	28.9	5.9	39.2	31.2	54.0	22.8	100	360
29	3362.921	35.1	28.9	6.1	39.1	31.0	54.0	23.0	100	330
30	3588.157	34.4	29.1	6.3	38.9	30.9	54.0	23.1	100	210
31	3917.172	33.5	29.9	6.6	38.5	31.5	54.0	22.5	100	120
32	4343.162	32.6	30.7	7.0	38.5	31.8	54.0	22.2	100	130
33	4704.515	33.0	31.5	7.4	38.7	33.2	54.0	20.8	100	160

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## Appendix 1

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### 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
<input type="checkbox"/> SPECTRUM ANALYZER	8591E	H/P	3649A05889	2013.02.28	2014.02.28
<input type="checkbox"/> RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2013.06.28	2014.06.28
<input type="checkbox"/> LISN	KNW-407	KYORITSU	8-317-8	2013.01.08	2014.01.08
<input type="checkbox"/> LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.07.25	2013.07.25
<input type="checkbox"/> 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
<input checked="" type="checkbox"/> LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
<input checked="" type="checkbox"/> LISN	LISN1600	TTI	197204	2013.06.28	2014.06.28
<input checked="" type="checkbox"/> 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08

### 2. Radiated Disturbance

Name of Instrument	Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
<input checked="" type="checkbox"/> EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.11.06	2014.11.06
<input checked="" type="checkbox"/> HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
<input checked="" type="checkbox"/> AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
<input checked="" type="checkbox"/> AMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
<input type="checkbox"/> SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2013.06.27	2014.06.27
<input type="checkbox"/> AMPLIFIER	8447D	AGILENT	2443A03690	2013.06.28	2014.06.28
<input type="checkbox"/> EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
<input type="checkbox"/> BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
<input type="checkbox"/> LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
<input type="checkbox"/> AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2013.02.28	2014.02.28

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## Appendix 2

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### Report Revision History

Revision Date	Description	Revised By	Revision Reviewed By
None	Original	N/A	N/A