

EMC TEST REPORT

Test item : LED TV Monitor
Model No. : 55LP645H-UZ
Order No. : DEMC1307-02234
Date of receipt : 2013-07-19
Test duration : 2013-07-23 ~ 2013-07-24
Use of report : FCC CoC Marking
Date of Issue : 2013-07-31

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 : (24 ~ 25) °C,
Humidity : (44 ~ 48) % 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.

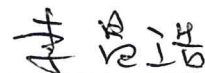
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Tested by:

Reviewed by:



Assistant Manager
HyungJun Kim



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.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	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.	55LP645H-UZ
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ55LP645HUZ
Type of Sample Tested	Pre-Production
High Frequency	800 MHz
Rating	AC 100-240 V~ 50/60 Hz, 1.6 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

RGB (PC), HDMI (PC) supported mode

Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)
720 x 400	31.46	70.08
640 x 480	31.46	59.94
800 x 600	37.87	60.31
1024 x 768	48.36	60.00
1360 x 768	47.71	60.01
1280 x 1024	63.98	60.02
1920 x 1080	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.)
Conducted Disturbance	07-23	25	48
Radiated Disturbance	07-24	24	44
	07-24	24	46

4.3 Test result Summary

(1) Conducted Emission (DSUB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.15040	L1	59.6	Quasi-Peak	66.0	6.4

(2) Radiated Emission (DSUB MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
251.276	V	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
- DSUB 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	6L7JXBX	DELL INC.	POWER	1.8	Not use	Non-shield	Plastic	DOC
				HDMI	1.8	Not use	Shield		
				DSUB	1.6	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.8	Not use	Shield		
				USB	1.5	Not use	Shield		
KEYBOARD	SKG-3000UB	TAKB601231H	MONITEREY INTERNATIONAL CORP.	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	MS111-T	CN-0KW2YH-71616-23T-0X4L	DELL INC.	USB	1.6	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2001499	SONY EMCS	POWER COMPONENT	1.8 1.6	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	Cruzer 4GB	N/A	SANDISK	USB	-	Not use Not use	-	-	DOC
PRINTER	EPSON Aculaser M1200	LWTZ181070	EPSON	EPSON Aculaser M1200	1.8 1.5	Not use Not use	Shield Non-shield	Plastic	DOC
REMOTE CONTROL	AKB737 55414	N/A	HANSUNG ELECTRONICS CO. LTD.	-	-	-	-	-	-

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 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 0.15 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

< DSUB MODE >



Results of Conducted Emission

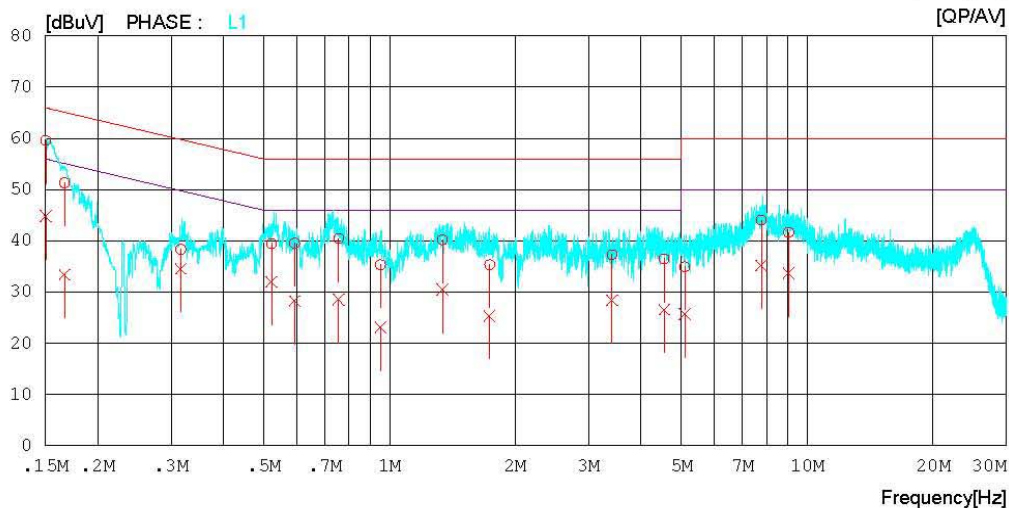
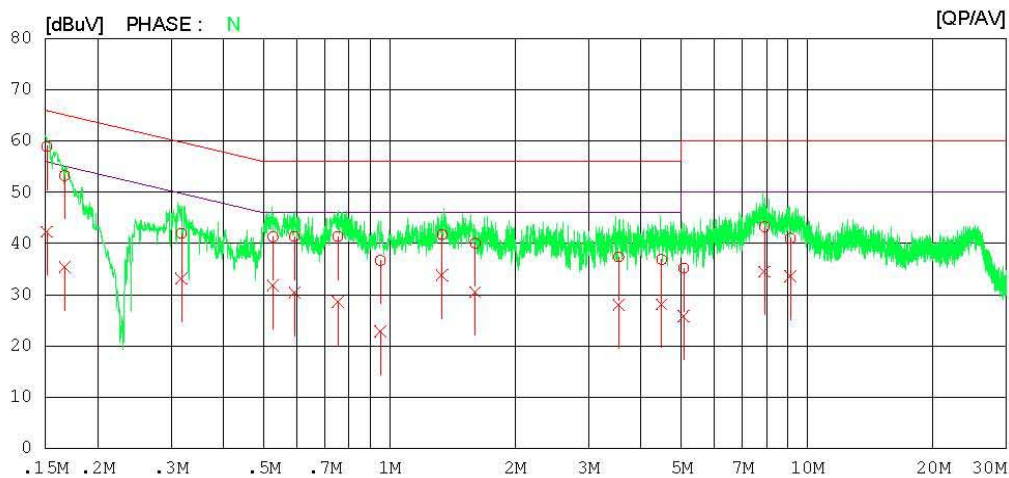
Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % 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	0.15126	58.8	42.1	0.2	59.0	42.3	65.9	55.9	6.9	13.6	N
2	0.16685	53.0	35.2	0.2	53.2	35.4	65.1	55.1	11.9	19.7	N
3	0.31767	41.7	33.0	0.2	41.9	33.2	59.8	49.8	17.9	16.6	N
4	0.52621	41.1	31.6	0.2	41.3	31.8	56.0	46.0	14.7	14.2	N
5	0.59280	41.1	30.2	0.2	41.3	30.4	56.0	46.0	14.7	15.6	N
6	0.75225	41.1	28.4	0.2	41.3	28.6	56.0	46.0	14.7	17.4	N
7	0.95031	36.5	22.6	0.2	36.7	22.8	56.0	46.0	19.3	23.2	N
8	1.33700	41.4	33.5	0.3	41.7	33.8	56.0	46.0	14.3	12.2	N
9	1.60420	39.8	30.2	0.3	40.1	30.5	56.0	46.0	15.9	15.5	N
10	3.53920	37.0	27.7	0.3	37.3	28.0	56.0	46.0	18.7	18.0	N
11	4.48060	36.6	27.8	0.3	36.9	28.1	56.0	46.0	19.1	17.9	N
12	5.05920	34.8	25.4	0.4	35.2	25.8	60.0	50.0	24.8	24.2	N
13	7.90120	42.8	34.0	0.5	43.3	34.5	60.0	50.0	16.7	15.5	N
14	9.10820	40.3	32.9	0.7	41.0	33.6	60.0	50.0	19.0	16.4	N
15	0.15040	59.4	44.6	0.2	59.6	44.8	66.0	56.0	6.4	11.2	L1
16	0.16679	51.1	33.2	0.2	51.3	33.4	65.1	55.1	13.8	21.7	L1
17	0.31650	38.1	34.4	0.2	38.3	34.6	59.8	49.8	21.5	15.2	L1
18	0.52179	39.3	31.8	0.2	39.5	32.0	56.0	46.0	16.5	14.0	L1
19	0.59303	39.3	28.0	0.2	39.5	28.2	56.0	46.0	16.5	17.8	L1
20	0.75563	40.3	28.3	0.2	40.5	28.5	56.0	46.0	15.5	17.5	L1
21	0.95194	35.1	22.9	0.2	35.3	23.1	56.0	46.0	20.7	22.9	L1
22	1.33900	39.9	30.2	0.3	40.2	30.5	56.0	46.0	15.8	15.5	L1
23	1.73700	35.0	25.1	0.3	35.3	25.4	56.0	46.0	20.7	20.6	L1
24	3.41160	37.0	28.1	0.3	37.3	28.4	56.0	46.0	18.7	17.6	L1
25	4.54940	36.1	26.2	0.4	36.5	26.6	56.0	46.0	19.5	19.4	L1
26	5.09120	34.5	25.3	0.4	34.9	25.7	60.0	50.0	25.1	24.3	L1
27	7.76360	43.5	34.7	0.5	44.0	35.2	60.0	50.0	16.0	14.8	L1
28	9.03260	41.0	33.0	0.7	41.7	33.7	60.0	50.0	18.3	16.3	L1

< HDMI MODE >



Results of Conducted Emission

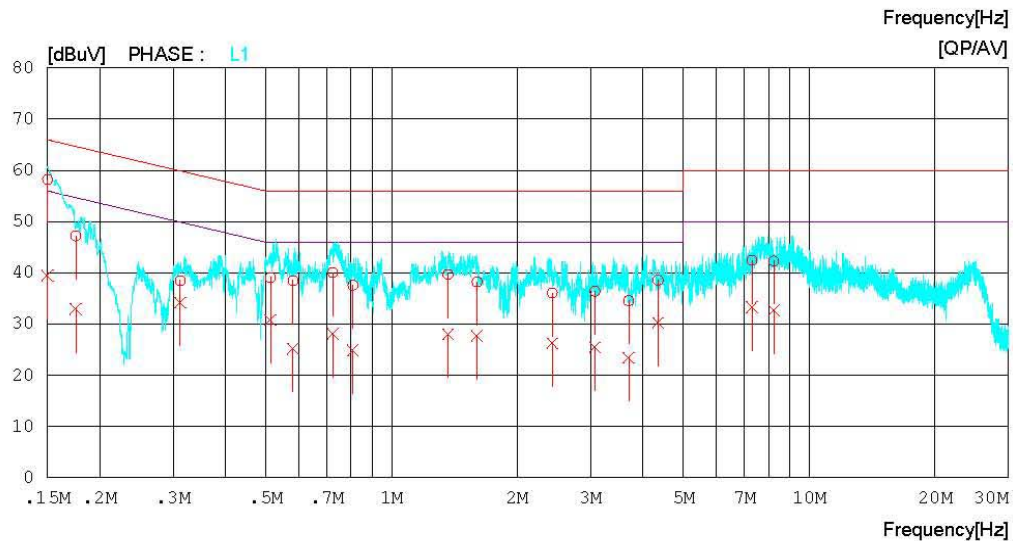
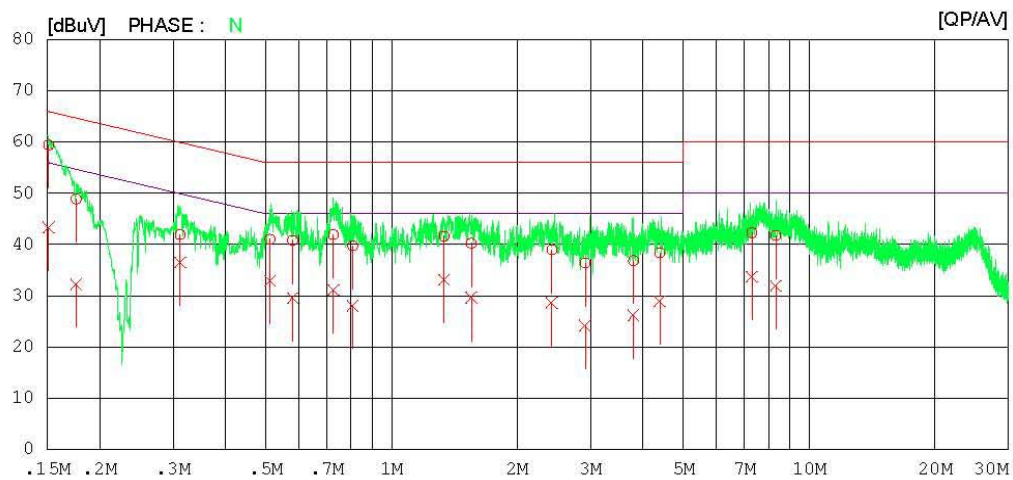
Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % 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	0.15104	59.2	43.1	0.2	59.4	43.3	65.9	55.9	6.5	12.6	N
2	0.17579	48.6	32.1	0.2	48.8	32.3	64.7	54.7	15.9	22.4	N
3	0.31180	41.7	36.3	0.2	41.9	36.5	59.9	49.9	18.0	13.4	N
4	0.51190	40.8	32.7	0.2	41.0	32.9	56.0	46.0	15.0	13.1	N
5	0.58022	40.6	29.3	0.2	40.8	29.5	56.0	46.0	15.2	16.5	N
6	0.72604	41.7	30.9	0.2	41.9	31.1	56.0	46.0	14.1	14.9	N
7	0.80779	39.5	27.9	0.2	39.7	28.1	56.0	46.0	16.3	17.9	N
8	1.33580	41.3	32.8	0.3	41.6	33.1	56.0	46.0	14.4	12.9	N
9	1.55320	39.9	29.3	0.3	40.2	29.6	56.0	46.0	15.8	16.4	N
10	2.42160	38.6	28.3	0.3	38.9	28.6	56.0	46.0	17.1	17.4	N
11	2.90840	36.1	23.9	0.3	36.4	24.2	56.0	46.0	19.6	21.8	N
12	3.79640	36.6	25.9	0.3	36.9	26.2	56.0	46.0	19.1	19.8	N
13	4.38640	38.1	28.6	0.3	38.4	28.9	56.0	46.0	17.6	17.1	N
14	7.29080	41.8	33.2	0.5	42.3	33.7	60.0	50.0	17.7	16.3	N
15	8.32180	41.0	31.2	0.7	41.7	31.9	60.0	50.0	18.3	18.1	N
16	0.15013	58.0	39.2	0.2	58.2	39.4	66.0	56.0	7.8	16.6	L1
17	0.17550	47.0	32.7	0.2	47.2	32.9	64.7	54.7	17.5	21.8	L1
18	0.31210	38.3	34.0	0.2	38.5	34.2	59.9	49.9	21.4	15.7	L1
19	0.51283	38.9	30.6	0.2	39.1	30.8	56.0	46.0	16.9	15.2	L1
20	0.58109	38.3	25.0	0.2	38.5	25.2	56.0	46.0	17.5	20.8	L1
21	0.72394	39.9	27.9	0.2	40.1	28.1	56.0	46.0	15.9	17.9	L1
22	0.80843	37.4	24.7	0.2	37.6	24.9	56.0	46.0	18.4	21.1	L1
23	1.36580	39.4	27.7	0.3	39.7	28.0	56.0	46.0	16.3	18.0	L1
24	1.60280	38.0	27.4	0.3	38.3	27.7	56.0	46.0	17.7	18.3	L1
25	2.42760	35.8	26.0	0.3	36.1	26.3	56.0	46.0	19.9	19.7	L1
26	3.06920	36.1	25.1	0.3	36.4	25.4	56.0	46.0	19.6	20.6	L1
27	3.69880	34.3	23.1	0.3	34.6	23.4	56.0	46.0	21.4	22.6	L1
28	4.34880	38.3	30.0	0.3	38.6	30.3	56.0	46.0	17.4	15.7	L1
29	7.29320	41.9	32.8	0.5	42.4	33.3	60.0	50.0	17.6	16.7	L1
30	8.22740	41.6	32.0	0.7	42.3	32.7	60.0	50.0	17.7	17.3	L1

< USB MODE >



Results of Conducted Emission

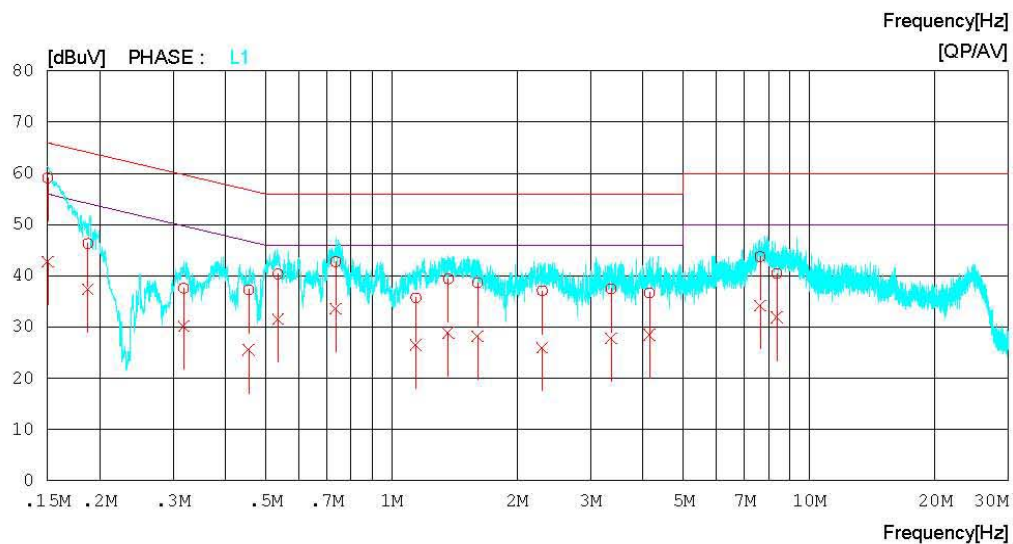
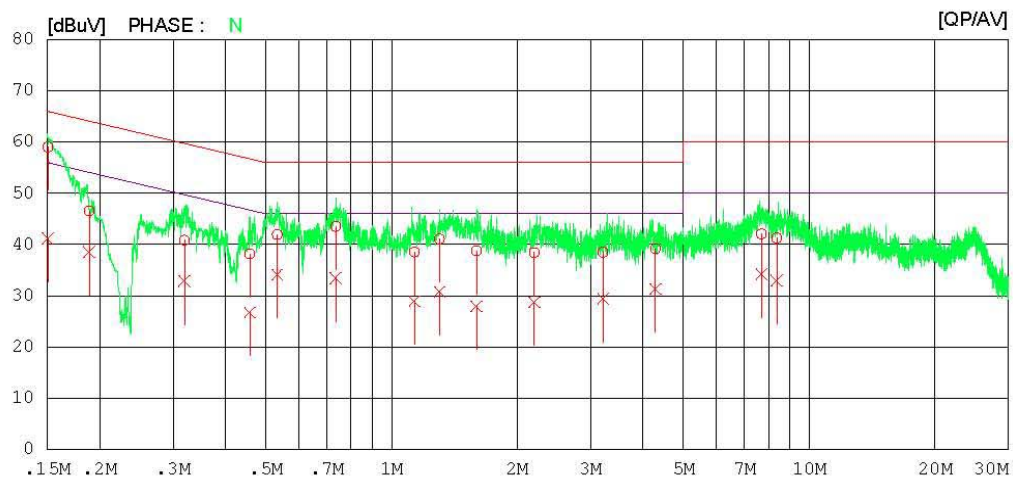
Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % R.H
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-07-23

Model No. : 55LP645H-UZ
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 25 °C 48 % 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	0.15049	58.8	40.9	0.2	59.0	41.1	66.0	56.0	7.0	14.9	N
2	0.18901	46.3	38.3	0.2	46.5	38.5	64.1	54.1	17.6	15.6	N
3	0.31959	40.6	32.6	0.2	40.8	32.8	59.7	49.7	18.9	16.9	N
4	0.45828	38.0	26.5	0.2	38.2	26.7	56.7	46.7	18.5	20.0	N
5	0.53278	41.7	33.9	0.2	41.9	34.1	56.0	46.0	14.1	11.9	N
6	0.73536	43.3	33.2	0.2	43.5	33.4	56.0	46.0	12.5	12.6	N
7	1.13480	38.2	28.6	0.3	38.5	28.9	56.0	46.0	17.5	17.1	N
8	1.30340	40.8	30.5	0.3	41.1	30.8	56.0	46.0	14.9	15.2	N
9	1.59700	38.4	27.6	0.3	38.7	27.9	56.0	46.0	17.3	18.1	N
10	2.19720	38.1	28.4	0.3	38.4	28.7	56.0	46.0	17.6	17.3	N
11	3.21000	38.2	29.1	0.3	38.5	29.4	56.0	46.0	17.5	16.6	N
12	4.28380	38.9	31.0	0.3	39.2	31.3	56.0	46.0	16.8	14.7	N
13	7.68940	41.5	33.7	0.5	42.0	34.2	60.0	50.0	18.0	15.8	N
14	8.35960	40.5	32.3	0.7	41.2	33.0	60.0	50.0	18.8	17.0	N
15	0.15031	58.9	42.6	0.2	59.1	42.8	66.0	56.0	6.9	13.2	L1
16	0.18750	46.1	37.2	0.2	46.3	37.4	64.1	54.1	17.8	16.7	L1
17	0.31830	37.4	30.0	0.2	37.6	30.2	59.8	49.8	22.2	19.6	L1
18	0.45520	37.1	25.4	0.2	37.3	25.6	56.8	46.8	19.5	21.2	L1
19	0.53493	40.2	31.4	0.2	40.4	31.6	56.0	46.0	15.6	14.4	L1
20	0.73501	42.6	33.4	0.2	42.8	33.6	56.0	46.0	13.2	12.4	L1
21	1.14440	35.4	26.2	0.3	35.7	26.5	56.0	46.0	20.3	19.5	L1
22	1.36820	39.1	28.6	0.3	39.4	28.9	56.0	46.0	16.6	17.1	L1
23	1.60740	38.4	28.0	0.3	38.7	28.3	56.0	46.0	17.3	17.7	L1
24	2.29560	36.8	25.7	0.3	37.1	26.0	56.0	46.0	18.9	20.0	L1
25	3.35440	37.2	27.5	0.3	37.5	27.8	56.0	46.0	18.5	18.2	L1
26	4.14380	36.4	28.2	0.3	36.7	28.5	56.0	46.0	19.3	17.5	L1
27	7.62700	43.3	33.7	0.5	43.8	34.2	60.0	50.0	16.2	15.8	L1
28	8.36480	39.7	31.2	0.7	40.4	31.9	60.0	50.0	19.6	18.1	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 th 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 (dBμV/m)	Quasi-peak (dBμV/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 (dBμV/m)	Quasi-peak (dBμV/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 (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/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

< DSUB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

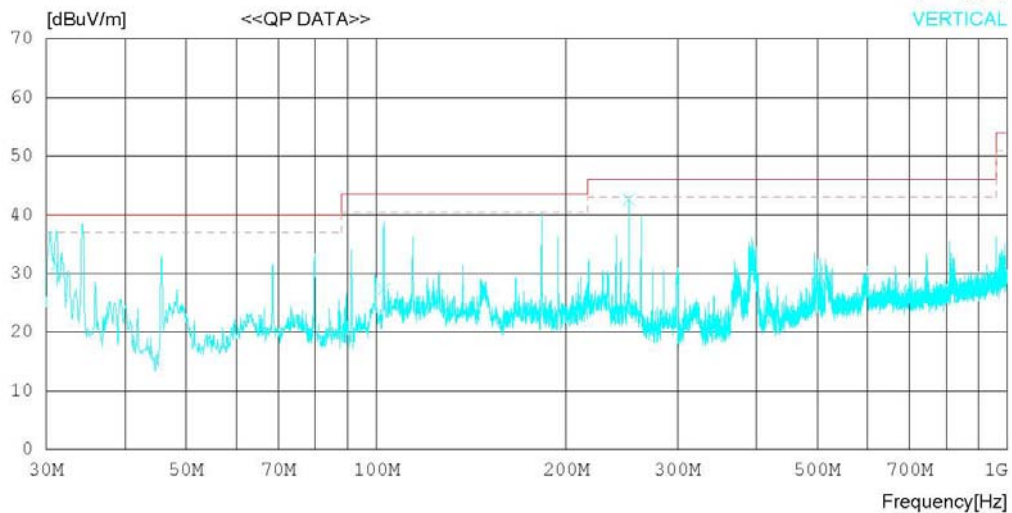
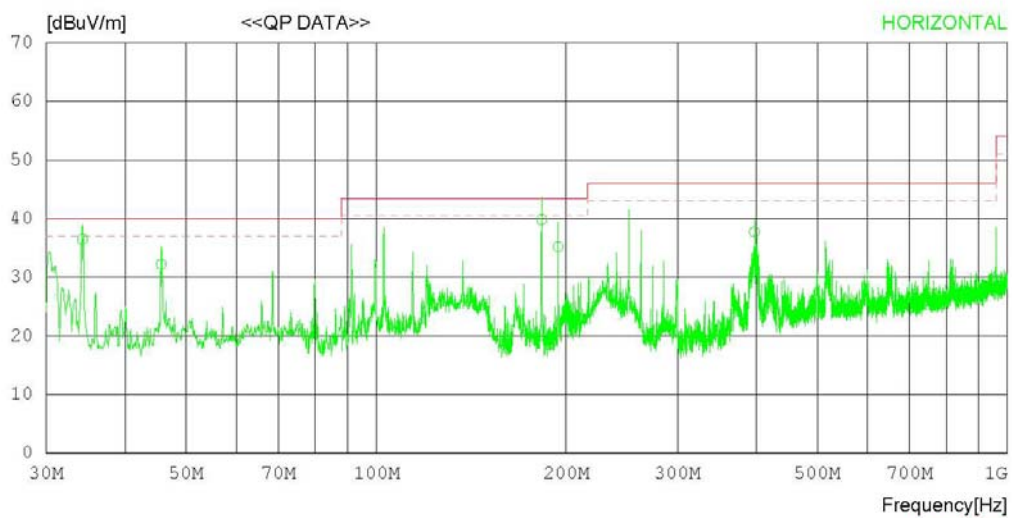
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 44 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 44 % 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	34.244	42.8	15.7	1.9	23.9	36.5	40.0	3.5	208	266
2	45.641	41.2	13.2	2.1	24.3	32.2	40.0	7.8	228	85
3	182.772	50.8	9.7	3.3	24.0	39.8	43.5	3.7	200	169
4	194.169	46.2	9.7	3.3	24.0	35.2	43.5	8.3	336	358
5	397.256	40.0	16.0	5.2	23.5	37.7	46.0	8.3	300	358
----- Vertical -----										
6	31.213	36.3	17.2	1.9	23.8	31.6	40.0	8.4	215	102
7	102.749	38.1	10.8	2.6	24.1	27.4	43.5	16.1	159	0
8	251.276	49.8	12.7	3.9	23.8	42.6	46.0	3.4	100	154

< DSUB MODE _ (1 ~ 6) GHz _ Peak >

RADIATED EMISSION

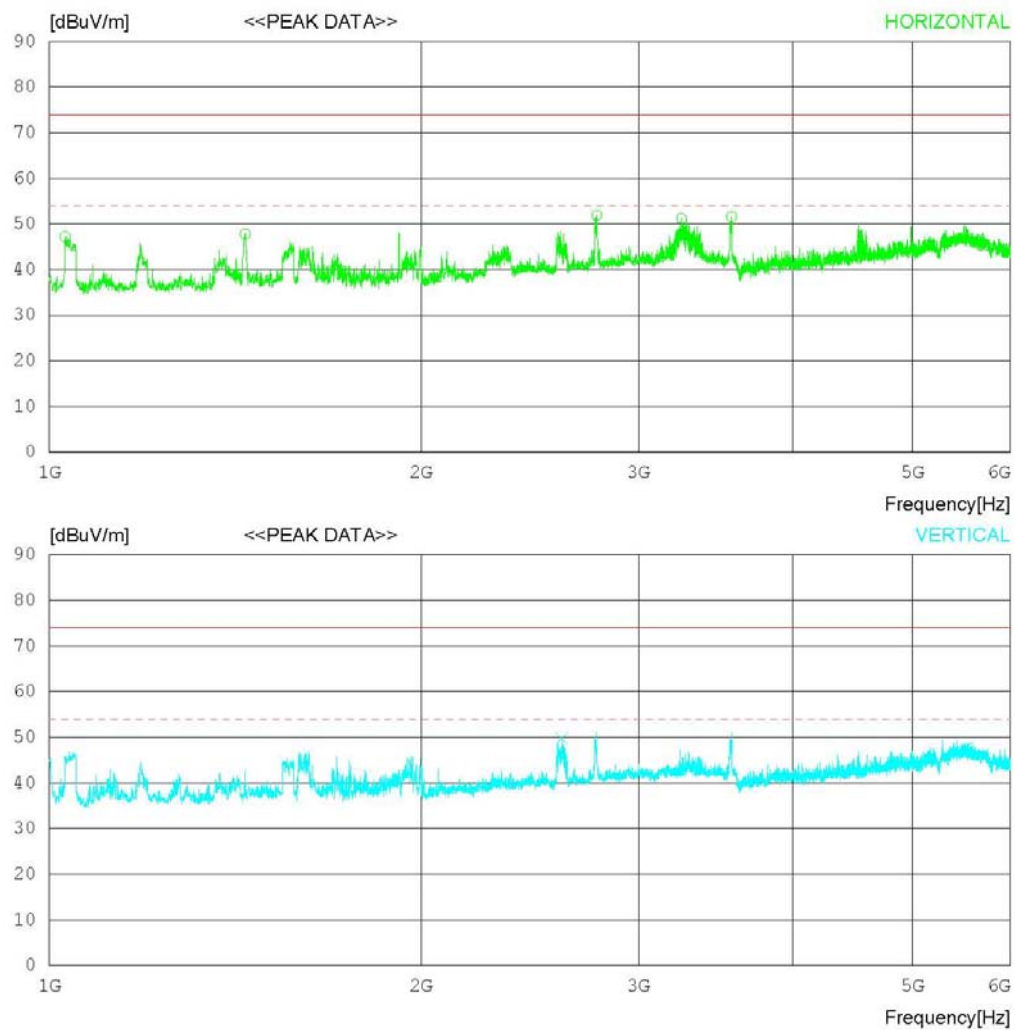
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name	: 55LP645H-UZ	Reference No.	:
Model No.	:	Power Supply	: 120 V 60 Hz
Serial No.	:	Temp/Humi	: 24 °C 46 % 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	1030.000	61.0	23.9	3.4	41.1	47.2	74.0	26.8	100	204
2	1441.250	59.4	24.6	4.0	40.2	47.8	74.0	26.2	100	161
3	2775.000	57.4	28.3	5.5	39.3	51.9	74.0	22.1	100	1
4	3249.375	55.6	28.9	5.9	39.2	51.2	74.0	22.8	100	233
5	3566.875	55.2	29.0	6.3	38.9	51.6	74.0	22.4	100	126
----- Vertical -----										
6	2600.000	56.0	27.8	5.3	39.3	49.8	74.0	24.2	100	359

< DSUB MODE _ (1 ~ 6) GHz _ Average >

RADIATED EMISSION

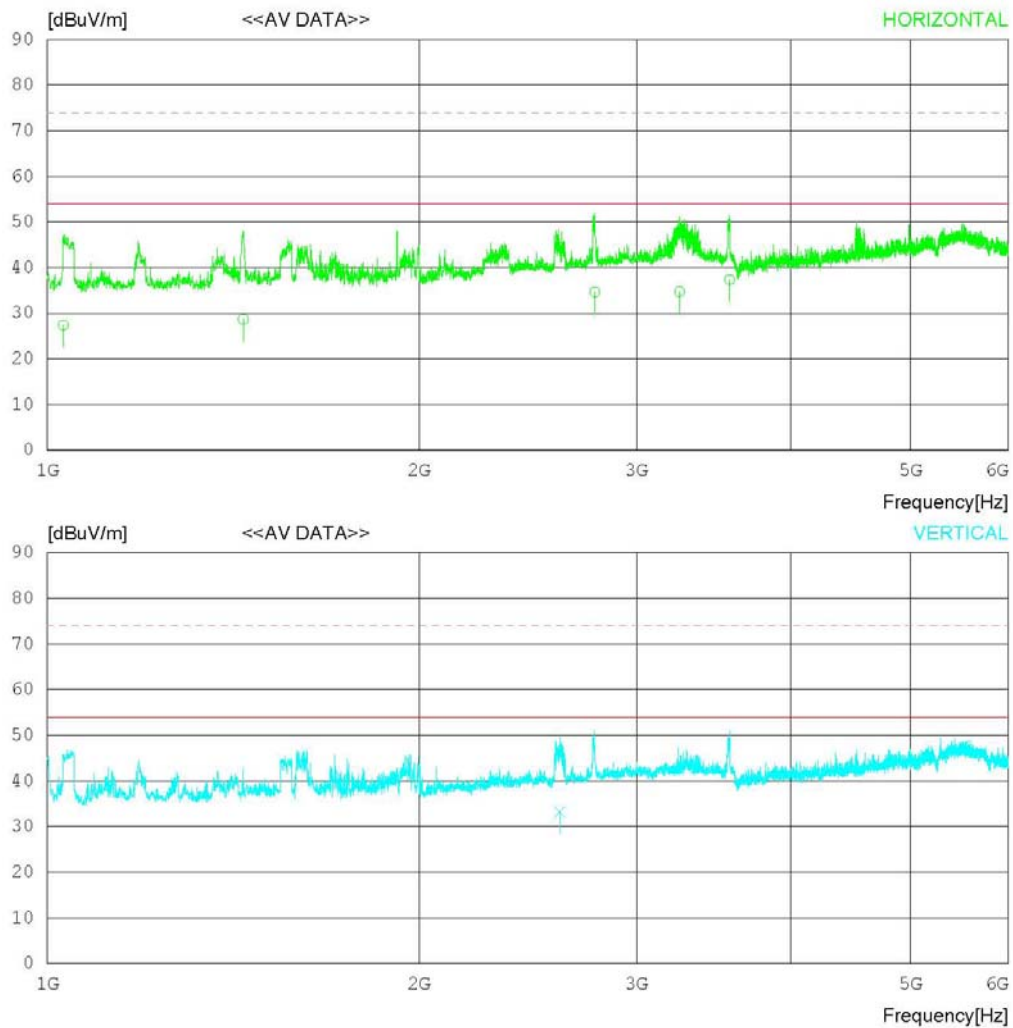
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : DSUB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 46 % 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	1030.000	41.2	23.9	3.4	41.1	27.4	54.0	26.6	100	204
2	1441.250	40.3	24.6	4.0	40.2	28.7	54.0	25.3	100	161
3	2775.000	40.2	28.3	5.5	39.3	34.7	54.0	19.3	100	1
4	3249.375	39.2	28.9	5.9	39.2	34.8	54.0	19.2	100	233
5	3566.875	41.0	29.0	6.3	38.9	37.4	54.0	16.6	100	126
----- Vertical -----										
6	2600.000	39.4	27.8	5.3	39.3	33.2	54.0	20.8	100	359

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

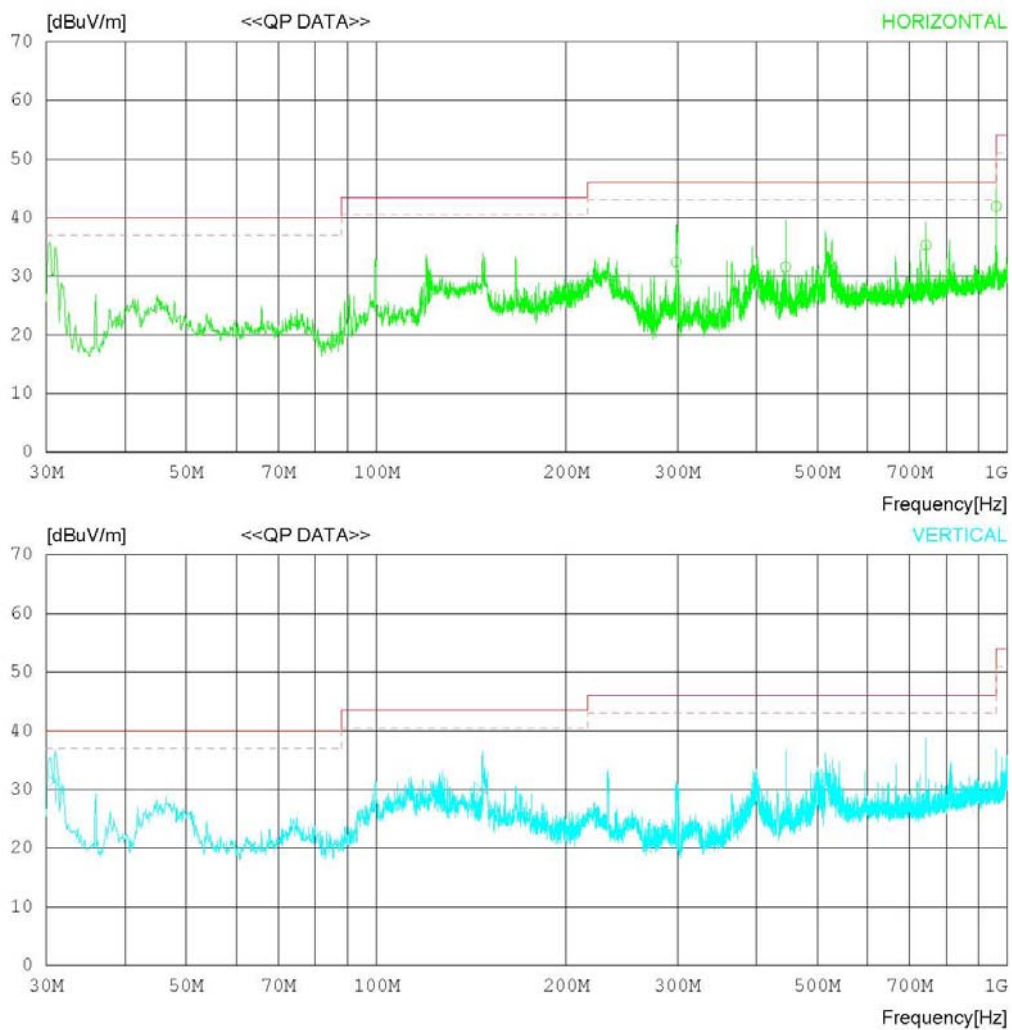
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 'C 44 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 44 % 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	298.683	37.9	13.7	4.4	23.6	32.4	46.0	13.6	100	168
2	445.512	32.8	16.6	5.5	23.3	31.6	46.0	14.4	100	173
3	742.745	31.5	19.2	7.4	22.8	35.3	46.0	10.7	170	359
4	960.000	34.5	21.7	8.4	22.7	41.9	46.0	4.1	100	215
----- Vertical -----										
5	30.970	36.0	17.4	1.9	23.8	31.5	40.0	8.5	155	13
6	147.246	40.5	10.6	3.1	24.2	30.0	43.5	13.5	100	0

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

RADIATED EMISSION

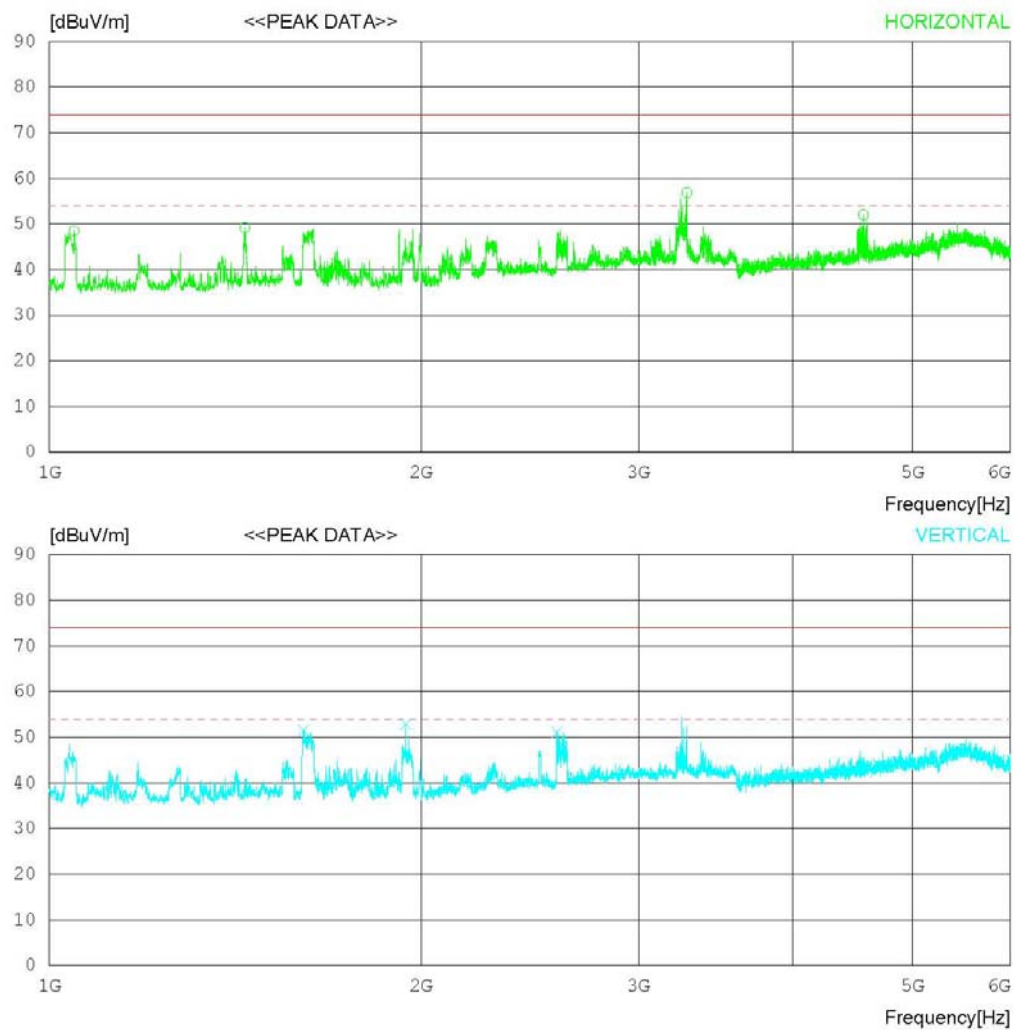
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 46 % 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	1046.875	62.3	23.9	3.4	41.1	48.5	74.0	25.5	100	358
2	1440.000	60.8	24.6	4.0	40.2	49.2	74.0	24.8	100	358
3	3281.875	61.1	28.9	6.0	39.1	56.9	74.0	17.1	100	358
4	4562.500	52.3	31.1	7.2	38.6	52.0	74.0	22	100	127
----- Vertical -----										
5	1606.250	62.6	24.6	4.2	39.9	51.5	74.0	22.5	100	218
6	1944.375	63.2	24.6	4.6	39.5	52.9	74.0	21.1	100	0
7	2575.625	57.4	27.7	5.3	39.3	51.1	74.0	22.9	100	0

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

RADIATED EMISSION

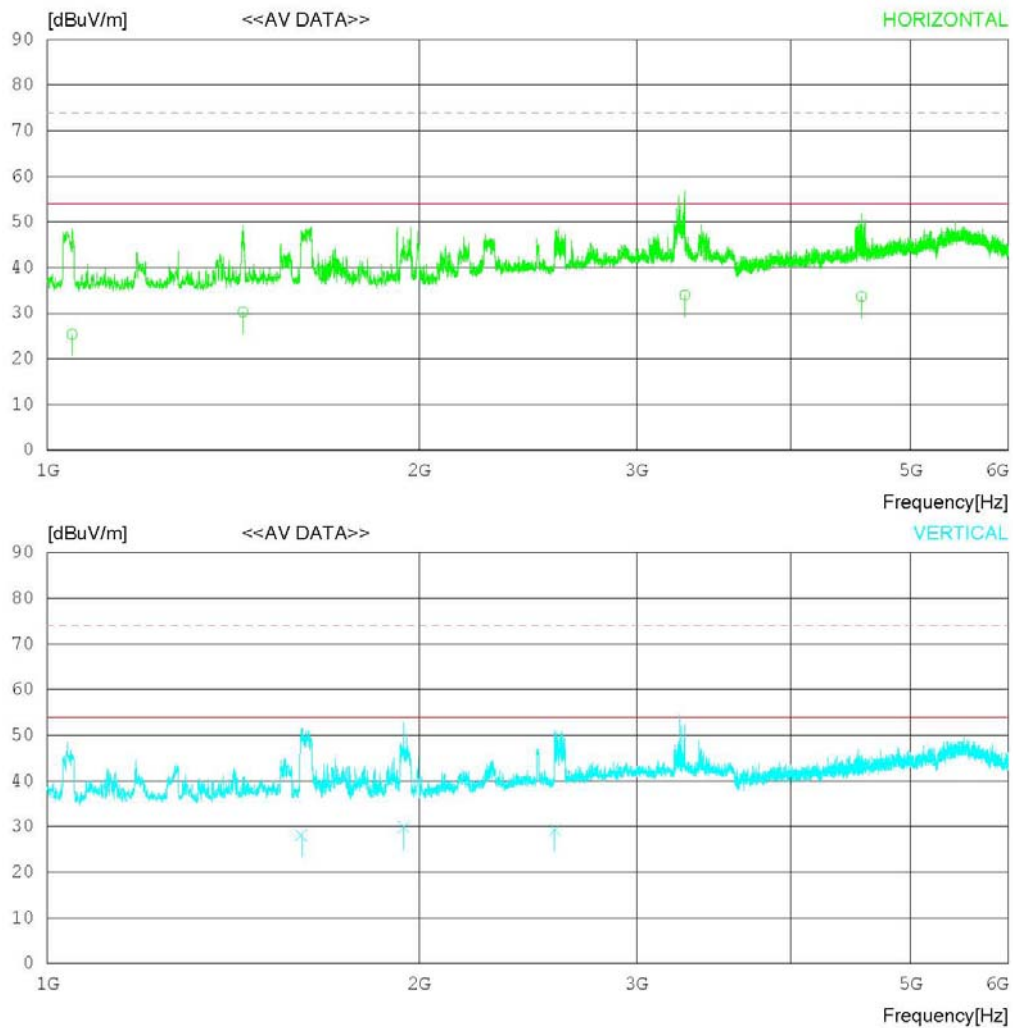
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 46 % 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	1046.875	39.2	23.9	3.4	41.1	25.4	54.0	28.6	100	358
2	1440.000	41.9	24.6	4.0	40.2	30.3	54.0	23.7	100	358
3	3281.875	38.2	28.9	6.0	39.1	34.0	54.0	20.0	100	358
4	4562.500	34.0	31.1	7.2	38.6	33.7	54.0	20.3	100	127
----- Vertical -----										
5	1606.250	39.2	24.6	4.2	39.9	28.1	54.0	25.9	100	218
6	1944.375	40.2	24.6	4.6	39.5	29.9	54.0	24.1	100	0
7	2575.625	35.6	27.7	5.3	39.3	29.3	54.0	24.7	100	0

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

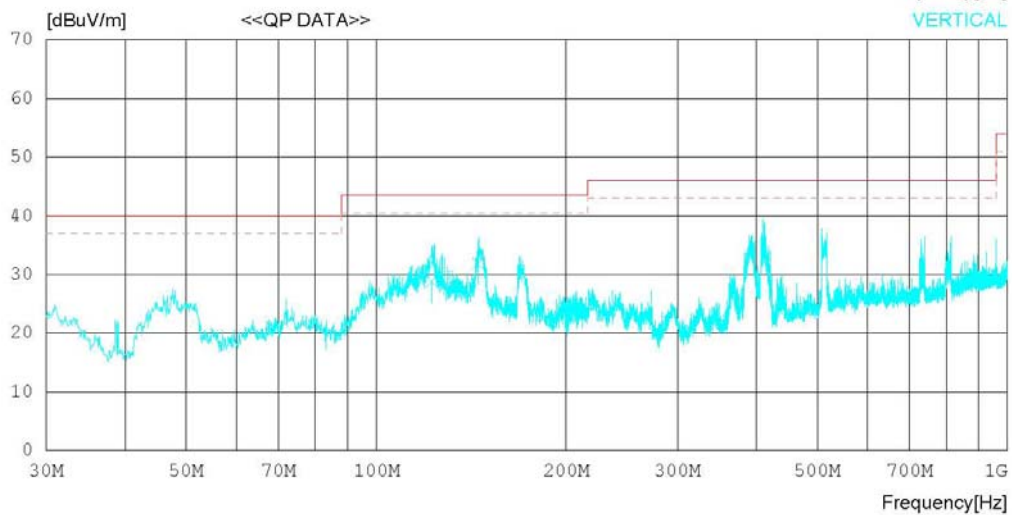
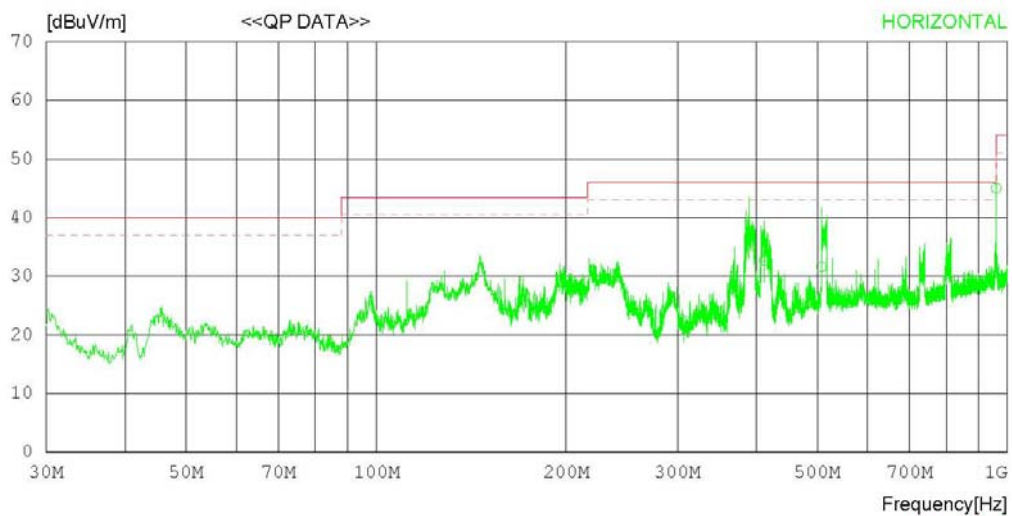
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 44 % R.H
Operator :

Memo :

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



RADIATED EMISSION

Date : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 44 % 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	389.739	39.2	15.8	5.1	23.5	36.6	46.0	9.4	100	119
2	411.563	34.7	16.2	5.3	23.5	32.7	46.0	13.3	221	0
3	507.590	31.2	17.4	6.0	23.0	31.6	46.0	14.4	244	218
4	960.195	37.6	21.7	8.4	22.7	45.0	54.0	9.0	100	227
----- Vertical -----										
5	122.391	38.4	11.7	2.8	24.1	28.8	43.5	14.7	100	0
6	145.064	42.4	10.7	3.0	24.2	31.9	43.5	11.6	100	359

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

RADIATED EMISSION

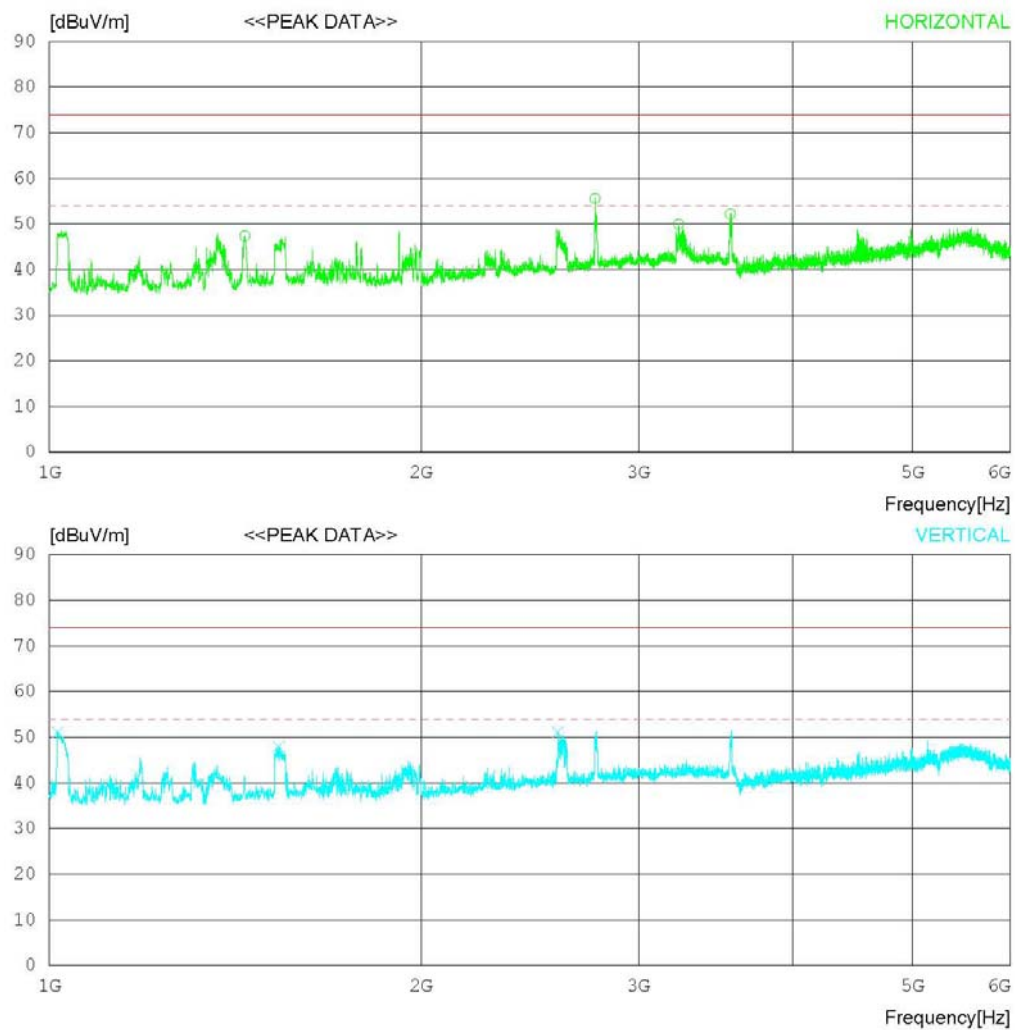
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 46 % 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	1440.000	59.0	24.6	4.0	40.2	47.4	74.0	26.6	100	172
2	2766.250	61.1	28.3	5.5	39.3	55.6	74.0	18.4	100	225
3	3230.625	54.4	28.9	5.9	39.2	50.0	74.0	24	100	359
4	3558.750	55.8	29.0	6.3	38.9	52.2	74.0	21.8	100	124
----- Vertical -----										
5	1016.250	64.9	23.9	3.4	41.1	51.1	74.0	22.9	100	197
6	1533.750	59.2	24.6	4.1	40.0	47.9	74.0	26.1	100	168
7	2580.000	57.4	27.7	5.3	39.3	51.1	74.0	22.9	100	0

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

RADIATED EMISSION

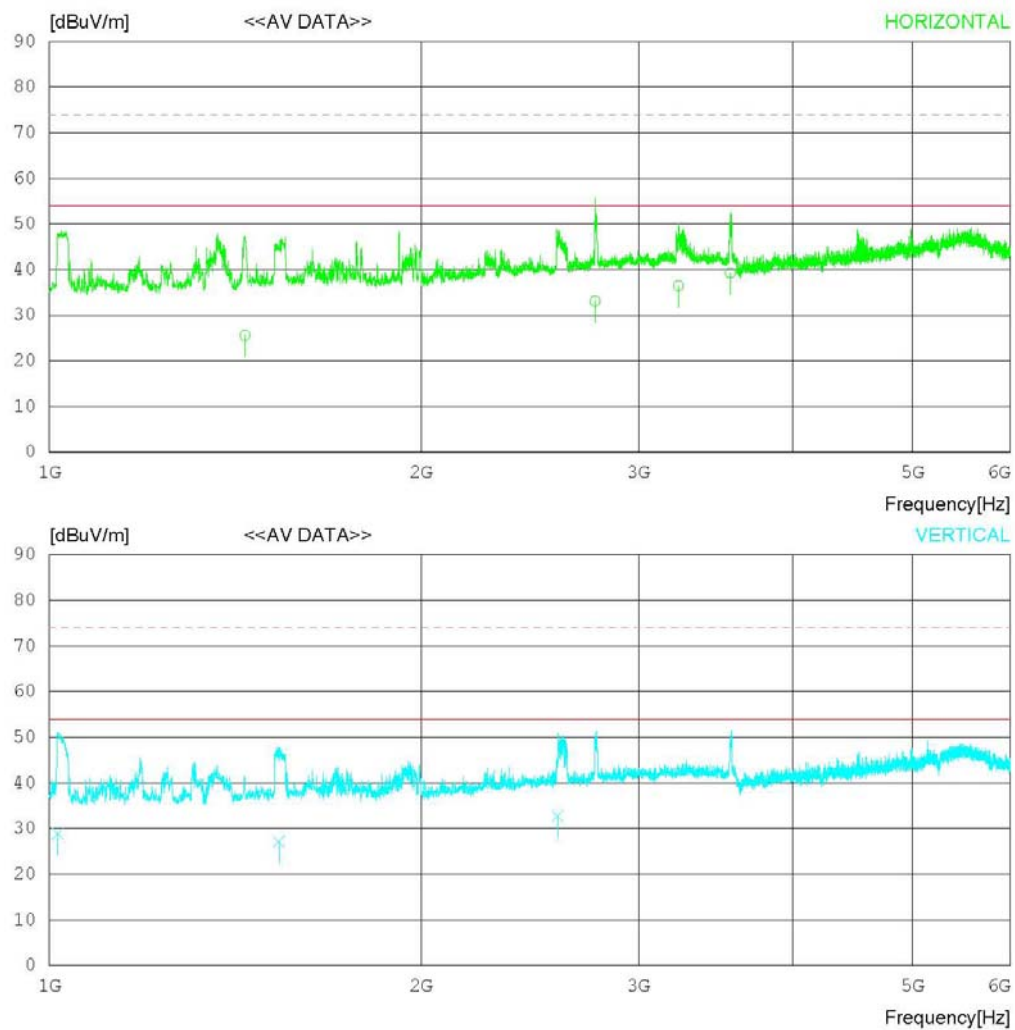
Date : 2013-07-24

Model Name : 55LP645H-UZ
Model No. :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi : 24 °C 46 % 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 : 2013-07-24

Model Name : 55LP645H-UZ	Reference No. :
Model No. :	Power Supply : 120 V 60 Hz
Serial No. :	Temp/Humi : 24 °C 46 % 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	1440.000	37.2	24.6	4.0	40.2	25.6	54.0	28.4	100	172
2	2766.250	38.6	28.3	5.5	39.3	33.1	54.0	20.9	100	225
3	3230.625	40.9	28.9	5.9	39.2	36.5	54.0	17.5	100	359
4	3558.750	42.9	29.0	6.3	38.9	39.3	54.0	14.7	100	124
----- Vertical -----										
5	1016.250	42.7	23.9	3.4	41.1	28.9	54.0	25.1	100	197
6	1533.750	38.4	24.6	4.1	40.0	27.1	54.0	26.9	100	168
7	2580.000	39.1	27.7	5.3	39.3	32.8	54.0	21.2	100	0

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	2013.02.28	2014.02.28
☐ RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	2013.06.28	2014.06.28
☐ LISN	KNW-407	KYORITSU	8-317-8	2013.01.08	2014.01.08
☐ LISN	PMM L2-16B	NARDA S.T.S. / PMM	000WX20305	2012.07.25	2013.07.25
☐ 50 OHM TERMINATOR	CT-01	TME	N/A	2013.01.08	2014.01.08
☒ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
☒ LISN	ESH2-Z5	ROHDE & SCHWARZ	828739/006	2012.09.18	2013.09.18
☒ LISN	LISN1600	TTI	197204	2013.06.28	2014.06.28
☒ 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
☒ EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100014	2013.01.08	2014.01.08
☒ BILOG ANTENNA	CBL6112B	SCHAFFNER	2737	2012.11.06	2014.11.06
☒ HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒ AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒ AMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2013.06.27	2014.06.27
☐ AMPLIFIER	8447D	AGILENT	2443A03690	2013.06.28	2014.06.28
☐ EMI TEST RECEIVER	ESCI	ROHDE & SCHWARZ	100364	2013.02.27	2014.02.27
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91032789	2012.04.10	2014.04.10
☐ LOG-PERIODIC ANT.	UHALP 9108A	SCHWARZBECK	590	2012.04.10	2014.04.10
☐ BICONICAL ANT.	VHA 9103	SCHWARZBECK	91031946	2012.03.12	2014.03.12
☐ LOG-PERIODIC ANT.	UHALP 9108-A1	SCHWARZBECK	1098	2012.03.12	2014.03.12
☐ AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2013.02.28	2014.02.28

Appendix 2

Report Revision History

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