

EMC TEST REPORT

Test item : OLED TV Monitor
Model No. : 55EA9800-UA
Order No. : DEMC1305-01699
Date of receipt : 2013-05-24
Test duration : 2013-05-28
Use of report : FCC CoC Marking
Date of Issue : 2013-05-29

Applicant : LG Electronics Inc.

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

Test laboratory : Digital EMC Co., Ltd.

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

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

Test environment : Temperature : (21 ~ 22) °C,
Humidity : (37 ~ 40) % R.H.

Test result : ☒ Comply ☐ Not Comply

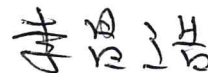
The test results presented in this test report are limited only to the sample supplied by applicant and
the use of this test report is inhibited other than its purpose.
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Tested by:



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.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.	55EA9800-UA
EUT Type	OLED TV Monitor
Serial No	NONE
FCC ID	BEJ55EA9800UA
Type of Sample Tested	Pre-Production
High Frequency	1.2 GHz
Rating	100-240 V, 50-60 Hz, 3.0 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 840	31.469	50.94
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	05-28	21	40
Radiated Disturbance	05-28	22	37

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.59198	N	36.0	Quasi-Peak	56.0	20.0

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μ V/m)]	Detector	Limit [dB(μ V/m)]	Margin [dB]
893.297	H	40.7	Quasi-Peak	46.0	5.3

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 (Worst Case)
- 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	6J7JXBX	DELL INC.	POWER	1.8	Not use	Non-shield	Plastic	DOC
				HDMI	2.0	Not use	Shield		
				USB	1.8	Use	Shield		
				USB	1.7	Not use	Shield		
				USB	1.9	Use	Shield		
KEYBOARD	KB-065	CN11163233	HP.	USB	1.7	Not use	Shield	Plastic	DOC
MOUSE	M-UAE96	LZ751AP01L3	LOGITECH Inc.	USB	1.8	Use	Shield	Plastic	DOC
PRINTER	SRP770	SRP77008060035	BICSOLON	POWER	1.8	Not use	Non-shield	Plastic	DOC
				USB	1.9	Use	Shield		
CD/DVD PLAYER	DVP-NS92V	2000407	SONY EMCS.	POWER	1.8	Not use	Non-shield	Plastic	VER
				AV	1.7	Not use	Non-shield		
Head set	COV903	N/A	COSY	STEREO	1.8	Not use	Non-shield	Plastic	DOC
REMOTE CONTROL	AN-MR400P	N/A	N/A	-	-	-	-	Plastic	-

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

< HDMI MODE >



Results of Conducted Emission

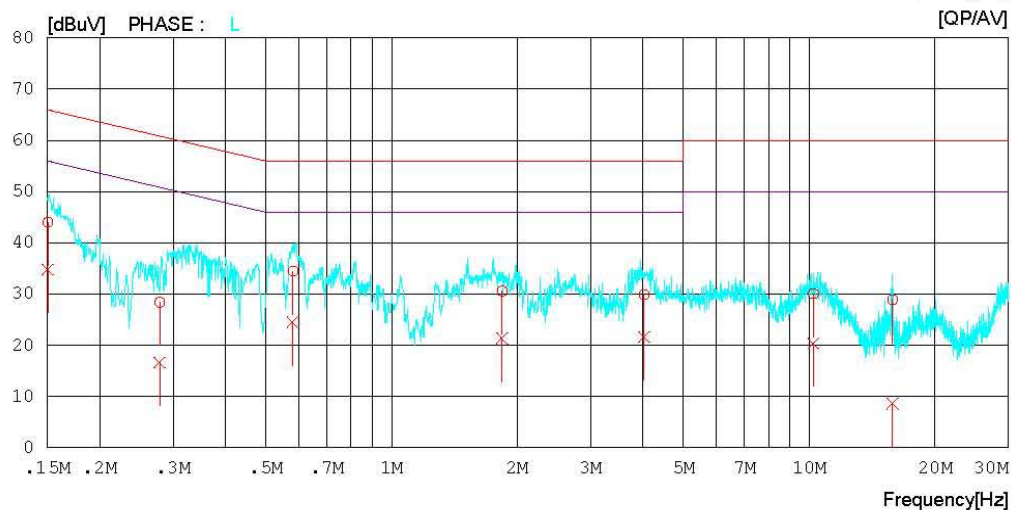
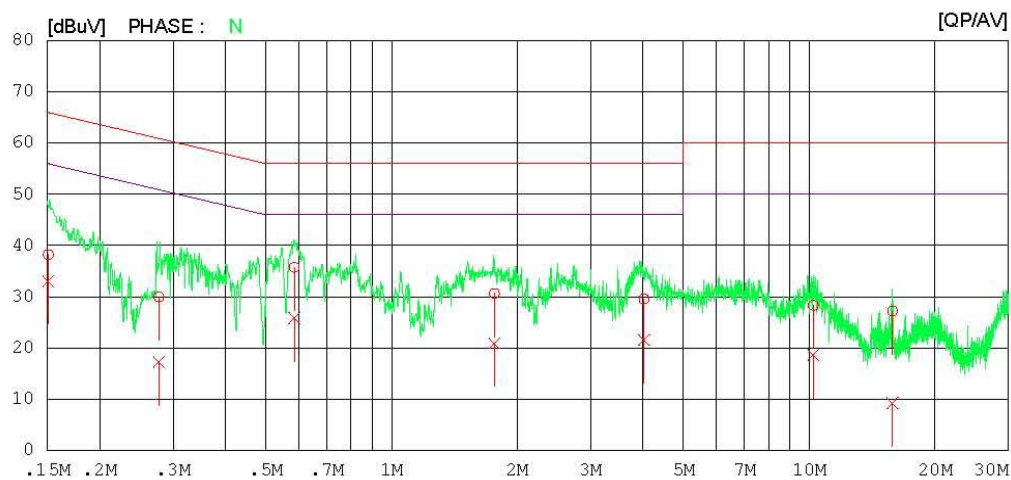
Digital EMC
Date : 2013-05-28

Model No. : 55EA9800-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 40 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-05-28

Model No. : 55EA9800-UA
Type :
Serial No. :
Test Condition : HDMI

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 40 % 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	0.15079	38.0	32.9	0.2	38.2	33.1	66.0	56.0	27.8	22.9	N
2	0.27749	29.8	17.0	0.2	30.0	17.2	60.9	50.9	30.9	33.7	N
3	0.58539	35.5	25.6	0.2	35.7	25.8	56.0	46.0	20.3	20.2	N
4	1.76350	30.3	20.6	0.3	30.6	20.9	56.0	46.0	25.4	25.1	N
5	4.02100	29.3	21.3	0.3	29.6	21.6	56.0	46.0	26.4	24.4	N
6	10.23900	27.6	17.9	0.7	28.3	18.6	60.0	50.0	31.7	31.4	N
7	15.82300	26.4	8.4	0.8	27.2	9.2	60.0	50.0	32.8	40.8	N
8	0.15056	43.8	34.6	0.2	44.0	34.8	66.0	56.0	22.0	21.2	L
9	0.27868	28.2	16.4	0.2	28.4	16.6	60.9	50.9	32.5	34.3	L
10	0.58096	34.3	24.3	0.2	34.5	24.5	56.0	46.0	21.5	21.5	L
11	1.84100	30.3	21.1	0.3	30.6	21.4	56.0	46.0	25.4	24.6	L
12	4.02350	29.6	21.3	0.3	29.9	21.6	56.0	46.0	26.1	24.4	L
13	10.24150	29.4	19.7	0.7	30.1	20.4	60.0	50.0	29.9	29.6	L
14	15.83400	28.1	7.8	0.8	28.9	8.6	60.0	50.0	31.1	41.4	L

< USB MODE >



Results of Conducted Emission

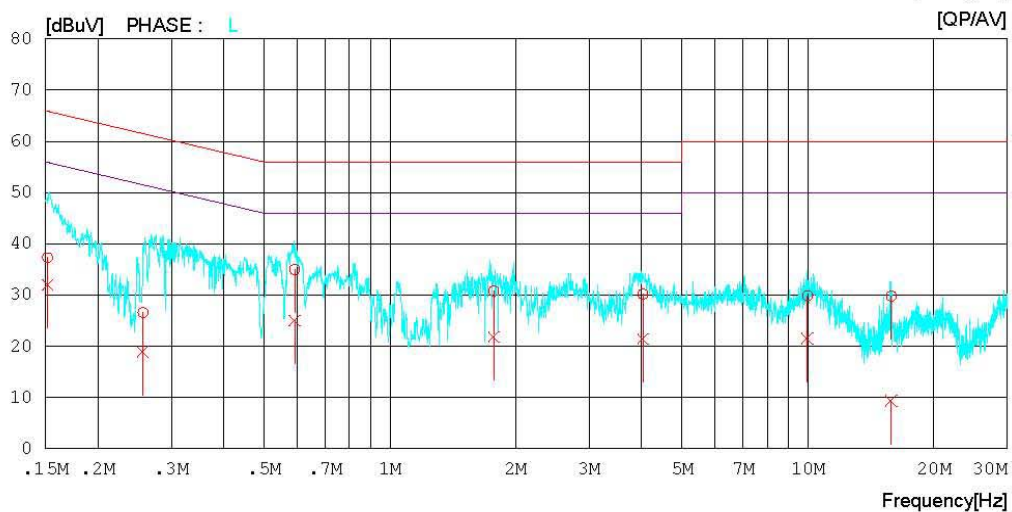
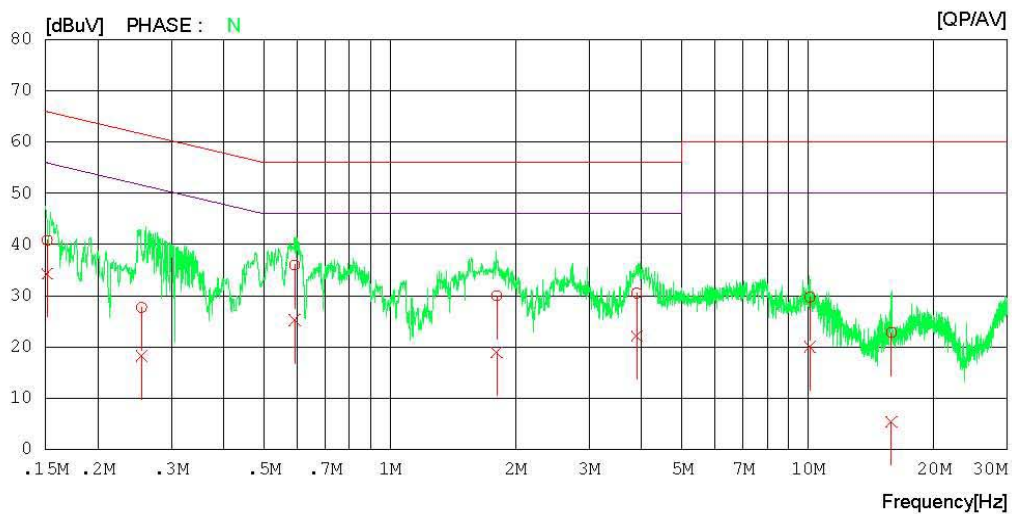
Digital EMC
Date : 2013-05-28

Model No. : 55EA9800-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 40 % R.H.
Operator :

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV



Results of Conducted Emission

Digital EMC
Date : 2013-05-28

Model No. : 55EA9800-UA
Type :
Serial No. :
Test Condition : USB

Reference No. :
Power Supply : 120 V 60 Hz
Temp/Humi. : 21 °C 40 % 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	0.15150	40.6	34.1	0.2	40.8	34.3	65.9	55.9	25.1	21.6	N
2	0.25469	27.5	18.0	0.2	27.7	18.2	61.6	51.6	33.9	33.4	N
3	0.59198	35.8	25.0	0.2	36.0	25.2	56.0	46.0	20.0	20.8	N
4	1.80200	29.7	18.7	0.3	30.0	19.0	56.0	46.0	26.0	27.0	N
5	3.89650	30.2	21.8	0.3	30.5	22.1	56.0	46.0	25.5	23.9	N
6	10.10700	29.0	19.3	0.7	29.7	20.0	60.0	50.0	30.3	30.0	N
7	15.83600	22.0	4.6	0.8	22.8	5.4	60.0	50.0	37.2	44.6	N
8	0.15166	37.1	31.8	0.2	37.3	32.0	65.9	55.9	28.6	23.9	L
9	0.25656	26.4	18.7	0.2	26.6	18.9	61.5	51.5	34.9	32.6	L
10	0.59150	34.8	24.9	0.2	35.0	25.1	56.0	46.0	21.0	20.9	L
11	1.77250	30.5	21.5	0.3	30.8	21.8	56.0	46.0	25.2	24.2	L
12	4.03250	29.9	21.1	0.3	30.2	21.4	56.0	46.0	25.8	24.6	L
13	9.96900	29.2	20.8	0.7	29.9	21.5	60.0	50.0	30.1	28.5	L
14	15.83300	29.0	8.6	0.8	29.8	9.4	60.0	50.0	30.2	40.6	L

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

< HDMI MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

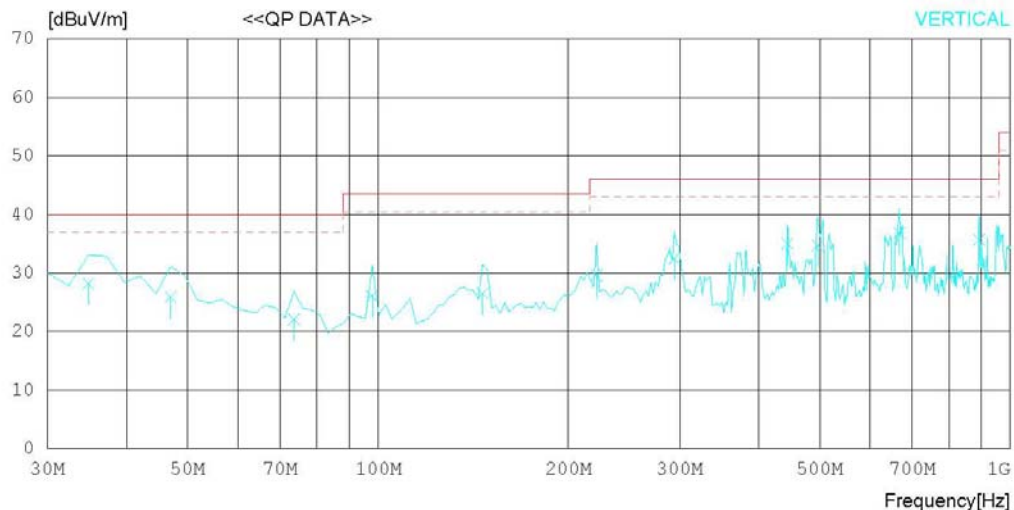
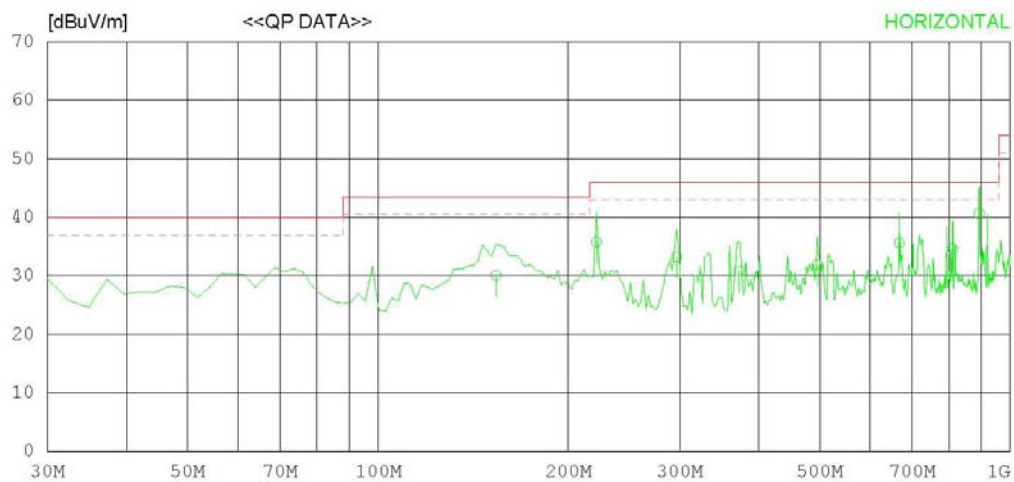
Date : 2013-05-28

Model Name : 55EA9800-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 : 2013-05-28

Model Name : 55EA9800-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

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	153.675	42.2	10.3	1.8	24.2	30.1	43.5	13.4	100	358
2	221.575	46.3	11.0	2.4	23.9	35.8	46.0	10.2	112	267
3	296.750	40.3	13.7	2.8	23.6	33.2	46.0	12.8	124	237
4	371.925	35.6	15.4	3.4	23.6	30.8	46.0	15.2	145	358
5	495.599	33.7	17.3	3.9	23.0	31.9	46.0	14.1	234	315
6	667.773	35.6	18.6	4.3	22.9	35.6	46.0	10.4	100	358
7	810.848	32.5	20.1	4.8	22.8	34.6	46.0	11.4	145	54
8	893.297	37.6	20.7	5.2	22.8	40.7	46.0	5.3	100	308
----- Vertical -----										
9	34.850	35.8	15.3	1.1	24.0	28.2	40.0	11.8	132	226
10	46.975	37.3	11.7	1.2	24.3	25.9	40.0	14.1	124	108
11	73.650	38.2	6.6	1.6	24.3	22.1	40.0	17.9	185	335
12	97.900	38.5	10.3	1.4	24.1	26.1	43.5	17.4	145	21
13	146.400	38.4	10.6	1.7	24.2	26.5	43.5	17.0	106	192
14	221.575	40.1	11.0	2.4	23.9	29.6	46.0	16.4	100	24
15	294.325	39.7	13.6	2.8	23.6	32.5	46.0	13.5	100	341
16	444.674	38.3	16.6	3.5	23.3	35.1	46.0	10.9	145	31
17	495.599	36.5	17.3	3.9	23.0	34.7	46.0	11.3	133	344
18	667.773	36.8	18.6	4.3	22.9	36.8	46.0	9.2	127	24
19	893.297	32.6	20.7	5.2	22.8	35.7	46.0	10.3	100	45

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

RADIATED EMISSION

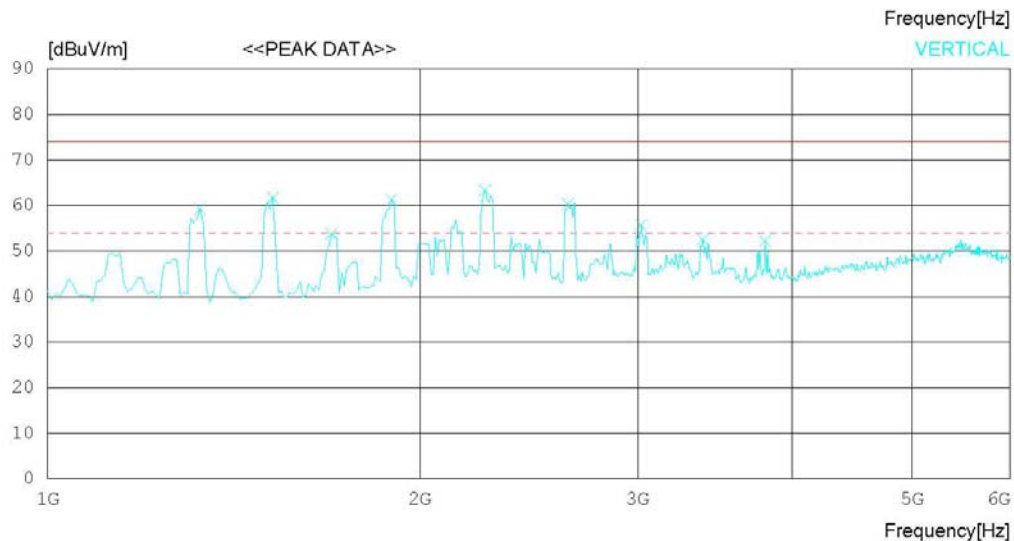
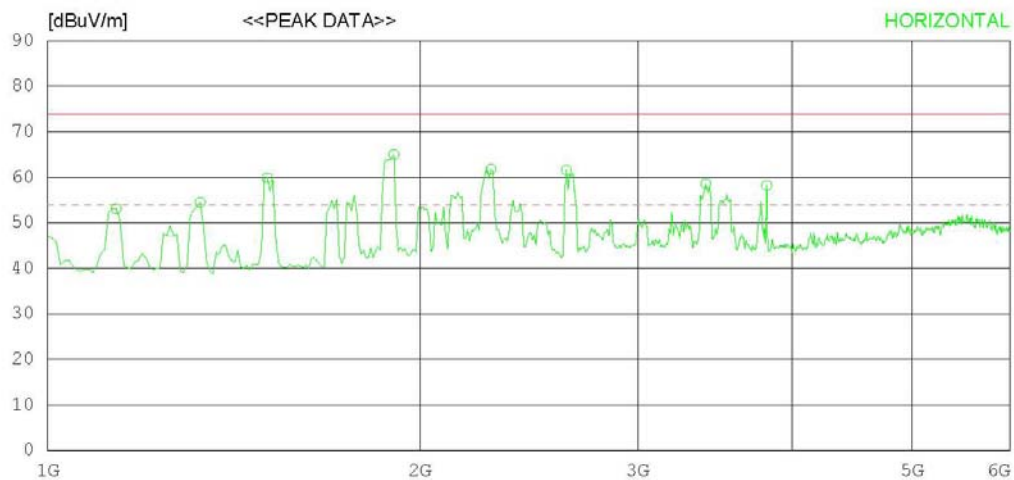
Date : 2013-05-28

Model Name : 55EA9800-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)



RADIATED EMISSION

Date : 2013-05-28

Model Name : 55EA9800-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	1136.218	64.1	24.1	3.5	38.6	53.1	74.0	20.9	100	358
2	1328.526	64.5	24.4	3.8	38.2	54.5	74.0	19.5	100	219
3	1504.807	69.1	24.6	4.1	37.9	59.9	74.0	14.1	100	358
4	1905.448	73.5	24.6	4.6	37.7	65.0	74.0	9	100	358
5	2282.054	68.0	26.2	5.0	37.4	61.8	74.0	12.2	100	358
6	2626.611	65.8	27.8	5.3	37.3	61.6	74.0	12.4	100	212
7	3403.866	60.7	28.9	6.1	37.1	58.6	74.0	15.4	100	199
8	3812.526	58.7	29.7	6.5	36.7	58.2	74.0	15.8	100	223
----- Vertical -----										
9	1328.526	69.2	24.4	3.8	38.2	59.2	74.0	14.8	100	1
10	1520.833	70.9	24.6	4.1	37.9	61.7	74.0	12.3	100	1
11	1697.115	62.7	24.6	4.3	37.8	53.8	74.0	20.2	100	189
12	1897.436	69.7	24.6	4.6	37.7	61.2	74.0	12.8	100	180
13	2258.016	69.7	26.0	5.0	37.4	63.3	74.0	10.7	100	220
14	2634.624	64.3	27.9	5.4	37.3	60.3	74.0	13.7	100	1
15	3019.245	58.3	29.0	5.7	37.3	55.7	74.0	18.3	100	193
16	3387.840	54.7	28.9	6.1	37.1	52.6	74.0	21.4	100	1
17	3804.513	52.7	29.7	6.5	36.7	52.2	74.0	21.8	100	1

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

RADIATED EMISSION

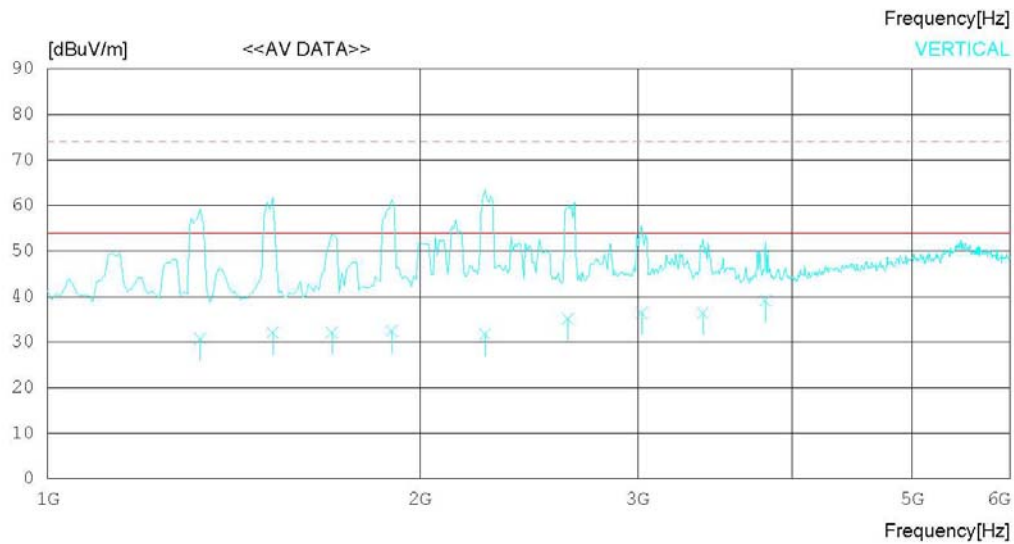
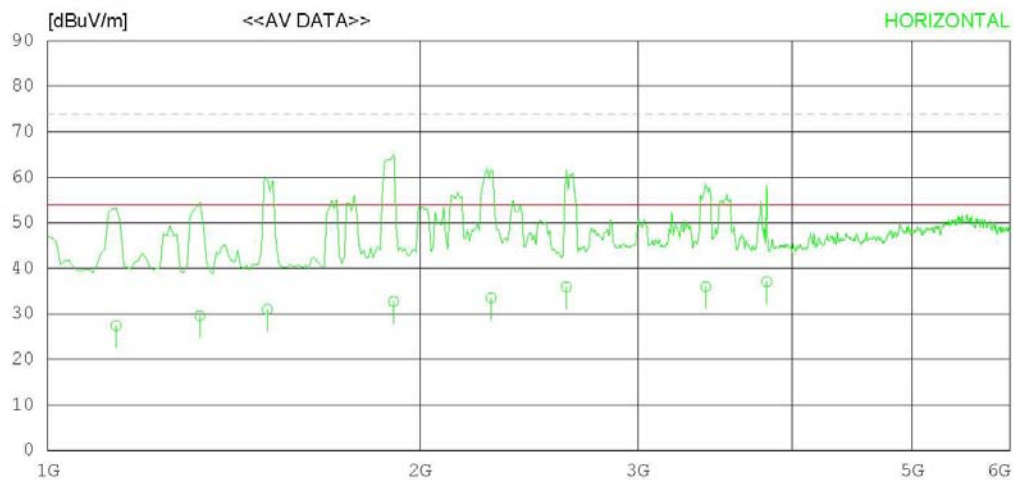
Date : 2013-05-28

Model Name : 55EA9800-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 : 2013-05-28

Model Name : 55EA9800-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)

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	1136.324	38.4	24.1	3.5	38.6	27.4	54.0	26.6	100	341
2	1327.693	39.6	24.4	3.8	38.2	29.6	54.0	24.4	100	218
3	1504.971	40.2	24.6	4.1	37.9	31.0	54.0	23.0	100	320
4	1904.367	41.2	24.6	4.6	37.7	32.7	54.0	21.3	100	193
5	2282.693	39.7	26.2	5.0	37.4	33.5	54.0	20.5	100	311
6	2626.341	40.1	27.8	5.3	37.3	35.9	54.0	18.1	100	18
7	3402.934	38.1	28.9	6.1	37.1	36.0	54.0	18.0	100	197
8	3812.963	37.6	29.7	6.5	36.7	37.1	54.0	16.9	100	234
----- Vertical -----										
9	1328.631	40.7	24.4	3.8	38.2	30.7	54.0	23.3	100	132
10	1520.934	41.3	24.6	4.1	37.9	32.1	54.0	21.9	100	127
11	1697.631	41.0	24.6	4.3	37.8	32.1	54.0	21.9	100	227
12	1897.761	40.9	24.6	4.6	37.7	32.4	54.0	21.6	100	81
13	2257.631	38.1	26.0	5.0	37.4	31.7	54.0	22.3	100	234
14	2634.439	39.1	27.9	5.4	37.3	35.1	54.0	18.9	100	348
15	3020.910	38.9	29.0	5.7	37.3	36.3	54.0	17.7	100	193
16	3386.631	38.4	28.9	6.1	37.1	36.3	54.0	17.7	100	241
17	3804.373	39.6	29.7	6.5	36.7	39.1	54.0	14.9	100	320

< USB MODE_30 MHz ~ 1 GHz >

RADIATED EMISSION

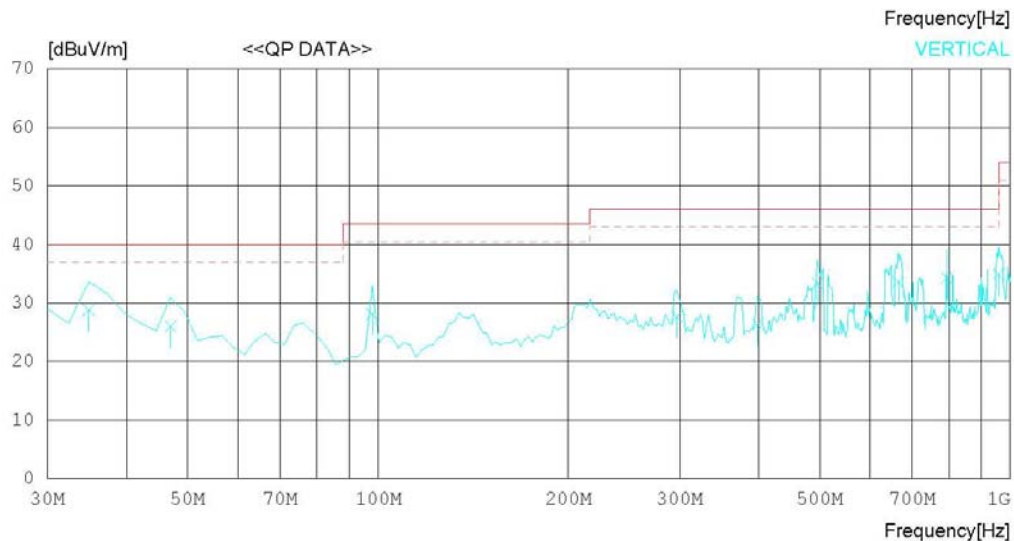
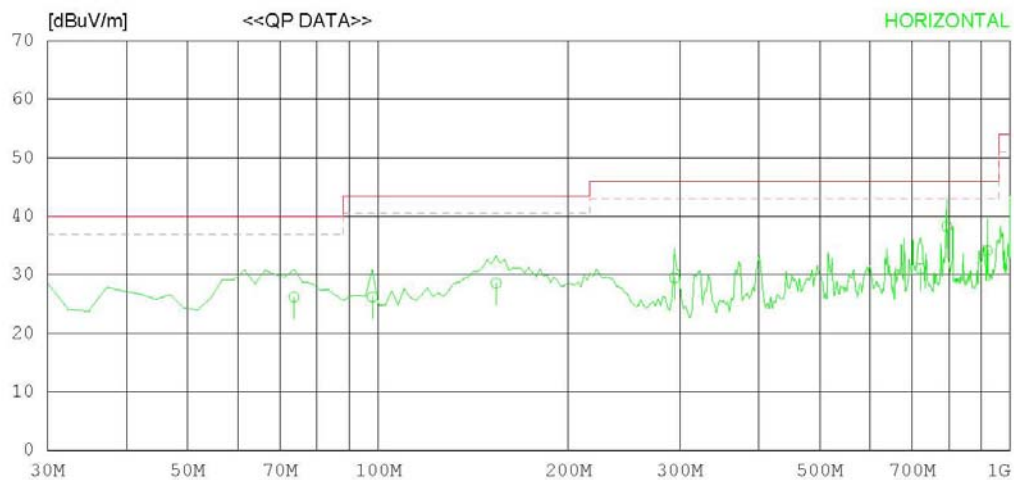
Date : 2013-05-28

Model Name : 55EA9800-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 : 2013-05-28

Model Name : 55EA9800-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

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	73.650	42.3	6.6	1.6	24.3	26.2	40.0	13.8	201	1
2	97.900	38.6	10.3	1.4	24.1	26.2	43.5	17.3	201	1
3	153.675	40.7	10.3	1.8	24.2	28.6	43.5	14.9	100	33
4	294.325	36.7	13.6	2.8	23.6	29.5	46.0	16.5	100	351
5	721.123	30.5	18.8	4.6	22.8	31.1	46.0	14.9	100	340
6	793.873	36.4	19.9	4.8	22.8	38.3	46.0	7.7	201	359
7	919.972	30.4	21.1	5.3	22.7	34.1	46.0	11.9	201	359
----- Vertical -----										
8	34.850	36.4	15.3	1.1	24.0	28.8	40.0	11.2	124	1
9	46.975	37.4	11.7	1.2	24.3	26.0	40.0	14.0	133	45
10	97.900	40.6	10.3	1.4	24.1	28.2	43.5	15.3	100	41
11	296.750	34.8	13.7	2.8	23.6	27.7	46.0	18.3	187	358
12	398.600	30.4	16.0	3.5	23.5	26.4	46.0	19.6	142	45
13	495.599	35.2	17.3	3.9	23.0	33.4	46.0	12.6	124	344
14	665.348	33.6	18.6	4.3	22.9	33.6	46.0	12.4	100	345
15	793.873	32.4	19.9	4.8	22.8	34.3	46.0	11.7	124	324
16	958.772	30.6	21.6	5.4	22.7	34.9	46.0	11.1	100	357

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

RADIATED EMISSION

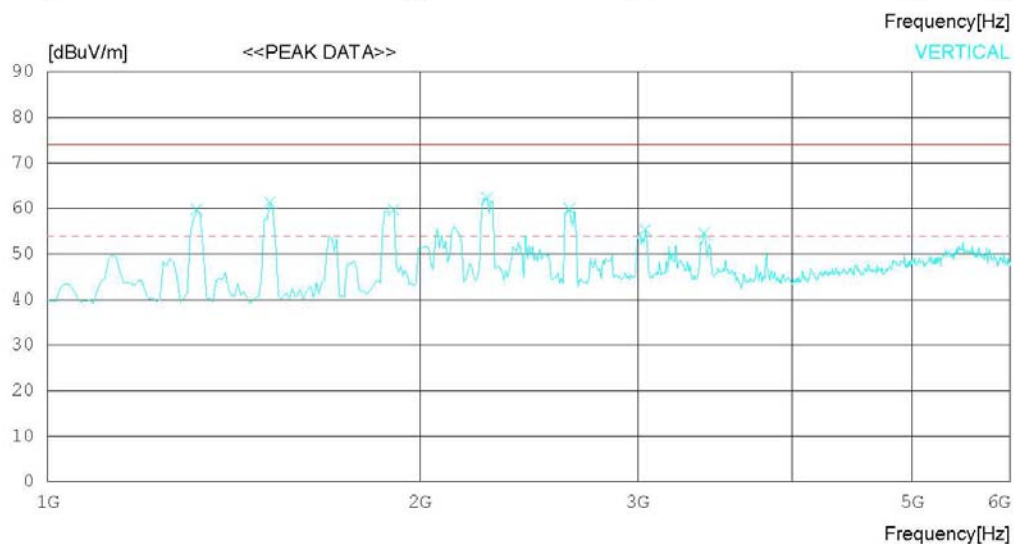
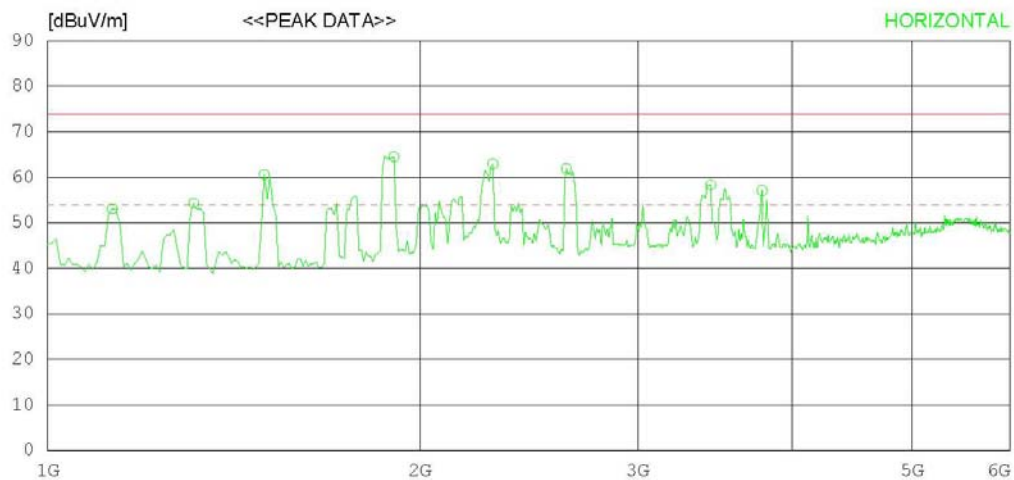
Date : 2013-05-28

Model Name : 55EA9800-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)



RADIATED EMISSION

Date : 2013-05-28

Model Name : 55EA9800-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	1128.205	64.1	24.1	3.5	38.6	53.1	74.0	20.9	100	358
2	1312.500	64.3	24.4	3.8	38.2	54.3	74.0	19.7	100	358
3	1496.795	69.8	24.6	4.1	37.9	60.6	74.0	13.4	100	358
4	1905.448	73.0	24.6	4.6	37.7	64.5	74.0	9.5	100	220
5	2290.067	69.1	26.2	5.0	37.4	62.9	74.0	11.1	100	358
6	2626.611	66.1	27.8	5.3	37.3	61.9	74.0	12.1	100	206
7	3435.918	60.4	28.9	6.1	37.1	58.3	74.0	15.7	100	200
8	3780.474	57.8	29.6	6.5	36.8	57.1	74.0	16.9	100	224
----- Vertical -----										
9	1320.513	69.8	24.4	3.8	38.2	59.8	74.0	14.2	100	1
10	1512.820	70.5	24.6	4.1	37.9	61.3	74.0	12.7	100	214
11	1905.448	68.2	24.6	4.6	37.7	59.7	74.0	14.3	100	230
12	2266.029	68.6	26.1	5.0	37.4	62.3	74.0	11.7	100	1
13	2642.637	64.0	27.9	5.4	37.3	60.0	74.0	14	100	1
14	3043.284	57.9	29.0	5.7	37.3	55.3	74.0	18.7	100	203
15	3395.853	56.6	28.9	6.1	37.1	54.5	74.0	19.5	100	171

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

RADIATED EMISSION

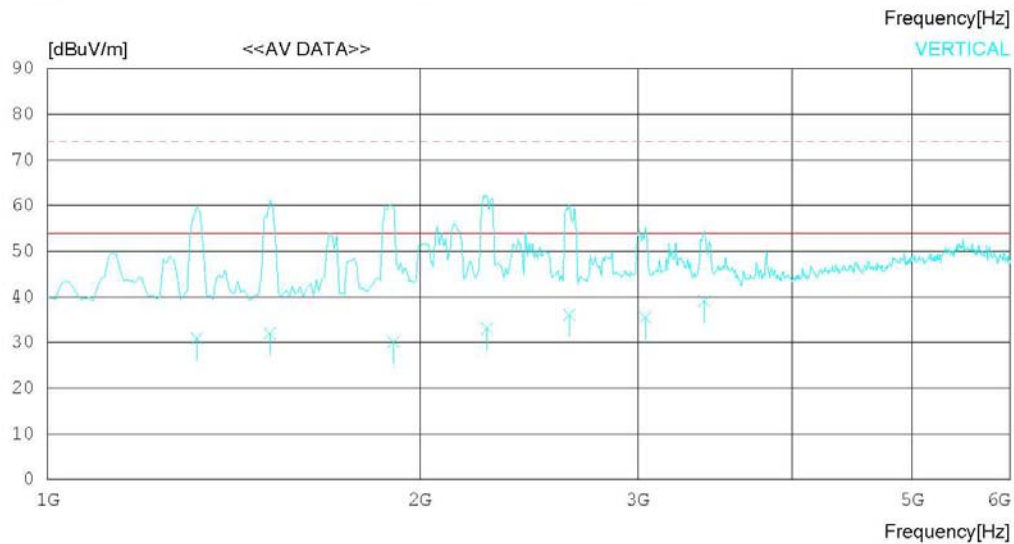
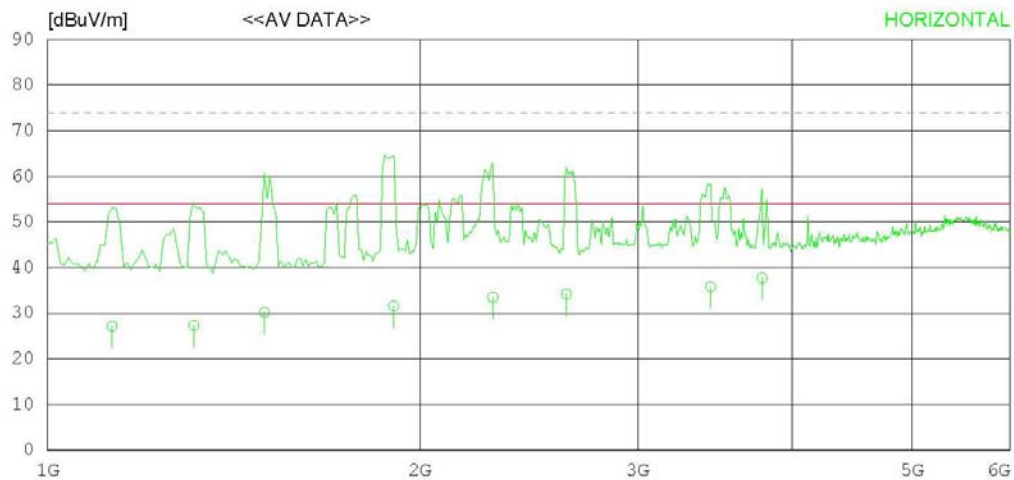
Date : 2013-05-28

Model Name : 55EA9800-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 : 2013-05-28

Model Name : 55EA9800-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(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	1127.613	38.2	24.1	3.5	38.6	27.2	54.0	26.8	100	124
2	1312.963	37.3	24.4	3.8	38.2	27.3	54.0	26.7	100	137
3	1497.630	39.4	24.6	4.1	37.9	30.2	54.0	23.8	100	223
4	1904.341	40.1	24.6	4.6	37.7	31.6	54.0	22.4	100	234
5	2291.364	39.7	26.2	5.0	37.4	33.5	54.0	20.5	100	281
6	2626.974	38.4	27.8	5.3	37.3	34.2	54.0	19.8	100	290
7	3435.671	37.9	28.9	6.1	37.1	35.8	54.0	18.2	100	340
8	3780.641	38.4	29.6	6.5	36.8	37.7	54.0	16.3	100	322
----- Vertical -----										
9	1320.941	40.9	24.4	3.8	38.2	30.9	54.0	23.1	100	32
10	1512.674	41.2	24.6	4.1	37.9	32.0	54.0	22.0	100	172
11	1904.310	38.7	24.6	4.6	37.7	30.2	54.0	23.8	100	240
12	2267.010	39.4	26.1	5.0	37.4	33.1	54.0	20.9	100	318
13	2641.610	40.1	27.9	5.4	37.3	36.1	54.0	17.9	100	249
14	3042.641	38.1	29.0	5.7	37.3	35.5	54.0	18.5	100	213
15	3394.671	41.2	28.9	6.1	37.1	39.1	54.0	14.9	100	174

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	2012.07.02	2013.07.02
☐ 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	2012.07.02	2013.07.02
☒ 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
☒ PREAMPLIFIER	8449B	AGILENT	3008A01590	2013.02.27	2014.02.27
☐ SPECTRUM ANALYZER	E4411B	AGILENT	US41062735	2012.07.11	2013.07.11
☐ AMPLIFIER	8447D	AGILENT	2443A03690	2012.07.01	2013.07.01
☐ 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