EMC TEST REPORT

Test item	: LED TV Monitor
Model No.	: 55GA6400-UD
Order No.	: DEMC1301-00417
Date of receipt	: 2013-01-30
Test duration	: 2013-02-02 ~ 2013-02-05
Use of report	: FCC CoC Marking
Date of Issue	: 2013-02-07

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 : (19 ~ 23) °C,
Humidity : (38 ~ 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.
This test report shall not be reproduced except in full, without the written approval of DIGITAL EMC CO., LTD.

Tested by:

Manager
MyungJin Song

Reviewed by:

General Manager
ChangHo Lee

PRESIDENT OF DIGITAL EMC CO., LTD.

CONTENTS

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.	55GA6400-UD
EUT Type	LED TV Monitor
Serial No	NONE
FCC ID	BEJ55GA6400UD
Type of Sample Tested	Pre-Production
High Frequency	Max 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)
640x350	31.468	70.09
720x400	31.469	70.08
640x480	31.469	59.94
800x600	37.879	60.31
1024x768	48.363	60.00
1360x768	47.712	60.015
1280x1024 HDMI-PC	63.981	60.02
1920x1080	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 (℃)	Humidity (% R.H.)
Conducted Disturbance	02-05	23	40
Radiated Disturbance	02-02	19	38

4.3 Test result Summary

(1) Conducted Emission (USB MODE)

Frequency [MHz]	Phase	Result [dBμV]	Detector	Limit [dBμV]	Margin [dB]
14.2145	**H**	**38.3**	Average	**50.0**	**11.7**

(2) Radiated Emission (HDMI MODE)

Frequency [MHz]	Pol.	Result [dB(μV/m)]	Detector	Limit [dB(μV/m)]	Margin [dB]
370.902	**H**	**42.0**	Quasi-Peak	**46.0**	**4.0**

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 : 1920x1080 Resolution (Worst case)
- USB MODE : USB record 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	VOSTRO220	G3RZKBX	DELL INC.	POWER HDMI PS2 PS2 USB	1.8 1.8 1.8 1.8 1.6	Not use Not use Not use Not use Not use	Non-shield Shield Non-shield Non-shield Shield	Plastic	DOC
KEYBOARD	SKG-210P	TAKSC12256D	MONITEREY INTERNATIONAL CORP	USB	1.8	Not use	Shield	Plastic	DOC
MOUSE	M-SBF96	LZ948B105W1	LOGITECH INC.	PS2	1.8	Not use	Shield	Plastic	DOC
CD/DVD PLAYER	DVP-NS92V	2001499	SONY EMCS.	POWER AV	1.8 1.6	Not use Not use	Non-shield Non-shield	Plastic	VER
USB MEMORY	Sandisk Cruzer Z37 4G	N/A	Sandisk	USB	-	-	-	Plastic	DOC
PRINTER	SRP-770	SRP77008060035	Bixolon	POWER USB	1.5 1.6	Not use Not use	Non-shield Shield	Plastic	DOC
Remote Control	AN-MR400Q	N/A	OHSUNG ELECTRONIC	-	-	-	-	-	-
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 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

< HDMI MODE >

Digital EMC

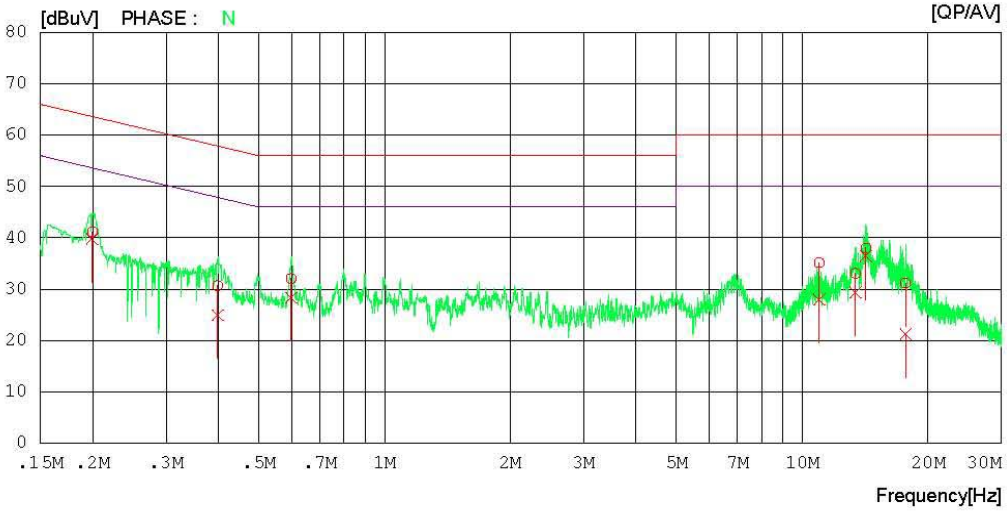
Results of Conducted Emission

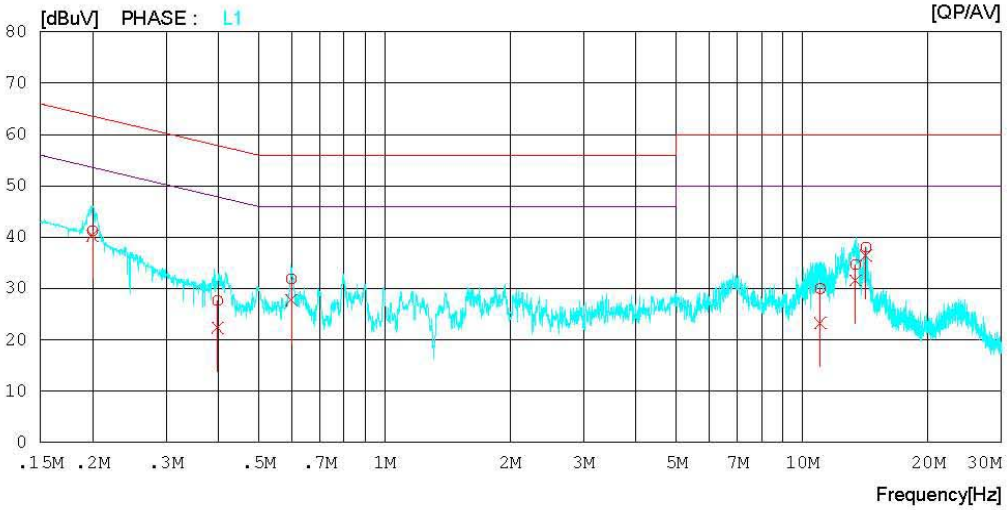
Digital EMC
Date : 2013-02-05

Model No.	:	55GA6400-UD	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-02-05

Model No.	:	55GA6400-UD	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 40 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.19983	40.9	39.6	0.2	41.1	39.8	63.6	53.6	22.5	13.8	N
2	0.39850	30.5	24.7	0.2	30.7	24.9	57.9	47.9	27.2	23.0	N
3	0.59773	31.8	28.1	0.2	32.0	28.3	56.0	46.0	24.0	17.7	N
4	10.98550	34.4	27.3	0.7	35.1	28.0	60.0	50.0	24.9	22.0	N
5	13.41750	32.3	28.7	0.7	33.0	29.4	60.0	50.0	27.0	20.6	N
6	14.21500	37.3	35.7	0.7	38.0	36.4	60.0	50.0	22.0	13.6	N
7	17.68850	30.3	20.3	0.9	31.2	21.2	60.0	50.0	28.8	28.8	N
8	0.19994	41.0	40.1	0.2	41.2	40.3	63.6	53.6	22.4	13.3	L1
9	0.39874	27.4	22.2	0.2	27.6	22.4	57.9	47.9	30.3	25.5	L1
10	0.59871	31.7	27.6	0.2	31.9	27.8	56.0	46.0	24.1	18.2	L1
11	11.05000	29.3	22.6	0.7	30.0	23.3	60.0	50.0	30.0	26.7	L1
12	13.41950	34.0	30.9	0.7	34.7	31.6	60.0	50.0	25.3	18.4	L1
13	14.21350	37.4	35.7	0.7	38.1	36.4	60.0	50.0	21.9	13.6	L1

< USB MODE >

Digital EMC

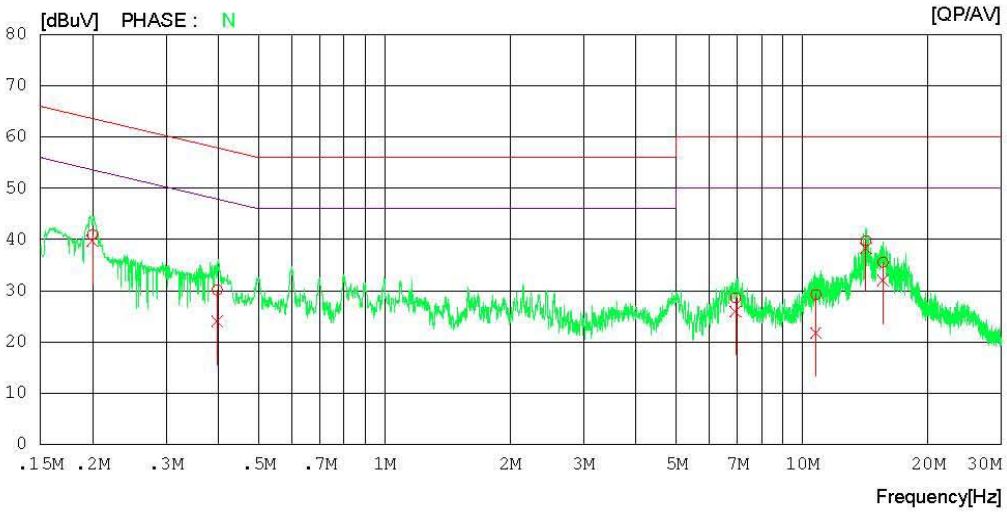
Results of Conducted Emission

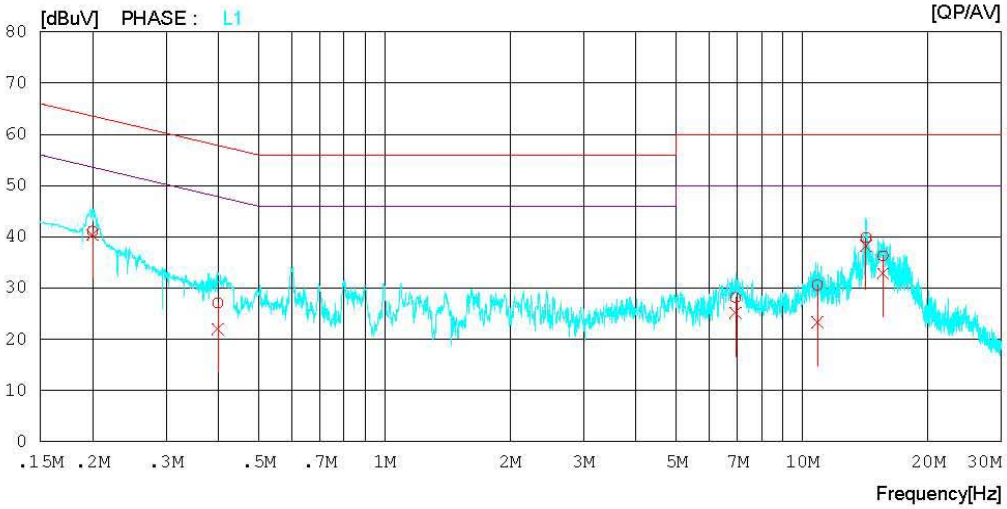
Digital EMC
Date : 2013-02-05

Model No.	:	55GA6400-UD	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

Digital EMC
Date : 2013-02-05

Model No.	:	55GA6400-UD	Referrence No.	:	
Type	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi.	:	23 'C 40 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING AV	C.FACTOR	RESULT QP	RESULT AV	LIMIT QP	LIMIT AV	MARGIN QP	MARGIN AV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.19989	40.7	39.6	0.2	40.9	39.8	63.6	53.6	22.7	13.8	N
2	0.39773	29.9	23.8	0.2	30.1	24.0	57.9	47.9	27.8	23.9	N
3	6.92450	28.1	25.4	0.5	28.6	25.9	60.0	50.0	31.4	24.1	N
4	10.78650	28.5	21.0	0.7	29.2	21.7	60.0	50.0	30.8	28.3	N
5	14.21450	39.1	37.6	0.7	39.8	38.3	60.0	50.0	20.2	11.7	N
6	15.61800	34.7	31.2	0.8	35.5	32.0	60.0	50.0	24.5	18.0	N
7	0.20000	40.9	40.2	0.2	41.1	40.4	63.6	53.6	22.5	13.2	L1
8	0.39895	26.9	21.8	0.2	27.1	22.0	57.9	47.9	30.8	25.9	L1
9	6.92450	27.7	24.7	0.5	28.2	25.2	60.0	50.0	31.8	24.8	L1
10	10.87950	29.9	22.6	0.7	30.6	23.3	60.0	50.0	29.4	26.7	L1
11	14.21500	39.2	37.6	0.7	39.9	38.3	60.0	50.0	20.1	11.7	L1
12	15.61850	35.5	32.0	0.8	36.3	32.8	60.0	50.0	23.7	17.2	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	5th 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 >

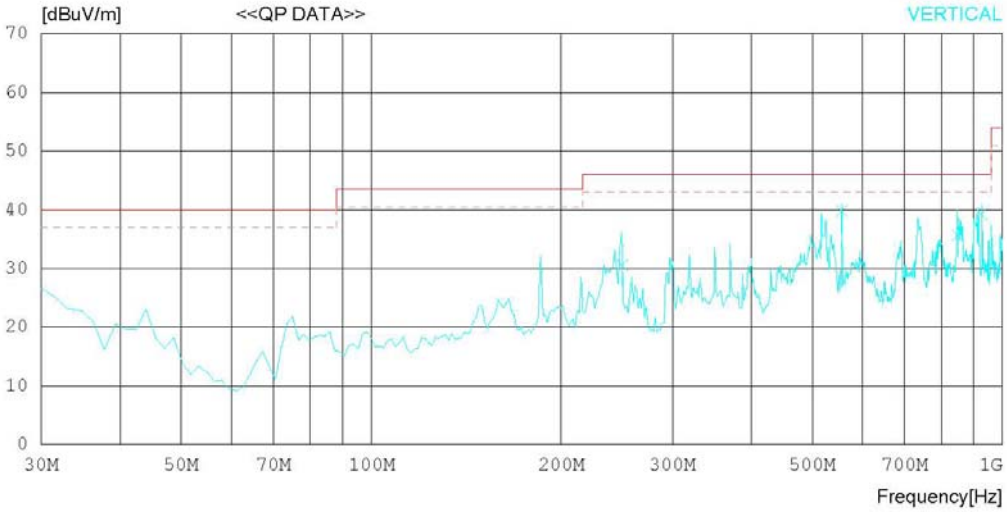
RADIATED EMISSION

Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % R.H.
Test Condition	:	HDMI	Operator	:	

Memo :

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



RADIATED EMISSION

Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	185.437	43.6	9.7	2.2	24.0	31.5	43.5	12.0	154	1
2	370.902	46.8	15.4	3.4	23.6	42.0	46.0	4.0	100	297
3	741.766	39.0	19.1	4.6	23.7	39.0	46.0	7.0	167	174
4	927.210	36.5	21.2	5.3	23.0	40.0	46.0	6.0	100	224
----- Vertical ------										
5	249.994	39.1	12.7	2.6	23.8	30.6	46.0	15.4	199	170
6	556.333	41.1	18.1	3.8	23.2	39.8	46.0	6.2	100	150
7	850.012	33.8	20.4	4.8	23.3	35.7	46.0	10.3	100	187
8	927.205	35.8	21.2	5.3	23.0	39.3	46.0	6.7	100	316

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

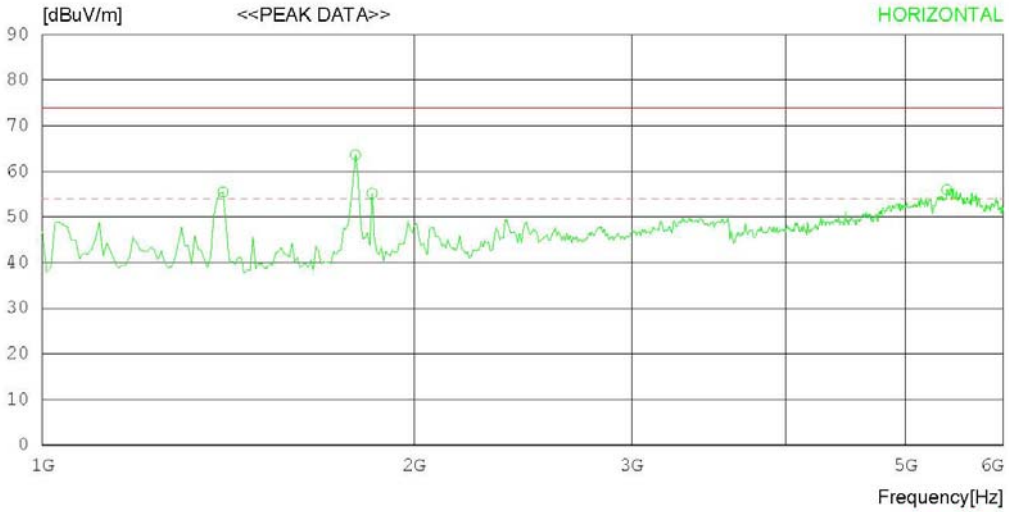
RADIATED EMISSION

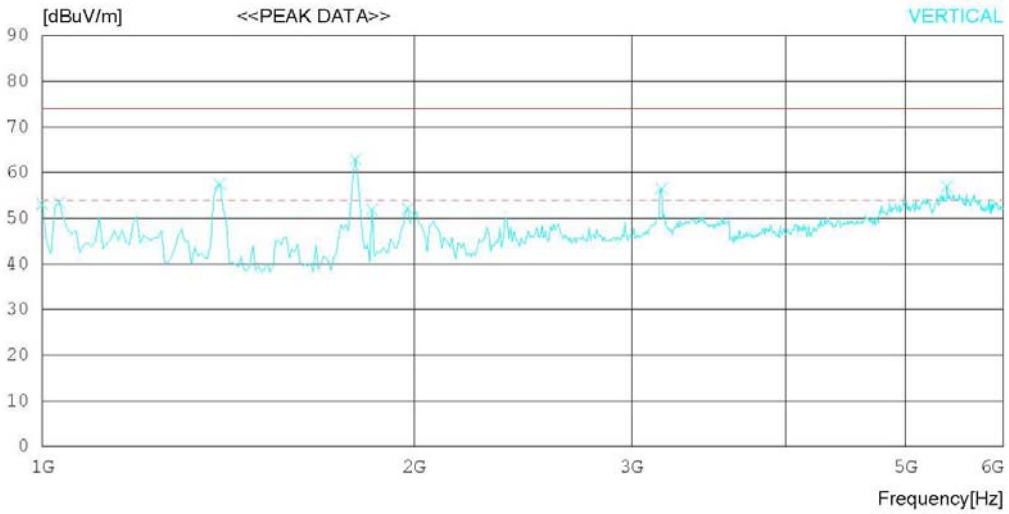
Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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 : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	1400.641	52.3	24.5	7.2	28.5	55.5	74.0	18.5	100	230
2	1793.269	59.4	24.6	8.1	28.5	63.6	74.0	10.4	100	4
3	1849.359	50.9	24.6	8.2	28.5	55.2	74.0	18.8	100	358
4	5399.048	34.5	34.6	15.0	28.1	56.0	74.0	18	100	358
----- Vertical ------										
5	1000.000	52.0	23.9	5.7	28.5	53.1	74.0	20.9	100	1
6	1032.051	52.2	23.9	5.9	28.5	53.5	74.0	20.5	100	133
7	1392.628	54.4	24.5	7.1	28.5	57.5	74.0	16.5	100	178
8	1793.269	58.7	24.6	8.1	28.5	62.9	74.0	11.1	100	333
9	1849.359	47.6	24.6	8.2	28.5	51.9	74.0	22.1	100	1
10	1977.564	47.7	24.6	8.4	28.5	52.2	74.0	21.8	100	1
11	3171.491	45.1	28.9	10.9	28.4	56.5	74.0	17.5	100	1
12	5399.048	35.5	34.6	15.0	28.1	57.0	74.0	17	100	1

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

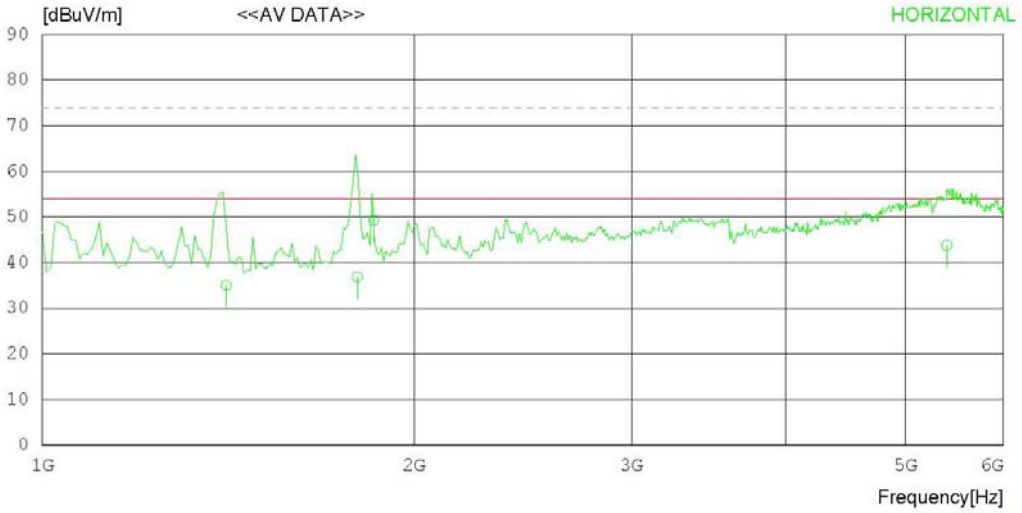
RADIATED EMISSION

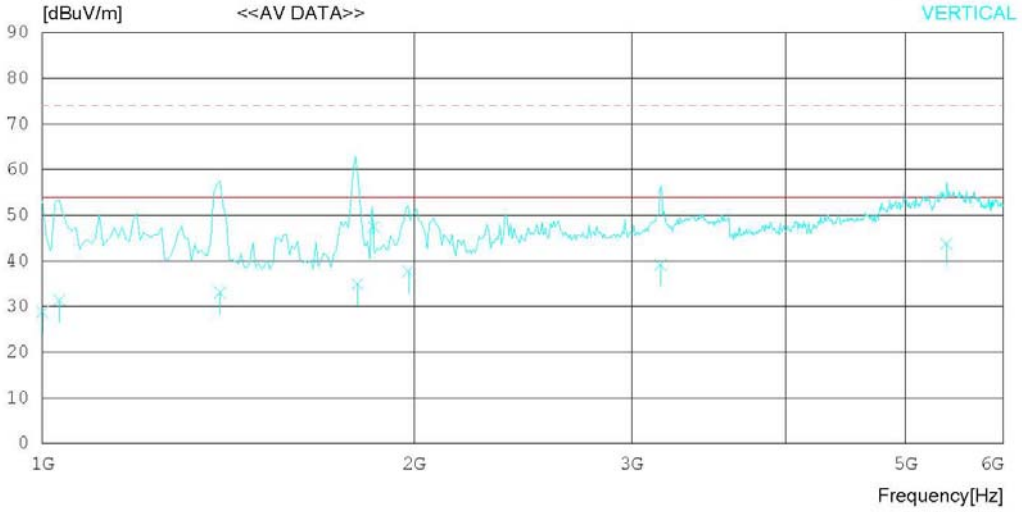
Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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 : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	1409.532	31.8	24.5	7.2	28.5	35.0	54.0	19.0	100	230
2	1799.005	32.7	24.6	8.1	28.5	36.9	54.0	17.1	100	4
3	1854.503	45.0	24.6	8.2	28.5	49.3	54.0	4.7	100	241
4	5398.076	22.4	34.5	15.0	28.1	43.8	54.0	10.2	100	119
----- Vertical ------										
5	1000.568	27.7	23.9	5.7	28.5	28.8	54.0	25.2	100	154
6	1032.208	30.1	23.9	5.9	28.5	31.4	54.0	22.6	100	133
7	1392.900	30.0	24.5	7.1	28.5	33.1	54.0	20.9	100	178
8	1799.250	30.7	24.6	8.1	28.5	34.9	54.0	19.1	100	333
9	1854.365	43.2	24.6	8.2	28.5	47.5	54.0	6.5	100	168
10	1979.660	33.2	24.6	8.4	28.5	37.7	54.0	16.3	100	113
11	3168.134	27.8	28.9	10.9	28.4	39.2	54.0	14.8	100	80
12	5396.227	22.4	34.5	15.0	28.1	43.8	54.0	10.2	100	225

< USB MODE_30 MHz ~ 1 GHz >

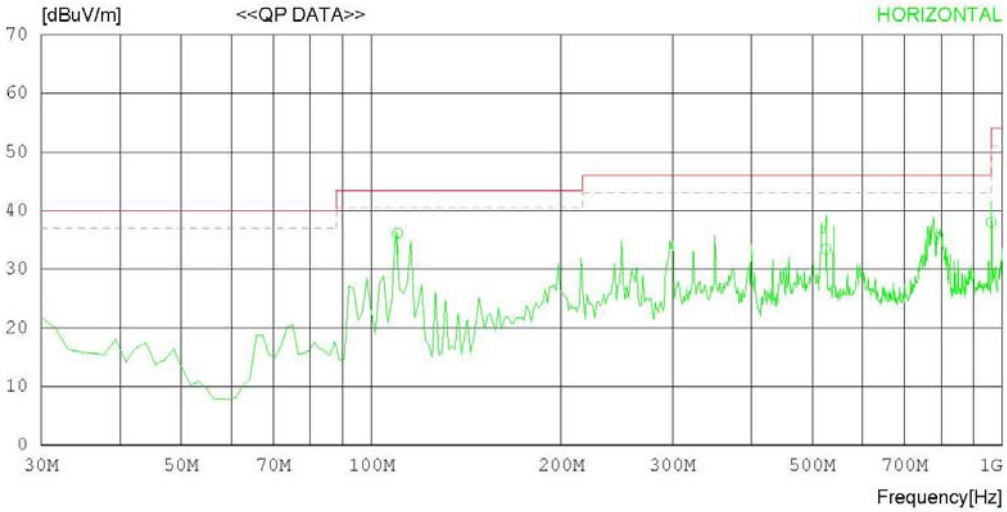
RADIATED EMISSION

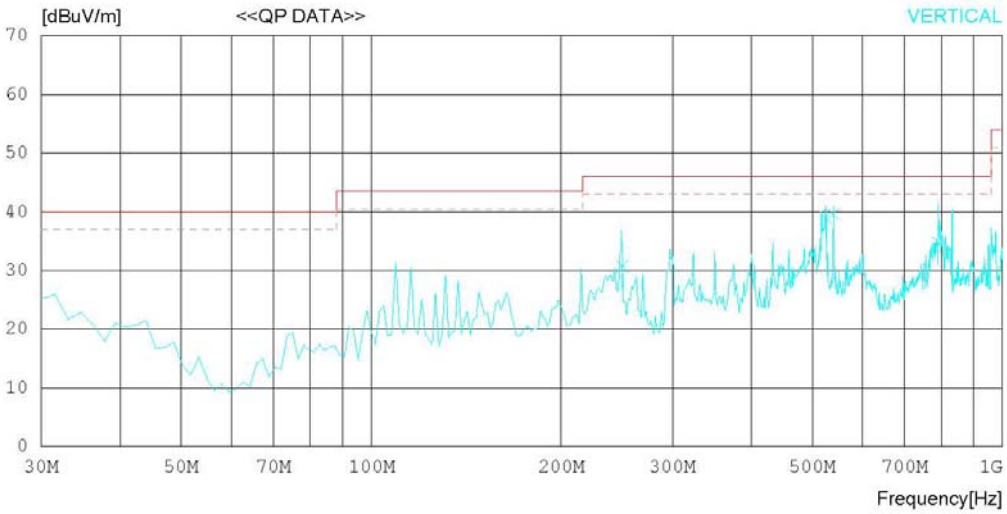
Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % R.H.
Test Condition	:	USB	Operator	:	

Memo :

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





RADIATED EMISSION

Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	110.005	47.6	11.1	1.5	24.1	36.1	43.5	7.4	329	264
2	525.497	34.9	17.7	3.9	23.1	33.4	46.0	12.6	174	102
3	959.935	33.8	21.7	5.4	22.9	38.0	46.0	8.0	150	207
----- Vertical ------										
4	249.995	38.7	12.7	2.6	23.3	30.7	46.0	15.3	199	124
5	524.987	40.5	17.7	3.9	23.1	39.0	46.0	7.0	100	165
6	540.001	41.1	17.9	3.8	23.2	39.6	46.0	6.4	100	214
7	789.482	33.7	19.8	4.8	23.5	34.8	46.0	11.2	100	210

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

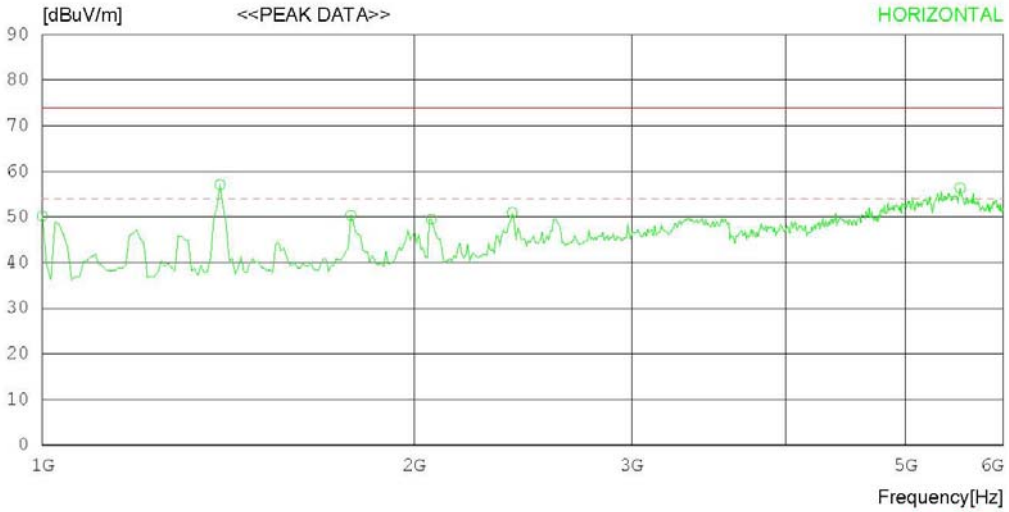
RADIATED EMISSION

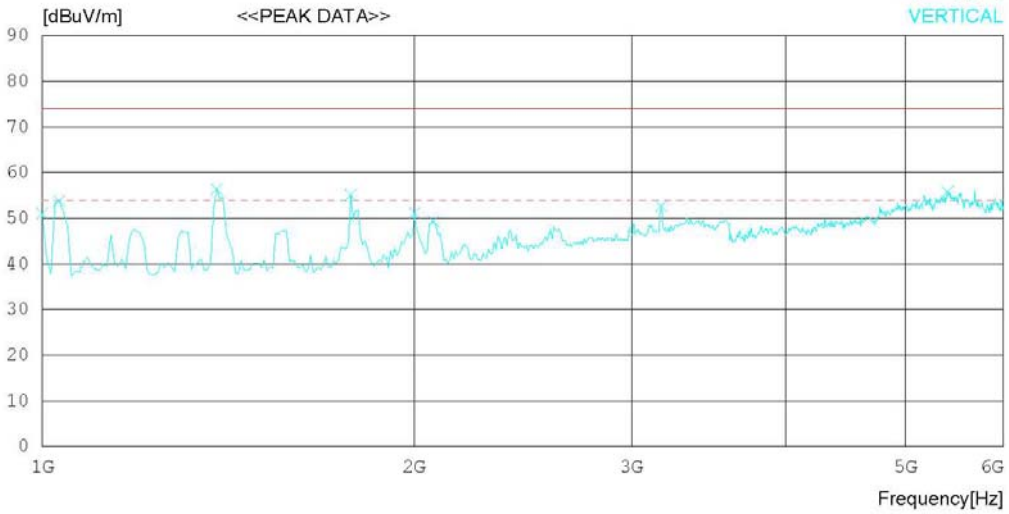
Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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 : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	1000.000	49.1	23.9	5.7	28.5	50.2	74.0	23.8	100	132
2	1392.628	54.0	24.5	7.1	28.5	57.1	74.0	16.9	100	1
3	1777.243	46.3	24.6	8.0	28.5	50.4	74.0	23.6	100	115
4	2065.705	44.5	24.9	8.6	28.5	49.5	74.0	24.5	100	1
5	2402.249	43.3	26.9	9.3	28.5	51.0	74.0	23	100	1
6	5535.264	34.8	34.9	14.9	28.2	56.4	74.0	17.6	100	117
----- Vertical ------										
7	1000.000	49.9	23.9	5.7	28.5	51.0	74.0	23	100	137
8	1032.051	52.5	23.9	5.9	28.5	53.8	74.0	20.2	100	129
9	1384.615	53.3	24.5	7.1	28.5	56.4	74.0	17.6	100	358
10	1777.243	51.0	24.6	8.0	28.5	55.1	74.0	18.9	100	358
11	2001.602	46.5	24.6	8.5	28.5	51.1	74.0	22.9	100	358
12	2073.718	44.3	25.0	8.6	28.5	49.4	74.0	24.6	100	148
13	3171.491	41.3	28.9	10.9	28.4	52.7	74.0	21.3	100	135
14	5407.061	34.3	34.6	15.0	28.1	55.8	74.0	18.2	100	40

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

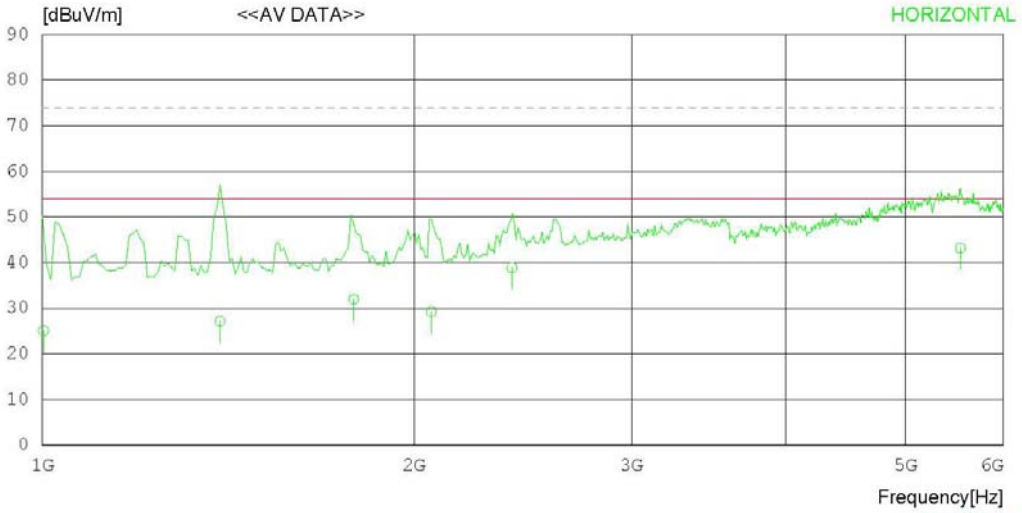
RADIATED EMISSION

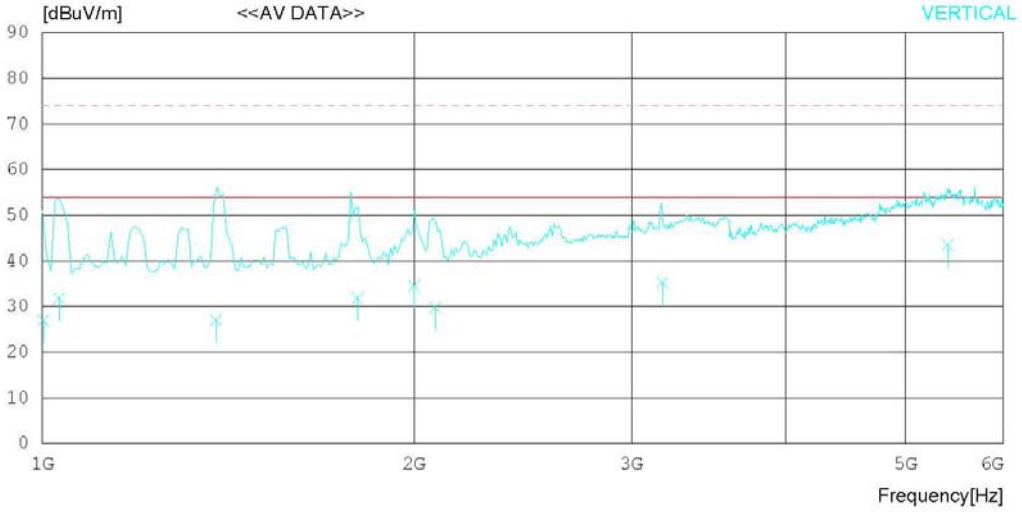
Date : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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 : 2013-02-02

Model Name	:	55GA6400-UD	Reference No.	:	
Model No.	:		Power Supply	:	120 V 60 Hz
Serial No.	:		Temp/Humi	:	19 'C 38 % 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	1002.307	24.0	23.9	5.7	28.5	25.1	54.0	28.9	100	132
2	1392.801	24.1	24.5	7.1	28.5	27.2	54.0	26.8	100	338
3	1786.935	27.9	24.6	8.0	28.5	32.0	54.0	22.0	100	115
4	2065.135	24.3	24.9	8.6	28.5	29.3	54.0	24.7	100	221
5	2399.996	31.2	26.9	9.3	28.5	38.9	54.0	15.1	100	305
6	5536.205	21.7	34.8	14.9	28.2	43.2	54.0	10.8	100	117
----- Vertical ------										
7	1002.105	25.9	23.9	5.7	28.5	27.0	54.0	27.0	100	137
8	1032.215	30.5	23.9	5.9	28.5	31.8	54.0	22.2	100	129
9	1382.477	24.0	24.5	7.1	28.5	27.1	54.0	26.9	100	308
10	1799.615	27.7	24.6	8.1	28.5	31.9	54.0	22.1	100	65
11	2000.032	29.9	24.6	8.5	28.5	34.5	54.0	19.5	100	205
12	2079.250	24.7	25.0	8.6	28.5	29.8	54.0	24.2	100	148
13	3177.458	23.9	28.9	10.9	28.4	35.3	54.0	18.7	100	135
14	5406.612	22.0	34.6	15.0	28.1	43.5	54.0	10.5	100	40

Appendix 1

List of Test and Measurement Instruments

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment is identified by the Test Laboratory.

1. Conducted Disturbance

Name of Instrument		Model No.	Manufacturer	Serial No.	Cal. Date	Next Cal. Date
☐	SPECTRUM ANALYZER	8591E	H/P	3649A05889	2012.03.05	2013.03.05
☐	RFI/FIELD INTENSITY METER	KNM-2402	KYORITSU	4N-170-3	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	2012.03.06	2013.03.06
☒	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	2012.03.22	2014.03.22
☒	HORN ANTENNA	BBHA9120A	SCHWARZBECK	322	2012.05.15	2014.05.15
☒	AMPLIFIER	8447E	H/P	2945A02865	2013.01.08	2014.01.08
☒	AMPLIFIER	MLA-100M18-B01-25	TSJ	1719458	2012.06.04	2013.06.04
☐	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	2012.03.06	2013.03.06
☐	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	2012.03.05	2013.03.05

Appendix 2

Report Revision History

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