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Test Report

APPLICANT

LG Electronics USA.

FCCID

BEJHX300GJE

Kind of Equipment : DLP PROJECTOR

Model No.(Brand) : HX300G-JE

Manufacturer : LG Electronics Inc.

Test Standard : ANSI C 63.4:2003
FCC Part 15 Subpart B

Dates of Tests : February 19 ~ 25, 2010

Date of Issue : March 08, 2010

Test Result : **Passed**

Tested by : Won-Jung LEE /Manager

Reviewed by : Harvey Sung /Technical Director

>>TABLE OF CONTENTS<<

1. GENERAL REMARKS	3
2. TEST FACILITY	3
2.1 TEST LABORATORY	3
3. GENERAL INFORMATION	4
3.1 PRODUCT INFORMATION	4
4. TEST SUMMARY	5
4.1 SUMMARY OF TESTS	5
5. TEST SET-UP AND OPERATION MODE	6
5.1 PRINCIPLE OF CONFIGURATION SELECTION	6
5.2 TEST OPERATION MODE	6
5.3 SUPPORT EQUIPMENT USED	6
6. EMISSION: TEST RESULTS	7
6.1 CONDUCTED EMISSION	7
6.1.1 MEASUREMENT PROCEDURE	7
6.1.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS	7
6.1.3 CONDUCTED EMISSION TEST DATA	8
6.2 RADIATED EMISSION	16
6.2.1 MEASUREMENT PROCEDURE	16
6.2.2 LIST OF TEST AND MEASUREMENT INSTRUMENTS	16
6.2.3 RADIATED EMISSION TEST DATA	17
APPENDIX	
APPENDIX 1 PHOTOGRAPHS	25

1. General Remarks

This Report describes the emission characteristics of the tested product.

If the product will be used with additional equipment other than those mentioned in this report or if the tested product will be used against the manufacture's specifications, the compliance with the relevant standards for the system has to be ensured.

2. Test Facility

2.1 Test Laboratory

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”.

DIGITAL EMC CO., LTD.

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3. General information

3.1 Product Information

BEJHX300GJE	
Kind of Equipment	DLP PROJECTOR
Model No.(Brand)	HX300G-JE
Serial No.	None
Type of Sample Tested	Pre-Production
Rating Power Supply	AC Adapter: AC 100 ~ 240V 50/60Hz (M/N: PA-1121-04, Non-shield, 1.80m)
Oscillator	12MHz, 32MHz, 65MHz, 320MHz, 400MHz
Tested Power Supply	AC 120V / 60Hz
Applicant	LG Electronics USA. 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States
Manufacturer	LG Electronics Inc. 19-1, Cheongho-ri, Jinwi-myeon, Pyeongteak-si, Gyeonggi-do, 451-713, Korea
Date of Receipt of Sample	2010-1-31

4. TEST SUMMARY

4.1 Summary of tests

The data collected shows that the **LG Electronics USA. (Model No.: HX300G-JE) DLP PROJECTOR** complies with §15.107 and §15.109 of the FCC Rules.

Reference	Parameter		Status (note 1)
I. Emission			
15.107	Conducted emission	ANSI C 63.4:2003	C
15.109	Radiated emission	ANSI C 63.4:2003	C
Note 1: C=Comply NC=Not Comply NT=Not Tested NA=Not Applicable			

The sample was tested according to the following specification: ANSI C 63.4:2003

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

- Test Mode 1(TM 1): AV mode.

This device was connected to a CD/DVD player to display a color bar.

- Test Mode 2(TM 2): DSUB mode & Test Mode 3(TM 3): HDMI mode.

This device was connected to a Notebook to display “H” white character scrolling with black background.

- Test Mode 4(TM 4): USB mode.

USB memory was connected to a USB port of this device to play move.

5.3 Used Support Equipments

- Used Equipments

Unit	Model No.	Serial No.	Manufacturer	Note
Notebook	R410-L.A241L	904QTQM019228	LG Electronics Inc	DoC
AC/DC Adapter (1.80m, Non- shielded)	PA-1121-04	9Y00062503	DONGGUANG LITE PWER 2nd PLANT	DoC
Mouse (1.60m, Non- shielded)	MOCO5UO	HOFOOJYN	DELL	DoC
CD/DVD Player	DVP-NS92V	2001499	SOYN EMCS.	DoC
USB memory	XTICK	N/A	LG Electronics Inc	DoC

- Used Cable

Cable Name	Condition	Description
Video Cable	Connected EUT with CD/DVD Player	2.25m, Non-shielded
Audio Cable	Connected EUT with Notebook	0.9m, Non-shielded
DSUB Cable	Connected EUT with Notebook	1.5m, Shielded
HDMI Cable	Connected EUT with Notebook	2.07m, Shielded

- See “APPENDIX 3 Photographs” for actual system test setup.

6. EMISSION: Test Results

6.1 Conducted emission

Result: **Comply**

6.1.1 Measurement Procedure

In the range of 0.15MHz to 30MHz, the Conducted emission was measured and set-up in accordance with **ANSI C 63.4:2003**. The Conducted emission was measured with the equipment under test (EUT) in a screened room. The EUT was placed on a non-metallic table 0.8m above the metallic grounded floor and 0.4m from the reference ground plane (RGP) wall. The distance to other metallic surfaces was at least 0.8m. Line-Impedance Stabilization Networks (LISNs) are bonded to the reference ground plane. The EUT is powered from the KNW-242 LISN and the ancillary equipment is powered from the KNW-407 LISN. 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

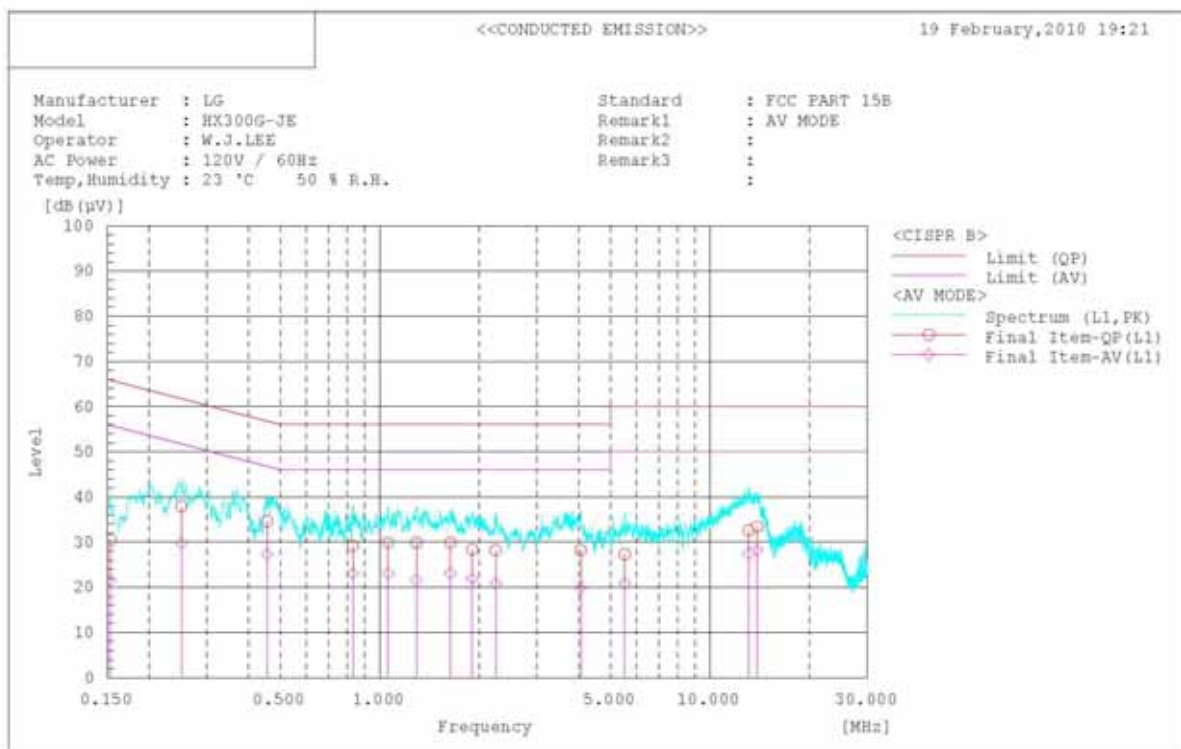
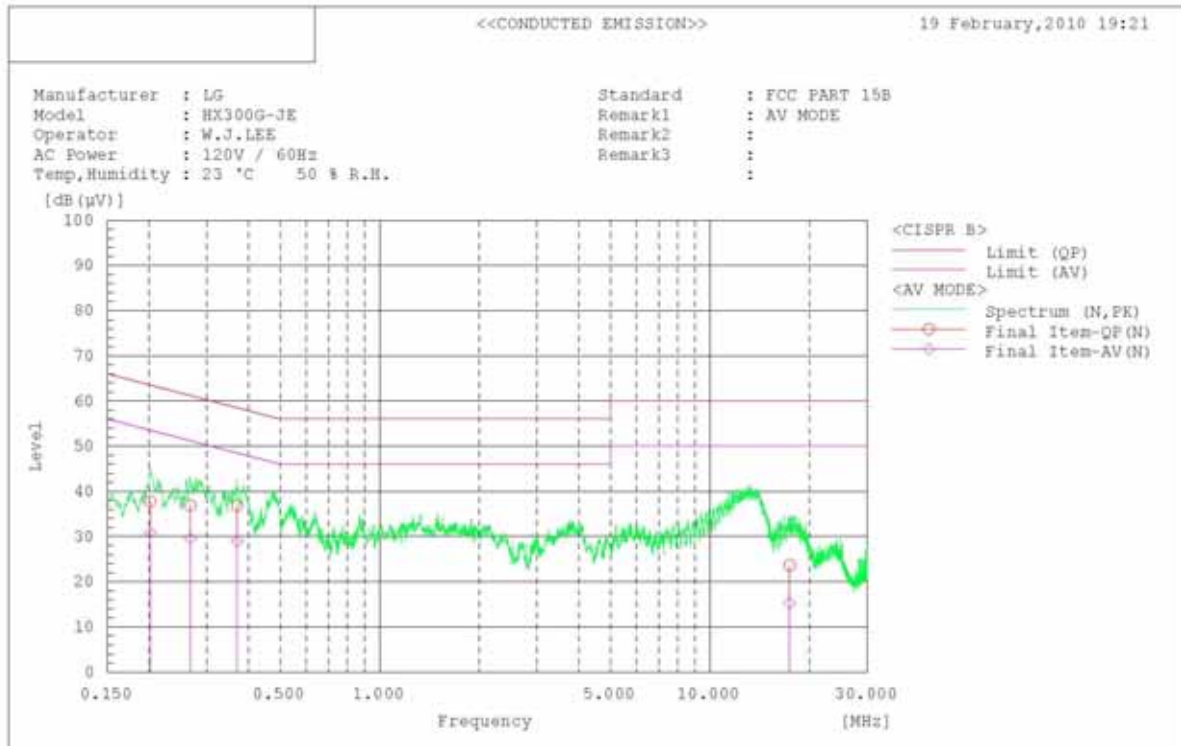
6.1.2 List of Test and Measurement Instruments

Name of Instrument	Model No	Serial No	Manufacturer	Cal. Due. Date	Next. Cal. Date
Spectrum Analyzer	8591E	3649A05889	HP	2009.04.26	2010.04.26
RFI/Field intensity Meter	KNM-2402	4N-170-3	Kyoritsu Electrical Works	2009.07.03	2010.07.03
LISN	KNW-407	8-317-8	Kyoritsu Electrical Works	2010.01.29	2011.01.29
LISN	KNW-242	8-654-15	Kyoritsu Electrical Works	2010.01.29	2011.01.29

6.1.3 Conducted emission Test Data

Test Mode 1

Graph



Test Mode 1

Data List

```

*****
<<CONDUCTED EMISSION>>
19 February,2010 19:21

Standard      : FCC PART 15B
Manufacturer  : LG
Model         : MX300G-JE
Operator      : W.J.LEE
AC Power      : 120V / 60Hz
Temp, Humidity : 23 °C 50 % R.H.
Remark1       : AV MODE
Remark2       :
Remark3       :
*****

Final Result

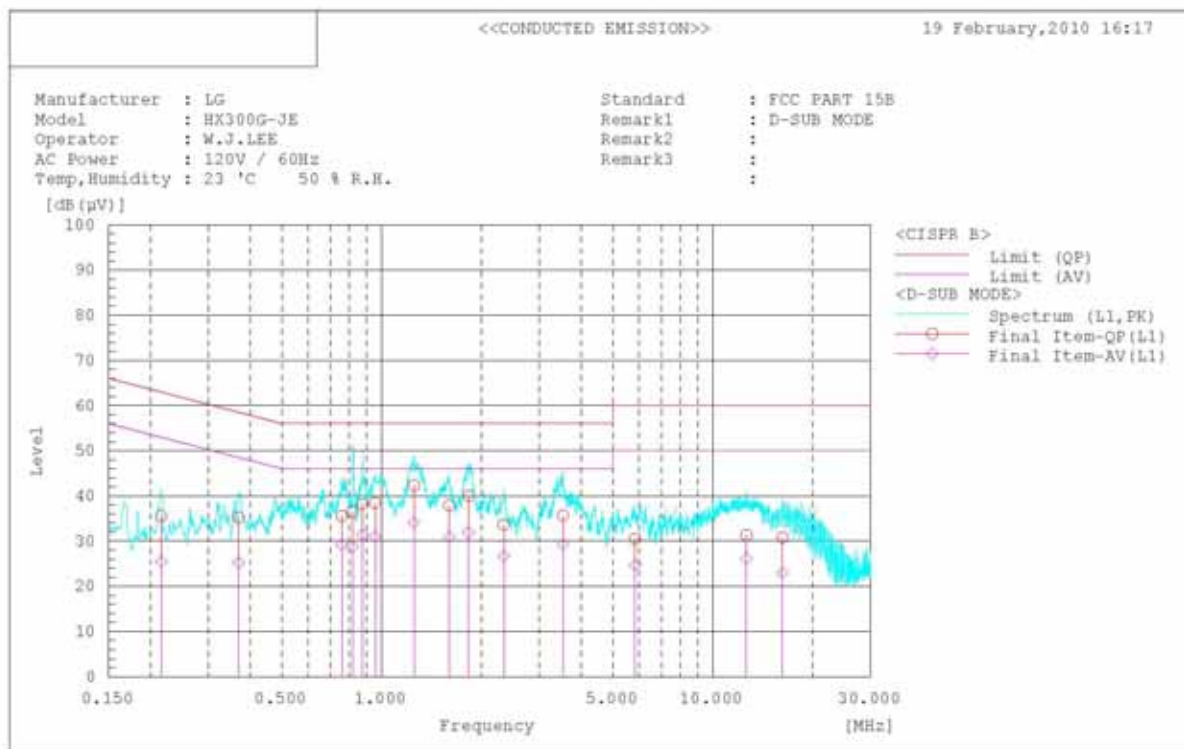
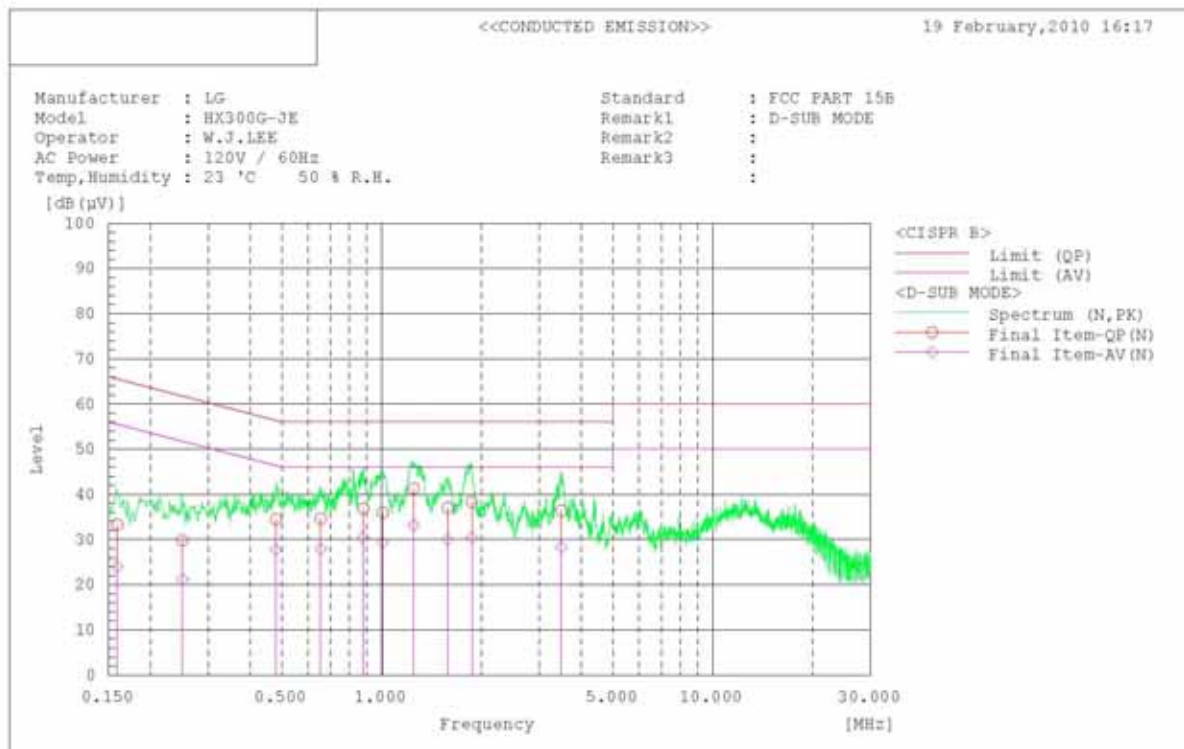
--- N Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB(μV)] [dB(μV)] [dB] [dB(μV)] [dB(μV)] [dB(μV)] [dB(μV)] [dB] [dB]
1     0.202     37.6     30.6     0.2    37.8     30.8     63.5     53.5     25.7     22.7
2     0.247     36.6     29.3     0.3    36.9     29.6     61.2     51.2     24.3     21.6
3     0.370     36.6     28.7     0.3    36.9     29.0     58.5     48.5     21.6     19.5
4    17.420     23.0     14.6     0.6    23.6     15.2     60.0     50.0     36.4     34.8

--- L1 Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB(μV)] [dB(μV)] [dB] [dB(μV)] [dB(μV)] [dB(μV)] [dB(μV)] [dB] [dB]
1     0.153     30.4     21.4     0.1    30.5     21.5     65.8     55.8     35.3     34.3
2     0.251     37.7     29.6     0.2    37.9     29.8     61.7     51.7     23.8     21.9
3     0.456     34.2     26.9     0.4    34.6     27.3     56.8     46.8     22.2     19.5
4     0.829     28.7     22.6     0.5    29.2     23.1     56.0     46.0     26.8     22.9
5     1.059     29.4     22.5     0.5    29.9     23.0     56.0     46.0     26.1     23.0
6     1.291     29.4     21.1     0.5    29.9     21.6     56.0     46.0     26.1     24.4
7     1.637     29.4     22.6     0.5    29.9     23.1     56.0     46.0     26.1     22.9
8     1.906     27.9     21.4     0.5    28.4     21.9     56.0     46.0     27.6     24.1
9     2.245     27.6     20.3     0.6    28.2     20.9     56.0     46.0     27.8     25.1
10    4.061     27.5     19.2     0.7    28.2     19.9     56.0     46.0     27.8     26.1
11    5.514     26.6     20.2     0.7    27.3     20.9     60.0     50.0     32.7     29.1
12    13.087    31.5     26.4     1.1    32.6     27.5     60.0     50.0     27.4     22.5
13    13.875    32.3     27.2     1.1    33.4     28.3     60.0     50.0     26.6     21.7

```

Test Mode 2

Graph



Test Mode 2

Data List

<<CONDUCTED EMISSION>>

19 February, 2010 16:17

Standard : FCC PART 15B
Manufacturer : LG
Model : MX300G-JE
Operator : W.J.LEE
AC Power : 120V / 60Hz
Temp, Humidity : 23 °C 50 % R.H.
Remark1 : D-SUB MODE
Remark2 :
Remark3 :
:

Final Result

--- N Phase ---

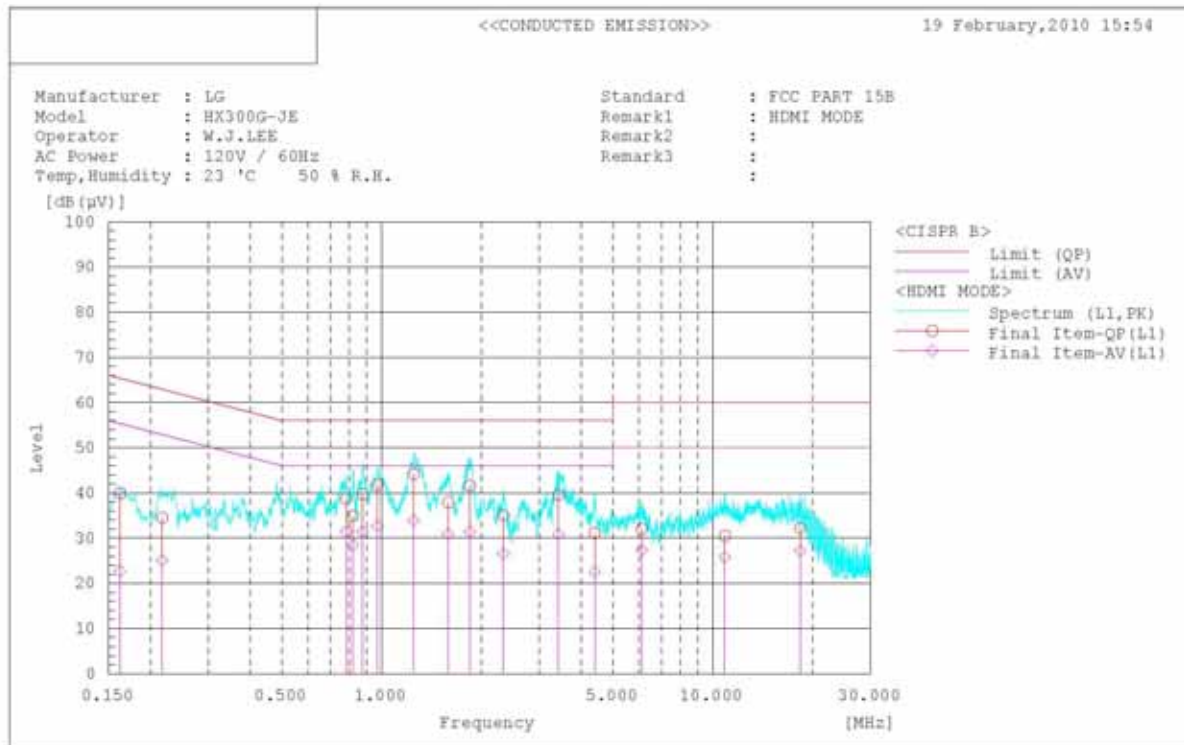
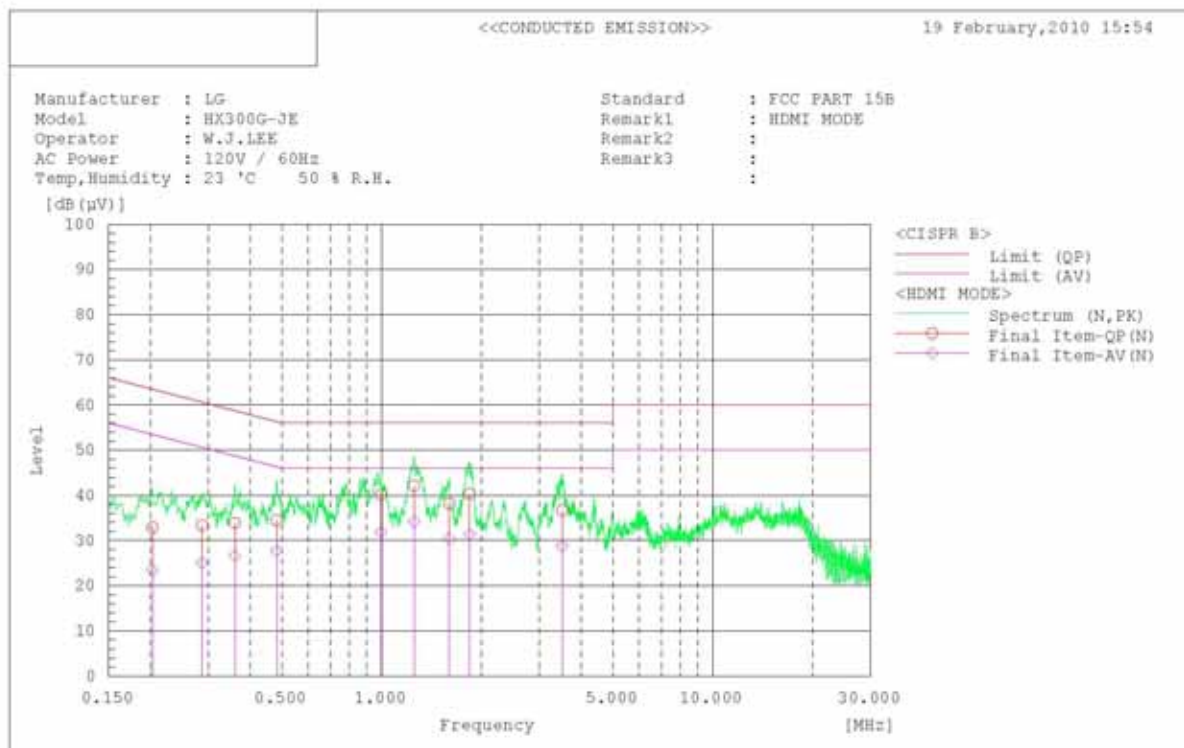
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.159	33.1	23.6	0.2	33.3	24.0	65.5	55.5	32.2	31.5	
2	0.250	29.6	21.0	0.2	29.8	21.2	61.8	51.8	32.0	30.6	
3	0.479	34.1	27.4	0.4	34.5	27.8	56.4	46.4	21.9	18.6	
4	0.654	34.2	27.5	0.4	34.6	27.9	56.0	46.0	21.4	18.1	
5	0.880	36.4	30.0	0.4	36.8	30.4	56.0	46.0	19.2	15.6	
6	1.007	35.5	29.0	0.4	35.9	29.4	56.0	46.0	20.1	16.6	
7	1.249	40.9	32.8	0.4	41.3	33.2	56.0	46.0	14.7	12.8	
8	1.582	36.6	29.6	0.4	37.0	30.0	56.0	46.0	19.0	16.0	
9	1.872	37.9	30.0	0.4	38.3	30.4	56.0	46.0	17.7	15.6	
10	3.490	36.1	28.0	0.3	36.4	28.3	56.0	46.0	19.6	17.7	

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.216	35.4	25.3	0.1	35.5	25.4	63.0	53.0	27.5	27.6	
2	0.370	34.9	24.9	0.3	35.2	25.2	58.5	48.5	23.3	23.3	
3	0.758	35.1	28.7	0.5	35.6	29.2	56.0	46.0	20.4	16.8	
4	0.817	36.0	28.3	0.5	36.5	28.8	56.0	46.0	19.5	17.2	
5	0.876	37.7	30.9	0.5	38.2	31.4	56.0	46.0	17.8	14.6	
6	0.955	37.9	30.6	0.5	38.4	31.1	56.0	46.0	17.6	14.9	
7	1.252	41.8	33.6	0.5	42.3	34.1	56.0	46.0	13.7	11.9	
8	1.599	37.4	30.4	0.5	37.9	30.9	56.0	46.0	18.1	15.1	
9	1.829	39.5	31.4	0.5	40.0	31.9	56.0	46.0	16.0	14.1	
10	2.335	33.0	26.0	0.6	33.6	26.6	56.0	46.0	22.4	19.4	
11	3.530	35.1	28.7	0.6	35.7	29.3	56.0	46.0	20.3	16.7	
12	5.820	29.8	24.0	0.7	30.5	24.7	60.0	50.0	29.5	25.3	
13	12.637	30.2	25.0	1.1	31.3	26.1	60.0	50.0	28.7	23.9	
14	16.250	29.5	21.7	1.3	30.8	23.0	60.0	50.0	29.2	27.0	

Test Mode 3

Graph



Test Mode 3

Data List

<<CONDUCTED EMISSION>>

19 February, 2010 15:54

Standard : FCC PART 15B
Manufacturer : LG
Model : HK300G-JE
Operator : W.J.LEE
AC Power : 120V / 60Hz
Temp, Humidity : 23 °C 50 % R.H.
Remark1 : HDMI MODE
Remark2 :
Remark3 :
:

Final Result

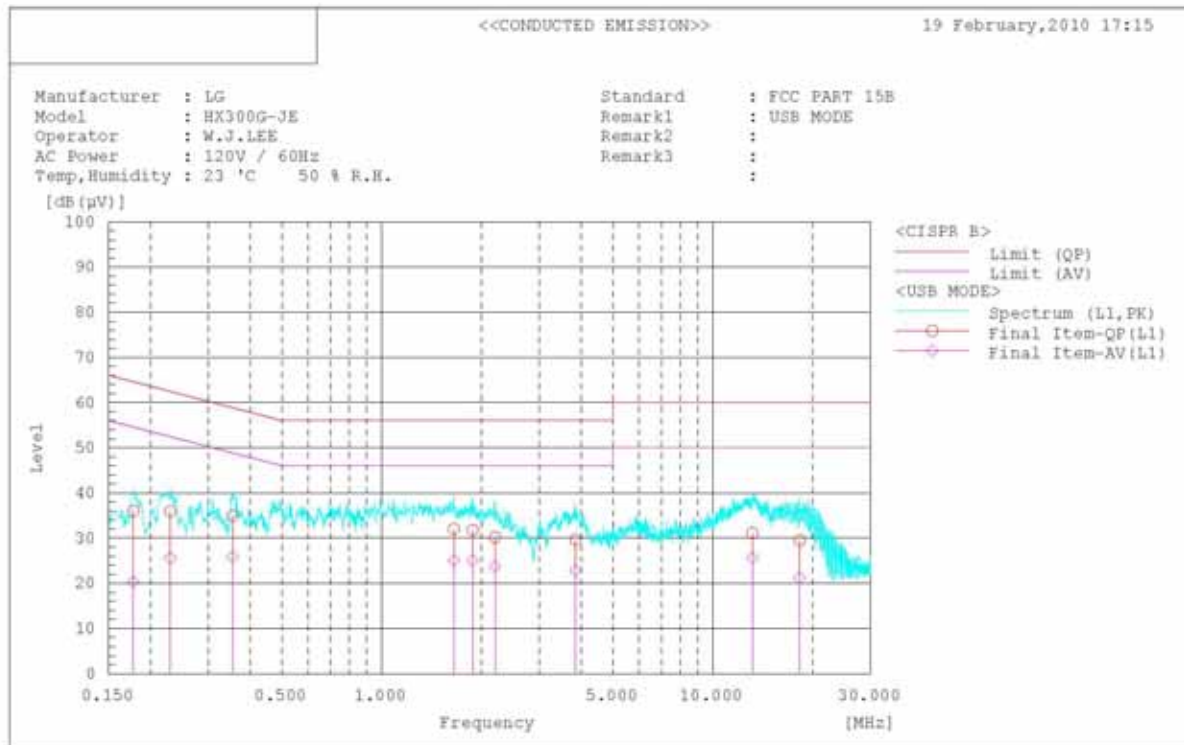
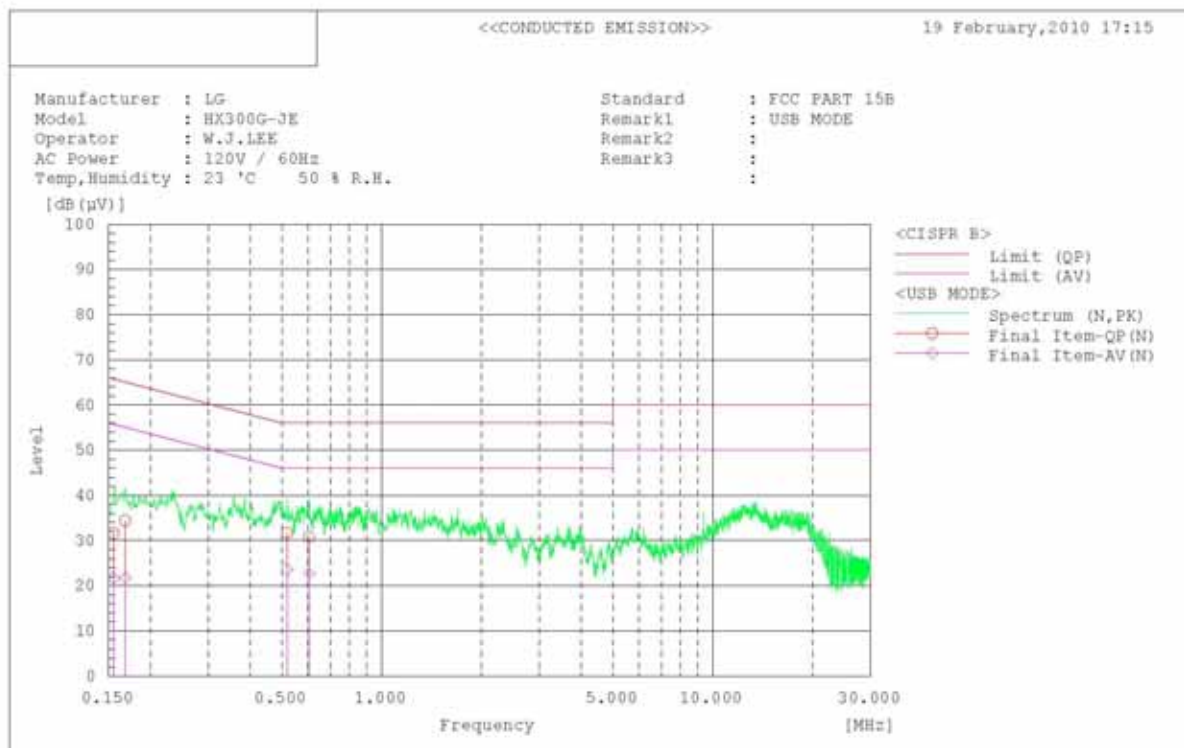
--- N Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.203	32.7	23.2	0.2	32.9	23.4	63.5	53.5	30.6	30.1	
2	0.287	33.1	24.8	0.3	33.4	25.1	60.6	50.6	27.2	25.5	
3	0.360	33.6	24.3	0.3	33.9	26.6	58.7	48.7	24.8	22.1	
4	0.482	34.1	27.4	0.4	34.5	27.8	56.3	46.3	21.8	18.5	
5	0.995	39.8	31.5	0.4	40.2	31.9	56.0	46.0	15.8	14.1	
6	1.252	41.7	33.8	0.4	42.1	34.2	56.0	46.0	13.9	11.8	
7	1.601	37.8	30.0	0.4	38.2	30.4	56.0	46.0	17.8	15.6	
8	1.843	39.9	31.0	0.4	40.3	31.4	56.0	46.0	15.7	14.6	
9	3.510	36.4	28.5	0.3	36.7	28.8	56.0	46.0	19.3	17.2	

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.162	39.8	22.6	0.1	39.9	22.7	65.4	55.4	25.5	32.7	
2	0.217	34.4	25.0	0.1	34.5	25.1	62.9	52.9	28.4	27.8	
3	0.781	38.2	30.9	0.5	38.7	31.4	56.0	46.0	17.3	14.6	
4	0.820	34.4	28.0	0.5	34.9	28.5	56.0	46.0	21.1	17.5	
5	0.876	39.2	30.9	0.5	39.7	31.4	56.0	46.0	16.3	14.6	
6	0.972	41.3	32.2	0.5	41.8	32.7	56.0	46.0	14.2	13.3	
7	1.248	43.7	33.4	0.5	44.2	33.9	56.0	46.0	11.8	12.1	
8	1.587	37.4	30.3	0.5	37.9	30.8	56.0	46.0	18.1	15.2	
9	1.846	41.1	30.9	0.5	41.6	31.4	56.0	46.0	14.4	14.6	
10	2.330	34.4	25.9	0.6	35.0	26.5	56.0	46.0	21.0	19.5	
11	3.420	39.0	30.3	0.6	39.6	30.9	56.0	46.0	16.4	15.1	
12	4.402	30.4	21.8	0.7	31.1	22.5	56.0	46.0	24.9	23.5	
13	6.100	31.3	24.6	0.7	32.0	27.3	60.0	50.0	28.0	22.7	
14	10.864	29.5	24.8	1.0	30.5	25.8	60.0	50.0	29.5	24.2	
15	18.365	30.6	25.6	1.6	32.2	27.2	60.0	50.0	27.8	22.8	

Test Mode 4

Graph

Test Mode 4

Data List

```
*****
                                  <<CONDUCTED EMISSION>>
                                  19 February,2010 17:15

Standard      : FCC PART 15B
Manufacturer  : LG
Model         : MX300G-JE
Operator      : W.J.LEE
AC Power      : 120V / 60Hz
Temp, Humidity : 23 °C  50 % R.H.
Remark1       : USB MODE
Remark2       :
Remark3       :
*****

Final Result

--- N Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB[μV]] [dB[μV]] [dB] [dB[μV]] [dB[μV]] [dB[μV]] [dB[μV]] [dB] [dB]
1    0.155      31.4      21.5    0.2   31.6     21.7   65.7   55.7   34.1   34.0
2    0.168      34.2      21.6    0.2   34.4     21.8   65.1   55.1   30.7   33.3
3    0.518      31.3      23.2    0.4   31.7     23.6   56.0   46.0   24.3   22.4
4    0.603      30.3      22.3    0.4   30.7     22.7   56.0   46.0   25.3   23.3

--- L1 Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB[μV]] [dB[μV]] [dB] [dB[μV]] [dB[μV]] [dB[μV]] [dB[μV]] [dB] [dB]
1    0.178      35.9      20.2    0.1   36.0     20.3   64.6   54.6   28.6   34.3
2    0.230      35.7      25.4    0.2   35.9     25.6   62.4   52.4   26.5   26.8
3    0.355      34.6      25.6    0.3   34.9     25.9   58.8   48.8   23.9   22.9
4    1.651      31.5      24.6    0.5   32.0     25.1   56.0   46.0   24.0   20.9
5    1.882      31.3      24.6    0.5   31.8     25.1   56.0   46.0   24.2   20.9
6    2.200      29.6      23.2    0.6   30.2     23.8   56.0   46.0   25.8   22.2
7    3.850      28.9      22.1    0.7   29.6     22.8   56.0   46.0   26.4   23.2
8    13.163     30.0      24.6    1.1   31.1     25.7   60.0   50.0   28.9   24.3
9    18.305     27.9      19.6    1.6   29.5     21.2   60.0   50.0   30.5   28.8
```

6.2 Radiated emission

Result: Comply

6.2.1 Measurement Procedure

In the frequency range of 30MHz to 2GHz, the radiated emissions were measured in an 10m anechoic chamber with a reference ground plane and at a distance of 3 m. The height of the measuring antenna was varied from 1 to 4 m and the table (height: 0.8m) was rotated a full revolution order to obtain maximum values of the electric field intensity. The measurement was made in both the vertical and horizontal polarization, and the maximum value is presented in the report. For further description of the configuration refer to the picture of the test set-up. Measurements were performed with a quasi-peak/peak/average detector.

6.2.2 List of Test and Measurement Instruments

Radiated Emission (10m Chamber)					
Name of Instrument	Model No	Serial No	Manufacturer	Cal. Due. Date	Next Cal. Date
EMI TEST RECEIVER	ESU	100014	R&S	2010.01.29	2011.01.29
BILOG ANTENNA	CBL6112B	2737	SCHAFFNER	2009.06.02	2010.06.02
Amplifier(22dB)	8447E	2945A02865	H/P	2010.01.29	2011.01.29
Amplifier	MLA-00108-B02-36	1518831	TSJ	2010.02.08	2011.02.08
DC Power Supply	6633A	3524A06634	HP	2009.03.13	2010.03.13
Position Controller	5901T	14173	TOKIN	N/A	N/A
DRIVER	5902T2	14174	TOKIN	N/A	N/A

6.2.3 Radiated emission Test Data

Test Mode 1 : 30MHz ~ 1000MHz

**RADIATED EMISSION**

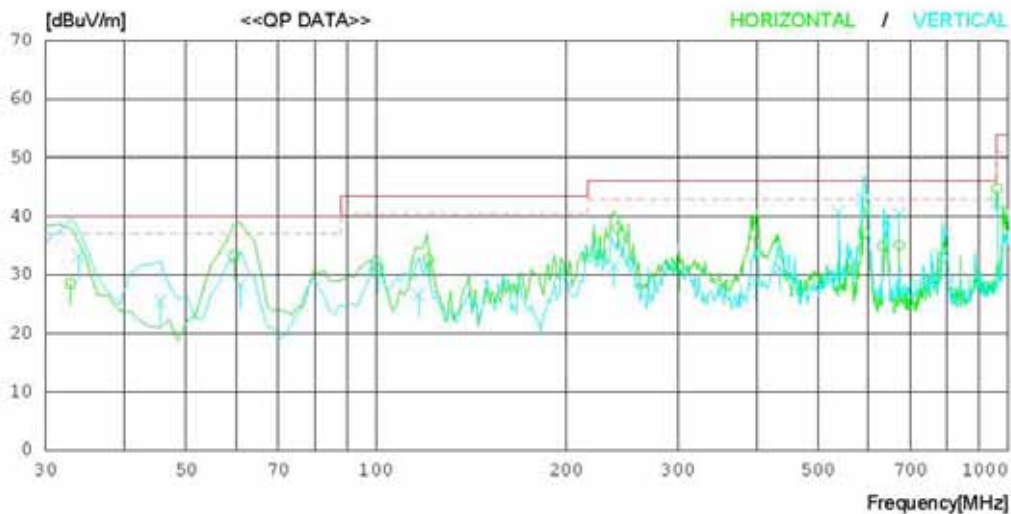
Date : 2010-02-25

Model Name : HX300G-JE
 Model No. :
 Serial No. :
 Test Condition : VIDEO IN

Reference No. :
 Power Supply : 120V / 60Hz
 Temp/Humi : 22°C 41% R.H.
 Operator : W.J.LEE

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	32.868	33.7	16.6	0.8	22.6	28.5	40.0	11.5	201	1
2	59.583	48.8	5.9	1.1	22.7	33.1	40.0	6.9	400	1
3	100.450	41.5	10.7	1.4	22.7	30.9	43.5	12.6	201	1
4	121.073	42.2	11.7	1.5	22.8	32.6	43.5	10.9	201	1
5	241.000	46.5	12.8	2.2	23.5	38.0	46.0	8.0	100	358
6	301.100	37.8	14.4	2.6	23.7	31.1	46.0	14.9	100	358
7	397.000	41.7	16.5	3.0	24.3	36.9	46.0	9.1	100	48
8	589.430	38.5	19.0	4.0	24.4	37.1	46.0	8.9	100	156
9	634.110	36.1	19.0	4.1	24.3	34.9	46.0	11.1	301	358
10	671.980	36.2	18.9	4.2	24.2	35.1	46.0	10.9	301	358
11	785.500	32.6	19.5	4.6	23.8	32.9	46.0	13.1	201	1
12	960.050	41.8	20.7	5.2	23.0	44.7	54.0	9.3	201	359
----- Vertical -----										
13	33.840	38.9	16.0	0.9	22.6	33.2	40.0	6.8	100	314
14	45.636	35.1	12.0	1.0	22.6	25.5	40.0	14.5	100	1
15	61.039	43.9	5.9	1.1	22.7	28.2	40.0	11.8	299	1
16	100.505	41.0	10.7	1.4	22.7	30.4	43.5	13.1	100	1
17	116.580	36.4	11.5	1.5	22.8	26.6	43.5	16.9	100	326
18	237.810	40.3	12.6	2.2	23.5	31.6	46.0	14.4	100	326
19	398.919	34.0	16.5	3.0	24.4	29.1	46.0	16.9	100	1
20	435.000	35.4	17.0	3.2	24.4	31.2	46.0	14.8	100	1
21	539.990	43.1	18.4	3.7	24.5	40.7	46.0	5.3	100	168
22	587.940	44.4	19.0	4.0	24.4	43.0	46.0	3.0	100	1
23	643.500	40.3	19.0	4.1	24.3	39.1	46.0	6.9	100	1
24	671.980	41.6	18.9	4.2	24.2	40.5	46.0	5.5	100	168
25	784.500	32.9	19.5	4.6	23.8	33.2	46.0	12.8	100	168
26	960.060	39.3	20.7	5.2	23.0	42.2	54.0	11.8	100	178

Test Mode 1 : 1GHz ~ 2GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
1200.173	H	72.4	54.1	-13.3	59.1	40.8	74.0	54.0	14.9	13.2
1440.698	H	59.5	55.1	-10.9	48.6	44.2	74.0	54.0	25.4	9.8
1590.782	V	58.6	54.2	-10.9	47.7	43.3	74.0	54.0	26.3	10.7
1679.997	V	58.6	56.7	-9.2	49.4	47.5	74.0	54.0	24.6	6.5
1920..100	H	62.3	59.5	-9.2	53.1	50.3	74.0	54.0	20.9	3.7
1920.124	V	63.3	57.0	-7.0	56.3	50.0	74.0	54.0	17.7	4.0
1998.370	H	59.6	60.0	-7.0	52.6	53.0	74.0	54.0	21.4	1.0
-	-	-	-	-	-	-	-	-	-	-

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} + \text{DF} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

Test Mode 2: 30MHz ~ 1000MHz



RADIATED EMISSION

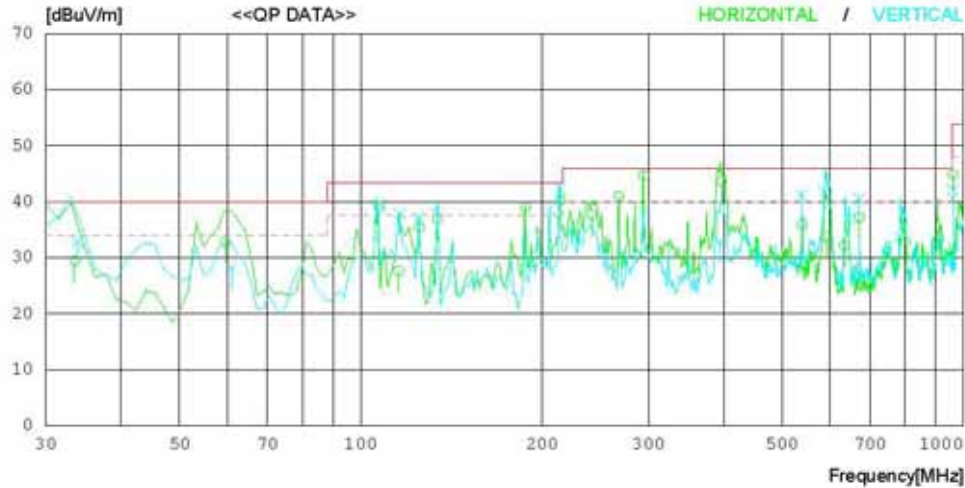
Date : 2010-02-25

Model Name : HX300G-JE
 Model No. :
 Serial No. :
 Test Condition : DSUB

Reference No. :
 Power Supply : 120V / 60Hz
 Temp/Humi : 20°C 41% R.H.
 Operator : W.J.LEE

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
 MARGIN: 6 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	33.493	35.0	16.2	0.8	22.6	29.4	40.0	10.6	101	319
2	59.583	48.6	5.9	1.1	22.7	32.9	40.0	7.1	300	358
3	107.200	49.3	11.0	1.5	22.7	39.1	43.5	4.4	201	1
4	115.500	37.5	11.4	1.5	22.8	27.6	43.5	15.9	201	3
5	125.060	44.9	11.9	1.5	22.8	35.5	43.5	8.0	101	358
6	134.000	46.8	11.5	1.6	22.9	37.0	43.5	6.5	101	358
7	187.600	49.6	10.6	2.0	23.2	39.0	43.5	4.5	101	358
8	214.400	50.0	11.6	2.1	23.4	40.3	43.5	3.2	101	358
9	242.000	46.1	12.8	2.2	23.5	37.6	46.0	8.4	400	110
10	268.000	48.6	13.6	2.4	23.6	41.0	46.0	5.0	101	358
11	294.794	51.8	14.2	2.5	23.7	44.8	46.0	1.2	101	358
12	397.000	48.5	16.5	3.0	24.3	43.7	46.0	2.3	101	358
13	540.000	38.4	18.4	3.7	24.5	36.0	46.0	10.0	400	110
14	594.000	35.1	19.1	4.0	24.4	33.8	46.0	12.2	400	110
15	634.000	33.4	19.0	4.1	24.3	32.2	46.0	13.8	201	198
16	672.000	38.3	18.9	4.2	24.2	37.2	46.0	8.8	101	171
17	801.099	32.3	19.7	4.6	23.7	32.9	46.0	13.1	101	358
18	911.280	31.6	19.9	5.0	23.2	33.3	46.0	12.7	101	358
19	960.060	42.0	20.7	5.2	23.0	44.9	54.0	9.1	101	358
----- Vertical -----										
20	33.878	38.7	16.0	0.9	22.6	33.0	40.0	7.0	100	1
21	61.050	43.9	5.9	1.1	22.7	28.2	40.0	11.8	100	94
22	107.200	49.6	11.0	1.5	22.7	39.4	43.5	4.1	100	1
23	116.133	47.7	11.5	1.5	22.8	37.9	43.5	5.6	100	1
24	125.063	46.7	11.9	1.5	22.8	37.3	43.5	6.2	100	1
25	133.998	49.1	11.5	1.6	22.9	39.3	43.5	4.2	100	1
26	205.463	48.6	11.1	2.1	23.3	38.5	43.5	5.0	199	358
27	214.400	52.0	11.6	2.1	23.4	42.3	43.5	1.2	100	1
28	294.800	44.9	14.2	2.5	23.7	37.9	46.0	8.1	100	183
29	394.333	37.7	16.4	3.0	24.3	32.8	46.0	13.2	100	275
30	539.990	43.7	18.4	3.7	24.5	41.3	46.0	4.7	100	177
31	588.000	43.3	19.0	4.0	24.4	41.9	46.0	4.1	100	183
32	645.900	38.2	19.0	4.1	24.3	37.0	46.0	9.0	100	275
33	671.990	41.7	18.9	4.2	24.2	40.6	46.0	5.4	100	255
34	784.520	33.5	19.5	4.6	23.8	33.8	46.0	12.2	100	177
35	960.065	39.1	20.7	5.2	23.0	42.0	54.0	12.0	100	177

Test Mode 2 : 1GHz ~ 2GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
1000.800	H	66.3	54.6	-15.3	51.0	39.3	74.0	54.0	23.0	14.7
1187.497	H	71.9	50.5	-13.5	58.4	37.0	74.0	54.0	15.6	17
1584.615	H	65.6	43.9	-9.8	55.8	34.1	74.0	54.0	18.2	19.9
1680.000	H	60.7	54.8	-9.2	51.5	45.6	74.0	54.0	22.5	8.4
1920.200	H	62.9	59.3	-7.0	55.9	52.3	74.0	54.0	18.1	1.7
1920.200	V	63.1	59.8	-7.0	56.1	52.8	74.0	54.0	17.9	1.2
-	-	-	-	-	-	-	-	-	-	-

Note.

3. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
4. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} + \text{DF} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

Test Mode 3: 30MHz ~ 1000MHz

RADIATED EMISSION

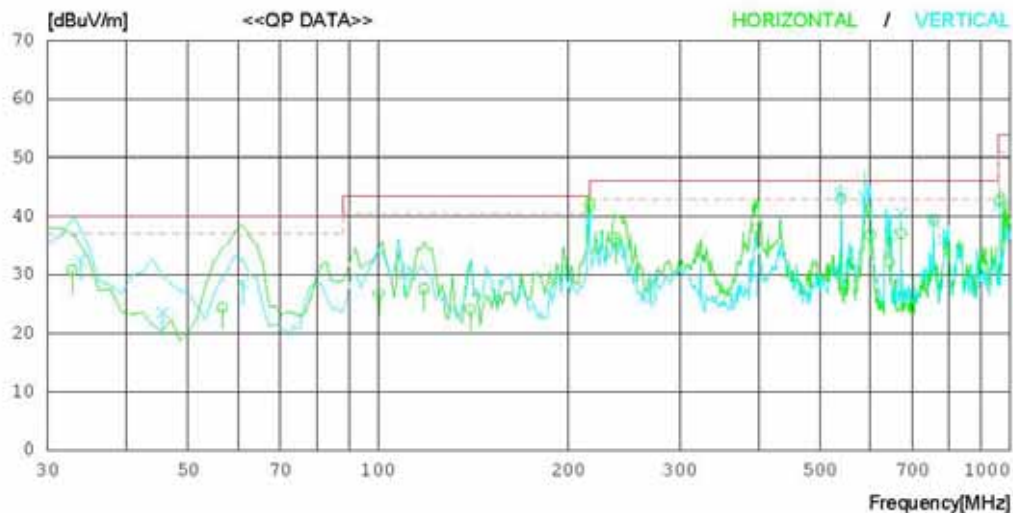
Date : 2010-02-25

Model Name : HX300G-JE
 Model No. :
 Serial No. :
 Test Condition : HDMI

Reference No. :
 Power Supply : 120V / 60Hz
 Temp/Humi : 20°C 41% R.H.
 Operator : W.J.LEE

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	32.820	36.0	16.6	0.8	22.6	30.8	40.0	9.2	201	1
2	56.700	39.4	6.6	1.1	22.7	24.4	40.0	15.6	301	70
3	100.300	37.4	10.7	1.4	22.7	26.8	43.5	16.7	100	168
4	118.096	37.3	11.6	1.5	22.8	27.6	43.5	15.9	100	358
5	140.000	34.1	11.2	1.7	22.9	24.1	43.5	19.4	100	160
6	215.990	51.7	11.6	2.1	23.4	42.0	43.5	1.5	100	358
7	237.790	44.9	12.6	2.2	23.5	36.2	46.0	9.8	100	358
8	237.790	44.3	12.6	2.2	23.5	35.6	46.0	10.4	301	358
9	397.000	42.7	16.5	3.0	24.3	37.9	46.0	8.1	100	160
10	539.995	45.4	18.4	3.7	24.5	43.0	46.0	3.0	100	358
11	600.695	38.0	19.2	4.0	24.4	36.8	46.0	9.2	301	358
12	643.535	33.3	19.0	4.1	24.3	32.1	46.0	13.9	100	160
13	671.995	38.2	18.9	4.2	24.2	37.1	46.0	8.9	301	0
14	755.993	39.5	19.3	4.5	23.9	39.4	46.0	6.6	100	160
15	960.060	39.8	20.7	5.2	23.0	42.7	54.0	11.3	100	173
----- Vertical -----										
16	33.798	38.2	16.1	0.9	22.6	32.6	40.0	7.4	100	1
17	45.678	33.3	11.9	1.0	22.6	23.6	40.0	16.4	100	1
18	61.150	44.3	5.9	1.1	22.7	28.6	40.0	11.4	299	338
19	110.000	40.1	11.2	1.5	22.8	30.0	43.5	13.5	100	74
20	215.990	49.9	11.6	2.1	23.4	40.2	43.5	3.3	100	1
21	397.160	34.9	16.5	3.0	24.3	30.1	46.0	15.9	100	345
22	540.000	46.2	18.4	3.7	24.5	43.8	46.0	2.2	100	1
23	589.230	44.6	19.0	4.0	24.4	43.2	46.0	2.8	100	1
24	646.000	38.0	19.0	4.1	24.3	36.8	46.0	9.2	100	276
25	672.003	41.6	18.9	4.2	24.2	40.5	46.0	5.5	100	1
26	756.000	39.3	19.3	4.5	23.9	39.2	46.0	6.8	100	1
27	785.300	35.6	19.5	4.6	23.8	35.9	46.0	10.1	100	325
28	960.070	39.1	20.7	5.2	23.0	42.0	54.0	12.0	100	178

Test Mode 3 : 1GHz ~ 2GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
1000.798	H	66.7	56.1	-15.3	51.4	40.8	74.0	54.0	22.6	13.2
1440.090	V	64.7	50.4	-10.9	53.8	39.5	74.0	54.0	20.2	14.5
1512.000	H	63.6	47.8	-10.1	53.5	37.7	74.0	54.0	20.5	16.3
1679.950	H	59.6	58.8	-9.2	50.4	49.6	74.0	54.0	23.6	4.4
1728.000	V	55.9	49.3	-8.7	47.2	40.6	74.0	54.0	26.8	13.4
1920.100	V	62.1	56.6	-7.0	55.1	49.6	74.0	54.0	18.9	4.4
1920.200	H	60.7	54.3	-7.0	53.7	47.3	74.0	54.0	20.3	6.7
-	-	-	-	-	-	-	-	-	-	-

Note.

5. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
6. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} + \text{DF} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

Test Mode 4: 30MHz ~ 1000MHz

RADIATED EMISSION

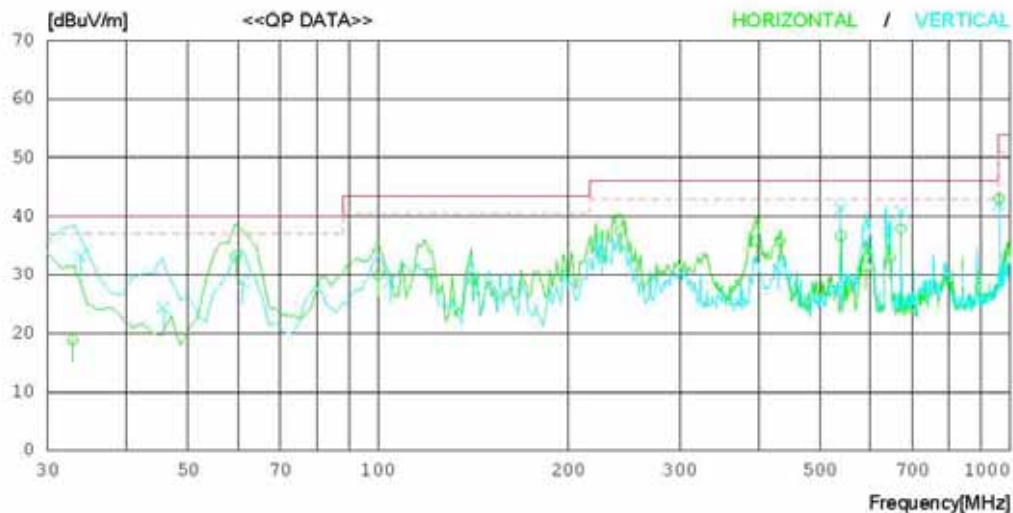
Date : 2010-02-25

Model Name : HX300G-JE
 Model No. :
 Serial No. :
 Test Condition : USB

Reference No. :
 Power Supply : 120V / 60Hz
 Temp/Humi : 22°C 41% R.H.
 Operator : W.J.LEE

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	32.868	24.0	16.6	0.8	22.6	18.8	40.0	21.2	201	1
2	59.583	48.8	5.9	1.1	22.7	33.1	40.0	6.9	301	358
3	100.100	40.6	10.7	1.4	22.7	30.0	43.5	13.5	301	201
4	121.115	39.9	11.7	1.5	22.8	30.3	43.5	13.2	201	1
5	141.185	39.5	11.1	1.7	22.9	29.4	43.5	14.1	100	358
6	241.807	46.0	12.8	2.2	23.5	37.5	46.0	8.5	100	358
7	397.200	40.6	16.5	3.0	24.3	35.8	46.0	10.2	100	269
8	431.980	40.0	17.0	3.2	24.4	35.8	46.0	10.2	100	52
9	539.960	39.1	18.4	3.7	24.5	36.7	46.0	9.3	100	358
10	590.118	32.8	19.1	4.0	24.4	31.5	46.0	14.5	301	275
11	646.000	34.1	19.0	4.1	24.3	32.9	46.0	13.1	201	239
12	672.000	38.9	18.9	4.2	24.2	37.8	46.0	8.2	301	0
13	960.060	40.1	20.7	5.2	23.0	43.0	54.0	11.0	100	174
----- Vertical -----										
14	33.800	38.8	16.1	0.9	22.6	33.2	40.0	6.8	100	1
15	45.721	34.1	11.9	1.0	22.6	24.4	40.0	15.6	100	1
16	61.097	44.5	5.9	1.1	22.7	28.8	40.0	11.2	100	1
17	104.510	39.3	10.9	1.4	22.7	28.9	43.5	14.6	100	346
18	141.480	39.6	11.1	1.7	22.9	29.5	43.5	14.0	100	1
19	226.445	43.1	12.1	2.2	23.4	34.0	46.0	12.0	100	186
20	430.500	35.2	17.0	3.2	24.4	31.0	46.0	15.0	100	272
21	539.990	43.8	18.4	3.7	24.5	41.4	46.0	4.6	100	292
22	592.500	37.1	19.1	4.0	24.4	35.8	46.0	10.2	100	268
23	643.720	39.8	19.0	4.1	24.3	38.6	46.0	7.4	100	272
24	671.990	41.9	18.9	4.2	24.2	40.8	46.0	5.2	100	292
25	960.060	39.2	20.7	5.2	23.0	42.1	54.0	11.9	100	268

Test Mode 4 : 1GHz ~ 2GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
1080.127	H	61.0	51.8	-14.7	46.3	37.1	74.0	54.0	27.7	16.9
1176.000	H	63.8	49.8	-13.6	50.2	36.2	74.0	54.0	23.8	17.8
1200.500	V	61.1	49.4	-13.3	47.8	36.1	74.0	54.0	26.2	17.9
1440.200	V	60.2	53.7	-10.9	49.3	42.8	74.0	54.0	24.7	11.2
1440.698	H	60.2	50.3	-10.9	49.3	39.4	74.0	54.0	24.7	14.6
1680.079	H	58.9	57.4	-9.2	49.7	48.2	74.0	54.0	24.3	5.8
1920.000	H	60.9	58.4	-7.0	53.9	51.4	74.0	54.0	20.1	2.6
1920.000	V	62.2	57.2	-7.0	55.2	50.2	74.0	54.0	18.8	3.8

Note.

7. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
8. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} + \text{DF} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

APPENDIX 1 Photographs

1. Radiated emission

2. Conducted emission

3. EUT