

Application for FCC Certificate
On Behalf of
LG Electronics U.S.A., Inc.

LCD Monitor

Model No.: W2340VV

Serial No.: E2009121101

FCC ID : BEJW2340VV

Prepared For : LG Electronics U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs,
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TEST REPORT FOR FCC CERTIFICATE

Applicant : LG Electronics U.S.A., Inc.
Manufacturer : LG Electronics Nanjing Display Co., Ltd.
EUT Description : LCD Monitor
(A) Model No. : W2340VV
(B) Serial No. : E2009121101
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2008
AND ANSI C63.4-2003*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B (Class B) and ICES-003, Issue 4 February 2004 (CISPR 22:2002) limits both radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: W2340VV; S/N: E2009121101) which was tested in 3m anechoic chamber Dec 31, 2009-Jan 04, 2010 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Dec 31, 2009-Jan 04, 2010 Date of Report : Jan 07, 2010

Producer : Zeno Gu
ZENO GU / Assistant

Review : Dio Yang
DIO YANG / Deputy Assistant Manager

 For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Assistant Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description of Test Item	Standard	Limits	Results
EMISSION			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2008 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2008 AND ANSI C63.4-2003	15.109(a) Class B	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	: LCD Monitor
Type of EUT	: ☒ Production ☐ Pre-product ☐ Pro-type
Model No.	: W2340VV
Serial No.	: E2009121101
Real Power	: 47.00W
Applicant	: LG Electronics U.S.A., Inc. 1000 Sylvan Avenue, Englewood Cliffs, NJ 07632, United States
Manufacturer	: LG Electronics Nanjing Display Co., Ltd. No.346, Yao Xin Road, Economic & Technical Development Zone, Nanjing, China
LCD Panel	: Manufacturer: LG Display M/N : LM230WF1 (TL) (A7)
Max Resolution	: 1920*1080@60Hz
D-Sub Cable #1	: Shielded, Detachable, 1.85m, with two cores on cable
D-Sub Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
DVI Cable #1	: Shielded, Detachable, 1.85m, with two cores on cable
DVI Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
HDMI Cable	: Shielded, Detachable, 1.00m, with two cores
Power Cord	: Unshielded, Detachable, 1.80m
Note	: After evaluation, the D-Sub cable#1 and DVI cable#1 were used in the test for they will cause the maximum emission.

Remark:

The EUT is a LCD Monitor which input/output ports as follows:

- (1) One D-Sub Port : Connected with PC
- (2) One DVI Port : Connected with PC
- (3) One Earphone Port : Connected with Earphone
- (4) One HDMI Port : Connected with DVD
- (5) One AC In Port : Connected with Power

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : dx7400MT
Serial Number : CNG8130K89
Power Cord : Unshielded, Detachable, 1.8m
Certificate : FCC DoC; CE/EMC; VCCI; C-Tick; UL
BSMI (R33001) 3C (A000111)
MIC (E-A011-04-2659(B))

2.2.2 Printer

Manufacturer : HP
Model Number : C3990A
Serial Number : JPZX020487
Data Cable : Shielded, Detachable, 1.5m
Certificate : GS, CE/EMC, C-Tick, FCC DoC

2.2.3 Keyboard

Manufacturer : Microsoft
Model Number : RT2300
Serial Number : 7668200662248
Data Cable : Shielded, Undetachable, 1.8m
Certificate : CE/EMC, FCC DoC, VCCI, MIC, C-Tick,
BSMI

2.2.4 Mouse

Manufacturer : Microsoft
Model Number : RT2300
Serial Number : 6965712071551
Data Cable : Shielded, Undetachable, 1.85m.
Certificate : FCC DoC, VCCI, CE/EMC, MIC, GS

2.2.5 Modem

Manufacturer : TP-LINK
Model Number : TM-EC5658V
Serial Number : 07123301053
Data Cable : Shielded, Detachable, 1.8m
Certificate : FCC DoC, CE/EMC, CCC

2.2.6 DVD

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120108
Data Cable : Unshielded, Detachable, 1.8m

2.2.7 Earphone

Manufacturer : SONY
Model Number : MDR-E808
Serial Number : 1808030805305506

2.3 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
Apr 29, 2009 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai 200233, China

NVLAP Lab Code : 200371-0

2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty: U = 1.26 dB
Radiated Emission Expanded Uncertainty : U = 3.02 dB

3 CONDUCTED EMISSION TEST

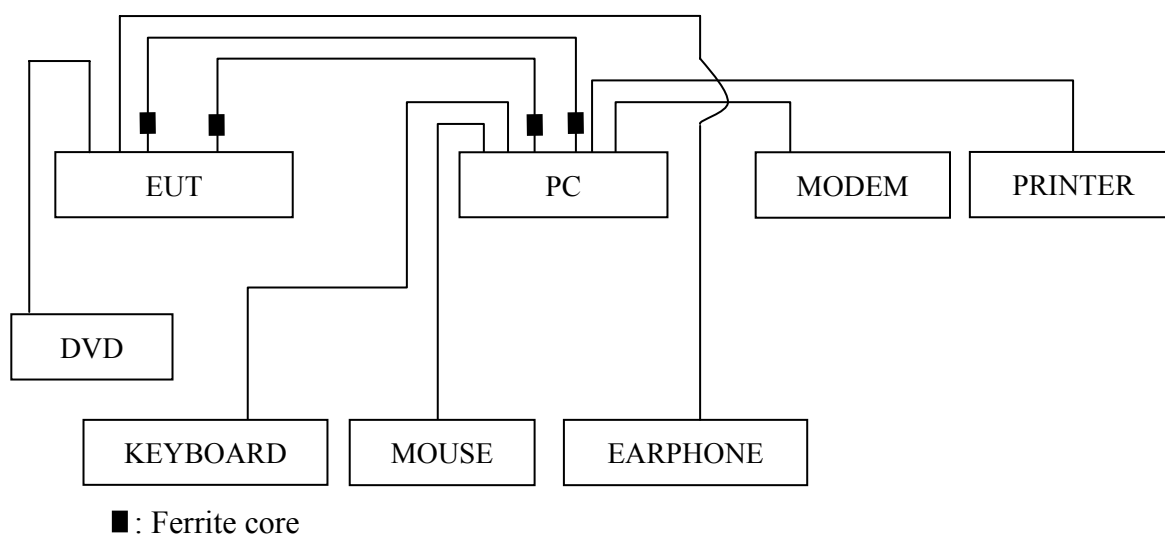
3.1.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

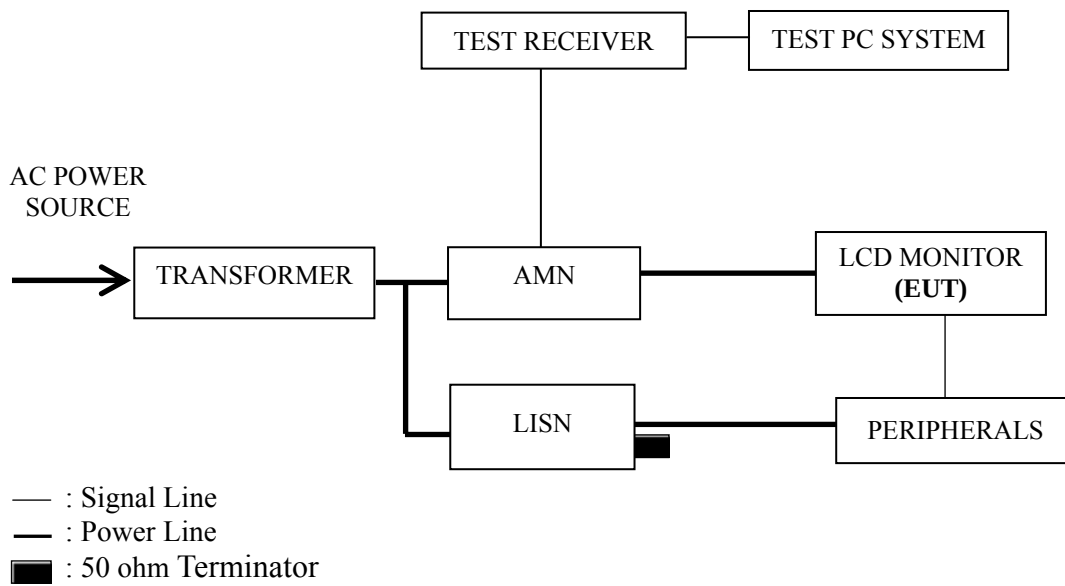
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Oct 15, 2009	Oct 15, 2010
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Apr 02, 2009	Apr 02, 2010
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 02, 2009	Apr 02, 2010
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 19, 2009	Mar 19, 2010
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 02, 2009	Apr 02, 2010
6.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



3.2.2 Conducted Disturbance Test Setup



3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)]

Frequency Range (MHz)	Limits dB (μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 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~0.50 MHz		

3.4 Test Configuration

The EUT (listed in Sec.2.1) and the peripherals (listed in Sec 2.2) were installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner that tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT and peripherals as shown in Sec. 3.2.

3.5.2 Turn on the power of all equipments and the EUT.

3.5.3 Set the contrast & brightness of EUT to maximum.

3.5.4 PC system ran the self-test program “EMC Test” by windows XP and sent “H” characters to EUT through graphic card, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via D-Sub & DVI Input).

3.5.5 In HDMI mode, the EUT connected to DVD through HDMI port.

3.5.6 Repeat above procedure from 3.5.3 to 3.5.5 for difference test mode.

3.5.7 The other peripherals devices were driven and operated during the test.

3.5.8 The test modes are as follows:

Test Mode
D-Sub 640*480@60Hz
D-Sub 1024*768@60Hz
D-Sub 1680*1050@60Hz
D-Sub 1920*1080@60Hz
DVI 640*480@60Hz
DVI 1024*768@60Hz
DVI 1680*1050@60Hz
DVI 1920*1080@60Hz
HDMI 480P
HDMI 720P
HDMI 1080P

3.6 Test Procedures

The EUT and peripherals were connected to the power mains through an Artificial Mains Network (AMN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line (Line & Neutral) were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to ANSI C63.4:2003 during conducted emission test.

The bandwidth of R&S Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7.

3.7 Test Results

< PASS >

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

Test Mode	Page
D-Sub 640*480@60Hz	P12
D-Sub 1024*768@60Hz	P13
D-Sub 1680*1050@60Hz	P14
D-Sub 1920*1080@60Hz	P15
DVI 640*480@60Hz	P16
DVI 1024*768@60Hz	P17
DVI 1680*1050@60Hz	P18
DVI 1920*1080@60Hz	P19
HDMI 480P	P20
HDMI 720P	P21
HDMI 1080P	P22

NOTE 1 – The **bold test mode** listed above means the worst test mode.

NOTE 2 – Factor = Cable Loss + AMN Factor.

NOTE 3 – Emission Level = Meter Reading + Factor.

NOTE 4 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

NOTE 5 – The worst case is for HDMI 720P test mode. The worst emission is detected at 24.529 MHz (Average Value) with corrected signal level of 38.96 dB (μV) (limit is 50.00 dB (μV)), when the Line the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : D-Sub 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	44.53	0.22	44.75	64.28	19.53	QP
	0.320	32.71	0.26	32.97	59.71	26.74	
	0.647	32.34	0.27	32.61	56.00	23.39	
	4.952	32.43	0.44	32.87	56.00	23.13	
	6.557	33.79	0.47	34.26	60.00	25.74	
	23.888	43.89	0.82	44.71	60.00	15.29	
	0.184	27.65	0.22	27.87	54.28	26.41	AV
	0.320	19.68	0.26	19.94	49.71	29.77	
	0.647	29.81	0.27	30.08	46.00	15.92	
	4.952	22.49	0.44	22.93	46.00	23.07	
	6.557	23.95	0.47	24.42	50.00	25.58	
	23.888	36.35	0.82	37.17	50.00	12.83	
Neutral	0.184	44.49	0.20	44.69	64.28	19.59	QP
	0.303	32.77	0.23	33.00	60.15	27.15	
	0.647	33.13	0.27	33.40	56.00	22.60	
	4.114	34.44	0.43	34.87	56.00	21.13	
	8.148	33.10	0.49	33.59	60.00	26.41	
	23.636	35.83	0.77	36.60	60.00	23.40	
	0.184	29.38	0.20	29.58	54.28	24.70	AV
	0.303	13.11	0.23	13.34	50.15	36.81	
	0.647	31.35	0.27	31.62	46.00	14.38	
	4.114	26.20	0.43	26.63	46.00	19.37	
	8.148	25.22	0.49	25.71	50.00	24.29	
	23.636	28.51	0.77	29.28	50.00	20.72	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : D-Sub 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.182	43.83	0.22	44.05	64.42	20.37	QP
	0.310	33.28	0.25	33.53	59.97	26.44	
	0.647	32.40	0.27	32.67	56.00	23.33	
	4.952	32.29	0.44	32.73	56.00	23.27	
	6.056	34.65	0.45	35.10	60.00	24.90	
	24.400	43.79	0.81	44.60	60.00	15.40	
	0.182	25.92	0.22	26.14	54.42	28.28	AV
	0.310	19.51	0.25	19.76	49.97	30.21	
	0.647	29.95	0.27	30.22	46.00	15.78	
	4.952	21.95	0.44	22.39	46.00	23.61	
	6.056	24.77	0.45	25.22	50.00	24.78	
	24.400	36.86	0.81	37.67	50.00	12.33	
Neutral	0.184	44.52	0.20	44.72	64.28	19.56	QP
	0.303	32.76	0.23	32.99	60.15	27.16	
	0.647	33.21	0.27	33.48	56.00	22.52	
	3.603	31.19	0.43	31.62	56.00	24.38	
	8.412	31.00	0.49	31.49	60.00	28.51	
	24.529	37.62	0.75	38.37	60.00	21.63	
	0.184	32.22	0.20	32.42	54.28	21.86	AV
	0.303	16.13	0.23	16.36	50.15	33.79	
	0.647	31.33	0.27	31.60	46.00	14.40	
	3.603	21.80	0.43	22.23	46.00	23.77	
	8.412	23.21	0.49	23.70	50.00	26.30	
	24.529	30.55	0.75	31.30	50.00	18.70	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : D-Sub 1680*1050@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.188	44.28	0.22	44.50	64.11	19.61	QP
	0.325	33.10	0.26	33.36	59.57	26.21	
	0.647	32.38	0.27	32.65	56.00	23.35	
	4.952	32.25	0.44	32.69	56.00	23.31	
	6.352	33.80	0.45	34.25	60.00	25.75	
	23.888	44.05	0.82	44.87	60.00	15.13	
	0.188	29.05	0.22	29.27	54.11	24.84	AV
	0.325	19.66	0.26	19.92	49.57	29.65	
	0.647	30.21	0.27	30.48	46.00	15.52	
	4.952	22.53	0.44	22.97	46.00	23.03	
	6.352	24.20	0.45	24.65	50.00	25.35	
	23.888	36.88	0.82	37.70	50.00	12.30	
Neutral	0.183	44.67	0.20	44.87	64.33	19.46	QP
	0.303	32.61	0.23	32.84	60.15	27.31	
	0.647	33.20	0.27	33.47	56.00	22.53	
	3.901	26.30	0.43	26.73	56.00	29.27	
	7.769	29.25	0.49	29.74	60.00	30.26	
	24.400	36.93	0.75	37.68	60.00	22.32	
	0.183	28.68	0.20	28.88	54.33	25.45	AV
	0.303	18.59	0.23	18.82	50.15	31.33	
	0.647	31.42	0.27	31.69	46.00	14.31	
	3.901	18.58	0.43	19.01	46.00	26.99	
	7.769	20.48	0.49	20.97	50.00	29.03	
	24.400	30.04	0.75	30.79	50.00	19.21	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : D-Sub 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	44.66	0.22	44.88	64.28	19.40	QP
	0.322	33.21	0.26	33.47	59.66	26.19	
	0.647	32.62	0.27	32.89	56.00	23.11	
	4.874	31.18	0.44	31.62	56.00	24.38	
	6.420	33.10	0.45	33.55	60.00	26.45	
	24.400	43.80	0.81	44.61	60.00	15.39	
	0.184	30.43	0.22	30.65	54.28	23.63	AV
	0.322	20.13	0.26	20.39	49.66	29.27	
	0.647	30.08	0.27	30.35	46.00	15.65	
	4.874	20.75	0.44	21.19	46.00	24.81	
	6.420	23.22	0.45	23.67	50.00	26.33	
	24.400	37.02	0.81	37.83	50.00	12.17	
Neutral	0.184	44.64	0.20	44.84	64.28	19.44	QP
	0.303	32.62	0.23	32.85	60.15	27.30	
	1.338	29.17	0.32	29.49	56.00	26.51	
	4.114	26.75	0.43	27.18	56.00	28.82	
	8.412	31.39	0.49	31.88	60.00	28.12	
	25.055	38.04	0.73	38.77	60.00	21.23	
	0.184	26.14	0.20	26.34	54.28	27.94	AV
	0.303	17.48	0.23	17.71	50.15	32.44	
	1.338	22.15	0.32	22.47	46.00	23.53	
	4.114	17.40	0.43	17.83	46.00	28.17	
	8.412	22.18	0.49	22.67	50.00	27.33	
	25.055	30.01	0.73	30.74	50.00	19.26	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : DVI 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	44.89	0.22	45.11	64.28	19.17	QP
	0.303	32.65	0.25	32.90	60.15	27.25	
	0.647	32.79	0.27	33.06	56.00	22.94	
	4.952	32.38	0.44	32.82	56.00	23.18	
	6.420	33.11	0.45	33.56	60.00	26.44	
	23.636	43.14	0.83	43.97	60.00	16.03	
	0.184	29.63	0.22	29.85	54.28	24.43	AV
	0.303	16.16	0.25	16.41	50.15	33.74	
	0.647	30.45	0.27	30.72	46.00	15.28	
	4.952	22.66	0.44	23.10	46.00	22.90	
	6.420	23.98	0.45	24.43	50.00	25.57	
	23.636	36.86	0.83	37.69	50.00	12.31	
Neutral	0.183	44.95	0.20	45.15	64.33	19.18	QP
	0.313	33.59	0.23	33.82	59.88	26.06	
	0.647	33.19	0.27	33.46	56.00	22.54	
	3.603	31.26	0.43	31.69	56.00	24.31	
	8.412	31.28	0.49	31.77	60.00	28.23	
	24.400	36.53	0.75	37.28	60.00	22.72	
	0.183	19.84	0.20	20.04	54.33	34.29	AV
	0.313	21.82	0.23	22.05	49.88	27.83	
	0.647	31.36	0.27	31.63	46.00	14.37	
	3.603	21.30	0.43	21.73	46.00	24.27	
	8.412	23.27	0.49	23.76	50.00	26.24	
	24.400	29.37	0.75	30.12	50.00	19.88	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : DVI 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.190	44.09	0.22	44.31	64.02	19.71	QP
	0.307	33.44	0.25	33.69	60.06	26.37	
	0.647	32.61	0.27	32.88	56.00	23.12	
	4.952	32.38	0.44	32.82	56.00	23.18	
	6.557	33.50	0.47	33.97	60.00	26.03	
	24.142	45.04	0.82	45.86	60.00	14.14	
	0.190	31.37	0.22	31.59	54.02	22.43	AV
	0.307	16.20	0.25	16.45	50.06	33.61	
	0.647	30.12	0.27	30.39	46.00	15.61	
	4.952	22.23	0.44	22.67	46.00	23.33	
	6.557	24.51	0.47	24.98	50.00	25.02	
	24.142	37.54	0.82	38.36	50.00	11.64	
Neutral	0.188	44.38	0.20	44.58	64.11	19.53	QP
	0.303	32.66	0.23	32.89	60.15	27.26	
	0.647	33.04	0.27	33.31	56.00	22.69	
	3.603	31.05	0.43	31.48	56.00	24.52	
	8.412	31.39	0.49	31.88	60.00	28.12	
	24.400	36.69	0.75	37.44	60.00	22.56	
	0.188	32.64	0.20	32.84	54.11	21.27	AV
	0.303	18.72	0.23	18.95	50.15	31.20	
	0.647	31.33	0.27	31.60	46.00	14.40	
	3.603	20.51	0.43	20.94	46.00	25.06	
	8.412	23.15	0.49	23.64	50.00	26.36	
	24.400	29.84	0.75	30.59	50.00	19.41	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : DVI 1680*1050@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	44.71	0.22	44.93	64.28	19.35	QP
	0.313	33.40	0.25	33.65	59.88	26.23	
	0.647	32.65	0.27	32.92	56.00	23.08	
	4.952	32.40	0.44	32.84	56.00	23.16	
	6.557	33.61	0.47	34.08	60.00	25.92	
	24.529	44.49	0.81	45.30	60.00	14.70	
	0.184	32.60	0.22	32.82	54.28	21.46	AV
	0.313	19.68	0.25	19.93	49.88	29.95	
	0.647	30.13	0.27	30.40	46.00	15.60	
	4.952	21.63	0.44	22.07	46.00	23.93	
	6.557	24.77	0.47	25.24	50.00	24.76	
	24.529	36.81	0.81	37.62	50.00	12.38	
Neutral	0.186	44.55	0.20	44.75	64.20	19.45	QP
	0.307	33.65	0.23	33.88	60.06	26.18	
	0.647	33.04	0.27	33.31	56.00	22.69	
	3.603	31.13	0.43	31.56	56.00	24.44	
	7.769	29.69	0.49	30.18	60.00	29.82	
	24.790	37.49	0.74	38.23	60.00	21.77	
	0.186	35.52	0.20	35.72	54.20	18.48	AV
	0.307	16.28	0.23	16.51	50.06	33.55	
	0.647	31.36	0.27	31.63	46.00	14.37	
	3.603	19.59	0.43	20.02	46.00	25.98	
	7.769	19.79	0.49	20.28	50.00	29.72	
	24.790	29.43	0.74	30.17	50.00	19.83	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : DVI 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.183	44.67	0.22	44.89	64.33	19.44	QP
	0.307	33.31	0.25	33.56	60.06	26.50	
	0.647	32.52	0.27	32.79	56.00	23.21	
	4.952	32.46	0.44	32.90	56.00	23.10	
	6.420	33.11	0.45	33.56	60.00	26.44	
	23.636	43.55	0.83	44.38	60.00	15.62	
	0.183	20.22	0.22	20.44	54.33	33.89	AV
	0.307	18.91	0.25	19.16	50.06	30.90	
	0.647	30.27	0.27	30.54	46.00	15.46	
	4.952	22.54	0.44	22.98	46.00	23.02	
	6.420	22.74	0.45	23.19	50.00	26.81	
	23.636	37.18	0.83	38.01	50.00	11.99	
Neutral	0.184	44.61	0.20	44.81	64.28	19.47	QP
	0.303	32.60	0.23	32.83	60.15	27.32	
	0.647	33.10	0.27	33.37	56.00	22.63	
	4.114	28.97	0.43	29.40	56.00	26.60	
	7.769	29.97	0.49	30.46	60.00	29.54	
	24.529	37.39	0.75	38.14	60.00	21.86	
	0.184	33.26	0.20	33.46	54.28	20.82	AV
	0.303	16.89	0.23	17.12	50.15	33.03	
	0.647	31.12	0.27	31.39	46.00	14.61	
	4.114	23.80	0.43	24.23	46.00	21.77	
	7.769	20.09	0.49	20.58	50.00	29.42	
	24.529	30.10	0.75	30.85	50.00	19.15	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : HDMI 480P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.183	45.07	0.22	45.29	64.33	19.04	QP
	0.325	33.28	0.26	33.54	59.57	26.03	
	0.647	33.02	0.27	33.29	56.00	22.71	
	4.952	32.30	0.44	32.74	56.00	23.26	
	6.420	32.80	0.45	33.25	60.00	26.75	
	25.055	44.31	0.80	45.11	60.00	14.89	
	0.183	27.39	0.22	27.61	54.33	26.72	AV
	0.325	20.29	0.26	20.55	49.57	29.02	
	0.647	30.54	0.27	30.81	46.00	15.19	
	4.952	22.27	0.44	22.71	46.00	23.29	
	6.420	23.49	0.45	23.94	50.00	26.06	
	25.055	37.71	0.80	38.51	50.00	11.49	
Neutral	0.183	45.06	0.20	45.26	64.33	19.07	QP
	0.313	33.64	0.23	33.87	59.88	26.01	
	0.647	33.09	0.27	33.36	56.00	22.64	
	3.603	31.26	0.43	31.69	56.00	24.31	
	7.769	29.16	0.49	29.65	60.00	30.35	
	24.529	36.92	0.75	37.67	60.00	22.33	
	0.183	29.52	0.20	29.72	54.33	24.61	AV
	0.313	21.49	0.23	21.72	49.88	28.16	
	0.647	31.50	0.27	31.77	46.00	14.23	
	3.603	21.29	0.43	21.72	46.00	24.28	
	7.769	19.05	0.49	19.54	50.00	30.46	
	24.529	30.74	0.75	31.49	50.00	18.51	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : HDMI 720P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.188	44.80	0.22	45.02	64.11	19.09	QP
	0.307	33.64	0.25	33.89	60.06	26.17	
	0.647	32.88	0.27	33.15	56.00	22.85	
	4.952	32.32	0.44	32.76	56.00	23.24	
	6.121	34.72	0.45	35.17	60.00	24.83	
	24.529	44.34	0.81	45.15	60.00	14.85	
	0.188	31.09	0.22	31.31	54.11	22.80	AV
	0.307	20.16	0.25	20.41	50.06	29.65	
	0.647	30.76	0.27	31.03	46.00	14.97	
	4.952	22.05	0.44	22.49	46.00	23.51	
	6.121	25.74	0.45	26.19	50.00	23.81	
	24.529	38.15	0.81	38.96	50.00	11.04	
Neutral	0.183	45.39	0.20	45.59	64.33	18.74	QP
	0.249	37.95	0.22	38.17	61.78	23.61	
	0.647	33.23	0.27	33.50	56.00	22.50	
	3.620	35.99	0.43	36.42	56.00	19.58	
	8.520	34.00	0.50	34.50	60.00	25.50	
	25.055	37.40	0.73	38.13	60.00	21.87	
	0.183	24.81	0.20	25.01	54.33	29.32	AV
	0.249	27.49	0.22	27.71	51.78	24.07	
	0.647	31.62	0.27	31.89	46.00	14.11	
	3.620	29.95	0.43	30.38	46.00	15.62	
	8.520	24.07	0.50	24.57	50.00	25.43	
	25.055	30.07	0.73	30.80	50.00	19.20	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 48%RH

Serial No. : E2009121101 Date of Test : Jan 04, 2009

Test Mode : HDMI 1080P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	45.59	0.22	45.81	64.28	18.47	QP
	0.303	33.05	0.25	33.30	60.15	26.85	
	0.647	33.01	0.27	33.28	56.00	22.72	
	4.952	31.67	0.44	32.11	56.00	23.89	
	5.594	35.04	0.45	35.49	60.00	24.51	
	24.790	44.38	0.81	45.19	60.00	14.81	
	0.184	31.25	0.22	31.47	54.28	22.81	AV
	0.303	18.00	0.25	18.25	50.15	31.90	
	0.647	30.72	0.27	30.99	46.00	15.01	
	4.952	22.57	0.44	23.01	46.00	22.99	
	5.594	25.84	0.45	26.29	50.00	23.71	
	24.790	36.76	0.81	37.57	50.00	12.43	
Neutral	0.183	46.51	0.20	46.71	64.33	17.62	QP
	0.313	35.68	0.23	35.91	59.88	23.97	
	0.647	33.20	0.27	33.47	56.00	22.53	
	4.114	34.36	0.43	34.79	56.00	21.21	
	7.769	33.35	0.49	33.84	60.00	26.16	
	24.142	38.29	0.76	39.05	60.00	20.95	
	0.183	24.90	0.20	25.10	54.33	29.23	AV
	0.313	19.53	0.23	19.76	49.88	30.12	
	0.647	31.54	0.27	31.81	46.00	14.19	
	4.114	20.73	0.43	21.16	46.00	24.84	
	7.769	20.16	0.49	20.65	50.00	29.35	
	24.142	29.23	0.76	29.99	50.00	20.01	

TEST ENGINEER: HUGH HUANG

4 RADIATED EMISSION TEST

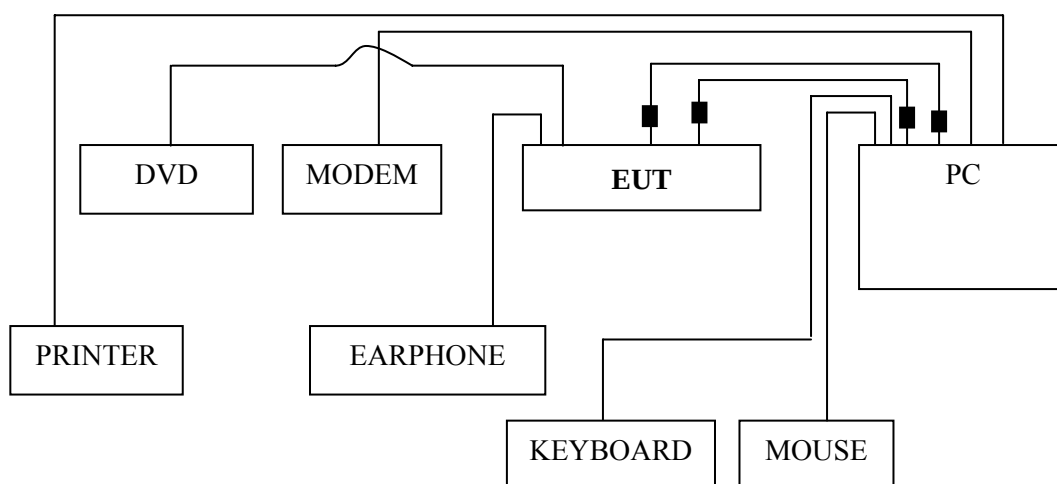
4.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

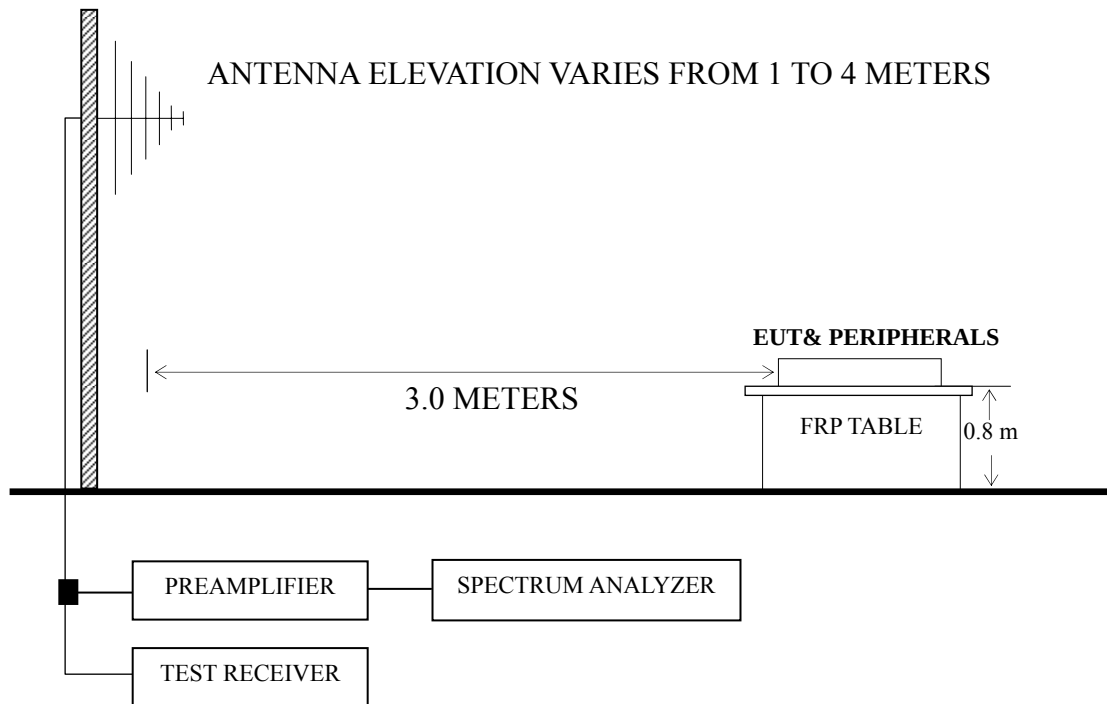
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Mar 07, 2009	Mar 07, 2010
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 19, 2009	Mar 19, 2010
3.	Preamplifier	HP	8449B	3008A00864	Apr 29, 2009	Apr 29, 2010
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
5.	Spectrum	Agilent	E7405A	MY45106600	May 19, 2009	May 19, 2010
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals



4.2.2 Radiated emission test setup



■ : 50 ohm Coaxial Switch

4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)]

Frequency (MHz)	Distance (m)	Field strength limits	
		($\mu\text{V/m}$)	dB ($\mu\text{V/m}$)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 log Emission Level ($\mu\text{V/m}$)

NOTE 2 - The tighter limit applies at the band edges.

NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.

NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT.

4.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.4.2.

4.6 Test Procedures

The EUT and peripherals were placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna) was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz

The frequency range from 30 MHz to 1000MHz was checked for all test modes.

The frequency range from 1 GHz to 2 GHz was checked for D-Sub/DVI 1680*1050@60Hz and D-Sub/DVI 1920*1080@60Hz modes.

The test modes were done on radiated disturbance test and all the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Test Mode	Page
D-Sub 640*480@60Hz	P27
D-Sub 1024*768@60Hz	P28
D-SUB 1680*1050@60HZ	P29
D-Sub 1920*1080@60Hz	P30
DVI 640*480@60Hz	P31
DVI 1280*1024@75Hz	P32
DVI 1680*1050@60Hz	P33
DVI 1920*1080@60Hz	P34
HDMI 480P	P35
HDMI 720P	P36
HDMI 1080P	P37

NOTE 1 – **The bold test mode** listed above means the worst test mode.

NOTE 2 – Emission Level = Antenna Factor + Cable Loss + Meter Reading. (< 1GHz)

NOTE 3 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading. (> 1GHz)

NOTE 4 – The emission levels that are 20dB below the official limit are not reported.

NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 6 – The worst case is for D-Sub 1024*768@60Hz test mode. The worst emission at horizontal polarization was detected at 580.960 MHz with corrected signal level of 38.93 dB (μV/m) (limit is 46.00dB (μV/m)), when the antenna was 1.20 m height and the turntable was at 152°. The worst emission at vertical polarization was detected at 580.960MHz with corrected signal level of 42.39 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.32 m height and the turntable was at 237°.

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : D-Sub 640*480@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	30.970	0.49	19.03	0.62	20.14	40.00	19.86
	148.340	22.03	11.41	1.24	34.68	43.50	8.82
	222.060	24.32	11.75	1.50	37.57	46.00	8.43
	270.560	20.59	13.35	1.66	35.60	46.00	10.40
	535.370	20.10	18.36	2.35	40.81	46.00	5.19
	890.390	11.97	21.60	3.03	36.60	46.00	9.40
Vertical	30.970	11.58	19.03	0.62	31.23	40.00	8.77
	88.200	16.95	9.13	1.00	27.08	43.50	16.42
	148.340	19.28	11.41	1.24	31.93	43.50	11.57
	322.940	24.00	14.54	1.84	40.38	46.00	5.62
	516.940	21.37	18.12	2.31	41.80	46.00	4.20
	856.440	10.07	21.28	2.98	34.33	46.00	11.67

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : D-Sub 1024*768@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	60.070	12.97	6.60	0.80	20.37	40.00	19.63
	90.140	19.56	9.40	1.01	29.97	43.50	13.53
	150.280	21.12	11.25	1.23	33.60	43.50	9.90
	224.970	23.91	11.89	1.55	37.35	46.00	8.65
	580.960	17.51	19.00	2.42	38.93	46.00	7.07
	829.280	7.19	20.98	2.93	31.10	46.00	14.90
Vertical	44.550	18.44	11.38	0.71	30.53	40.00	9.47
	90.140	19.61	9.40	1.01	30.02	43.50	13.48
	164.830	21.90	10.35	1.31	33.56	43.50	9.94
	343.310	23.93	15.11	1.85	40.89	46.00	5.11
	580.960	20.97	19.00	2.42	42.39	46.00	3.61
	829.280	11.12	20.98	2.93	35.03	46.00	10.97

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : D-Sub 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	60.070	14.74	6.60	0.80	--	22.14	40.00	17.86	QP
	97.900	24.22	11.11	1.02	--	36.35	43.50	7.15	
	145.430	19.65	11.66	1.22	--	32.53	43.50	10.97	
	289.960	22.12	13.73	1.72	--	37.57	46.00	8.43	
	507.240	19.16	17.98	2.28	--	39.42	46.00	6.58	
	856.440	6.19	21.28	2.98	--	30.45	46.00	15.55	PK
	1023.000	44.26	22.54	3.76	34.10	36.46	74.00	37.54	
	1145.000	51.30	23.39	4.08	34.11	44.66	74.00	29.34	
	1306.000	47.81	24.58	4.42	34.13	42.68	74.00	31.32	
	1418.000	44.13	25.31	4.64	34.14	39.94	74.00	34.06	
	1683.000	50.40	26.61	5.16	34.17	48.00	74.00	26.00	
	1846.000	49.40	27.17	5.45	34.19	47.83	74.00	26.17	
Vertical	30.970	10.93	19.03	0.62	--	30.58	40.00	9.42	QP
	97.900	22.99	11.11	1.02	--	35.12	43.50	8.38	
	145.430	20.91	11.66	1.22	--	33.79	43.50	9.71	
	322.940	23.49	14.54	1.84	--	39.87	46.00	6.13	
	507.000	21.40	17.98	2.28	--	41.66	46.00	4.34	
	856.440	10.67	21.28	2.98	--	34.93	46.00	11.07	PK
	1114.000	44.14	23.21	4.00	34.11	37.24	74.00	36.76	
	1211.000	46.62	23.82	4.22	34.12	40.54	74.00	33.46	
	1392.000	46.26	25.16	4.59	34.14	41.87	74.00	32.13	
	1564.000	44.43	26.19	4.93	34.16	41.39	74.00	32.61	
	1742.000	41.69	26.76	5.28	34.18	39.55	74.00	34.45	
	1857.000	45.48	27.21	5.46	34.19	43.96	74.00	30.04	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : D-Sub 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	59.100	13.57	6.80	0.79	--	21.16	40.00	18.84	QP
	98.870	25.95	11.27	1.04	--	38.26	43.50	5.24	
	146.400	20.85	11.61	1.23	--	33.69	43.50	9.81	
	282.200	22.34	13.59	1.69	--	37.62	46.00	8.38	
	511.120	18.96	18.04	2.28	--	39.28	46.00	6.72	
	890.390	7.90	21.60	3.03	--	32.53	46.00	13.47	
	1157.000	47.37	23.48	4.10	34.11	40.84	74.00	33.16	PK
	1306.000	44.81	24.58	4.42	34.13	39.68	74.00	34.32	
	1438.000	40.19	25.41	4.68	34.14	36.14	74.00	37.86	
	1572.000	46.61	26.26	4.95	34.16	43.66	74.00	30.34	
	1683.000	47.40	26.61	5.16	34.17	45.00	74.00	29.00	
	1856.000	44.43	27.21	5.46	34.19	42.91	74.00	31.09	
Vertical	50.370	17.83	8.85	0.76	--	27.44	40.00	12.56	QP
	98.870	24.22	11.27	1.04	--	36.53	43.50	6.97	
	164.830	21.39	10.35	1.31	--	33.05	43.50	10.45	
	320.030	23.72	14.46	1.84	--	40.02	46.00	5.98	
	511.120	21.56	18.04	2.28	--	41.88	46.00	4.12	
	856.440	9.64	21.28	2.98	--	33.90	46.00	12.10	
	1058.000	46.80	22.79	3.85	34.10	39.34	74.00	34.66	PK
	1157.000	49.89	23.48	4.10	34.11	43.36	74.00	30.64	
	1211.000	49.62	23.82	4.22	34.12	43.54	74.00	30.46	
	1426.000	44.19	25.34	4.66	34.14	40.05	74.00	33.95	
	1564.000	45.43	26.19	4.93	34.16	42.39	74.00	31.61	
	1709.000	40.90	26.69	5.21	34.17	38.63	74.00	35.37	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : DVI 640*480@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	60.070	13.37	6.60	0.80	20.77	40.00	19.23
	87.230	16.13	8.96	0.99	26.08	40.00	13.92
	148.340	20.14	11.41	1.24	32.79	43.50	10.71
	222.060	22.36	11.75	1.50	35.61	46.00	10.39
	517.910	17.33	18.12	2.31	37.76	46.00	8.24
	829.280	10.54	20.98	2.93	34.45	46.00	11.55
Vertical	30.000	12.22	19.60	0.62	32.44	40.00	7.56
	41.640	12.29	13.02	0.70	26.01	40.00	13.99
	126.030	21.89	12.71	1.15	35.75	43.50	7.75
	325.850	21.02	14.62	1.85	37.49	46.00	8.51
	517.000	21.00	18.12	2.31	41.43	46.00	4.57
	881.660	10.45	21.53	3.02	35.00	46.00	11.00

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : DVI 1024*768@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	56.190	13.56	7.46	0.78	21.80	40.00	18.20
	88.200	16.46	9.13	1.00	26.59	43.50	16.91
	137.670	18.28	12.19	1.22	31.69	43.50	11.81
	269.590	21.17	13.32	1.67	36.16	46.00	9.84
	405.390	22.85	16.57	2.04	41.46	46.00	4.54
	809.880	13.24	20.80	2.87	36.91	46.00	9.09
Vertical	39.700	16.07	14.08	0.68	30.83	40.00	9.17
	79.470	16.05	7.72	0.97	24.74	40.00	15.26
	134.760	19.44	12.30	1.19	32.93	43.50	10.57
	324.880	21.15	14.58	1.85	37.58	46.00	8.42
	405.000	17.80	16.57	2.04	36.41	46.00	9.59
	809.880	15.49	20.80	2.87	39.16	46.00	6.84

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : DVI 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	58.130	11.68	6.96	0.79	--	19.43	40.00	20.57	QP
	81.410	23.77	8.02	0.98	--	32.77	40.00	7.23	
	145.430	21.90	11.66	1.22	--	34.78	43.50	8.72	
	217.210	25.19	11.48	1.49	--	38.16	46.00	7.84	
	507.240	17.58	17.98	2.28	--	37.84	46.00	8.16	
	731.310	14.17	20.00	2.74	--	36.91	46.00	9.09	
	1076.000	44.61	22.92	3.89	34.11	37.31	74.00	36.69	PK
	1144.000	46.65	23.39	4.08	34.11	40.01	74.00	33.99	
	1276.000	50.61	24.32	4.35	34.13	45.15	74.00	28.85	
	1460.000	46.00	25.56	4.73	34.14	42.15	74.00	31.85	
	1598.000	45.93	26.40	4.99	34.16	43.16	74.00	30.84	
	1750.000	45.00	26.78	5.30	34.18	42.90	74.00	31.10	
Vertical	39.700	13.74	14.08	0.68	--	28.50	40.00	11.50	QP
	81.410	21.10	8.02	0.98	--	30.10	40.00	9.90	
	135.730	18.23	12.28	1.18	--	31.69	43.50	11.81	
	280.260	23.53	13.55	1.68	--	38.76	46.00	7.24	
	507.240	21.68	17.98	2.28	--	41.94	46.00	4.06	
	731.310	15.35	20.00	2.74	--	38.09	46.00	7.91	
	1003.000	47.28	22.43	3.71	34.10	39.32	74.00	34.68	PK
	1155.000	51.40	23.45	4.10	34.11	44.84	74.00	29.16	
	1212.000	49.61	23.82	4.23	34.12	43.54	74.00	30.46	
	1303.000	47.49	24.54	4.42	34.13	42.32	74.00	31.68	
	1391.000	47.85	25.16	4.59	34.14	43.46	74.00	30.54	
	1558.000	45.95	26.19	4.91	34.16	42.89	74.00	31.11	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : DVI 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	56.190	11.71	7.46	0.78	--	19.95	40.00	20.05	QP
	83.350	25.27	8.30	0.98	--	34.55	40.00	5.45	
	139.610	18.16	12.12	1.23	--	31.51	43.50	11.99	
	296.750	22.58	13.86	1.76	--	38.20	46.00	7.80	
	446.130	16.23	17.17	2.11	--	35.51	46.00	10.49	
	742.950	18.69	20.13	2.78	--	41.60	46.00	4.40	PK
	1076.000	47.61	22.92	3.89	34.11	40.31	74.00	33.69	
	1200.000	51.14	23.70	4.20	34.12	44.92	74.00	29.08	
	1427.000	47.82	25.38	4.66	34.14	43.72	74.00	30.28	
	1543.000	50.57	26.07	4.88	34.16	47.36	74.00	26.64	
	1664.000	48.58	26.56	5.12	34.17	46.09	74.00	27.91	
	1944.000	44.33	27.76	5.55	34.20	43.44	74.00	30.56	
Vertical	39.700	11.88	14.08	0.68	--	26.64	40.00	13.36	QP
	83.350	22.05	8.30	0.98	--	31.33	40.00	8.67	
	138.640	18.49	12.17	1.22	--	31.88	43.50	11.62	
	282.200	23.37	13.59	1.69	--	38.65	46.00	7.35	
	446.130	22.72	17.17	2.11	--	42.00	46.00	4.00	PK
	742.950	18.20	20.13	2.78	--	41.11	46.00	4.89	
	1155.000	50.40	23.45	4.10	34.11	43.84	74.00	30.16	
	1263.000	52.93	24.23	4.33	34.13	47.36	74.00	26.64	
	1400.000	47.65	25.20	4.60	34.14	43.31	74.00	30.69	
	1538.000	45.84	26.04	4.87	34.16	42.59	74.00	31.41	
	1655.000	46.85	26.54	5.10	34.17	44.32	74.00	29.68	
	1846.000	46.15	27.17	5.45	34.19	44.58	74.00	29.42	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : HDMI 480P

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	60.070	11.31	6.60	0.80	18.71	40.00	21.29
	87.230	15.91	8.96	0.99	25.86	40.00	14.14
	148.340	20.11	11.41	1.24	32.76	43.50	10.74
	234.670	20.65	12.32	1.57	34.54	46.00	11.46
	535.370	16.75	18.36	2.35	37.46	46.00	8.54
	856.440	4.64	21.28	2.98	28.90	46.00	17.10
Vertical	39.700	12.30	14.08	0.68	27.06	40.00	12.94
	90.140	12.97	9.40	1.01	23.38	43.50	20.12
	126.030	21.09	12.71	1.15	34.95	43.50	8.55
	324.880	20.97	14.58	1.85	37.40	46.00	8.60
	517.910	20.65	18.12	2.31	41.08	46.00	4.92
	881.660	9.73	21.53	3.02	34.28	46.00	11.72

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : HDMI 720P

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	62.010	15.72	6.58	0.85	23.15	40.00	16.85
	87.230	15.94	8.96	0.99	25.89	40.00	14.11
	148.340	18.91	11.41	1.24	31.56	43.50	11.94
	265.710	20.68	13.22	1.64	35.54	46.00	10.46
	535.370	16.20	18.36	2.35	36.91	46.00	9.09
	857.410	10.26	21.28	2.98	34.52	46.00	11.48
Vertical	40.670	11.69	13.62	0.71	26.02	40.00	13.98
	79.470	15.13	7.72	0.97	23.82	40.00	16.18
	126.030	21.17	12.71	1.15	35.03	43.50	8.47
	322.940	20.89	14.54	1.84	37.27	46.00	8.73
	517.910	21.04	18.12	2.31	41.47	46.00	4.53
	881.660	10.24	21.53	3.02	34.79	46.00	11.21

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2340VV Humidity : 60%RH

Serial No. : E2009121101 Date of Test : Dec 31, 2009

Test Mode : HDMI 1080P

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	60.070	13.11	6.60	0.80	20.51	40.00	19.49
	87.230	15.94	8.96	0.99	25.89	40.00	14.11
	148.340	19.48	11.41	1.24	32.13	43.50	11.37
	265.710	20.68	13.22	1.64	35.54	46.00	10.46
	535.370	16.20	18.36	2.35	36.91	46.00	9.09
	857.410	11.91	21.28	2.98	36.17	46.00	9.83
Vertical	30.970	11.43	19.03	0.62	31.08	40.00	8.92
	126.030	15.59	12.71	1.15	29.45	43.50	14.05
	228.850	20.53	12.07	1.56	34.16	46.00	11.84
	327.790	20.70	14.66	1.85	37.21	46.00	8.79
	516.940	20.73	18.12	2.31	41.16	46.00	4.84
	881.660	7.56	21.53	3.02	32.11	46.00	13.89

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
Aluminum Tape	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photo Figure 13
Gasket	MCQ57884406	41*10*1T	EXPAN	See Internal Photo Figure 14
Gasket	7250CP0005S	12*25	EXPAN	See Internal Photo Figure 15
Gasket	7250CP0106S	40*21	EXPAN	See Internal Photo Figure 16

Note: We had required the applicant and manufacturer that all electrical and mechanical devices employed for spurious radiation suppression, including any modifications made during certification testing, must be incorporated in each unit marked

TEST ENGINEER:



(RAVEN JIN)