

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

LCD Monitor

Model No.: W2240SV

Serial No.: 912NDXQAJ522

FCC ID : BEJW2240SV

Prepared For : LG Electronics U.S.A., Inc.
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Report No. : ACI-F10008
Date of Test : Jan 06 – 07, 2010
Date of Report : Jan 12, 2010

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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. : W2240SV
(B) Serial No. : 912NDXQAJ522
(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: W2240SV; S/N: 912NDXQAJ522) which was tested in 3m anechoic chamber on Jan 06 – 07, 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 : Jan 06 – 07, 2010 Date of Report : Jan 12, 2010

Producer : Kathy Wang
KATHY WANG / Assistant

Review : Dio Yang
DIO YANG / Deputy Assistant Manager

AUDIX[®] 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.	:	W2240SV
Serial No.	:	912NDXQAJ522
Real Power	:	41.00W
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 : AU Optronics M/N : M215HW01
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
Power Cord	:	Unshielded, Detachable, 1.80m
Note	:	After evaluation, the D-Sub cable#1 was 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 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

2.3 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

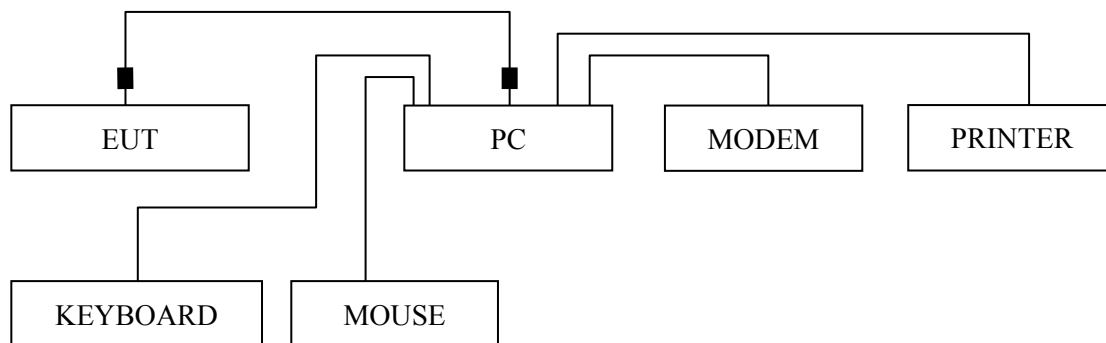
3.1 Test Equipment

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	Nov 21, 2009	Nov 21, 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	--	--

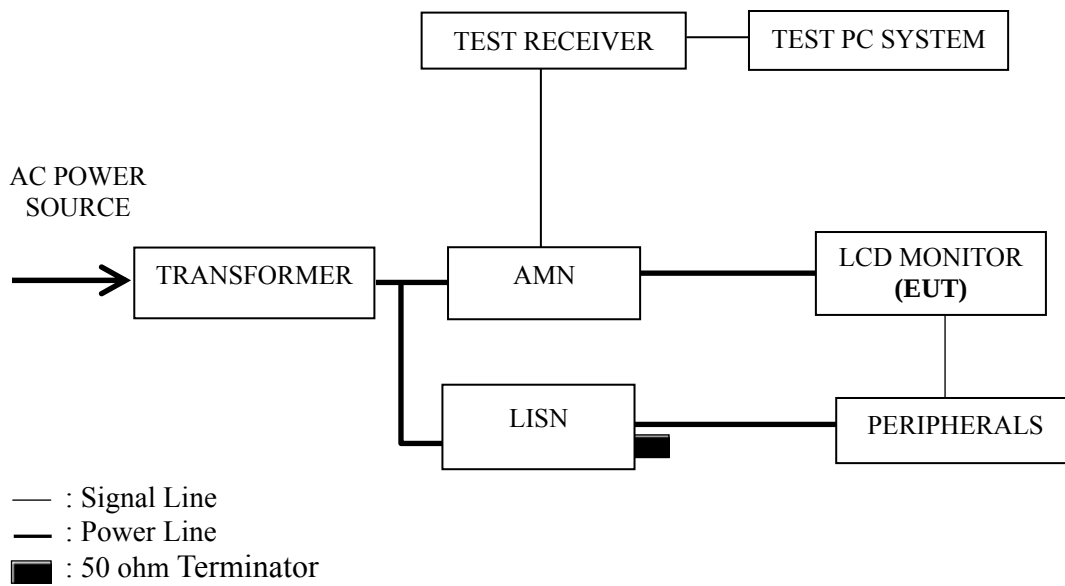
3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



■ : Ferrite core

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 Input).

3.5.5 Repeat above procedure from 3.5.3 to 3.5.4 for difference test mode.

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

3.5.7 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

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 I.F. 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	Data 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

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 D-Sub 640*480@60Hz test mode. The worst emission is detected at 0.743 MHz (Average value) with corrected signal level of 39.58 dB (μV) (limit is 46.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 21°C

Model No. : W2240SV Humidity : 50%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 06, 2010

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	52.29	0.22	52.51	64.28	11.77	QP
	0.300	39.38	0.25	39.63	60.24	20.61	
	0.743	36.34	0.28	36.62	56.00	19.38	
	4.407	32.26	0.44	32.70	56.00	23.30	
	8.412	40.43	0.48	40.91	60.00	19.09	
	23.140	47.74	0.83	48.57	60.00	11.43	
	0.184	36.71	0.22	36.93	54.28	17.35	AV
	0.300	23.20	0.25	23.45	50.24	26.79	
	0.743	36.00	0.28	36.28	46.00	9.72	
	4.407	18.18	0.44	18.62	46.00	27.38	
	8.412	31.68	0.48	32.16	50.00	17.84	
	23.140	39.09	0.83	39.92	50.00	10.08	
Neutral	0.183	54.65	0.20	54.85	64.33	9.48	QP
	0.242	45.88	0.22	46.10	62.04	15.94	
	0.743	40.00	0.28	40.28	56.00	15.72	
	4.501	34.99	0.45	35.44	56.00	20.56	
	6.855	31.00	0.48	31.48	60.00	28.52	
	24.142	34.99	0.76	35.75	60.00	24.25	
	0.183	38.43	0.20	38.63	54.33	15.70	AV
	0.242	27.43	0.22	27.65	52.04	24.39	
	0.743	39.30	0.28	39.58	46.00	6.42	
	4.501	18.55	0.45	19.00	46.00	27.00	
	6.855	23.27	0.48	23.75	50.00	26.25	
	24.142	25.27	0.76	26.03	50.00	23.97	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 21°C

Model No. : W2240SV Humidity : 50%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 06, 2010

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	0.183	51.46	0.22	51.68	64.33	12.65	QP
	0.307	38.64	0.25	38.89	60.06	21.17	
	0.743	36.01	0.28	36.29	56.00	19.71	
	4.874	29.34	0.44	29.78	56.00	26.22	
	7.977	37.25	0.48	37.73	60.00	22.27	
	22.896	46.40	0.83	47.23	60.00	12.77	
	0.183	38.50	0.22	38.72	54.33	15.61	AV
	0.307	23.56	0.25	23.81	50.06	26.25	
	0.743	36.13	0.28	36.41	46.00	9.59	
	4.874	18.24	0.44	18.68	46.00	27.32	
	7.977	25.96	0.48	26.44	50.00	23.56	
	22.896	36.29	0.83	37.12	50.00	12.88	
Neutral	0.182	51.12	0.20	51.32	64.42	13.10	QP
	0.300	37.29	0.23	37.52	60.24	22.72	
	0.743	37.31	0.28	37.59	56.00	18.41	
	4.407	30.84	0.45	31.29	56.00	24.71	
	9.861	31.92	0.51	32.43	60.00	27.57	
	24.790	36.48	0.74	37.22	60.00	22.78	
	0.182	34.48	0.20	34.68	54.42	19.74	AV
	0.300	22.89	0.23	23.12	50.24	27.12	
	0.743	37.06	0.28	37.34	46.00	8.66	
	4.407	16.84	0.45	17.29	46.00	28.71	
	9.861	17.99	0.51	18.50	50.00	31.50	
	24.790	26.98	0.74	27.72	50.00	22.28	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 21°C

Model No. : W2240SV Humidity : 50%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 06, 2010

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	0.180	51.77	0.22	51.99	64.50	12.51	QP
	0.303	39.88	0.25	40.13	60.15	20.02	
	0.743	38.59	0.28	38.87	56.00	17.13	
	4.114	33.78	0.42	34.20	56.00	21.80	
	6.488	34.57	0.46	35.03	60.00	24.97	
	23.387	39.04	0.82	39.86	60.00	20.14	
	0.180	36.15	0.22	36.37	54.50	18.13	AV
	0.303	22.74	0.25	22.99	50.15	27.16	
	0.743	38.63	0.28	38.91	46.00	7.09	
	4.114	20.56	0.42	20.98	46.00	25.02	
	6.488	20.94	0.46	21.40	50.00	28.60	
	23.387	27.25	0.82	28.07	50.00	21.93	
Neutral	0.180	50.77	0.20	50.97	64.50	13.53	QP
	0.300	38.37	0.23	38.60	60.24	21.64	
	0.743	37.32	0.28	37.60	56.00	18.40	
	4.407	33.59	0.45	34.04	56.00	21.96	
	9.861	33.33	0.51	33.84	60.00	26.16	
	24.790	37.19	0.74	37.93	60.00	22.07	
	0.180	32.28	0.20	32.48	54.50	22.02	AV
	0.300	23.25	0.23	23.48	50.24	26.76	
	0.743	37.00	0.28	37.28	46.00	8.72	
	4.407	17.55	0.45	18.00	46.00	28.00	
	9.861	20.08	0.51	20.59	50.00	29.41	
	24.790	26.81	0.74	27.55	50.00	22.45	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 21°C

Model No. : W2240SV Humidity : 50%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 06, 2010

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	0.182	51.58	0.22	51.80	64.42	12.62	QP
	0.300	39.78	0.25	40.03	60.24	20.21	
	0.743	38.62	0.28	38.90	56.00	17.10	
	4.114	32.83	0.42	33.25	56.00	22.75	
	6.951	33.86	0.47	34.33	60.00	25.67	
	25.055	38.11	0.80	38.91	60.00	21.09	
	0.182	36.74	0.22	36.96	54.42	17.46	AV
	0.300	23.30	0.25	23.55	50.24	26.69	
	0.743	38.54	0.28	38.82	46.00	7.18	
	4.114	21.74	0.42	22.16	46.00	23.84	
	6.951	21.91	0.47	22.38	50.00	27.62	
	25.055	28.56	0.80	29.36	50.00	20.64	
Neutral	0.178	51.10	0.20	51.30	64.59	13.29	QP
	0.300	38.02	0.23	38.25	60.24	21.99	
	0.743	37.38	0.28	37.66	56.00	18.34	
	4.874	32.00	0.45	32.45	56.00	23.55	
	7.852	41.33	0.49	41.82	60.00	18.18	
	22.535	46.08	0.79	46.87	60.00	13.13	
	0.178	30.02	0.20	30.22	54.59	24.37	AV
	0.300	20.39	0.23	20.62	50.24	29.62	
	0.743	37.46	0.28	37.74	46.00	8.26	
	4.874	17.96	0.45	18.41	46.00	27.59	
	7.852	27.95	0.49	28.44	50.00	21.56	
	22.535	35.57	0.79	36.36	50.00	13.64	

TEST ENGINEER: HUGH HUANG

4 RADIATED EMISSION TEST

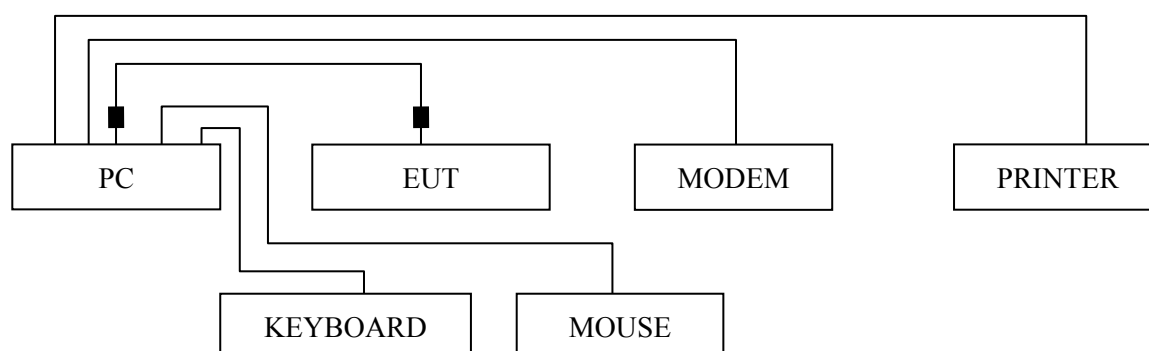
4.1 Test Equipment

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	May 19, 2009	May 19, 2010
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 14, 2009	May 14, 2010
5.	Spectrum	Agilent	E7405A	MY45106600	May 19, 2009	May 19, 2010
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

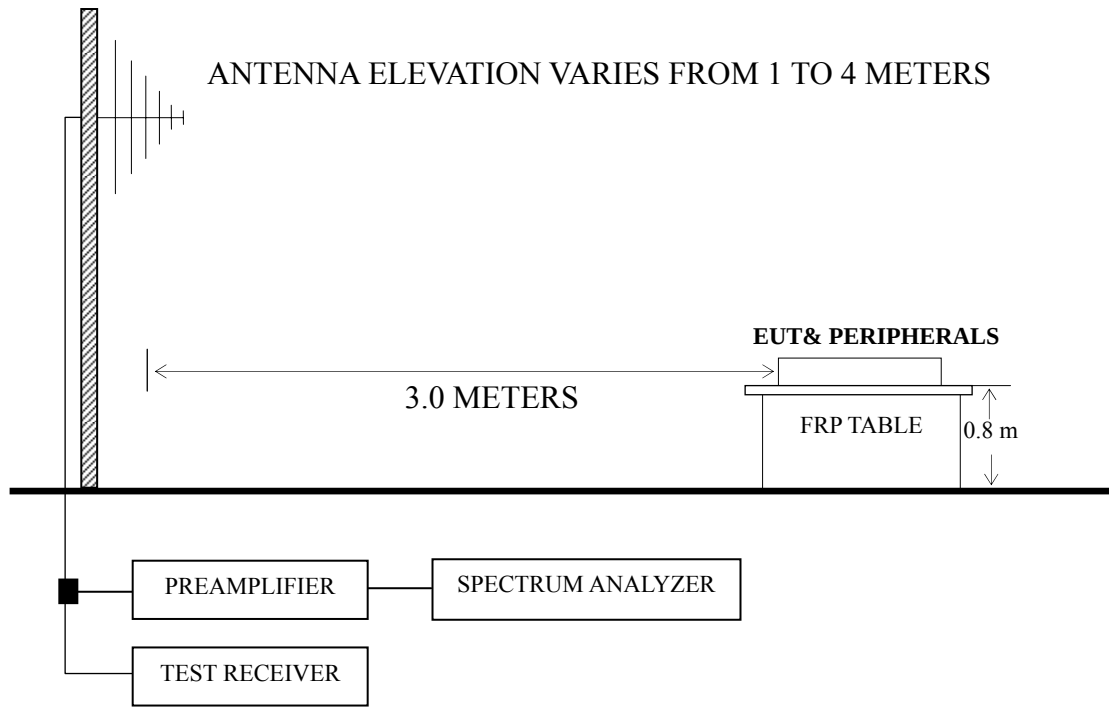
4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals



■ : Ferrite core

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 I.F. bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz below 1GHz and The Spectrum Agilent E7405A was set at 1MHz above 1GHz.

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 1680*1050@60Hz & D-Sub 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	Data Page
D-Sub 640*480@60Hz	P20
D-Sub 1024*768@60Hz	P21
D-Sub 1680*1050@60Hz	P22
D-Sub 1920*1080@60Hz	P23

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 – All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz. For measurements above 1 GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.

NOTE 7 – The worst case is for D-Sub 1680*1050@60Hz test mode. The worst emission at horizontal polarization was detected at 236.610 MHz with corrected signal level of 38.80 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 245°. The worst emission at vertical polarization was detected at 81.410 MHz with corrected signal level of 36.69 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 290°.

EUT : LCD Monitor Temperature : 22°C

Model No. : W2240SV Humidity : 60%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 07, 2010

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	51.340	14.48	8.61	0.76	23.85	40.00	16.15
	87.230	18.07	8.96	0.99	28.02	40.00	11.98
	152.220	23.53	11.09	1.22	35.84	43.50	7.66
	172.590	23.26	10.11	1.33	34.70	43.50	8.80
	251.160	24.00	12.92	1.61	38.53	46.00	7.47
	417.030	12.12	16.74	2.07	30.93	46.00	15.07
Vertical	49.400	25.26	9.16	0.76	35.18	40.00	4.82
	87.230	24.27	8.96	0.99	34.22	40.00	5.78
	137.670	22.00	12.19	1.22	35.41	43.50	8.09
	229.820	23.22	12.11	1.57	36.90	46.00	9.10
	429.640	14.50	16.92	2.08	33.50	46.00	12.50
	702.210	10.93	19.73	2.71	33.37	46.00	12.63

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2240SV Humidity : 60%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 07, 2010

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	51.340	14.20	8.61	0.76	23.57	40.00	16.43
	87.230	17.98	8.96	0.99	27.93	40.00	12.07
	152.220	24.65	11.09	1.22	36.96	43.50	6.54
	232.730	24.42	12.24	1.57	38.23	46.00	7.77
	417.030	11.99	16.74	2.07	30.80	46.00	15.20
	702.210	6.30	19.73	2.71	28.74	46.00	17.26
Vertical	39.700	21.03	14.08	0.68	35.79	40.00	4.21
	50.370	24.99	8.85	0.76	34.60	40.00	5.40
	87.230	24.34	8.96	0.99	34.29	40.00	5.71
	137.670	21.44	12.19	1.22	34.85	43.50	8.65
	232.730	22.33	12.24	1.57	36.14	46.00	9.86
	309.360	17.96	14.17	1.78	33.91	46.00	12.09

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2240SV Humidity : 60%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 07, 2010

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	32.910	12.59	17.95	0.62	--	31.16	40.00	8.84	QP
	49.400	17.33	9.16	0.76	--	27.25	40.00	12.75	
	81.410	20.34	8.02	0.98	--	29.34	40.00	10.66	
	97.900	17.99	11.11	1.02	--	30.12	43.50	13.38	
	138.640	19.91	12.17	1.22	--	33.30	43.50	10.20	
	236.610	24.83	12.40	1.57	--	38.80	46.00	7.20	
	1083.000	49.78	22.98	3.91	34.11	42.56	74.00	31.44	PK
	1144.000	49.65	23.39	4.08	34.11	43.01	74.00	30.99	
	1262.000	49.93	24.19	4.33	34.12	44.33	74.00	29.67	
	1427.000	48.82	25.38	4.66	34.14	44.72	74.00	29.28	
	1571.000	44.51	26.26	4.94	34.16	41.55	74.00	32.45	
	1664.000	40.58	26.56	5.12	34.17	38.09	74.00	35.91	
Vertical	49.400	25.34	9.16	0.76	--	35.26	40.00	4.74	QP
	81.410	27.69	8.02	0.98	--	36.69	40.00	3.31	
	97.900	24.34	11.11	1.02	--	36.47	43.50	7.03	
	136.700	20.73	12.23	1.20	--	34.16	43.50	9.34	
	249.220	21.55	12.86	1.61	--	36.02	46.00	9.98	
	600.360	15.03	19.20	2.47	--	36.70	46.00	9.30	
	1126.000	44.46	23.27	4.03	34.11	37.65	74.00	36.35	PK
	1255.000	49.05	24.14	4.31	34.12	43.38	74.00	30.62	
	1421.000	46.72	25.34	4.65	34.14	42.57	74.00	31.43	
	1629.000	45.07	26.47	5.05	34.16	42.43	74.00	31.57	
	1752.000	46.80	26.78	5.30	34.18	44.70	74.00	29.30	
	1954.000	42.00	27.81	5.56	34.20	41.17	74.00	32.83	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2240SV Humidity : 60%RH

Serial No. : 912NDXQAJ522 Date of Test : Jan 07, 2010

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	32.910	12.98	17.95	0.62	--	31.55	40.00	8.45	QP
	50.370	16.73	8.85	0.76	--	26.34	40.00	13.66	
	83.350	20.68	8.30	0.98	--	29.96	40.00	10.04	
	98.870	18.99	11.27	1.04	--	31.30	43.50	12.20	
	248.250	25.92	12.83	1.60	--	40.35	46.00	5.65	
	421.880	12.22	16.79	2.08	--	31.09	46.00	14.91	
	1083.000	53.78	22.98	3.91	34.11	46.56	74.00	27.44	PK
	1144.000	53.65	23.39	4.08	34.11	47.01	74.00	26.99	
	1262.000	52.93	24.19	4.33	34.12	47.33	74.00	26.67	
	1460.000	49.00	25.56	4.73	34.14	45.15	74.00	28.85	
	1598.000	46.93	26.40	4.99	34.16	44.16	74.00	29.84	
	1860.000	46.82	27.26	5.46	34.19	45.35	74.00	28.65	
Vertical	50.370	26.11	8.85	0.76	--	35.72	40.00	4.28	QP
	83.350	27.24	8.30	0.98	--	36.52	40.00	3.48	
	98.870	23.76	11.27	1.04	--	36.07	43.50	7.43	
	138.640	22.45	12.17	1.22	--	35.84	43.50	7.66	
	232.730	22.44	12.24	1.57	--	36.25	46.00	9.75	
	702.210	11.41	19.73	2.71	--	33.85	46.00	12.15	
	1099.000	42.05	23.08	3.96	34.11	34.98	74.00	39.02	PK
	1255.000	48.05	24.14	4.31	34.12	42.38	74.00	31.62	
	1421.000	43.72	25.34	4.65	34.14	39.57	74.00	34.43	
	1629.000	42.07	26.47	5.05	34.16	39.43	74.00	34.57	
	1752.000	43.80	26.78	5.30	34.18	41.70	74.00	32.30	
	1954.000	39.00	27.81	5.56	34.20	38.17	74.00	35.83	

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 foil	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photo Figure 13
Gasket	MCQ57884406	75*10*4	EXPAN	See Internal Photo Figure 14

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)