

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

LCD Monitor

Model No.: W2442PAT

Serial No.: E08072301

FCC ID : BEJW2442HAT

Prepared For : LG Electronics U.S.A., Inc.
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Date of Test : Jul 29, 2008
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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. : W2442PAT
(B) Serial No. : E08072301
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2007
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: W2442PAT; S/N: E08072301) which was tested in 3m anechoic chamber on Jul 29, 2008 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 : Jul 29, 2008

Prepared By: ALAN HE / Assistant

Reviewer: DIO YANG / Supervisor

Approved Signatory: 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 Terminals	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2007 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2007 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.	:	W2442PAT
Serial No.	:	E08072301
Real Power	:	48.00W
Note	:	The data of W2442PAT at rotate 90 degree condition (only radiated emission) is also tested and recorded in this report. The mode tested was the worst case of W2442PAT in normal condition.
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 : M240HW01
Max Resolution	:	1920*1080@60Hz
D-Sub Cable	:	Shielded, Detachable, 1.85m, with two cores
DVI Cable	:	Shielded, Detachable, 1.90m, with two cores
HDMI Cable	:	Shielded, Detachable, 1.80m, with two cores
Audio Cable	:	Shielded, Detachable, 1.50m, without core.
Power Cord	:	Unshielded, Detachable, 1.80m

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 HDMI Port | : Connected with PC |
| (4) One Earphone Port | : Connected with Earphone |
| (5) One Audio In Port | : Connected with PC |
| (6) One AC In Port | : Connected with Power |

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : dx7200MT
Serial Number : CNG622017W
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 Earphone

Manufacturer : FEIDIE
Model Number : SD-747
Serial Number : N/A

2.3 Description of Test Facility

Site Description (Semi-Anechoic Chamber)	:	Sept. 17, 1998 file on July 26, 2006 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 = 1.84 dB
Radiated Emission Expanded Uncertainty :	U = 2.96 dB

3 CONDUCTED EMISSION TEST

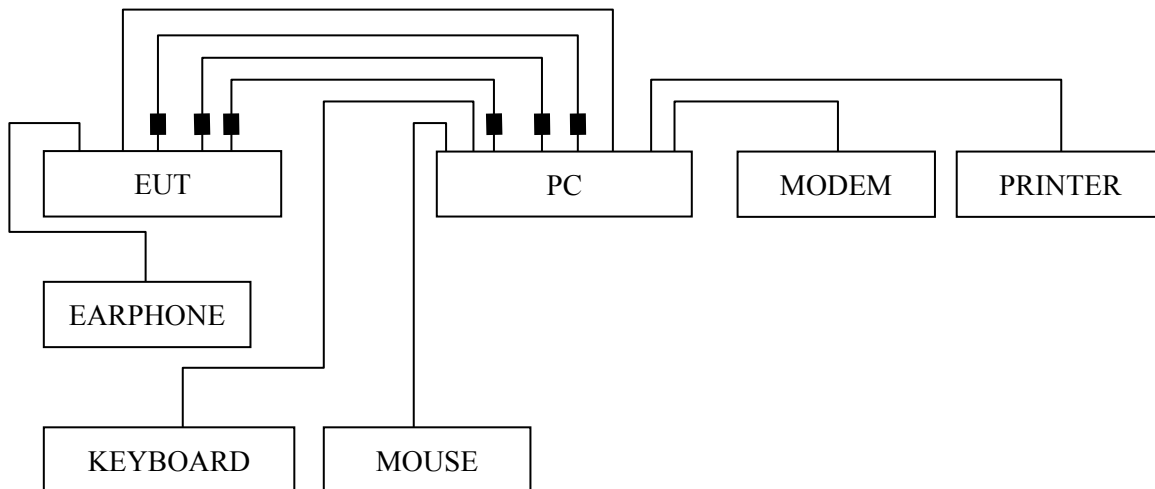
3.1 Test Equipment

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	ESHS10	830223/007	Oct 26, 2007	Oct 26, 2008
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Apr 06, 2008	Apr 06, 2009
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 06, 2008	Apr 06, 2009
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2008	Sep 18, 2008
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 06, 2008	Apr 06, 2009
6.	Software	Audix	E3	SET00200 9804M592	--	--

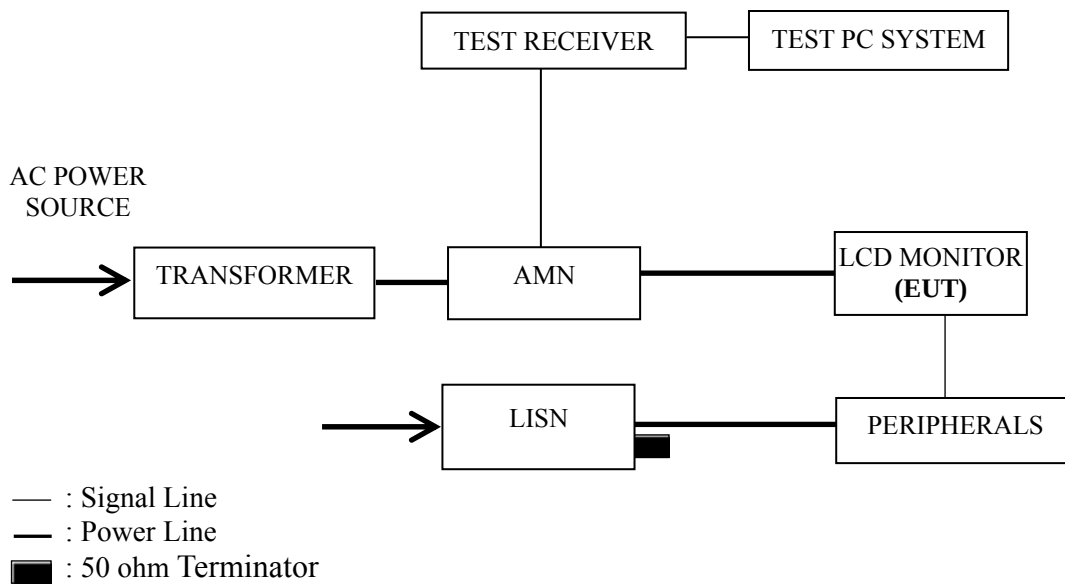
3.2 Block Diagram of Test Setup

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, DVI & HDMI Input).

3.5.5 PC system played music and sent audio signal to EUT through the audio in port of EUT.

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 640*480@60Hz
HDMI 1024*768@60Hz
HDMI 1680*1050@60Hz
HDMI 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 bandwidth of R&S Test Receiver ESHS10 was set at 10 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	P13
D-Sub 1024*768@60Hz	P14
D-Sub 1680*1050@60Hz	P15
D-Sub 1920*1080@60Hz	P16
DVI 640*480@60Hz	P17
DVI 1024*768@60Hz	P18
DVI 1680*1050@60Hz	P19
DVI 1920*1080@60Hz	P20
HDMI 640*480@60Hz	P21
HDMI 1024*768@60Hz	P22
HDMI 1680*1050@60Hz	P23
HDMI 1920*1080@60Hz	P24

NOTE 1 – Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

NOTE 3 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

NOTE 4 – The worst case is for HDMI 1680*1050@60Hz test mode. The worst emission is detected at 0.203 MHz (Average Value) with corrected signal level of 44.22 dB (μV) (limit is 53.49 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.206	46.16	0.15	46.31	63.36	17.05	QP
	0.273	38.64	0.15	38.79	61.03	22.24	
	0.343	35.86	0.16	36.02	59.13	23.11	
	2.540	35.55	0.27	35.82	56.00	20.18	
	2.946	37.19	0.27	37.46	56.00	18.54	
	6.024	39.37	0.29	39.66	60.00	20.34	
	0.206	42.16	0.15	42.31	53.36	11.05	AV
	0.273	33.64	0.15	33.79	51.03	17.24	
	0.343	29.86	0.16	30.02	49.13	19.11	
	2.540	29.55	0.27	29.82	46.00	16.18	
	2.946	32.19	0.27	32.46	46.00	13.54	
	6.024	33.37	0.29	33.66	50.00	16.34	
Neutral	0.207	47.23	0.15	47.38	63.32	15.94	QP
	0.273	40.16	0.15	40.31	61.03	20.72	
	0.343	39.21	0.16	39.37	59.13	19.76	
	2.946	35.49	0.24	35.73	56.00	20.27	
	5.476	36.88	0.25	37.13	60.00	22.87	
	16.750	39.58	0.44	40.02	60.00	19.98	
	0.207	42.23	0.15	42.38	53.32	10.94	AV
	0.273	35.16	0.15	35.31	51.03	15.72	
	0.343	33.21	0.16	33.37	49.13	15.76	
	2.946	30.49	0.24	30.73	46.00	15.27	
	5.476	29.88	0.25	30.13	50.00	19.87	
	16.750	32.58	0.44	33.02	50.00	16.98	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.204	46.67	0.15	46.82	63.45	16.63	QP
	0.273	38.20	0.15	38.35	61.03	22.68	
	0.343	36.16	0.16	36.32	59.13	22.81	
	1.032	28.77	0.20	28.97	56.00	27.03	
	2.946	37.73	0.27	38.00	56.00	18.00	
	6.024	37.59	0.29	37.88	60.00	22.12	
	0.204	41.67	0.15	41.82	53.45	11.63	AV
	0.273	33.20	0.15	33.35	51.03	17.68	
	0.343	30.16	0.16	30.32	49.13	18.81	
	1.032	23.77	0.20	23.97	46.00	22.03	
	2.946	32.73	0.27	33.00	46.00	13.00	
	6.024	32.59	0.29	32.88	50.00	17.12	
Neutral	0.207	46.59	0.15	46.74	63.32	16.58	QP
	0.279	39.78	0.15	39.93	60.85	20.92	
	0.343	38.75	0.16	38.91	59.13	20.22	
	0.637	34.70	0.18	34.88	56.00	21.12	
	2.946	35.85	0.24	36.09	56.00	19.91	
	5.476	37.16	0.25	37.41	60.00	22.59	
	0.207	41.59	0.15	41.74	53.32	11.58	AV
	0.279	33.78	0.15	33.93	50.85	16.92	
	0.343	32.75	0.16	32.91	49.13	16.22	
	0.637	28.70	0.18	28.88	46.00	17.12	
	2.946	29.85	0.24	30.09	46.00	15.91	
	5.476	31.16	0.25	31.41	50.00	18.59	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.203	47.41	0.15	47.56	63.49	15.93	QP
	0.273	38.26	0.15	38.41	61.03	22.62	
	0.343	35.96	0.16	36.12	59.13	23.01	
	2.540	34.32	0.27	34.59	56.00	21.41	
	2.750	37.93	0.27	38.20	56.00	17.80	
	6.024	39.15	0.29	39.44	60.00	20.56	
	0.203	42.41	0.15	42.56	53.49	10.93	AV
	0.273	32.26	0.15	32.41	51.03	18.62	
	0.343	29.96	0.16	30.12	49.13	19.01	
	2.540	28.32	0.27	28.59	46.00	17.41	
	2.750	32.93	0.27	33.20	46.00	12.80	
	6.024	33.15	0.29	33.44	50.00	16.56	
Neutral	0.207	47.07	0.15	47.22	63.32	16.10	QP
	0.343	40.33	0.16	40.49	59.13	18.64	
	0.637	33.71	0.18	33.89	56.00	22.11	
	2.946	35.55	0.24	35.79	56.00	20.21	
	6.024	37.41	0.25	37.66	60.00	22.34	
	16.486	36.79	0.44	37.23	60.00	22.77	
	0.207	40.07	0.15	40.22	53.32	13.10	AV
	0.343	34.33	0.16	34.49	49.13	14.64	
	0.637	27.71	0.18	27.89	46.00	18.11	
	2.946	28.55	0.24	28.79	46.00	17.21	
	6.024	30.41	0.25	30.66	50.00	19.34	
	16.486	31.79	0.44	32.23	50.00	17.77	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.206	46.71	0.15	46.86	63.36	16.50	QP
	0.273	38.07	0.15	38.22	61.03	22.81	
	0.343	35.96	0.16	36.12	59.13	23.01	
	2.750	37.74	0.27	38.01	56.00	17.99	
	6.024	38.81	0.29	39.10	60.00	20.90	
	16.486	37.25	0.59	37.84	60.00	22.16	
	0.206	40.71	0.15	40.86	53.36	12.50	AV
	0.273	33.07	0.15	33.22	51.03	17.81	
	0.343	30.96	0.16	31.12	49.13	18.01	
	2.750	31.74	0.27	32.01	46.00	13.99	
	6.024	32.81	0.29	33.10	50.00	16.90	
	16.486	31.25	0.59	31.84	50.00	18.16	
Neutral	0.204	47.23	0.15	47.38	63.45	16.07	QP
	0.243	42.32	0.15	42.47	62.00	19.53	
	0.274	40.02	0.15	40.17	60.98	20.81	
	0.343	39.69	0.16	39.85	59.13	19.28	
	2.946	35.41	0.24	35.65	56.00	20.35	
	5.476	36.66	0.25	36.91	60.00	23.09	
	0.204	42.23	0.15	42.38	53.45	11.07	AV
	0.243	36.32	0.15	36.47	52.00	15.53	
	0.274	33.02	0.15	33.17	50.98	17.81	
	0.343	32.69	0.16	32.85	49.13	16.28	
	2.946	28.41	0.24	28.65	46.00	17.35	
	5.476	30.66	0.25	30.91	50.00	19.09	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.160	44.51	0.18	44.69	65.47	20.78	QP
	0.206	44.53	0.15	44.68	63.36	18.68	
	0.343	36.02	0.16	36.18	59.13	22.95	
	2.396	33.11	0.26	33.37	56.00	22.63	
	2.884	36.51	0.27	36.78	56.00	19.22	
	6.024	38.77	0.29	39.06	60.00	20.94	
	0.160	38.51	0.18	38.69	55.47	16.78	AV
	0.206	38.53	0.15	38.68	53.36	14.68	
	0.343	28.02	0.16	28.18	49.13	20.95	
	2.396	26.11	0.26	26.37	46.00	19.63	
	2.884	29.51	0.27	29.78	46.00	16.22	
	6.024	31.77	0.29	32.06	50.00	17.94	
Neutral	0.207	45.30	0.15	45.45	63.32	17.87	QP
	0.273	36.92	0.15	37.07	61.03	23.96	
	0.341	35.92	0.16	36.08	59.18	23.10	
	0.413	34.58	0.17	34.75	57.59	22.84	
	2.809	33.89	0.24	34.13	56.00	21.87	
	5.476	37.36	0.25	37.61	60.00	22.39	
	0.207	40.30	0.15	40.45	53.32	12.87	AV
	0.273	31.92	0.15	32.07	51.03	18.96	
	0.341	30.92	0.16	31.08	49.18	18.10	
	0.413	29.58	0.17	29.75	47.59	17.84	
	2.809	28.89	0.24	29.13	46.00	16.87	
	5.476	32.36	0.25	32.61	50.00	17.39	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.206	44.04	0.15	44.19	63.36	19.17	QP
	0.274	35.87	0.15	36.02	60.98	24.96	
	0.343	35.51	0.16	35.67	59.13	23.46	
	2.540	34.30	0.27	34.57	56.00	21.43	
	2.884	36.92	0.27	37.19	56.00	18.81	
	6.024	38.00	0.29	38.29	60.00	21.71	
	0.206	39.04	0.15	39.19	53.36	14.17	AV
	0.274	30.87	0.15	31.02	50.98	19.96	
	0.343	30.51	0.16	30.67	49.13	18.46	
	2.540	29.30	0.27	29.57	46.00	16.43	
	2.884	30.92	0.27	31.19	46.00	14.81	
	6.024	31.00	0.29	31.29	50.00	18.71	
Neutral	0.206	44.29	0.15	44.44	63.36	18.92	QP
	0.346	37.41	0.16	37.57	59.05	21.48	
	0.637	31.72	0.18	31.90	56.00	24.10	
	1.918	33.06	0.19	33.25	56.00	22.75	
	2.809	32.59	0.24	32.83	56.00	23.17	
	5.476	37.20	0.25	37.45	60.00	22.55	
	0.206	39.29	0.15	39.44	53.36	13.92	AV
	0.346	31.41	0.16	31.57	49.05	17.48	
	0.637	25.72	0.18	25.90	46.00	20.10	
	1.918	28.06	0.19	28.25	46.00	17.75	
	2.809	27.59	0.24	27.83	46.00	18.17	
	5.476	30.20	0.25	30.45	50.00	19.55	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.153	45.92	0.18	46.10	65.82	19.72	QP
	0.204	44.08	0.15	44.23	63.45	19.22	
	0.277	35.97	0.15	36.12	60.90	24.78	
	0.343	35.41	0.16	35.57	59.13	23.56	
	2.884	36.35	0.27	36.62	56.00	19.38	
	6.024	38.10	0.29	38.39	60.00	21.61	
	0.153	38.92	0.18	39.10	55.82	16.72	AV
	0.204	32.08	0.15	32.23	53.45	21.22	
	0.277	25.97	0.15	26.12	50.90	24.78	
	0.343	24.41	0.16	24.57	49.13	24.56	
	2.884	24.35	0.27	24.62	46.00	21.38	
	6.024	22.10	0.29	22.39	50.00	27.61	
Neutral	0.151	45.23	0.15	45.38	65.96	20.58	QP
	0.207	44.77	0.15	44.92	63.32	18.40	
	0.277	37.91	0.15	38.06	60.90	22.84	
	0.343	36.55	0.16	36.71	59.13	22.42	
	2.809	34.34	0.24	34.58	56.00	21.42	
	5.476	37.20	0.25	37.45	60.00	22.55	
	0.151	31.23	0.15	31.38	55.96	24.58	AV
	0.207	36.77	0.15	36.92	53.32	16.40	
	0.277	27.91	0.15	28.06	50.90	22.84	
	0.343	25.55	0.16	25.71	49.13	23.42	
	2.809	25.34	0.24	25.58	46.00	20.42	
	5.476	23.20	0.25	23.45	50.00	26.55	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	0.153	44.62	0.18	44.80	65.82	21.02	QP
	0.206	43.76	0.15	43.91	63.36	19.45	
	0.274	36.48	0.15	36.63	60.98	24.35	
	0.343	36.16	0.16	36.32	59.13	22.81	
	2.884	36.86	0.27	37.13	56.00	18.87	
	6.024	38.22	0.29	38.51	60.00	21.49	
	0.153	33.62	0.18	33.80	55.82	22.02	AV
	0.206	31.76	0.15	31.91	53.36	21.45	
	0.274	27.48	0.15	27.63	50.98	23.35	
	0.343	22.16	0.16	22.32	49.13	26.81	
	2.884	24.86	0.27	25.13	46.00	20.87	
	6.024	25.22	0.29	25.51	50.00	24.49	
Neutral	0.151	46.23	0.15	46.38	65.96	19.58	QP
	0.207	44.77	0.15	44.92	63.32	18.40	
	0.277	37.91	0.15	38.06	60.90	22.84	
	0.343	36.55	0.16	36.71	59.13	22.42	
	2.809	34.34	0.24	34.58	56.00	21.42	
	5.476	37.20	0.25	37.45	60.00	22.55	
	0.151	34.23	0.15	34.38	55.96	21.58	AV
	0.207	32.77	0.15	32.92	53.32	20.40	
	0.277	25.91	0.15	26.06	50.90	24.84	
	0.343	22.55	0.16	22.71	49.13	26.42	
	2.809	21.34	0.24	21.58	46.00	24.42	
	5.476	22.20	0.25	22.45	50.00	27.55	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.207	47.09	0.15	47.24	63.32	16.08	QP
	0.277	39.08	0.15	39.23	60.90	21.67	
	0.343	36.39	0.16	36.55	59.13	22.58	
	2.750	37.66	0.27	37.93	56.00	18.07	
	2.946	36.81	0.27	37.08	56.00	18.92	
	6.024	38.57	0.29	38.86	60.00	21.14	
	0.207	42.09	0.15	42.24	53.32	11.08	AV
	0.277	34.08	0.15	34.23	50.90	16.67	
	0.343	31.39	0.16	31.55	49.13	17.58	
	2.750	32.66	0.27	32.93	46.00	13.07	
	2.946	31.81	0.27	32.08	46.00	13.92	
	6.024	33.57	0.29	33.86	50.00	16.14	
Neutral	0.158	49.81	0.15	49.96	65.56	15.60	QP
	0.206	48.10	0.15	48.25	63.36	15.11	
	0.239	42.51	0.15	42.66	62.13	19.47	
	0.346	39.97	0.16	40.13	59.05	18.92	
	2.750	34.03	0.24	34.27	56.00	21.73	
	5.139	35.67	0.25	35.92	60.00	24.08	
	0.158	45.81	0.15	45.96	55.56	9.60	AV
	0.206	43.10	0.15	43.25	53.36	10.11	
	0.239	37.51	0.15	37.66	52.13	14.47	
	0.346	34.97	0.16	35.13	49.05	13.92	
	2.750	29.03	0.24	29.27	46.00	16.73	
	5.139	30.67	0.25	30.92	50.00	19.08	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.207	47.35	0.15	47.50	63.32	15.82	QP
	0.222	40.71	0.15	40.86	62.74	21.88	
	0.270	38.56	0.15	38.71	61.12	22.41	
	0.341	36.83	0.16	36.99	59.18	22.19	
	2.750	37.91	0.27	38.18	56.00	17.82	
	6.024	38.51	0.29	38.80	60.00	21.20	
	0.207	42.35	0.15	42.50	53.32	10.82	AV
	0.221	35.43	0.15	35.58	52.79	17.21	
	0.270	33.56	0.15	33.71	51.12	17.41	
	0.341	31.83	0.16	31.99	49.18	17.19	
	2.750	32.91	0.27	33.18	46.00	12.82	
	6.024	33.51	0.29	33.80	50.00	16.20	
Neutral	0.203	47.88	0.15	48.03	63.49	15.46	QP
	0.343	39.57	0.16	39.73	59.13	19.40	
	0.413	35.34	0.17	35.51	57.59	22.08	
	0.637	34.29	0.18	34.47	56.00	21.53	
	2.750	35.30	0.24	35.54	56.00	20.46	
	5.476	36.58	0.25	36.83	60.00	23.17	
	0.203	42.88	0.15	43.03	53.49	10.46	AV
	0.343	33.57	0.16	33.73	49.13	15.40	
	0.413	30.34	0.17	30.51	47.59	17.08	
	0.637	28.29	0.18	28.47	46.00	17.53	
	2.750	31.30	0.24	31.54	46.00	14.46	
	5.476	32.58	0.25	32.83	50.00	17.17	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 1680*1050@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.207	46.99	0.15	47.14	63.32	16.18	QP
	0.273	39.40	0.15	39.55	61.03	21.48	
	0.343	35.86	0.16	36.02	59.13	23.11	
	0.686	29.25	0.18	29.43	56.00	26.57	
	2.750	37.78	0.27	38.05	56.00	17.95	
	6.024	39.95	0.29	40.24	60.00	19.76	
	0.207	42.99	0.15	43.14	53.32	10.18	AV
	0.273	33.40	0.15	33.55	51.03	17.48	
	0.343	31.86	0.16	32.02	49.13	17.11	
	0.686	24.25	0.18	24.43	46.00	21.57	
	2.750	33.78	0.27	34.05	46.00	11.95	
	6.024	35.95	0.29	36.24	50.00	13.76	
Neutral	0.163	48.85	0.15	49.00	65.30	16.30	QP
	0.203	48.07	0.15	48.22	63.49	15.27	
	0.246	42.65	0.15	42.80	61.91	19.11	
	0.346	38.77	0.16	38.93	59.05	20.12	
	1.374	32.81	0.19	33.00	56.00	23.00	
	2.946	35.43	0.24	35.67	56.00	20.33	
	0.163	44.85	0.15	45.00	55.30	10.30	AV
	0.203	44.07	0.15	44.22	53.49	9.27	
	0.246	38.65	0.15	38.80	51.91	13.11	
	0.346	34.77	0.16	34.93	49.05	14.12	
	1.374	28.81	0.19	29.00	46.00	17.00	
	2.946	31.43	0.24	31.67	46.00	14.33	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.204	46.25	0.15	46.40	63.45	17.05	QP
	0.273	39.96	0.15	40.11	61.03	20.92	
	0.343	36.20	0.16	36.36	59.13	22.77	
	0.686	29.27	0.18	29.45	56.00	26.55	
	2.809	36.57	0.27	36.84	56.00	19.16	
	6.024	38.71	0.29	39.00	60.00	21.00	
	0.204	42.25	0.15	42.40	53.45	11.05	AV
	0.273	33.96	0.15	34.11	51.03	16.92	
	0.343	32.20	0.16	32.36	49.13	16.77	
	0.686	23.27	0.18	23.45	46.00	22.55	
	2.809	29.57	0.27	29.84	46.00	16.16	
	6.024	31.71	0.29	32.00	50.00	18.00	
Neutral	0.203	47.13	0.15	47.28	63.49	16.21	QP
	0.242	42.28	0.15	42.43	62.04	19.61	
	0.341	37.92	0.16	38.08	59.18	21.10	
	0.413	36.30	0.17	36.47	57.59	21.12	
	0.637	34.05	0.18	34.23	56.00	21.77	
	2.946	35.59	0.24	35.83	56.00	20.17	
	0.203	42.13	0.15	42.28	53.49	11.21	AV
	0.242	37.28	0.15	37.43	52.04	14.61	
	0.341	33.92	0.16	34.08	49.18	15.10	
	0.413	30.30	0.17	30.47	47.59	17.12	
	0.637	28.05	0.18	28.23	46.00	17.77	
	2.946	29.59	0.24	29.83	46.00	16.17	

TEST ENGINEER: TOM SI

4 RADIATED EMISSION TEST

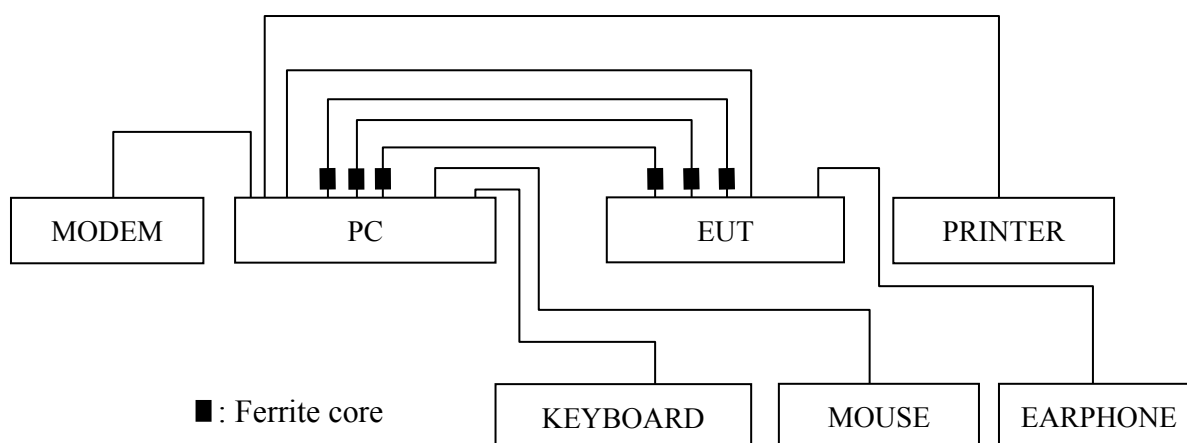
4.1 Test Equipment

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

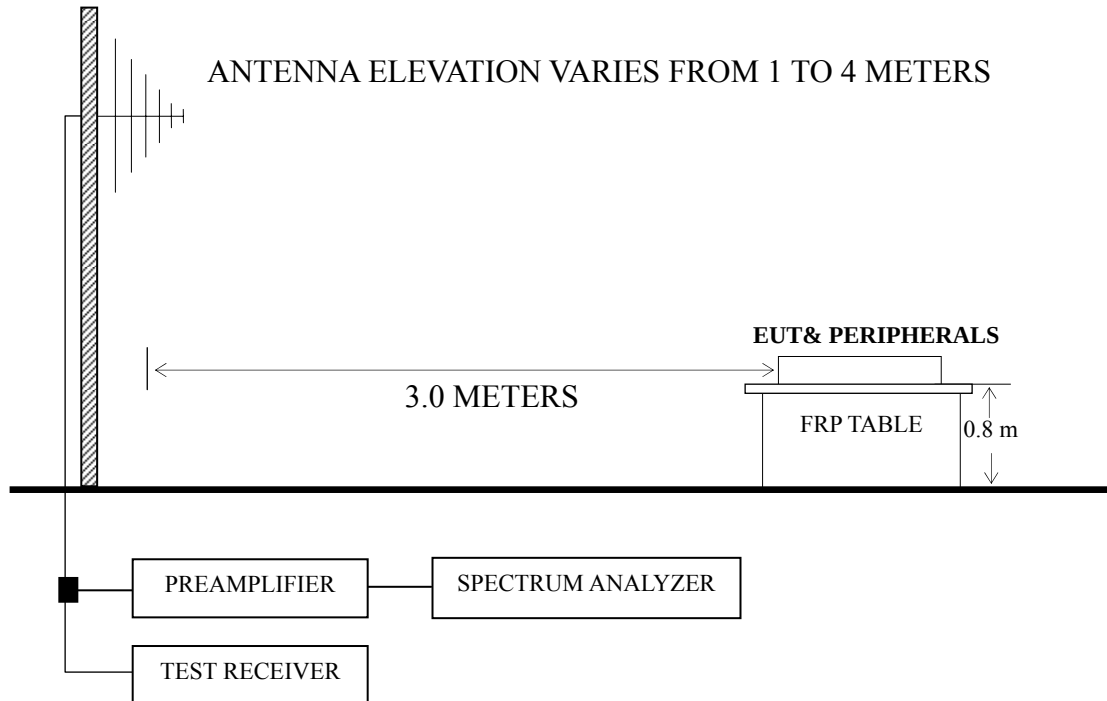
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Oct 26, 2007	Oct 26, 2008
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 19, 2008	Sep 19, 2008
3.	Preamplifier	HP	8449B	3008A00864	Apr 06, 2008	Apr 06, 2009
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2009
5.	Spectrum	Agilent	E7405A	MY45106600	Apr 06, 2008	Apr 06, 2009
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 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/DVI/HDMI 1680*1050@60Hz & D-Sub/DVI/HDMI 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	P29
D-Sub 1024*768@60Hz	P30
D-Sub 1680*1050@60Hz	P31
D-Sub 1920*1080@60Hz	P32
DVI 640*480@60Hz	P33
DVI 1024*768@60Hz	P34
DVI 1680*1050@60Hz	P35
DVI 1920*1080@60Hz	P36
HDMI 640*480@60Hz	P37
HDMI 1024*768@60Hz	P38
HDMI 1680*1050@60Hz	P39
HDMI 1920*1080@60Hz	P40
DVI 640*480@60Hz (Rotate 90 degree)	P41

- NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.($< 1\text{GHz}$)
- NOTE 2 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading.($> 1\text{GHz}$)
- NOTE 3 – The emission levels that are 20dB below the official limit are not reported.
- NOTE 4 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
- NOTE 5 – 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 6 – The worst case is for DVI 640*480@60Hz test mode. The worst emission at horizontal polarization was detected at 56.190 MHz with corrected signal level of 36.10 dB ($\mu\text{V/m}$) (limit is 40.00 dB ($\mu\text{V/m}$)), when the antenna was 1.10 m height and the turntable was at 285° . The worst emission at vertical polarization was detected at 87.230 MHz with corrected signal level of 36.62 dB ($\mu\text{V/m}$) (limit is 40.00 dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 70° .

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	50.370	20.79	8.85	0.99	30.63	40.00	9.37
	75.590	23.13	7.24	1.47	31.84	40.00	8.16
	79.470	22.85	7.72	1.52	32.09	40.00	7.91
	100.810	22.01	11.57	1.70	35.28	43.50	8.22
	236.610	22.02	12.40	2.68	37.10	46.00	8.90
	345.250	16.73	15.20	3.35	35.28	46.00	10.72
Vertical	33.880	11.78	17.44	0.93	30.15	40.00	9.85
	43.580	18.71	11.88	0.97	31.56	40.00	8.44
	88.200	19.55	9.13	1.59	30.27	43.50	13.23
	117.300	13.44	12.84	1.84	28.12	43.50	15.38
	127.970	15.94	12.63	1.93	30.50	43.50	13.00
	317.120	15.29	14.35	3.21	32.85	46.00	13.15

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	139.610	23.95	12.12	2.01	38.08	43.50	5.42
	218.180	20.84	11.52	2.52	34.88	46.00	11.12
	237.580	19.50	12.44	2.68	34.62	46.00	11.38
	301.600	18.38	13.97	3.13	35.48	46.00	10.52
	408.300	21.23	16.62	3.64	41.49	46.00	4.51
	416.060	21.90	16.72	3.67	42.29	46.00	3.71
Vertical	53.280	26.56	8.14	1.07	35.77	40.00	4.23
	89.170	22.81	9.24	1.60	33.65	43.50	9.85
	96.930	24.37	10.87	1.67	36.91	43.50	6.59
	125.060	17.96	12.76	1.90	32.62	43.50	10.88
	139.610	21.93	12.12	2.01	36.06	43.50	7.44
	196.840	24.43	10.57	2.31	37.31	43.50	6.19

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	139.610	20.99	12.12	2.01	--	35.12	43.50	8.38	QP
	230.790	18.01	12.15	2.64	--	32.80	46.00	13.20	
	238.550	16.60	12.48	2.71	--	31.79	46.00	14.21	
	416.060	15.73	16.72	3.67	--	36.12	46.00	9.88	
	480.080	14.14	17.65	3.92	--	35.71	46.00	10.29	
	559.620	14.20	18.72	4.14	--	37.06	46.00	8.94	
	1207.000	51.99	22.85	6.79	37.15	44.48	74.00	29.52	PK
	1550.000	48.20	25.17	7.48	36.44	44.41	74.00	29.59	
	1608.000	47.46	25.45	7.76	36.32	44.35	74.00	29.65	
	1674.000	48.37	26.02	8.12	36.21	46.30	74.00	27.70	
	1789.000	48.23	25.85	8.58	36.02	46.64	74.00	27.36	
	1908.000	46.94	27.18	8.98	35.83	47.27	74.00	26.73	
Vertical	54.250	26.99	7.92	1.09	--	36.00	40.00	4.00	QP
	96.930	23.45	10.87	1.67	--	35.99	43.50	7.51	
	139.610	20.59	12.12	2.01	--	34.72	43.50	8.78	
	153.190	23.52	11.04	2.10	--	36.66	43.50	6.84	
	163.860	21.65	10.40	2.16	--	34.21	43.50	9.29	
	210.420	19.83	11.18	2.43	--	33.44	43.50	10.06	
	1159.000	48.30	22.55	6.63	37.28	40.20	74.00	33.80	PK
	1225.000	47.46	23.00	6.82	37.11	40.17	74.00	33.83	
	1610.000	45.41	25.45	7.76	36.32	42.30	74.00	31.70	
	1714.000	44.60	26.27	8.36	36.14	43.09	74.00	30.91	
	1789.000	45.86	25.85	8.58	36.02	44.27	74.00	29.73	
	1915.000	46.26	27.31	8.98	35.82	46.73	74.00	27.27	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	135.730	21.94	12.28	1.98	--	36.20	43.50	7.30	QP
	138.640	22.60	12.17	2.00	--	36.77	43.50	6.73	
	229.820	21.68	12.11	2.62	--	36.41	46.00	9.59	
	236.610	22.78	12.40	2.68	--	37.86	46.00	8.14	
	408.300	15.54	16.62	3.64	--	35.80	46.00	10.20	
	416.060	16.02	16.72	3.67	--	36.41	46.00	9.59	
	1041.000	49.62	22.39	6.18	37.59	40.60	74.00	33.40	PK
	1208.000	53.11	22.85	6.79	37.15	45.60	74.00	28.40	
	1608.000	47.25	25.45	7.76	36.32	44.14	74.00	29.86	
	1675.000	46.95	26.02	8.12	36.21	44.88	74.00	29.12	
	1789.000	48.89	25.85	8.58	36.02	47.30	74.00	26.70	
	1908.000	46.35	27.18	8.98	35.83	46.68	74.00	27.32	
Vertical	96.930	23.42	10.87	1.67	--	35.96	43.50	7.54	QP
	138.640	21.60	12.17	2.00	--	35.77	43.50	7.73	
	229.820	22.68	12.11	2.62	--	37.41	46.00	8.59	
	280.260	15.57	13.55	3.00	--	32.12	46.00	13.88	
	326.820	16.74	14.66	3.27	--	34.67	46.00	11.33	
	355.920	16.11	15.49	3.40	--	35.00	46.00	11.00	
	1170.000	48.14	23.00	6.67	37.25	40.56	74.00	33.44	PK
	1229.000	48.41	23.05	6.82	37.10	41.18	74.00	32.82	
	1608.000	45.71	25.45	7.76	36.32	42.60	74.00	31.40	
	1694.000	43.70	26.14	8.30	36.18	41.96	74.00	32.04	
	1789.000	47.04	25.85	8.58	36.02	45.45	74.00	28.55	
	1915.000	43.81	27.31	8.98	35.82	44.28	74.00	29.72	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	56.190	27.51	7.46	1.13	36.10	40.00	3.90
	75.590	27.13	7.24	1.47	35.84	40.00	4.16
	79.470	26.85	7.72	1.52	36.09	40.00	3.91
	92.080	26.85	9.82	1.62	38.29	43.50	5.21
	109.540	22.46	12.25	1.78	36.49	43.50	7.01
	138.640	24.56	12.17	2.00	38.73	43.50	4.77
Vertical	30.970	16.27	19.03	0.91	36.21	40.00	3.79
	54.250	27.19	7.92	1.09	36.20	40.00	3.80
	80.440	24.21	7.85	1.52	33.58	40.00	6.42
	87.230	26.07	8.96	1.59	36.62	40.00	3.38
	153.190	25.81	11.04	2.10	38.95	43.50	4.55
	372.410	19.81	15.92	3.48	39.21	46.00	6.79

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	212.360	25.12	11.26	2.46	38.84	43.50	4.66
	237.580	23.50	12.44	2.68	38.62	46.00	7.38
	312.270	21.51	14.24	3.18	38.93	46.00	7.07
	416.060	21.90	16.72	3.67	42.29	46.00	3.71
	480.080	16.85	17.65	3.92	38.42	46.00	7.58
	526.640	17.35	18.24	4.06	39.65	46.00	6.35
Vertical	42.610	20.27	12.39	0.96	33.62	40.00	6.38
	53.280	25.56	8.14	1.07	34.77	40.00	5.23
	89.170	24.81	9.24	1.60	35.65	43.50	7.85
	96.930	24.37	10.87	1.67	36.91	43.50	6.59
	139.610	22.93	12.12	2.01	37.06	43.50	6.44
	153.190	23.58	11.04	2.10	36.72	43.50	6.78

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	33.880	15.02	17.44	0.93	--	33.39	40.00	6.61	QP
	37.760	18.06	15.20	0.95	--	34.21	40.00	5.79	
	139.610	21.99	12.12	2.01	--	36.12	43.50	7.38	
	230.790	21.01	12.15	2.64	--	35.80	46.00	10.20	
	369.500	17.21	15.84	3.47	--	36.52	46.00	9.48	
	416.060	17.73	16.72	3.67	--	38.12	46.00	7.88	
	1207.000	51.99	22.85	6.79	37.15	44.48	74.00	29.52	PK
	1550.000	48.20	25.17	7.48	36.44	44.41	74.00	29.59	
	1608.000	47.46	25.45	7.76	36.32	44.35	74.00	29.65	
	1674.000	48.37	26.02	8.12	36.21	46.30	74.00	27.70	
	1789.000	48.23	25.85	8.58	36.02	46.64	74.00	27.36	
	1908.000	46.94	27.18	8.98	35.83	47.27	74.00	26.73	
Vertical	54.250	21.99	7.92	1.09	--	31.00	40.00	9.00	QP
	70.740	20.22	6.58	1.43	--	28.23	40.00	11.77	
	96.930	17.45	10.87	1.67	--	29.99	43.50	13.51	
	139.610	16.59	12.12	2.01	--	30.72	43.50	12.78	
	163.860	20.65	10.40	2.16	--	33.21	43.50	10.29	
	210.420	24.83	11.18	2.43	--	38.44	43.50	5.06	
	1159.000	48.30	22.55	6.63	37.28	40.20	74.00	33.80	PK
	1225.000	47.46	23.00	6.82	37.11	40.17	74.00	33.83	
	1610.000	45.41	25.45	7.76	36.32	42.30	74.00	31.70	
	1714.000	44.60	26.27	8.36	36.14	43.09	74.00	30.91	
	1789.000	45.86	25.85	8.58	36.02	44.27	74.00	29.73	
	1915.000	46.26	27.31	8.98	35.82	46.73	74.00	27.27	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

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	53.280	23.63	8.14	1.07	--	32.84	40.00	7.16	QP
	69.770	24.85	6.50	1.41	--	32.76	40.00	7.24	
	76.560	26.26	7.36	1.49	--	35.11	40.00	4.89	
	109.540	19.47	12.25	1.78	--	33.50	43.50	10.00	
	211.390	25.02	11.22	2.46	--	38.70	43.50	4.80	
	236.610	23.78	12.40	2.68	--	38.86	46.00	7.14	
	1041.000	49.62	22.39	6.18	37.59	40.60	74.00	33.40	PK
	1208.000	53.11	22.85	6.79	37.15	45.60	74.00	28.40	
	1608.000	47.25	25.45	7.76	36.32	44.14	74.00	29.86	
	1675.000	46.95	26.02	8.12	36.21	44.88	74.00	29.12	
	1789.000	48.89	25.85	8.58	36.02	47.30	74.00	26.70	
	1908.000	46.35	27.18	8.98	35.83	46.68	74.00	27.32	
Vertical	42.610	19.66	12.39	0.96	--	33.01	40.00	6.99	QP
	53.280	24.85	8.14	1.07	--	34.06	40.00	5.94	
	96.930	25.42	10.87	1.67	--	37.96	43.50	5.54	
	138.640	23.60	12.17	2.00	--	37.77	43.50	5.73	
	211.390	24.02	11.22	2.46	--	37.70	43.50	5.80	
	229.820	25.68	12.11	2.62	--	40.41	46.00	5.59	
	1170.000	48.14	23.00	6.67	37.25	40.56	74.00	33.44	PK
	1229.000	48.41	23.05	6.82	37.10	41.18	74.00	32.82	
	1608.000	45.71	25.45	7.76	36.32	42.60	74.00	31.40	
	1694.000	43.70	26.14	8.30	36.18	41.96	74.00	32.04	
	1789.000	47.04	25.85	8.58	36.02	45.45	74.00	28.55	
	1915.000	43.81	27.31	8.98	35.82	44.28	74.00	29.72	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 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	75.590	27.13	7.24	1.47	35.84	40.00	4.16
	97.900	23.46	11.11	1.68	36.25	43.50	7.25
	138.640	23.56	12.17	2.00	37.73	43.50	5.77
	204.600	24.04	10.89	2.37	37.30	43.50	6.20
	229.820	25.53	12.11	2.62	40.26	46.00	5.74
	236.610	26.02	12.40	2.68	41.10	46.00	4.90
Vertical	30.970	16.27	19.03	0.91	36.21	40.00	3.79
	54.250	27.19	7.92	1.09	36.20	40.00	3.80
	68.800	26.41	6.51	1.39	34.31	40.00	5.69
	97.900	24.11	11.11	1.68	36.90	43.50	6.60
	136.700	23.27	12.23	1.98	37.48	43.50	6.02
	153.190	24.81	11.04	2.10	37.95	43.50	5.55

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 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	30.970	15.21	19.03	0.91	35.15	40.00	4.85
	42.610	21.87	12.39	0.96	35.22	40.00	4.78
	53.280	22.74	8.14	1.07	31.95	40.00	8.05
	74.620	27.53	7.11	1.46	36.10	40.00	3.90
	96.930	22.50	10.87	1.67	35.04	43.50	8.46
	139.610	25.95	12.12	2.01	40.08	43.50	3.42
Vertical	96.930	21.37	10.87	1.67	33.91	43.50	9.59
	153.190	20.58	11.04	2.10	33.72	43.50	9.78
	229.820	19.02	12.11	2.62	33.75	46.00	12.25
	363.680	16.64	15.69	3.45	35.78	46.00	10.22
	480.080	16.05	17.65	3.92	37.62	46.00	8.38
	510.150	16.95	18.04	4.02	39.01	46.00	6.99

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 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	135.730	22.25	12.28	1.98	--	36.51	43.50	6.99	QP
	246.310	21.04	12.75	2.77	--	36.56	46.00	9.44	
	344.280	22.83	15.16	3.35	--	41.34	46.00	4.66	
	480.080	20.14	17.65	3.92	--	41.71	46.00	4.29	
	593.570	17.13	19.14	4.22	--	40.49	46.00	5.51	
	694.450	15.14	19.67	4.78	--	39.59	46.00	6.41	
	1207.000	51.99	22.85	6.79	37.15	44.48	74.00	29.52	PK
	1550.000	48.20	25.17	7.48	36.44	44.41	74.00	29.59	
	1608.000	47.46	25.45	7.76	36.32	44.35	74.00	29.65	
	1674.000	48.37	26.02	8.12	36.21	46.30	74.00	27.70	
	1789.000	48.23	25.85	8.58	36.02	46.64	74.00	27.36	
	1908.000	46.94	27.18	8.98	35.83	47.27	74.00	26.73	
Vertical	54.250	24.99	7.92	1.09	--	34.00	40.00	6.00	QP
	70.740	23.22	6.58	1.43	--	31.23	40.00	8.77	
	81.410	21.69	8.02	1.53	--	31.24	40.00	8.76	
	96.930	20.45	10.87	1.67	--	32.99	43.50	10.51	
	510.150	18.13	18.04	4.02	--	40.19	46.00	5.81	
	54.250	24.99	7.92	1.09	--	34.00	40.00	6.00	PK
	1159.000	48.30	22.55	6.63	37.28	40.20	74.00	33.80	
	1225.000	47.46	23.00	6.82	37.11	40.17	74.00	33.83	
	1610.000	45.41	25.45	7.76	36.32	42.30	74.00	31.70	
	1714.000	44.60	26.27	8.36	36.14	43.09	74.00	30.91	
	1789.000	45.86	25.85	8.58	36.02	44.27	74.00	29.73	
	1915.000	46.26	27.31	8.98	35.82	46.73	74.00	27.27	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : HDMI 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	40.670	18.52	13.62	0.96	--	33.10	40.00	6.90	QP
	74.620	22.70	7.11	1.46	--	31.27	40.00	8.73	
	138.640	24.60	12.17	2.00	--	38.77	43.50	4.73	
	193.930	24.25	10.44	2.30	--	36.99	43.50	6.51	
	211.390	25.02	11.22	2.46	--	38.70	43.50	4.80	
	236.610	24.78	12.40	2.68	--	39.86	46.00	6.14	
	1041.000	49.62	22.39	6.18	37.59	40.60	74.00	33.40	PK
	1208.000	53.11	22.85	6.79	37.15	45.60	74.00	28.40	
	1608.000	47.25	25.45	7.76	36.32	44.14	74.00	29.86	
	1675.000	46.95	26.02	8.12	36.21	44.88	74.00	29.12	
	1789.000	48.89	25.85	8.58	36.02	47.30	74.00	26.70	
	1908.000	46.35	27.18	8.98	35.83	46.68	74.00	27.32	
Vertical	53.280	23.85	8.14	1.07	--	33.06	40.00	6.94	QP
	97.900	25.97	11.11	1.68	--	38.76	43.50	4.74	
	138.640	22.60	12.17	2.00	--	36.77	43.50	6.73	
	172.590	23.72	10.11	2.20	--	36.03	43.50	7.47	
	211.390	25.02	11.22	2.46	--	38.70	43.50	4.80	
	303.540	21.93	14.00	3.13	--	39.06	46.00	6.94	
	1170.000	48.14	23.00	6.67	37.25	40.56	74.00	33.44	PK
	1229.000	48.41	23.05	6.82	37.10	41.18	74.00	32.82	
	1608.000	45.71	25.45	7.76	36.32	42.60	74.00	31.40	
	1694.000	43.70	26.14	8.30	36.18	41.96	74.00	32.04	
	1789.000	47.04	25.85	8.58	36.02	45.45	74.00	28.55	
	1915.000	43.81	27.31	8.98	35.82	44.28	74.00	29.72	

TEST ENGINEER: JACKY CHEN

EUT : LCD Monitor Temperature : 22°C

Model No. : W2442PAT Humidity : 60%RH

Serial No. : E08072301 Date of Test : Jul 29, 2008

Test Mode : DVI 640*480@60Hz
(Rotate 90 degree)

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	52.310	19.67	8.41	1.04	29.12	40.00	10.88
	77.530	23.48	7.49	1.50	32.47	40.00	7.53
	99.840	18.29	11.42	1.69	31.40	43.50	12.10
	139.610	17.71	12.12	2.01	31.84	43.50	11.66
	162.890	18.36	10.42	2.15	30.93	43.50	12.57
	204.600	22.18	10.89	2.37	35.44	43.50	8.06
Vertical	55.220	25.76	7.69	1.12	34.57	40.00	5.43
	80.440	25.86	7.85	1.52	35.23	40.00	4.77
	89.170	24.95	9.24	1.60	35.79	43.50	7.71
	96.930	24.60	10.87	1.67	37.14	43.50	6.36
	236.610	22.30	12.40	2.68	37.38	46.00	8.62
	480.080	17.32	17.65	3.92	38.89	46.00	7.11

TEST ENGINEER: JACKY CHEN

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
Conductive Tape	7250CP0005J	50*60	EXPAN	See Internal Photos 18
Aluminum foil	MCQ57884401	250*9*1	EXPAN	See Internal Photos 19