

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

LCD Monitor

Model No.: W2254VQV

Serial No.: 811NDPH6R704

FCC ID : BEJW2254HQV

Prepared For : LG Electronics U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs,
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Report No. : ACI-F09011
Date of Test : Jan 23 – 24, 2009
Date of Report : Feb 01, 2009

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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. : W2254VQV
(B) Serial No. : 811NDPH6R704
(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: W2254VQV; S/N: 811NDPH6R704) which was tested in 3m anechoic chamber Jan 23 – 24, 2009 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 23 – 24, 2009 Date of Report : Feb 01, 2009

Producer : Zeno Gu
ZENO GU / Assistant

Review : Dio Yang
DIO YANG / Supervisor

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

.....
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.	:	W2254VQV
Serial No.	:	811NDPH6R704
Real Power	:	30.00W
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 : LM220WE1 (TL) (E1)
Max Resolution	:	D-Sub/DVI 1680*1050@60Hz HDMI 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, without core
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 HDMI Port | : Connected with PC |
| (4) One Earphone Port | : Connected with Earphone |
| (5) One AC In Port | : Connected with Power |

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : dx6120MT
Serial Number : CNG53004J2
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 : SONY
Model Number : MDR-E808
Serial Number : 1808030805305063
Data Cable : Unshielded, Undetachable, 2.0m

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

3 CONDUCTED EMISSION TEST

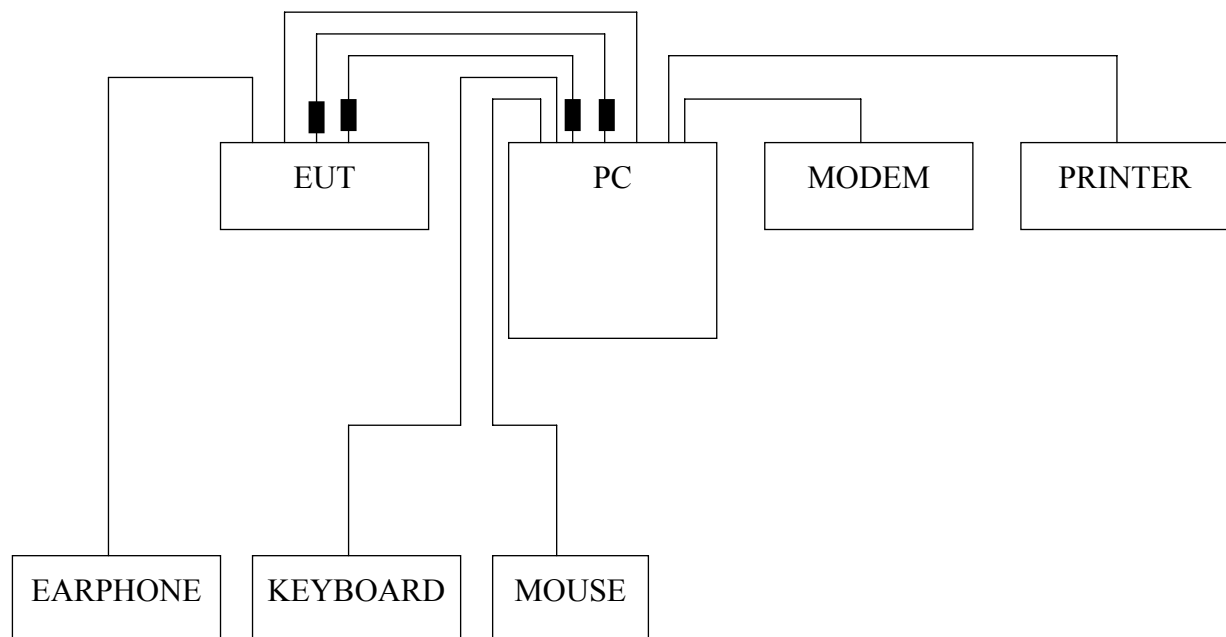
3.1.1 Test Equipment

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	ESHS10	830223/007	Apr 02, 2008	Apr 02, 2009
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Apr 02, 2008	Apr 02, 2009
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 02, 2008	Apr 02, 2009
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 19, 2008	Mar 19, 2009
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 02, 2008	Apr 02, 2009
6.	Software	Audix	E3	SET00200 9804M592	--	--

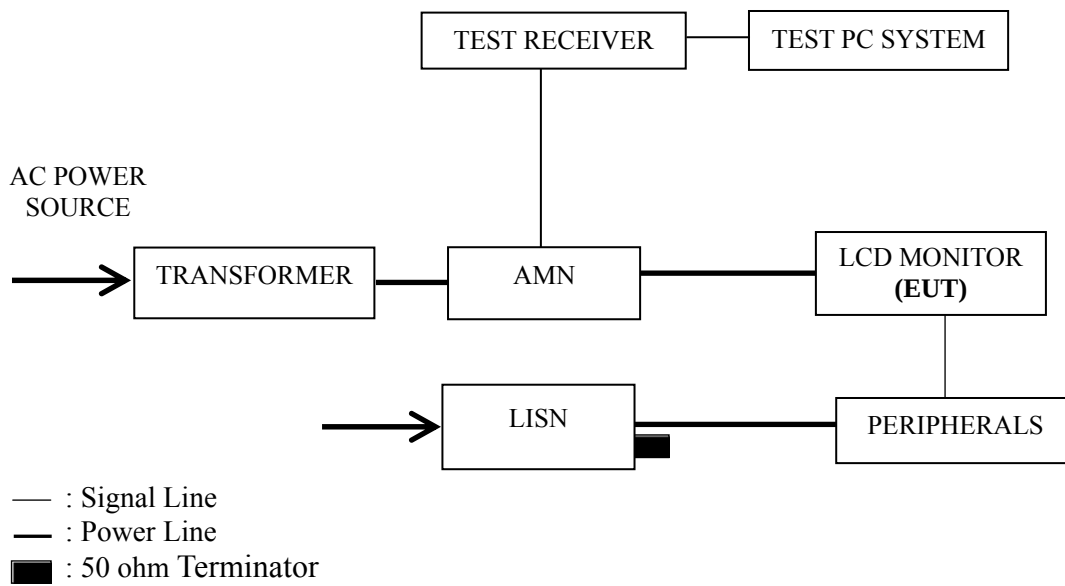
3.2 Block Diagram of Test Setup

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 In HDMI mode, PC system played music and sent audio signal to EUT through the HDMI 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
DVI 640*480@60Hz
DVI 1024*768@60Hz
DVI 1680*1050@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
DVI 640*480@60Hz	P16
DVI 1024*768@60Hz	P17
DVI 1680*1050@60Hz	P18
HDMI 640*480@60Hz	P19
HDMI 1024*768@60Hz	P20
HDMI 1680*1050@60Hz	P21
HDMI 1920*1080@60Hz	P22

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 D-Sub 1680*1050@60Hz test mode. The worst emission is detected at 0.155 MHz (Average Value) with corrected signal level of 51.79 dB (μV) (limit is 55.74 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	59.69	0.22	59.91	65.74	5.83	QP
	0.234	47.20	0.21	47.41	62.30	14.89	
	0.665	36.43	0.22	36.65	56.00	19.35	
	1.790	25.75	0.28	26.03	56.00	29.97	
	6.454	35.14	0.49	35.63	60.00	24.37	
	20.486	36.76	0.74	37.50	60.00	22.50	
	0.155	51.02	0.22	51.24	55.74	4.50	AV
	0.234	40.26	0.21	40.47	52.30	11.83	
	0.665	30.31	0.22	30.53	46.00	15.47	
	1.790	21.32	0.28	21.60	46.00	24.40	
	6.454	28.59	0.49	29.08	50.00	20.92	
	20.486	30.12	0.74	30.86	50.00	19.14	
Neutral	0.155	60.43	0.19	60.62	65.74	5.12	QP
	0.233	47.87	0.21	48.08	62.35	14.27	
	1.480	28.46	0.26	28.72	56.00	27.28	
	4.501	38.10	0.34	38.44	56.00	17.56	
	10.733	38.69	0.59	39.28	60.00	20.72	
	22.180	43.86	0.62	44.48	60.00	15.52	
	0.155	51.50	0.19	51.69	55.74	4.05	AV
	0.233	40.10	0.21	40.31	52.35	12.04	
	1.480	22.30	0.26	22.56	46.00	23.44	
	4.501	32.30	0.34	32.64	46.00	13.36	
	10.733	32.13	0.59	32.72	50.00	17.28	
	22.180	37.40	0.62	38.02	50.00	11.98	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	59.81	0.22	60.03	65.74	5.71	QP
	0.234	47.33	0.21	47.54	62.30	14.76	
	0.665	35.86	0.22	36.08	56.00	19.92	
	1.480	25.30	0.29	25.59	56.00	30.41	
	6.454	34.90	0.49	35.39	60.00	24.61	
	22.298	38.03	0.80	38.83	60.00	21.17	
	0.155	51.30	0.22	51.52	55.74	4.22	AV
	0.234	41.08	0.21	41.29	52.30	11.01	
	0.665	29.46	0.22	29.68	46.00	16.32	
	1.480	20.10	0.29	20.39	46.00	25.61	
	6.454	28.44	0.49	28.93	50.00	21.07	
	22.298	31.21	0.80	32.01	50.00	17.99	
Neutral	0.155	60.07	0.19	60.26	65.74	5.48	QP
	0.233	47.49	0.21	47.70	62.35	14.65	
	1.949	25.31	0.24	25.55	56.00	30.45	
	4.772	37.23	0.35	37.58	56.00	18.42	
	11.559	38.75	0.59	39.34	60.00	20.66	
	22.535	42.88	0.63	43.51	60.00	16.49	
	0.155	50.50	0.19	50.69	55.74	5.05	AV
	0.233	40.60	0.21	40.81	52.35	11.54	
	1.949	20.10	0.24	20.34	46.00	25.66	
	4.772	32.10	0.35	32.45	46.00	13.55	
	11.559	32.60	0.59	33.19	50.00	16.81	
	22.535	35.80	0.63	36.43	50.00	13.57	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	59.81	0.22	60.03	65.74	5.71	QP
	0.234	46.58	0.21	46.79	62.30	15.51	
	1.790	25.17	0.28	25.45	56.00	30.55	
	4.136	30.95	0.36	31.31	56.00	24.69	
	15.146	30.52	0.71	31.23	60.00	28.77	
	20.924	38.58	0.76	39.34	60.00	20.66	
	0.155	49.80	0.22	50.02	55.74	5.72	AV
	0.234	40.50	0.21	40.71	52.30	11.59	
	1.790	20.50	0.28	20.78	46.00	25.22	
	4.136	24.50	0.36	24.86	46.00	21.14	
	15.146	24.60	0.71	25.31	50.00	24.69	
	20.924	32.50	0.76	33.26	50.00	16.74	
Neutral	0.155	60.13	0.19	60.32	65.74	5.42	QP
	0.234	47.35	0.21	47.56	62.30	14.74	
	0.661	34.24	0.22	34.46	56.00	21.54	
	3.661	33.60	0.32	33.92	56.00	22.08	
	11.996	37.74	0.58	38.32	60.00	21.68	
	23.018	42.58	0.64	43.22	60.00	16.78	
	0.155	51.60	0.19	51.79	55.74	3.95	AV
	0.234	41.50	0.21	41.71	52.30	10.59	
	0.661	27.90	0.22	28.12	46.00	17.88	
	3.661	26.00	0.32	26.32	46.00	19.68	
	11.996	31.86	0.58	32.44	50.00	17.56	
	23.018	35.40	0.64	36.04	50.00	13.96	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	59.10	0.22	59.32	65.74	6.42	QP
	0.234	46.44	0.21	46.65	62.30	15.65	
	0.661	36.41	0.22	36.63	56.00	19.37	
	4.070	33.62	0.36	33.98	56.00	22.02	
	11.198	30.54	0.63	31.17	60.00	28.83	
	21.600	38.75	0.78	39.53	60.00	20.47	
	0.155	50.09	0.22	50.31	55.74	5.43	AV
	0.234	39.29	0.21	39.50	52.30	12.80	
	0.661	30.40	0.22	30.62	46.00	15.38	
	4.070	26.30	0.36	26.66	46.00	19.34	
	11.198	25.31	0.63	25.94	50.00	24.06	
	21.600	32.61	0.78	33.39	50.00	16.61	
Neutral	0.156	58.60	0.19	58.79	65.65	6.86	QP
	0.234	46.48	0.21	46.69	62.30	15.61	
	3.346	32.43	0.31	32.74	56.00	23.26	
	3.901	38.20	0.33	38.53	56.00	17.47	
	17.755	39.00	0.56	39.56	60.00	20.44	
	21.600	43.70	0.60	44.30	60.00	15.70	
	0.156	50.14	0.19	50.33	55.65	5.32	AV
	0.234	39.25	0.21	39.46	52.30	12.84	
	3.346	26.35	0.31	26.66	46.00	19.34	
	3.901	32.62	0.33	32.95	46.00	13.05	
	17.755	32.16	0.56	32.72	50.00	17.28	
	21.600	37.29	0.60	37.89	50.00	12.11	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	58.74	0.22	58.96	65.74	6.78	QP
	0.234	46.02	0.21	46.23	62.30	16.07	
	2.500	27.28	0.31	27.59	56.00	28.41	
	3.661	32.95	0.35	33.30	56.00	22.70	
	7.368	31.23	0.54	31.77	60.00	28.23	
	23.387	41.08	0.84	41.92	60.00	18.08	
	0.155	50.48	0.22	50.70	55.74	5.04	AV
	0.234	40.58	0.21	40.79	52.30	11.51	
	2.500	22.05	0.31	22.36	46.00	23.64	
	3.661	26.51	0.35	26.86	46.00	19.14	
Neutral	7.368	24.34	0.54	24.88	50.00	25.12	
	23.387	35.74	0.84	36.58	50.00	13.42	
	0.155	59.39	0.19	59.58	65.74	6.16	QP
	0.234	46.58	0.21	46.79	62.30	15.51	
	0.661	35.03	0.22	35.25	56.00	20.75	
	1.560	29.14	0.26	29.40	56.00	26.60	
	6.089	38.91	0.41	39.32	60.00	20.68	
	11.080	38.08	0.59	38.67	60.00	21.33	AV
	0.155	50.85	0.19	51.04	55.74	4.70	
	0.234	39.15	0.21	39.36	52.30	12.94	
	0.661	30.13	0.22	30.35	46.00	15.65	
	1.560	23.62	0.26	23.88	46.00	22.12	
	6.089	32.16	0.41	32.57	50.00	17.43	
	11.080	33.30	0.59	33.89	50.00	16.11	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 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	0.155	59.53	0.22	59.75	65.74	5.99	QP
	0.233	46.34	0.21	46.55	62.35	15.80	
	0.661	37.09	0.22	37.31	56.00	18.69	
	3.123	28.27	0.33	28.60	56.00	27.40	
	11.621	31.84	0.64	32.48	60.00	27.52	
	21.147	37.71	0.77	38.48	60.00	21.52	
	0.155	49.99	0.22	50.21	55.74	5.53	AV
	0.233	40.35	0.21	40.56	52.35	11.79	
	0.661	31.05	0.22	31.27	46.00	14.73	
	3.123	22.50	0.33	22.83	46.00	23.17	
	11.621	25.10	0.64	25.74	50.00	24.26	
	21.147	32.29	0.77	33.06	50.00	16.94	
Neutral	0.155	59.51	0.19	59.70	65.74	6.04	QP
	0.234	46.32	0.21	46.53	62.30	15.77	
	0.779	30.33	0.23	30.56	56.00	25.44	
	1.560	29.55	0.26	29.81	56.00	26.19	
	5.249	40.68	0.37	41.05	60.00	18.95	
	11.080	38.08	0.59	38.67	60.00	21.33	
	0.155	50.25	0.19	50.44	55.74	5.30	AV
	0.234	39.20	0.21	39.41	52.30	12.89	
	0.779	25.41	0.23	25.64	46.00	20.36	
	1.560	23.20	0.26	23.46	46.00	22.54	
	5.249	34.50	0.37	34.87	50.00	15.13	
	11.080	33.23	0.59	33.82	50.00	16.18	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 2009

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	0.155	59.10	0.22	59.32	65.74	6.42	QP
	0.233	45.81	0.21	46.02	62.35	16.33	
	0.661	36.08	0.22	36.30	56.00	19.70	
	4.202	31.85	0.36	32.21	56.00	23.79	
	11.257	31.22	0.63	31.85	60.00	28.15	
	20.924	38.35	0.76	39.11	60.00	20.89	
	0.155	50.20	0.22	50.42	55.74	5.32	AV
	0.233	38.65	0.21	38.86	52.35	13.49	
	0.661	30.20	0.22	30.42	46.00	15.58	
	4.202	25.60	0.36	25.96	46.00	20.04	
	11.257	25.10	0.63	25.73	50.00	24.27	
	20.924	32.30	0.76	33.06	50.00	16.94	
Neutral	0.156	58.40	0.19	58.59	65.65	7.06	QP
	0.233	48.77	0.21	48.98	62.35	13.37	
	0.661	34.63	0.22	34.85	56.00	21.15	
	1.324	28.38	0.25	28.63	56.00	27.37	
	11.257	39.38	0.59	39.97	60.00	20.03	
	23.018	43.66	0.64	44.30	60.00	15.70	
	0.156	50.13	0.19	50.32	55.65	5.33	AV
	0.233	42.10	0.21	42.31	52.35	10.04	
	0.661	28.20	0.22	28.42	46.00	17.58	
	1.324	22.20	0.25	22.45	46.00	23.55	
	11.257	33.30	0.59	33.89	50.00	16.11	
	23.018	37.60	0.64	38.24	50.00	11.76	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 2009

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	0.154	59.90	0.22	60.12	65.78	5.66	QP
	0.234	47.29	0.21	47.50	62.30	14.80	
	0.661	36.51	0.22	36.73	56.00	19.27	
	2.396	26.69	0.30	26.99	56.00	29.01	
	6.592	33.38	0.49	33.87	60.00	26.13	
	17.291	31.67	0.71	32.38	60.00	27.62	
	0.154	50.54	0.22	50.76	55.78	5.02	AV
	0.234	40.15	0.21	40.36	52.30	11.94	
	0.661	30.35	0.22	30.57	46.00	15.43	
	2.396	21.05	0.30	21.35	46.00	24.65	
	6.592	27.68	0.49	28.17	50.00	21.83	
	17.291	24.36	0.71	25.07	50.00	24.93	
Neutral	0.155	59.60	0.19	59.79	65.74	5.95	QP
	0.233	48.26	0.21	48.47	62.35	13.88	
	1.552	27.79	0.26	28.05	56.00	27.95	
	4.027	38.07	0.33	38.40	56.00	17.60	
	11.198	38.74	0.59	39.33	60.00	20.67	
	21.600	44.85	0.60	45.45	60.00	14.55	
	0.155	50.49	0.19	50.68	55.74	5.06	AV
	0.233	41.06	0.21	41.27	52.35	11.08	
	1.552	21.10	0.26	21.36	46.00	24.64	
	4.027	31.24	0.33	31.57	46.00	14.43	
	11.198	31.14	0.59	31.73	50.00	18.27	
	21.600	37.16	0.60	37.76	50.00	12.24	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 2009

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	0.154	59.50	0.22	59.72	65.78	6.06	QP
	0.233	46.55	0.21	46.76	62.35	15.59	
	0.665	36.24	0.22	36.46	56.00	19.54	
	3.881	34.55	0.36	34.91	56.00	21.09	
	6.662	32.94	0.50	33.44	60.00	26.56	
	21.486	38.69	0.78	39.47	60.00	20.53	
	0.154	50.41	0.22	50.63	55.78	5.15	AV
	0.233	40.16	0.21	40.37	52.35	11.98	
	0.665	29.31	0.22	29.53	46.00	16.47	
	3.881	29.43	0.36	29.79	46.00	16.21	
	6.662	28.29	0.50	28.79	50.00	21.21	
	21.486	30.15	0.78	30.93	50.00	19.07	
Neutral	0.155	59.41	0.19	59.60	65.74	6.14	QP
	0.233	48.77	0.21	48.98	62.35	13.37	
	0.775	32.46	0.23	32.69	56.00	23.31	
	5.112	39.09	0.36	39.45	60.00	20.55	
	12.124	37.94	0.58	38.52	60.00	21.48	
	24.142	43.50	0.67	44.17	60.00	15.83	
	0.155	50.26	0.19	50.45	55.74	5.29	AV
	0.233	41.06	0.21	41.27	52.35	11.08	
	0.775	27.65	0.23	27.88	46.00	18.12	
	5.112	31.26	0.36	31.62	50.00	18.38	
	12.124	30.24	0.58	30.82	50.00	19.18	
	24.142	38.19	0.67	38.86	50.00	11.14	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 48%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 23, 2009

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	0.154	59.85	0.22	60.07	65.78	5.71	QP
	0.233	47.15	0.21	47.36	62.35	14.99	
	0.661	35.98	0.22	36.20	56.00	19.80	
	1.707	24.31	0.28	24.59	56.00	31.41	
	6.662	33.99	0.50	34.49	60.00	25.51	
	21.147	36.93	0.77	37.70	60.00	22.30	
	0.154	51.26	0.22	51.48	55.78	4.30	AV
	0.233	40.34	0.21	40.55	52.35	11.80	
	0.661	28.48	0.22	28.70	46.00	17.30	
	1.707	20.13	0.28	20.41	46.00	25.59	
	6.662	26.63	0.50	27.13	50.00	22.87	
	21.147	30.14	0.77	30.91	50.00	19.09	
Neutral	0.153	60.44	0.19	60.63	65.84	5.21	QP
	0.233	48.04	0.21	48.25	62.35	14.10	
	1.707	30.11	0.25	30.36	56.00	25.64	
	4.202	36.76	0.33	37.09	56.00	18.91	
	11.996	39.36	0.58	39.94	60.00	20.06	
	24.015	45.10	0.67	45.77	60.00	14.23	
	0.153	49.74	0.19	49.93	55.84	5.91	AV
	0.233	41.32	0.21	41.53	52.35	10.82	
	1.707	22.32	0.25	22.57	46.00	23.43	
	4.202	29.26	0.33	29.59	46.00	16.41	
	11.996	32.14	0.58	32.72	50.00	17.28	
	24.015	38.97	0.67	39.64	50.00	10.36	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

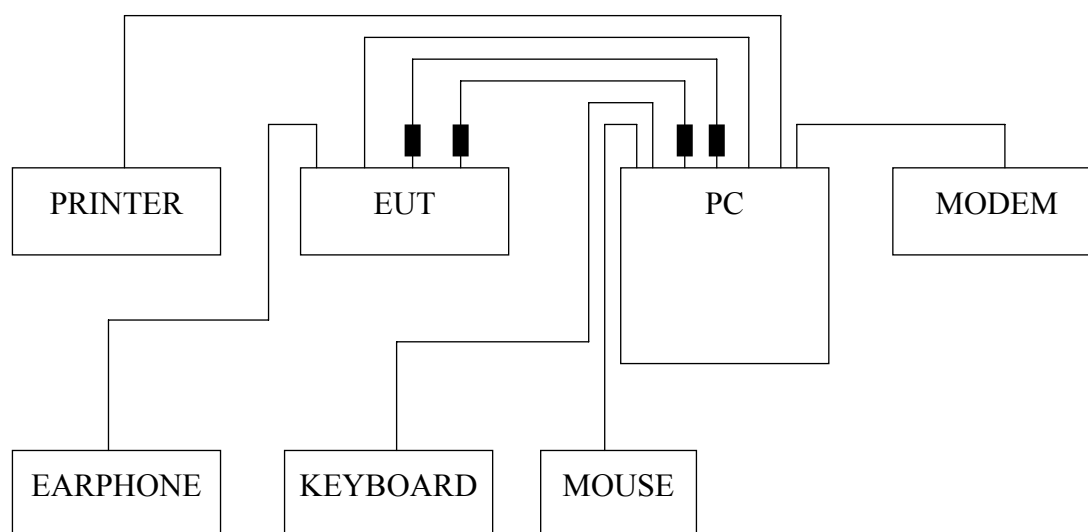
4.1 Test Equipment

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, 2008	Mar 07, 2009
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 19, 2008	Mar 19, 2009
3.	Preamplifier	HP	8449B	3008A00864	May 19, 2008	May 19, 2009
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2009
5.	Spectrum	Agilent	E7405A	MY45106600	May 19, 2008	May 19, 2009
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

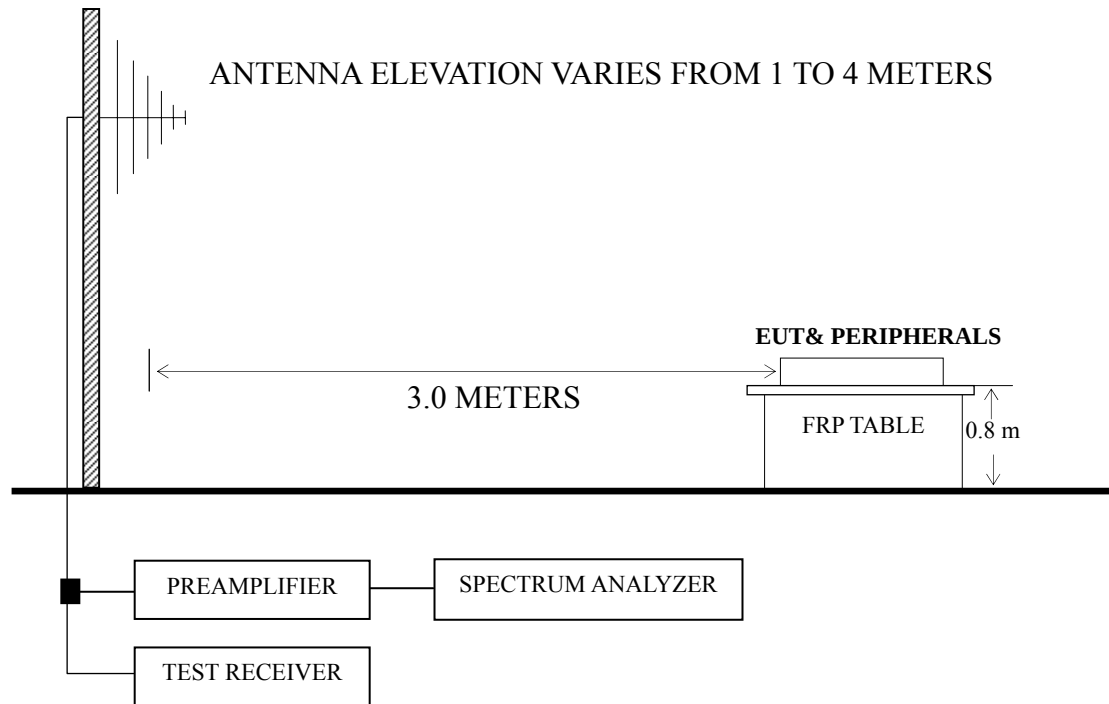
4.2 Block Diagram of Test Setup

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 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 & 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	P27
D-Sub 1024*768@60Hz	P28
D-Sub 1680*1050@60Hz	P29
DVI 640*480@60Hz	P30
DVI 1024*768@60Hz	P31
DVI 1680*1050@60Hz	P32
HDMI 640*480@60Hz	P33
HDMI 1024*768@60Hz	P34
HDMI 1680*1050@60Hz	P35
HDMI 1920*1080@60Hz	P36

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 187.140 MHz with corrected signal level of 40.33 dB ($\mu\text{V/m}$) (limit is 43.50dB ($\mu\text{V/m}$)), when the antenna was 1.20 m height and the turntable was at 310° . The worst emission at vertical polarization was detected at 273.470 MHz with corrected signal level of 41.97 dB ($\mu\text{V/m}$) (limit is 46.00 dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 125° .

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	32.910	2.43	17.95	0.60	20.98	40.00	19.02
	96.930	15.41	10.87	0.85	27.13	43.50	16.37
	188.110	28.77	10.20	1.04	40.01	43.50	3.49
	292.870	25.80	13.79	1.50	41.09	46.00	4.91
	457.770	16.41	17.35	2.24	36.00	46.00	10.00
	678.930	9.39	19.61	2.99	31.99	46.00	14.01
Vertical	35.820	15.96	16.45	0.64	33.05	40.00	6.95
	100.810	19.69	11.57	0.85	32.11	43.50	11.39
	187.140	23.90	10.17	1.04	35.11	43.50	8.39
	292.870	24.91	13.79	1.50	40.20	46.00	5.80
	372.410	21.04	15.92	1.91	38.87	46.00	7.13
	648.860	13.33	19.45	2.83	35.61	46.00	10.39

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	96.930	16.19	10.87	0.85	27.91	43.50	15.59
	182.290	26.06	9.99	1.03	37.08	43.50	6.42
	243.400	26.72	12.64	1.25	40.61	46.00	5.39
	290.930	26.23	13.75	1.50	41.48	46.00	4.52
	450.010	17.79	17.23	2.22	37.24	46.00	8.76
	837.040	10.56	21.09	3.40	35.05	46.00	10.95
Vertical	36.790	15.76	15.80	0.65	32.21	40.00	7.79
	103.720	20.82	11.77	0.85	33.44	43.50	10.06
	183.260	23.31	10.02	1.03	34.36	43.50	9.14
	291.900	25.33	13.77	1.50	40.60	46.00	5.40
	346.220	22.60	15.20	1.77	39.57	46.00	6.43
	637.220	16.33	19.39	2.79	38.51	46.00	7.49

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	95.960	17.86	10.70	0.85	--	29.41	43.50	14.09	QP
	157.070	21.98	10.74	0.95	--	33.67	43.50	9.83	
	205.570	23.48	10.93	1.10	--	35.51	43.50	7.99	
	292.870	26.85	13.79	1.50	--	42.14	46.00	3.86	
	341.370	22.78	15.07	1.75	--	39.60	46.00	6.40	
	450.010	20.06	17.23	2.22	--	39.51	46.00	6.49	
	1104.000	56.70	23.15	4.04	37.41	46.48	74.00	27.52	PK
	1275.000	50.91	24.32	4.33	37.00	42.56	74.00	31.44	
	1319.000	51.36	24.66	4.42	36.90	43.54	74.00	30.46	
	1435.000	55.20	25.41	4.63	36.65	48.59	74.00	25.41	
	1633.000	46.07	26.49	4.99	36.28	41.27	74.00	32.73	
	1811.000	56.64	26.94	5.21	35.99	52.80	74.00	21.20	
Vertical	41.640	17.19	13.02	0.70	--	30.91	40.00	9.09	QP
	99.840	21.53	11.42	0.85	--	33.80	43.50	9.70	
	157.070	23.84	10.74	0.95	--	35.53	43.50	7.97	
	292.870	26.18	13.79	1.50	--	41.47	46.00	4.53	
	371.440	21.49	15.88	1.91	--	39.28	46.00	6.72	
	612.000	11.94	19.26	2.63	--	33.83	46.00	12.17	
	1024.000	55.20	22.57	3.88	37.63	44.02	74.00	29.98	PK
	1162.000	54.73	23.51	4.16	37.27	45.13	74.00	28.87	
	1255.000	47.86	24.14	4.30	37.04	39.26	74.00	34.74	
	1365.000	53.48	24.98	4.48	36.80	46.14	74.00	27.86	
	1641.000	53.15	26.50	5.02	36.27	48.40	74.00	25.60	
	1810.000	50.58	26.94	5.21	35.99	46.74	74.00	27.26	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	97.900	13.21	11.11	0.85	25.17	43.50	18.33
	125.060	15.43	12.76	0.89	29.08	43.50	14.42
	187.140	29.12	10.17	1.04	40.33	43.50	3.17
	291.900	27.33	13.77	1.50	42.60	46.00	3.40
	474.260	17.58	17.57	2.30	37.45	46.00	8.55
	888.450	5.55	21.60	3.50	30.65	46.00	15.35
Vertical	41.640	18.48	13.02	0.70	32.20	40.00	7.80
	94.020	19.26	10.27	0.85	30.38	43.50	13.12
	191.020	26.12	10.34	1.06	37.52	43.50	5.98
	273.470	27.17	13.40	1.40	41.97	46.00	4.03
	345.250	21.99	15.20	1.77	38.96	46.00	7.04
	665.350	15.68	19.54	2.91	38.13	46.00	7.87

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	96.930	12.38	10.87	0.85	24.10	43.50	19.40
	164.830	19.77	10.35	0.97	31.09	43.50	12.41
	183.260	29.25	10.02	1.03	40.30	43.50	3.20
	249.220	25.89	12.86	1.27	40.02	46.00	5.98
	292.870	26.77	13.79	1.50	42.06	46.00	3.94
	453.890	18.57	17.29	2.24	38.10	46.00	7.90
Vertical	41.640	18.04	13.02	0.70	31.76	40.00	8.24
	93.050	18.68	10.09	0.85	29.62	43.50	13.88
	183.260	26.61	10.02	1.03	37.66	43.50	5.84
	273.470	24.79	13.40	1.40	39.59	46.00	6.41
	415.090	16.08	16.72	2.10	34.90	46.00	11.10
	623.640	13.23	19.33	2.71	35.27	46.00	10.73

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 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	96.930	15.49	10.87	0.85	--	27.21	43.50	16.29	QP
	175.500	26.01	10.02	1.01	--	37.04	43.50	6.46	
	205.570	26.37	10.93	1.10	--	38.40	43.50	5.10	
	291.900	26.96	13.77	1.50	--	42.23	46.00	3.77	
	446.130	17.52	17.17	2.20	--	36.89	46.00	9.11	
	595.510	16.50	19.17	2.58	--	38.25	46.00	7.75	
	1086.000	56.59	23.02	4.02	37.46	46.17	74.00	27.83	PK
	1281.000	54.75	24.36	4.36	36.98	46.49	74.00	27.51	
	1431.000	53.48	25.38	4.60	36.66	46.80	74.00	27.20	
	1633.000	54.07	26.49	4.99	36.28	49.27	74.00	24.73	
	1733.000	51.97	26.74	5.17	36.11	47.77	74.00	26.23	
	1827.000	51.14	27.03	5.22	35.96	47.43	74.00	26.57	
Vertical	41.640	19.64	13.02	0.70	--	33.36	40.00	6.64	QP
	145.430	21.91	11.66	0.92	--	34.49	43.50	9.01	
	195.870	24.43	10.54	1.07	--	36.04	43.50	7.46	
	292.870	26.64	13.79	1.50	--	41.93	46.00	4.07	
	346.220	21.81	15.20	1.77	--	38.78	46.00	7.22	
	595.510	16.64	19.17	2.58	--	38.39	46.00	7.61	
	1146.000	51.88	23.39	4.13	37.31	42.09	74.00	31.91	PK
	1296.000	52.72	24.49	4.36	36.95	44.62	74.00	29.38	
	1429.000	53.40	25.38	4.60	36.67	46.71	74.00	27.29	
	1499.000	56.86	25.80	4.71	36.53	50.84	74.00	23.16	
	1633.000	54.07	26.49	4.99	36.28	49.27	74.00	24.73	
	1810.000	52.58	26.94	5.21	35.99	48.74	74.00	25.26	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 2009

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	134.760	50.96	12.30	0.90	35.93	43.50	7.57
	277.350	54.03	13.50	1.42	41.64	46.00	4.36
	368.530	49.17	15.81	1.89	38.88	46.00	7.12
	612.000	47.00	19.26	2.63	40.12	46.00	5.88
	652.740	44.19	19.47	2.83	37.84	46.00	8.16
	940.830	41.14	21.99	3.64	38.77	46.00	7.23
Vertical	41.640	20.94	13.02	0.70	34.66	40.00	5.34
	139.610	24.13	12.12	0.91	37.16	43.50	6.34
	271.530	26.86	13.37	1.38	41.61	46.00	4.39
	427.700	20.85	16.89	2.14	39.88	46.00	6.12
	482.990	21.12	17.70	2.33	41.15	46.00	4.85
	694.450	15.66	19.67	3.03	38.36	46.00	7.64

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 2009

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	142.520	20.22	11.91	0.91	33.04	43.50	10.46
	182.290	27.93	9.99	1.03	38.95	43.50	4.55
	292.870	27.01	13.79	1.50	42.30	46.00	3.70
	450.010	22.73	17.23	2.22	42.18	46.00	3.82
	651.770	17.20	19.47	2.83	39.50	46.00	6.50
	939.860	16.02	21.99	3.64	41.65	46.00	4.35
Vertical	55.220	23.04	7.69	0.80	31.53	40.00	8.47
	142.520	25.36	11.91	0.91	38.18	43.50	5.32
	228.850	26.98	12.07	1.20	40.25	46.00	5.75
	290.930	26.99	13.75	1.50	42.24	46.00	3.76
	450.010	22.15	17.23	2.22	41.60	46.00	4.40
	612.970	20.41	19.26	2.63	42.30	46.00	3.70

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 2009

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	42.610	20.13	12.39	0.71	--	33.23	40.00	6.77	QP
	140.580	23.72	12.05	0.91	--	36.68	43.50	6.82	
	179.380	27.66	9.92	1.02	--	38.60	43.50	4.90	
	275.410	27.33	13.45	1.40	--	42.18	46.00	3.82	
	450.010	21.93	17.23	2.22	--	41.38	46.00	4.62	
	697.360	17.79	19.69	3.07	--	40.55	46.00	5.45	
	1090.000	53.98	23.02	4.02	37.45	43.57	74.00	30.43	PK
	1170.000	55.23	23.54	4.16	37.25	45.68	74.00	28.32	
	1339.000	49.47	24.78	4.45	36.86	41.84	74.00	32.16	
	1392.000	53.87	25.16	4.54	36.75	46.82	74.00	27.18	
	1633.000	49.07	26.49	4.99	36.28	44.27	74.00	29.73	
	1733.000	49.97	26.74	5.17	36.11	45.77	74.00	28.23	
Vertical	57.160	25.87	7.18	0.81	--	33.86	40.00	6.14	QP
	119.240	25.92	12.97	0.88	--	39.77	43.50	3.73	
	142.520	25.91	11.91	0.91	--	38.73	43.50	4.77	
	293.840	27.00	13.79	1.50	--	42.29	46.00	3.71	
	450.010	22.66	17.23	2.22	--	42.11	46.00	3.89	
	698.330	17.86	19.69	3.07	--	40.62	46.00	5.38	
	1071.000	50.31	22.88	3.99	37.50	39.68	74.00	34.32	PK
	1244.000	51.14	24.06	4.27	37.07	42.40	74.00	31.60	
	1392.000	54.87	25.16	4.54	36.75	47.82	74.00	26.18	
	1602.000	51.30	26.40	4.92	36.34	46.28	74.00	27.72	
	1700.000	53.98	26.65	5.11	36.17	49.57	74.00	24.43	
	1810.000	51.58	26.94	5.21	35.99	47.74	74.00	26.26	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W2254VQV Humidity : 60%RH

Serial No. : 811NDPH6R704 Date of Test : Jan 24, 2009

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	43.580	17.38	11.88	0.72	--	29.98	40.00	10.02	QP
	94.020	17.55	10.27	0.85	--	28.67	43.50	14.83	
	179.380	29.02	9.92	1.02	--	39.96	43.50	3.54	
	277.350	27.52	13.50	1.42	--	42.44	46.00	3.56	
	450.010	21.58	17.23	2.22	--	41.03	46.00	4.97	
	900.090	13.31	21.70	3.52	--	38.53	46.00	7.47	
	1090.000	55.98	23.02	4.02	37.45	45.57	74.00	28.43	PK
	1339.000	53.47	24.78	4.45	36.86	45.84	74.00	28.16	
	1392.000	54.87	25.16	4.54	36.75	47.82	74.00	26.18	
	1497.000	54.93	25.80	4.71	36.53	48.91	74.00	25.09	
	1633.000	49.07	26.49	4.99	36.28	44.27	74.00	29.73	
	1733.000	49.97	26.74	5.17	36.11	45.77	74.00	28.23	
Vertical	49.400	24.90	9.16	0.77	--	34.83	40.00	5.17	QP
	181.320	29.18	9.93	1.02	--	40.13	43.50	3.37	
	276.380	27.14	13.47	1.42	--	42.03	46.00	3.97	
	346.220	23.15	15.20	1.77	--	40.12	46.00	5.88	
	450.010	22.39	17.23	2.22	--	41.84	46.00	4.16	
	914.640	16.89	21.81	3.56	--	42.26	46.00	3.74	
	1162.000	54.73	23.51	4.16	37.27	45.13	74.00	28.87	PK
	1244.000	47.14	24.06	4.27	37.07	38.40	74.00	35.60	
	1339.000	53.47	24.78	4.45	36.86	45.84	74.00	28.16	
	1431.000	50.48	25.38	4.60	36.66	43.80	74.00	30.20	
	1622.000	50.33	26.45	4.99	36.31	45.46	74.00	28.54	
	1810.000	49.58	26.94	5.21	35.99	45.74	74.00	28.26	

TEST ENGINEER: TOM SI

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 Appendix II Figure 2, 3, 16, 17
Sponge	GRAY TAPE	24*12	EXPAN	See Appendix II Figure 18