

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

LCD Monitor

Model No.: W1952TET

Serial No.: 807NDZJ1A613

FCC ID : BEJW1952TET

Prepared For : LG Electronics U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs,
NJ 07632, United States

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Report No. : ACI-F08053
Date of Test : Jul 19 – 24, 2008
Date of Report : Jul 25, 2008

TABLE OF CONTENTS

	Page
1 SUMMARY OF STANDARDS AND RESULTS	4
1.1 Description of Standards and Results	4
2 GENERAL INFORMATION	5
2.1 Description of Equipment Under Test	5
2.2 Peripherals	6
2.3 Description of Test Facility	7
2.4 Measurement Uncertainty	7
3 CONDUCTED EMISSION TEST	8
3.1 Test Equipment	8
3.2 Block Diagram of Test Setup	8
3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)]	9
3.4 Test Configuration	9
3.5 Operating Condition of EUT	10
3.6 Test Procedures	10
3.7 Test Results	11
4 RADIATED EMISSION TEST	18
4.1 Test Equipment	18
4.2 Block Diagram of Test Setup	18
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)]	19
4.4 Test Configuration	19
4.5 Operating Condition of EUT	20
4.6 Test Procedures	20
4.7 Test Results	21
5 DEVIATION TO TEST SPECIFICATIONS	28
6 DEBUG DESCRIPTION	29

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. : W1952TET
(B) Serial No. : 807NDZJ1A613
(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: W1952TET; S/N: 807NDEJ1A613) which was tested in 3m anechoic chamber on Jul 19 – 24, 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 19 – 24, 2008

Prepared By:

Zeno Gu 2008.07.29
ZENO GU / Assistant

Reviewer:

Dio Yang 2008.7.29
DIO YANG / Supervisor

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

Approved Signatory:

Authorized Signature EMC

Samy Chen 2008.07.29
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.	:	W1952TET
Serial No.	:	807NDZJ1A613
Real Power	:	21.00W
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 Co., Ltd. M/N : LM190WX1 (TL) (H1)
Max Resolution	:	D-Sub 1440*900@75Hz DVI 1440*900@60Hz
D-Sub Cable	:	Shielded, Detachable, 1.85m, with two cores
DVI Cable	:	Shielded, Detachable, 1.90m, with two cores
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 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

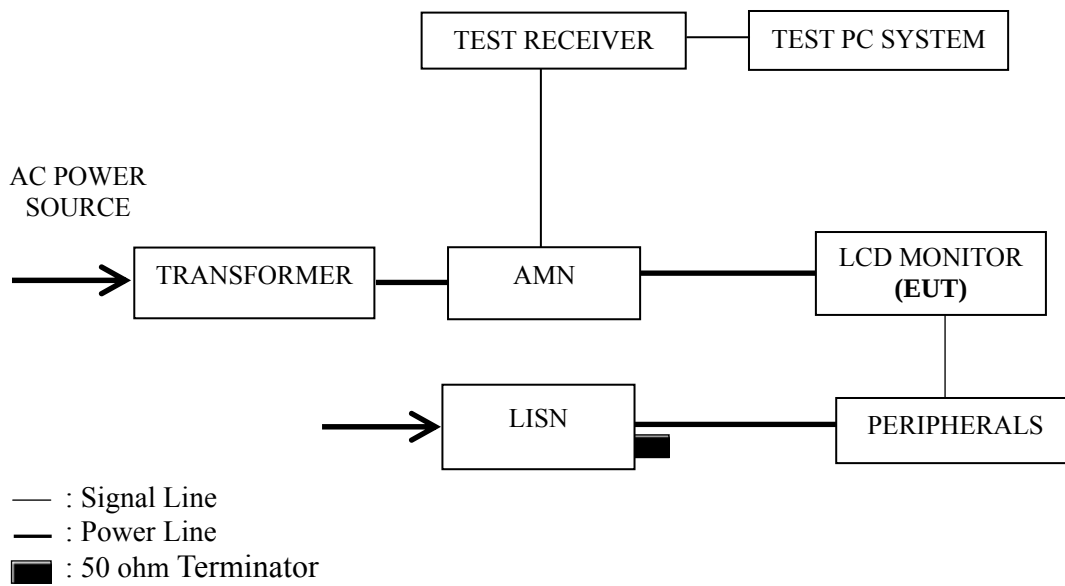
2.3 Description of Test Facility

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

3.2.2 Conducted Disturbance Test Setup



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

Frequency Range (MHz)	Limits dB (μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50
NOTE 1 – The lower limit shall apply at the transition frequencies. NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz		

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

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

3.5.5 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 1440*900@75Hz
DVI 640*480@60Hz
DVI 1024*768@60Hz
DVI 1440*900@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	P12
D-Sub 1024*768@60Hz	P13
D-Sub 1440*900@75Hz	P14
DVI 640*480@60Hz	P15
DVI 1024*768@60Hz	P16
DVI 1440*900@60Hz	P17

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 640*480@60Hz test mode. The worst emission is detected at 0.200 MHz (Average Value) with corrected signal level of 46.15 dB (μV) (limit is 53.61 dB (μV)), when the Line of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 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	0.200	53.00	0.15	53.15	63.61	10.46	QP
	0.266	43.07	0.15	43.22	61.25	18.03	
	0.336	37.43	0.16	37.59	59.31	21.72	
	0.535	29.27	0.18	29.45	56.00	26.55	
	2.622	29.42	0.27	29.69	56.00	26.31	
	13.915	36.94	0.51	37.45	60.00	22.55	
	0.200	46.00	0.15	46.15	53.61	7.46	AV
	0.266	37.07	0.15	37.22	51.25	14.03	
	0.336	30.43	0.16	30.59	49.31	18.72	
	0.535	23.27	0.18	23.45	46.00	22.55	
	2.622	23.42	0.27	23.69	46.00	22.31	
	13.915	30.94	0.51	31.45	50.00	18.55	
Neutral	0.200	51.10	0.15	51.25	63.62	12.37	QP
	0.266	42.02	0.15	42.17	61.25	19.08	
	0.336	36.12	0.16	36.28	59.31	23.03	
	0.400	31.98	0.17	32.15	57.86	25.71	
	2.474	31.99	0.24	32.23	56.00	23.77	
	13.479	34.25	0.39	34.64	60.00	25.36	
	0.200	45.10	0.15	45.25	53.62	8.37	AV
	0.266	36.02	0.15	36.17	51.25	15.08	
	0.336	30.12	0.16	30.28	49.31	19.03	
	0.400	25.98	0.17	26.15	47.86	21.71	
	2.474	26.99	0.24	27.23	46.00	18.77	
	13.479	27.25	0.39	27.64	50.00	22.36	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 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	0.200	49.75	0.15	49.90	63.62	13.72	QP
	0.266	39.97	0.15	40.12	61.25	21.13	
	0.336	36.18	0.16	36.34	59.31	22.97	
	0.402	31.51	0.17	31.68	57.81	26.13	
	2.540	26.57	0.27	26.84	56.00	29.16	
	12.449	37.40	0.45	37.85	60.00	22.15	
	0.200	43.75	0.15	43.90	53.62	9.72	AV
	0.266	33.97	0.15	34.12	51.25	17.13	
	0.336	31.18	0.16	31.34	49.31	17.97	
	0.402	25.51	0.17	25.68	47.81	22.13	
	2.540	21.57	0.27	21.84	46.00	24.16	
	12.449	31.40	0.45	31.85	50.00	18.15	
Neutral	0.200	50.11	0.15	50.26	63.62	13.36	QP
	0.266	41.50	0.15	41.65	61.25	19.60	
	0.336	36.61	0.16	36.77	59.31	22.54	
	2.346	29.64	0.23	29.87	56.00	26.13	
	2.540	29.11	0.24	29.35	56.00	26.65	
	13.267	34.05	0.39	34.44	60.00	25.56	
	0.200	44.11	0.15	44.26	53.62	9.36	AV
	0.266	35.50	0.15	35.65	51.25	15.60	
	0.336	30.61	0.16	30.77	49.31	18.54	
	2.346	23.64	0.23	23.87	46.00	22.13	
	2.540	23.11	0.24	23.35	46.00	22.65	
	13.267	28.05	0.39	28.44	50.00	21.56	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 2008

Test Mode : D-Sub 1440*900@75Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.198	47.36	0.15	47.51	63.71	16.20	QP
	0.266	37.84	0.15	37.99	61.25	23.26	
	0.332	34.45	0.16	34.61	59.40	24.79	
	0.595	27.59	0.18	27.77	56.00	28.23	
	2.664	32.08	0.27	32.35	56.00	23.65	
	30.000	39.56	1.12	40.68	60.00	19.32	
	0.198	41.36	0.15	41.51	53.71	12.20	AV
	0.266	32.84	0.15	32.99	51.25	18.26	
	0.332	28.45	0.16	28.61	49.40	20.79	
	0.595	21.59	0.18	21.77	46.00	24.23	
	2.664	26.08	0.27	26.35	46.00	19.65	
	30.000	33.56	1.12	34.68	50.00	15.32	
Neutral	0.200	49.84	0.15	49.99	63.62	13.63	QP
	0.269	40.95	0.15	41.10	61.16	20.06	
	0.332	35.84	0.16	36.00	59.40	23.40	
	0.595	30.59	0.18	30.77	56.00	25.23	
	2.664	36.28	0.24	36.52	56.00	19.48	
	12.582	34.97	0.38	35.35	60.00	24.65	
	0.200	43.84	0.15	43.99	53.62	9.63	AV
	0.269	34.95	0.15	35.10	51.16	16.06	
	0.332	29.84	0.16	30.00	49.40	19.40	
	0.595	24.59	0.18	24.77	46.00	21.23	
	2.664	31.28	0.24	31.52	46.00	14.48	
	12.582	27.97	0.38	28.35	50.00	21.65	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 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	0.198	46.97	0.15	47.12	63.71	16.59	QP
	0.269	38.83	0.15	38.98	61.16	22.18	
	0.327	33.59	0.15	33.74	59.53	25.79	
	0.595	28.20	0.18	28.38	56.00	27.62	
	2.664	32.73	0.27	33.00	56.00	23.00	
	12.384	36.29	0.45	36.74	60.00	23.26	
	0.198	41.97	0.15	42.12	53.71	11.59	AV
	0.269	33.83	0.15	33.98	51.16	17.18	
	0.327	28.59	0.15	28.74	49.53	20.79	
	0.595	23.20	0.18	23.38	46.00	22.62	
	2.664	27.73	0.27	28.00	46.00	18.00	
	12.384	31.29	0.45	31.74	50.00	18.26	
Neutral	0.200	47.44	0.15	47.59	63.62	16.03	QP
	0.266	38.51	0.15	38.66	61.25	22.59	
	0.400	31.43	0.17	31.60	57.86	26.26	
	0.595	29.69	0.18	29.87	56.00	26.13	
	2.664	34.04	0.24	34.28	56.00	21.72	
	13.267	33.38	0.39	33.77	60.00	26.23	
	0.200	43.44	0.15	43.59	53.62	10.03	AV
	0.266	33.51	0.15	33.66	51.25	17.59	
	0.400	26.43	0.17	26.60	47.86	21.26	
	0.595	24.69	0.18	24.87	46.00	21.13	
	2.664	29.04	0.24	29.28	46.00	16.72	
	13.267	28.38	0.39	28.77	50.00	21.23	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 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	0.200	47.22	0.15	47.37	63.62	16.25	QP
	0.266	38.97	0.15	39.12	61.25	22.13	
	0.330	34.45	0.16	34.61	59.44	24.83	
	0.595	28.00	0.18	28.18	56.00	27.82	
	2.664	32.32	0.27	32.59	56.00	23.41	
	17.291	36.77	0.60	37.37	60.00	22.63	
	0.200	42.22	0.15	42.37	53.62	11.25	AV
	0.266	33.97	0.15	34.12	51.25	17.13	
	0.330	29.45	0.16	29.61	49.44	19.83	
	0.595	23.00	0.18	23.18	46.00	22.82	
	2.664	27.32	0.27	27.59	46.00	18.41	
	17.291	31.77	0.60	32.37	50.00	17.63	
Neutral	0.198	47.46	0.15	47.61	63.71	16.10	QP
	0.266	37.57	0.15	37.72	61.25	23.53	
	0.332	35.01	0.16	35.17	59.40	24.23	
	0.595	29.05	0.18	29.23	56.00	26.77	
	2.664	34.18	0.24	34.42	56.00	21.58	
	17.109	32.10	0.44	32.54	60.00	27.46	
	0.198	42.46	0.15	42.61	53.71	11.10	AV
	0.266	31.57	0.15	31.72	51.25	19.53	
	0.332	29.01	0.16	29.17	49.40	20.23	
	0.595	22.05	0.18	22.23	46.00	23.77	
	2.664	29.18	0.24	29.42	46.00	16.58	
	17.109	27.10	0.44	27.54	50.00	22.46	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 19, 2008

Test Mode : DVI 1440*900@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.200	47.42	0.15	47.57	63.62	16.05	QP
	0.266	39.23	0.15	39.38	61.25	21.87	
	0.332	34.16	0.16	34.32	59.40	25.08	
	2.664	32.38	0.27	32.65	56.00	23.35	
	12.582	36.80	0.45	37.25	60.00	22.75	
	17.291	37.35	0.60	37.95	60.00	22.05	
	0.200	41.42	0.15	41.57	53.62	12.05	AV
	0.266	34.23	0.15	34.38	51.25	16.87	
	0.332	29.16	0.16	29.32	49.40	20.08	
	2.664	27.38	0.27	27.65	46.00	18.35	
	12.582	31.80	0.45	32.25	50.00	17.75	
	17.291	32.35	0.60	32.95	50.00	17.05	
Neutral	0.200	47.64	0.15	47.79	63.62	15.83	QP
	0.266	37.43	0.15	37.58	61.25	23.67	
	0.336	34.36	0.16	34.52	59.31	24.79	
	2.396	31.51	0.23	31.74	56.00	24.26	
	2.664	33.43	0.24	33.67	56.00	22.33	
	12.988	32.63	0.39	33.02	60.00	26.98	
	0.200	41.64	0.15	41.79	53.62	11.83	AV
	0.266	32.43	0.15	32.58	51.25	18.67	
	0.336	27.36	0.16	27.52	49.31	21.79	
	2.396	25.51	0.23	25.74	46.00	20.26	
	2.664	27.43	0.24	27.67	46.00	18.33	
	12.988	26.63	0.39	27.02	50.00	22.98	

TEST ENGINEER: TOM SI

4 RADIATED EMISSION TEST

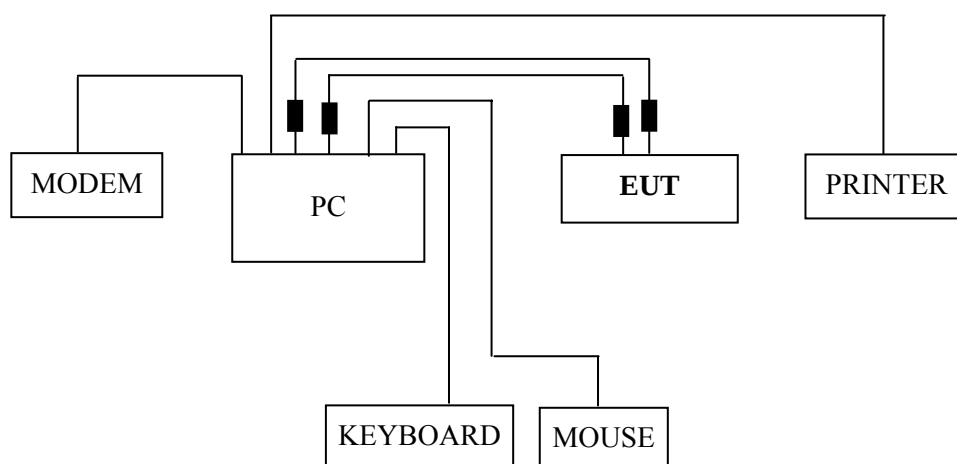
4.1 Test Equipment

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	Mar 07, 2008	Mar 07, 2009
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 19, 2008	Sep 19, 2008
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	--	--

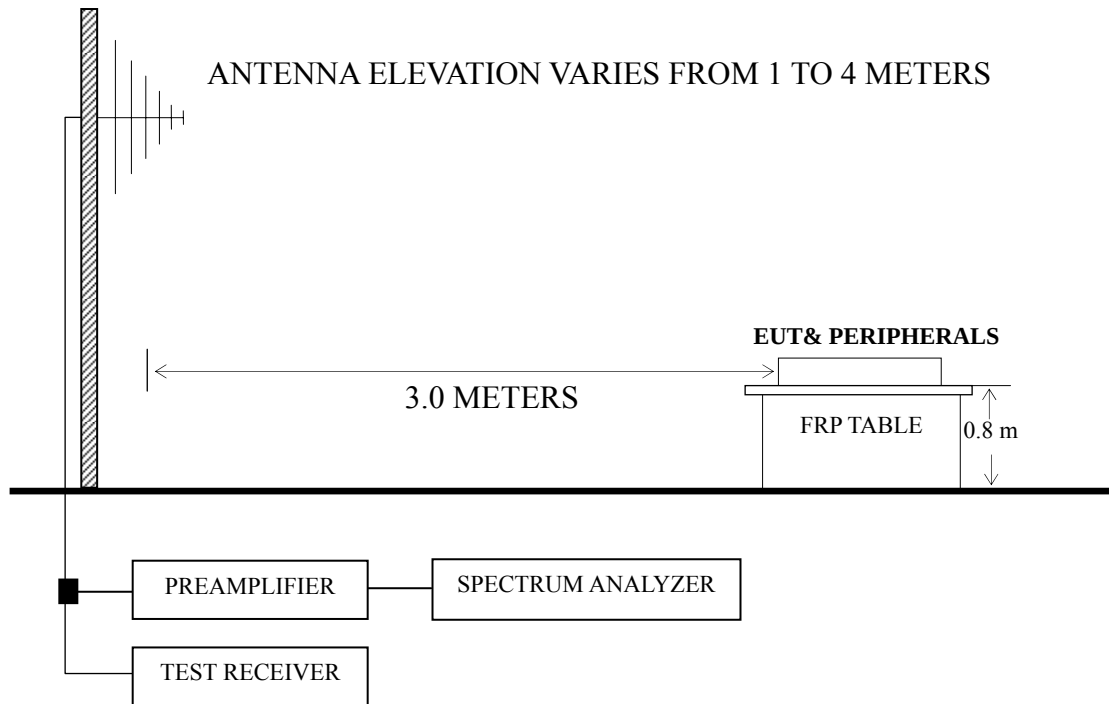
4.2 Block Diagram of Test Setup

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 1440*900@75Hz and DVI 1440*900@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	P22
D-Sub 1024*768@60Hz	P23
D-Sub 1440*900@75Hz	P24
DVI 640*480@60Hz	P25
DVI 1024*768@60Hz	P26
DVI 1440*900@60Hz	P27

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 177.440 MHz with corrected signal level of 36.60 dB ($\mu\text{V/m}$) (limit is 43.50 dB ($\mu\text{V/m}$)), when the antenna was 1.10 m height and the turntable was at 130° . The worst emission at vertical polarization was detected at 30.970 MHz with corrected signal level of 36.63 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 280° .

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 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	30.970	10.63	19.03	0.91	30.57	40.00	9.43
	70.740	16.39	6.58	1.43	24.40	40.00	15.60
	132.820	18.26	12.40	1.97	32.63	43.50	10.87
	153.190	20.23	11.04	2.10	33.37	43.50	10.13
	177.440	23.63	9.98	2.23	35.84	43.50	7.66
	205.570	24.23	10.93	2.39	37.55	43.50	5.95
Vertical	30.970	16.29	19.03	0.91	36.23	40.00	3.77
	59.100	23.95	6.80	1.20	31.95	40.00	8.05
	70.740	26.40	6.58	1.43	34.41	40.00	5.59
	83.350	24.95	8.30	1.55	34.80	40.00	5.20
	134.760	24.28	12.30	1.98	38.56	43.50	4.94
	190.050	23.23	10.30	2.29	35.82	43.50	7.68

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 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	30.970	10.83	19.03	0.91	30.77	40.00	9.23
	70.740	16.82	6.58	1.43	24.83	40.00	15.17
	129.910	17.33	12.52	1.94	31.79	43.50	11.71
	153.190	19.37	11.04	2.10	32.51	43.50	10.99
	220.120	21.93	11.66	2.54	36.13	46.00	9.87
	506.270	9.22	17.98	4.00	31.20	46.00	14.80
Vertical	30.970	15.68	19.03	0.91	35.62	40.00	4.38
	70.740	26.62	6.58	1.43	34.63	40.00	5.37
	132.820	22.85	12.40	1.97	37.22	43.50	6.28
	389.870	15.77	16.30	3.57	35.64	46.00	10.36
	455.830	16.13	17.32	3.84	37.29	46.00	8.71
	856.440	11.30	21.28	5.55	38.13	46.00	7.87

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 2008

Test Mode : D-Sub 1440*900@75Hz

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	30.970	9.97	19.03	0.91	--	29.91	40.00	10.09	QP
	127.970	16.56	12.63	1.93	--	31.12	43.50	12.38	
	177.440	21.79	9.98	2.23	--	34.00	43.50	9.50	
	224.000	21.84	11.85	2.58	--	36.27	46.00	9.73	
	506.270	9.77	17.98	4.00	--	31.75	46.00	14.25	
	709.000	9.24	19.79	4.86	--	33.89	46.00	12.11	
	1354.000	46.98	23.97	6.97	36.83	41.09	74.00	32.91	PK
	1550.000	48.27	25.17	7.48	36.44	44.48	74.00	29.52	
	1639.000	46.07	25.65	7.94	36.27	43.39	74.00	30.61	
	1670.000	46.06	25.92	8.12	36.22	43.88	74.00	30.12	
	1789.000	49.73	25.85	8.58	36.02	48.14	74.00	25.86	
	1908.000	49.48	27.18	8.98	35.83	49.81	74.00	24.19	
Vertical	30.970	15.65	19.03	0.91	--	35.59	40.00	4.41	QP
	94.990	20.07	10.45	1.65	--	32.17	43.50	11.33	
	135.730	23.89	12.28	1.98	--	38.15	43.50	5.35	
	188.110	22.82	10.20	2.28	--	35.30	43.50	8.20	
	248.250	14.49	12.83	2.79	--	30.11	46.00	15.89	
	355.920	15.23	15.49	3.40	--	34.12	46.00	11.88	
	1152.000	47.37	22.51	6.59	37.29	39.18	74.00	34.82	PK
	1550.000	44.82	25.17	7.48	36.44	41.03	74.00	32.97	
	1616.000	45.42	25.45	7.85	36.31	42.41	74.00	31.59	
	1779.000	45.59	25.85	8.53	36.04	43.93	74.00	30.07	
	1789.000	45.84	25.85	8.58	36.02	44.25	74.00	29.75	
	1915.000	44.63	27.31	8.98	35.82	45.10	74.00	28.90	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 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	177.440	24.39	9.98	2.23	36.60	43.50	6.90
	202.660	22.72	10.81	2.35	35.88	43.50	7.62
	222.060	22.06	11.75	2.56	36.37	46.00	9.63
	353.980	11.55	15.45	3.40	30.40	46.00	15.60
	389.870	11.99	16.30	3.57	31.86	46.00	14.14
	506.270	9.32	17.98	4.00	31.30	46.00	14.70
Vertical	30.970	16.69	19.03	0.91	36.63	40.00	3.37
	59.100	23.94	6.80	1.20	31.94	40.00	8.06
	70.740	27.15	6.58	1.43	35.16	40.00	4.84
	135.730	22.59	12.28	1.98	36.85	43.50	6.65
	189.080	23.09	10.24	2.28	35.61	43.50	7.89
	321.970	16.12	14.50	3.23	33.85	46.00	12.15

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 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	132.820	16.87	12.40	1.97	31.24	43.50	12.26
	153.190	18.99	11.04	2.10	32.13	43.50	11.37
	177.440	22.56	9.98	2.23	34.77	43.50	8.73
	202.660	22.56	10.81	2.35	35.72	43.50	7.78
	223.030	22.57	11.80	2.56	36.93	46.00	9.07
	389.870	10.34	16.30	3.57	30.21	46.00	15.79
Vertical	30.970	15.68	19.03	0.91	35.62	40.00	4.38
	133.790	23.93	12.35	1.97	38.25	43.50	5.25
	193.930	22.76	10.44	2.30	35.50	43.50	8.00
	455.830	17.45	17.32	3.84	38.61	46.00	7.39
	506.270	14.74	17.98	4.00	36.72	46.00	9.28
	856.440	11.05	21.28	5.55	37.88	46.00	8.12

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : W1952TET Humidity : 60%RH

Serial No. : 807NDZJ1A613 Date of Test : Jul 24, 2008

Test Mode : DVI 1440*900@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	177.440	24.71	9.98	2.23	--	36.92	43.50	6.58	QP
	224.970	22.92	11.89	2.58	--	37.39	46.00	8.61	
	253.100	20.28	12.97	2.83	--	36.08	46.00	9.92	
	412.180	9.93	16.67	3.65	--	30.25	46.00	15.75	
	514.030	7.97	18.06	4.03	--	30.06	46.00	15.94	
	709.970	11.24	19.79	4.86	--	35.89	46.00	10.11	
	1164.000	48.27	22.77	6.67	37.26	40.45	74.00	33.55	PK
	1430.000	54.31	24.94	7.05	36.67	49.63	74.00	24.37	
	1550.000	48.59	25.17	7.48	36.44	44.80	74.00	29.20	
	1696.000	46.57	26.20	8.30	36.18	44.89	74.00	29.11	
	1789.000	49.94	25.85	8.58	36.02	48.35	74.00	25.65	
	1908.000	49.24	27.18	8.98	35.83	49.57	74.00	24.43	
Vertical	70.740	27.70	6.58	1.43	--	35.71	40.00	4.29	QP
	94.990	19.80	10.45	1.65	--	31.90	43.50	11.60	
	131.850	23.08	12.42	1.96	--	37.46	43.50	6.04	
	190.050	23.40	10.30	2.29	--	35.99	43.50	7.51	
	223.030	18.54	11.80	2.56	--	32.90	46.00	13.10	
	321.970	15.53	14.50	3.23	--	33.26	46.00	12.74	
	1206.000	48.91	22.85	6.79	37.15	41.40	74.00	32.60	PK
	1214.000	48.22	22.90	6.80	37.14	40.78	74.00	33.22	
	1222.000	48.12	23.00	6.80	37.12	40.80	74.00	33.20	
	1622.000	46.60	25.45	7.85	36.31	43.59	74.00	30.41	
	1789.000	47.78	25.85	8.58	36.02	46.19	74.00	27.81	
	1915.000	45.45	27.31	8.98	35.82	45.92	74.00	28.08	

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	7250TZZ002B	20mm*40mm	EXPAN	See Internal Photo Figure 19
Gasket	7250CP0005J	50mm*60mm	EXPAN	See Internal Photo Figure 20
Sponge	3940TKK091F	8*12*9	EXPAN	See Internal Photo Figure 21-1
DVI gasket	3940TKK084A	--	EXPAN	See Internal Photo Figure 22-1
Sponge	3940TKK041E	70mm*9mm*3mm	EXPAN	See Internal Photo Figure 21-2, 21-3, 21-4, 22-2