

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

LCD Monitor

Model No.: L1942TT

Serial No.: E08033101

FCC ID : BEJL1942HT

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

Prepared By : Audix Technology (Shanghai) Co., Ltd.
3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233

Tel: +86-21-64955500

Fax: +86-21-64955491

Report No. : ACI-F08019
Date of Test : Apr 02 – 03, 2008
Date of Report : Apr 07, 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. : L1942TT
(B) Serial No. : E08033101
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B 2007.10
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: L1942TT; S/N: E08033101) which was tested in 3m anechoic chamber on Apr 02 – 03, 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 : Apr 02 – 03, 2008

Prepared By:

Kathy Wang 2008 04.09
KATHY WANG / Assistant

Reviewer:

Sammy Chen 2008.04.09
SAMMY CHEN / Assistant Manager

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

Approved Signatory:

Byron Kwo
Authorized Signature EMC BYRON KWO / 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 main terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B 2007.10 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B 2007.10 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.	:	L1942TT
Serial No.	:	E08033101
Real Power	:	33.70W
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. PHILIPS LCD M/N : LM190E08(TL)(G4)
Max Resolution	:	VGA 1280*1024@75Hz DVI 1280*1024@60Hz
D-Sub Cable	:	Shielded, Detachable, 1.80m, with two cores
DVI Cable	:	Shielded, Detachable, 1.85m, 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, China 200233

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

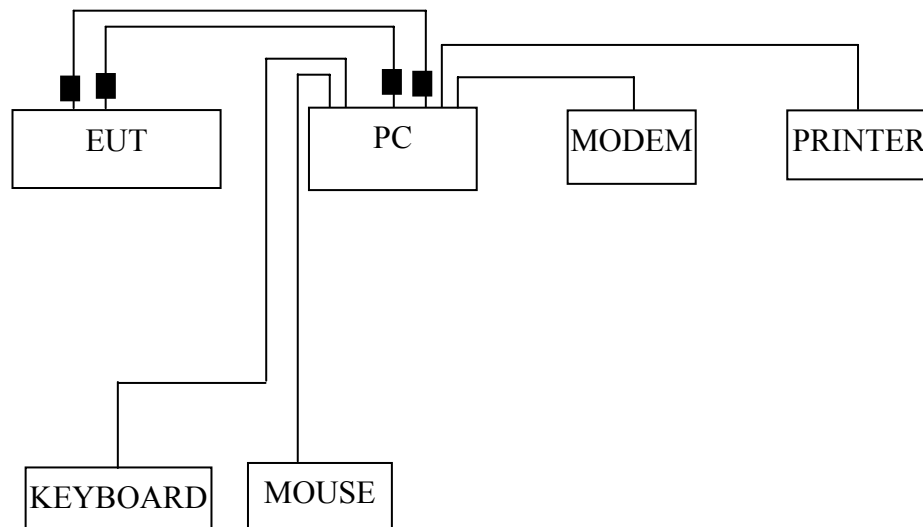
3.1 Test Equipment

The following test equipment 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, 2007	Apr 06, 2008
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 06, 2007	Apr 06, 2008
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2008	Sep 18, 2008
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 06, 2007	Apr 06, 2008
6.	Software	Audix	E3	SET00200 9804M592	--	--

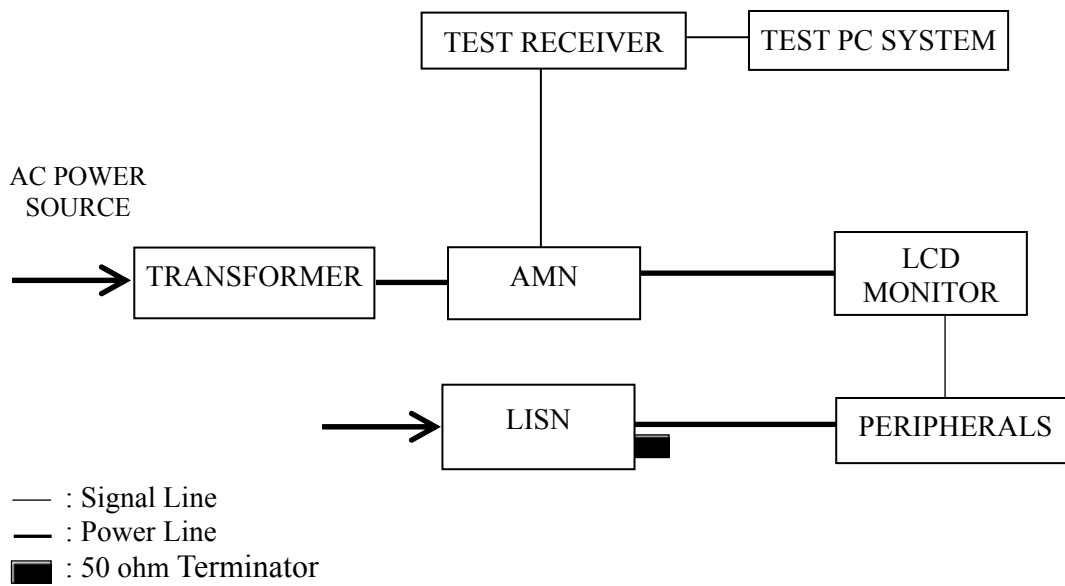
3.2 Block Diagram of Test Setup

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 it’s resolution (Via D-Sub or 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	
VGA 640*480@60Hz	DVI 640*480@60Hz
VGA 1024*768@60Hz	DVI 1024*768@60Hz
VGA 1280*1024@75Hz	DVI 1280*1024@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
VGA 640*480@60Hz	P12
VGA 1024*768@60Hz	P13
VGA 1280*1024@75Hz	P14
DVI 640*480@60Hz	P15
DVI 1024*768@60Hz	P16
DVI 1280*1024@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 VGA 640*480@60Hz test mode. The worst emission is detected at 24.790 MHz (Average Value) with corrected signal level of 37.49 dB (μV) (limit is 50.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 2008

Test Mode : VGA 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	47.79	0.58	48.37	66.00	17.63	QP
	0.221	43.91	0.64	44.55	62.79	18.24	
	0.292	39.33	0.61	39.94	60.46	20.52	
	0.363	36.43	0.60	37.03	58.65	21.62	
	0.510	36.85	0.58	37.43	56.00	18.57	
	24.922	41.02	0.81	41.83	60.00	18.17	
	0.150	40.70	0.58	41.28	56.00	14.72	AV
	0.221	36.90	0.64	37.54	52.79	15.25	
	0.292	32.30	0.61	32.91	50.46	17.55	
	0.363	30.40	0.60	31.00	48.65	17.65	
	0.510	30.80	0.58	31.38	46.00	14.62	
	24.922	35.60	0.81	36.41	50.00	13.59	
Neutral	0.150	46.90	0.45	47.35	66.00	18.65	QP
	0.220	41.70	0.58	42.28	62.82	20.54	
	0.292	39.13	0.57	39.70	60.46	20.76	
	0.440	36.21	0.57	36.78	57.07	20.29	
	0.510	35.74	0.57	36.31	56.00	19.69	
	24.790	41.06	0.89	41.95	60.00	18.05	
	0.150	40.10	0.45	40.55	56.00	15.45	AV
	0.220	33.74	0.58	34.32	52.82	18.50	
	0.292	32.30	0.57	32.87	50.46	17.59	
	0.440	30.21	0.57	30.78	47.07	16.29	
	0.510	29.70	0.57	30.27	46.00	15.73	
	24.790	36.60	0.89	37.49	50.00	12.51	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 2008

Test Mode : VGA 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.151	49.00	0.58	49.58	65.96	16.38	QP
	0.217	43.55	0.64	44.19	62.92	18.73	
	0.365	37.08	0.60	37.68	58.61	20.93	
	0.440	36.19	0.59	36.78	57.07	20.29	
	0.510	36.87	0.58	37.45	56.00	18.55	
	24.790	42.16	0.81	42.97	60.00	17.03	
	0.151	42.00	0.58	42.58	55.96	13.38	AV
	0.217	37.50	0.64	38.14	52.92	14.78	
	0.365	30.80	0.60	31.40	48.61	17.21	
	0.440	29.21	0.59	29.80	47.07	17.27	
	0.510	30.80	0.58	31.38	46.00	14.62	
	24.790	36.20	0.81	37.01	50.00	12.99	
Neutral	0.151	47.01	0.45	47.46	65.96	18.50	QP
	0.221	42.82	0.58	43.40	62.79	19.39	
	0.365	35.87	0.57	36.44	58.61	22.17	
	0.440	35.41	0.57	35.98	57.07	21.09	
	0.510	35.50	0.57	36.07	56.00	19.93	
	25.321	40.67	0.89	41.56	60.00	18.44	
	0.151	42.00	0.45	42.45	55.96	13.51	AV
	0.221	36.80	0.58	37.38	52.79	15.41	
	0.365	29.80	0.57	30.37	48.61	18.24	
	0.440	29.41	0.57	29.98	47.07	17.09	
	0.510	29.50	0.57	30.07	46.00	15.93	
	25.321	34.70	0.89	35.59	50.00	14.41	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 2008

Test Mode : VGA 1280*1024@75Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	48.60	0.58	49.18	66.00	16.82	QP
	0.220	43.71	0.64	44.35	62.83	18.48	
	0.292	38.53	0.61	39.14	60.46	21.32	
	0.369	37.84	0.60	38.44	58.52	20.08	
	0.510	36.77	0.58	37.35	56.00	18.65	
	24.400	40.75	0.81	41.56	60.00	18.44	
	0.150	42.60	0.58	43.18	56.00	12.82	AV
	0.220	35.70	0.64	36.34	52.83	16.49	
	0.292	28.90	0.61	29.51	50.46	20.95	
	0.369	27.80	0.60	28.40	48.52	20.12	
	0.510	28.90	0.58	29.48	46.00	16.52	
	24.400	32.40	0.81	33.21	50.00	16.79	
Neutral	0.150	49.20	0.45	49.65	66.00	16.35	QP
	0.220	43.61	0.58	44.19	62.83	18.64	
	0.292	38.16	0.57	38.73	60.46	21.73	
	0.440	35.89	0.57	36.46	57.07	20.61	
	0.510	36.02	0.57	36.59	56.00	19.41	
	25.188	40.33	0.89	41.22	60.00	18.78	
	0.150	42.20	0.45	42.65	56.00	13.35	AV
	0.220	37.60	0.58	38.18	52.83	14.65	
	0.292	32.20	0.57	32.77	50.46	17.69	
	0.440	29.81	0.57	30.38	47.07	16.69	
	0.510	30.20	0.57	30.77	46.00	15.23	
	25.188	30.30	0.89	31.19	50.00	18.81	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 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	0.150	48.68	0.58	49.26	66.00	16.74	QP
	0.220	42.15	0.64	42.79	62.83	20.04	
	0.369	37.84	0.60	38.44	58.52	20.08	
	0.440	34.57	0.59	35.16	57.07	21.91	
	0.516	36.89	0.58	37.47	56.00	18.53	
	25.727	40.76	0.82	41.58	60.00	18.42	
	0.150	42.80	0.58	43.38	56.00	12.62	AV
	0.220	32.50	0.64	33.14	52.83	19.69	
	0.369	29.30	0.60	29.90	48.52	18.62	
	0.440	25.81	0.59	26.40	47.07	20.67	
	0.516	26.80	0.58	27.38	46.00	18.62	
	25.727	31.58	0.82	32.40	50.00	17.60	
Neutral	0.150	47.07	0.45	47.52	66.00	18.48	QP
	0.220	42.58	0.58	43.16	62.83	19.67	
	0.369	35.37	0.57	35.94	58.52	22.58	
	0.440	36.01	0.57	36.58	57.07	20.49	
	0.516	36.40	0.57	36.97	56.00	19.03	
	24.400	40.21	0.89	41.10	60.00	18.90	
	0.150	42.10	0.45	42.55	56.00	13.45	AV
	0.220	36.80	0.58	37.38	52.83	15.45	
	0.369	26.30	0.57	26.87	48.52	21.65	
	0.440	25.91	0.57	26.48	47.07	20.59	
	0.516	28.40	0.57	28.97	46.00	17.03	
	24.400	34.60	0.89	35.49	50.00	14.51	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 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	0.150	48.84	0.58	49.42	66.00	16.58	QP
	0.221	43.16	0.64	43.80	62.79	18.99	
	0.365	36.45	0.60	37.05	58.61	21.56	
	0.442	35.81	0.59	36.40	57.02	20.62	
	0.516	36.61	0.58	37.19	56.00	18.81	
	26.001	40.93	0.82	41.75	60.00	18.25	
	0.150	42.80	0.58	43.38	56.00	12.62	AV
	0.221	30.80	0.64	31.44	52.79	21.35	
	0.365	27.50	0.60	28.10	48.61	20.51	
	0.442	27.81	0.59	28.40	47.02	18.62	
	0.516	28.90	0.58	29.48	46.00	16.52	
	26.001	32.90	0.82	33.72	50.00	16.28	
Neutral	0.150	49.40	0.45	49.85	66.00	16.15	QP
	0.221	42.66	0.58	43.24	62.79	19.55	
	0.296	40.53	0.57	41.10	60.37	19.27	
	0.440	36.05	0.57	36.62	57.07	20.45	
	0.516	36.55	0.57	37.12	56.00	18.88	
	24.529	40.98	0.89	41.87	60.00	18.13	
	0.150	42.50	0.45	42.95	56.00	13.05	AV
	0.221	33.80	0.58	34.38	52.79	18.41	
	0.296	31.40	0.57	31.97	50.37	18.40	
	0.440	28.61	0.57	29.18	47.07	17.89	
	0.516	28.60	0.57	29.17	46.00	16.83	
	24.529	31.90	0.89	32.79	50.00	17.21	

TEST ENGINEER: TOM SI

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 02, 2008

Test Mode : DVI 1280*1024@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	49.06	0.58	49.64	66.00	16.36	QP
	0.221	44.03	0.64	44.67	62.79	18.12	
	0.365	36.68	0.60	37.28	58.61	21.33	
	0.440	34.47	0.59	35.06	57.07	22.01	
	0.516	37.09	0.58	37.67	56.00	18.33	
	24.142	41.57	0.80	42.37	60.00	17.63	
	0.150	42.00	0.58	42.58	56.00	13.42	AV
	0.221	36.80	0.64	37.44	52.79	15.35	
	0.365	28.60	0.60	29.20	48.61	19.41	
	0.440	26.91	0.59	27.50	47.07	19.57	
	0.516	28.60	0.58	29.18	46.00	16.82	
	24.142	32.60	0.80	33.40	50.00	16.60	
Neutral	0.150	49.16	0.45	49.61	66.00	16.39	QP
	0.221	42.17	0.58	42.75	62.79	20.04	
	0.365	36.41	0.57	36.98	58.61	21.63	
	0.440	35.41	0.57	35.98	57.07	21.09	
	0.510	35.24	0.57	35.81	56.00	20.19	
	24.529	41.14	0.89	42.03	60.00	17.97	
	0.150	41.20	0.45	41.65	56.00	14.35	AV
	0.221	30.20	0.58	30.78	52.79	22.01	
	0.365	25.40	0.57	25.97	48.61	22.64	
	0.440	25.99	0.57	26.56	47.07	20.51	
	0.510	24.50	0.57	25.07	46.00	20.93	
	24.529	32.90	0.89	33.79	50.00	16.21	

TEST ENGINEER: TOM SI

4 RADIATED EMISSION TEST

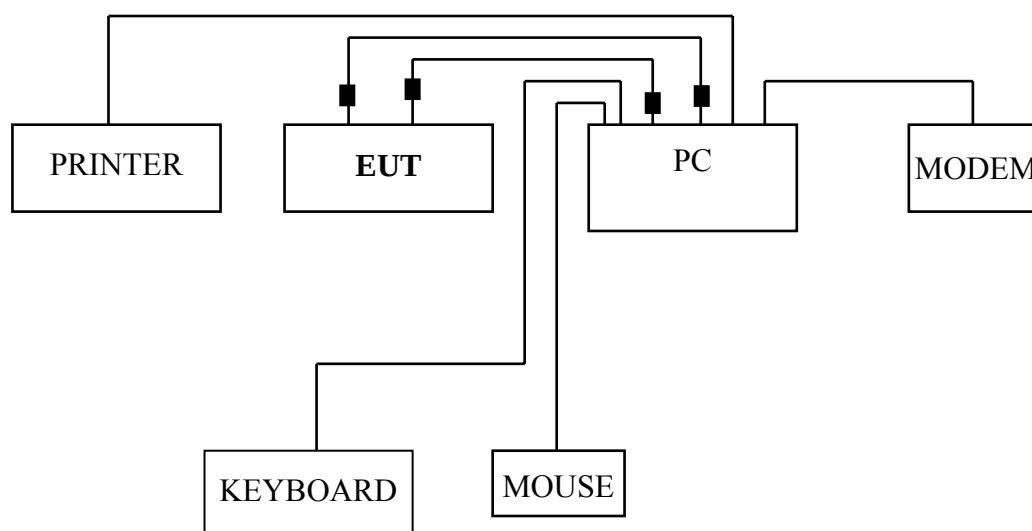
4.1 Test Equipment

The following test equipment 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, 2007	Apr 06, 2008
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	Aug 16, 2007	Aug 16, 2008
5.	Spectrum	Agilent	E7405A	MY45106600	Apr 06, 2007	Apr 06, 2008
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

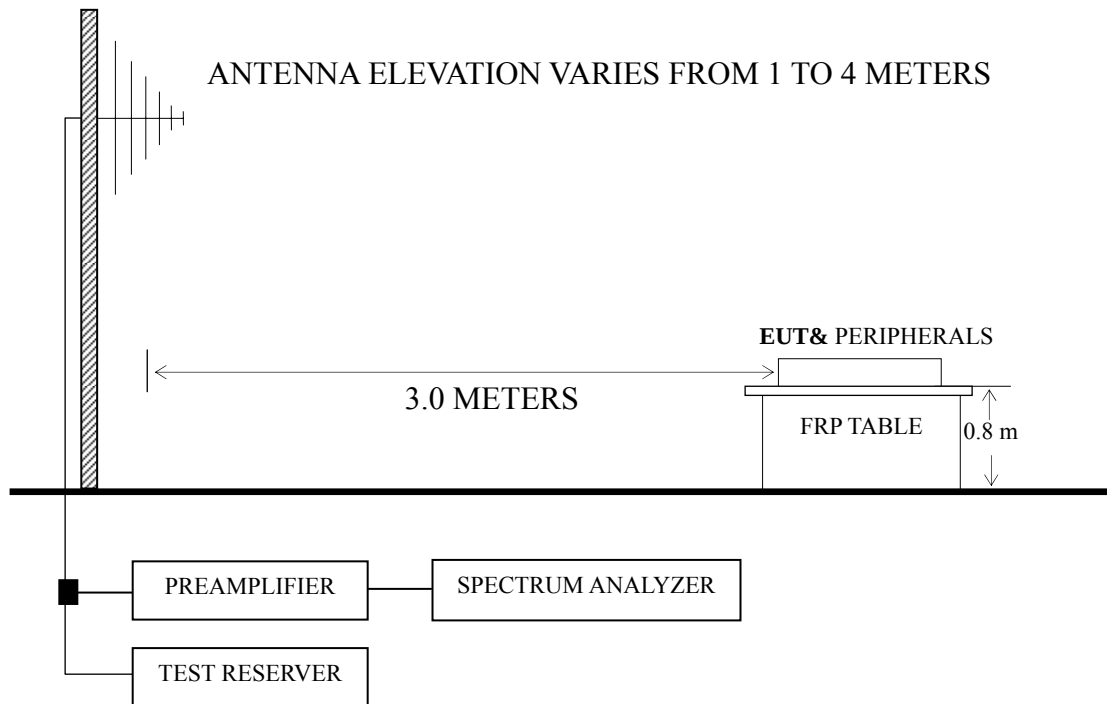
4.2 Block Diagram of Test Setup

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 VGA 1280*1024@75Hz and DVI 1280*1024@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
VGA 640*480@60Hz	P22
VGA 1024*768@60Hz	P23
VGA 1280*1024@75Hz	P24
DVI 640*480@60Hz	P25
DVI 1024*768@60Hz	P26
DVI 1280*1024@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.

NOTE 6 – The worst case is for VGA 640*480@60Hz test mode. The worst emission at horizontal polarization was detected at 279.290 MHz with corrected signal level of 41.43 dB ($\mu\text{V/m}$) (limit is 46.00 dB ($\mu\text{V/m}$)), when the antenna was 1.10 m height and the turntable was at 240° . The worst emission at vertical polarization was detected at 30.970 MHz with corrected signal level of 36.13 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 50° .

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 2008

Test Mode : VGA 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	33.880	5.29	15.77	0.93	21.99	40.00	18.01
	100.810	9.78	10.27	1.70	21.75	43.50	21.75
	161.920	13.18	9.28	2.15	24.61	43.50	18.89
	279.290	26.04	12.39	3.00	41.43	46.00	4.57
	508.210	6.74	17.40	4.02	28.16	46.00	17.84
	620.730	16.97	19.09	4.38	40.44	46.00	5.56
Vertical	30.970	17.67	17.55	0.91	36.13	40.00	3.87
	113.420	17.08	11.20	1.81	30.09	43.50	13.41
	200.720	18.90	8.68	2.33	29.91	43.50	13.59
	279.290	19.85	12.39	3.00	35.24	46.00	10.76
	502.390	16.95	17.40	3.99	38.34	46.00	7.66
	677.960	13.15	18.95	4.71	36.81	46.00	9.19

TEST ENGINEER: LEO XUE

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 2008

Test Mode : VGA 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	34.850	5.62	15.15	0.93	21.70	40.00	5.66
	171.620	20.02	8.77	2.20	30.99	43.50	12.33
	259.890	20.90	12.90	2.88	36.68	43.50	9.31
	428.670	9.24	16.47	3.72	29.43	46.00	8.77
	597.450	12.57	18.78	4.23	35.58	46.00	6.41
	750.710	13.47	19.94	5.11	38.52	46.00	7.35
Vertical	37.760	19.29	13.64	0.95	33.88	40.00	18.06
	125.060	11.77	11.50	1.90	25.17	43.50	15.48
	162.890	20.17	9.18	2.15	31.50	43.50	12.05
	259.890	8.05	12.90	2.88	23.83	46.00	13.01
	428.670	20.40	16.47	3.72	40.59	46.00	11.43
	749.740	11.49	19.97	5.11	36.57	46.00	11.84

TEST ENGINEER: LEO XUE

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 2008

Test Mode : VGA 1280*1024@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	33.880	5.24	15.77	0.93	--	21.94	40.00	6.12	QP
	133.790	14.95	11.10	1.97	--	28.02	43.50	18.33	
	214.300	21.06	7.91	2.48	--	31.45	43.50	12.00	
	406.360	13.08	16.27	3.64	--	32.99	46.00	22.17	
	601.330	11.45	18.85	4.27	--	34.57	46.00	5.41	
	710.940	9.54	19.72	4.90	--	34.16	46.00	9.43	
	1107.000	52.35	22.29	6.92	37.41	44.15	70.00	25.85	PK
	1262.000	49.23	23.40	7.41	37.02	43.02	70.00	26.98	
	1404.000	50.99	24.48	8.01	36.72	46.76	70.00	23.24	
	1572.000	48.35	25.36	8.64	36.39	45.96	70.00	24.04	
	1676.000	46.25	26.02	8.92	36.21	44.98	70.00	25.02	
	1783.000	45.40	25.85	9.32	36.03	44.54	70.00	25.46	
Vertical	37.760	19.75	13.64	0.95	--	34.34	40.00	18.30	QP
	107.600	18.43	10.98	1.76	--	31.17	43.50	12.51	
	171.620	23.22	8.77	2.20	--	34.19	46.00	9.32	
	269.590	21.90	12.40	2.93	--	37.23	46.00	16.57	
	406.360	19.68	16.27	3.64	--	39.59	46.00	10.42	
	542.160	16.06	18.49	4.10	--	38.65	46.00	7.48	
	1130.000	54.42	22.40	6.95	37.35	46.42	70.00	23.58	PK
	1256.000	53.91	23.34	7.33	37.04	47.54	70.00	22.46	
	1512.000	48.66	25.25	8.43	36.51	45.83	70.00	24.17	
	1621.000	49.00	25.45	8.78	36.31	46.92	70.00	23.08	
	1729.000	46.18	26.18	9.15	36.12	45.39	70.00	24.61	
	1849.000	49.23	26.45	9.48	35.93	49.23	70.00	20.77	

TEST ENGINEER: LEO XUE

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 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	33.880	7.35	15.77	0.93	24.05	40.00	6.19
	108.570	11.84	11.07	1.77	24.68	43.50	14.65
	217.210	25.81	7.98	2.50	36.29	43.50	19.16
	328.760	16.53	13.73	3.27	33.53	46.00	14.30
	505.300	14.21	17.40	4.00	35.61	46.00	7.25
	699.300	12.59	19.48	4.82	36.89	46.00	4.51
Vertical	35.820	19.21	14.68	0.94	34.83	40.00	15.42
	115.360	16.50	11.21	1.82	29.53	43.50	14.86
	219.150	22.09	8.15	2.52	32.76	46.00	8.30
	421.880	16.89	16.58	3.70	37.17	46.00	8.84
	549.920	12.94	18.45	4.12	35.51	46.00	5.45
	808.910	12.40	20.22	5.42	38.04	46.00	4.80

TEST ENGINEER: LEO XUE

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 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	34.850	6.46	15.15	0.93	22.54	40.00	5.09
	120.210	11.15	11.32	1.86	24.33	43.50	14.09
	207.510	19.34	8.32	2.41	30.07	43.50	8.79
	268.620	23.59	12.44	2.93	38.96	46.00	11.27
	457.770	14.27	16.53	3.84	34.64	46.00	7.76
	702.210	10.06	19.54	4.82	34.42	46.00	11.49
Vertical	36.790	19.82	14.15	0.94	34.91	40.00	17.46
	161.920	17.98	9.28	2.15	29.41	43.50	19.17
	216.240	24.29	7.92	2.50	34.71	43.50	13.43
	324.880	17.82	13.66	3.25	34.73	46.00	7.04
	454.860	18.02	16.40	3.82	38.24	46.00	11.36
	649.830	11.03	18.95	4.53	34.51	46.00	11.58

TEST ENGINEER: LEO XUE

EUT : LCD Monitor Temperature : 22°C

Model No. : L1942TT Humidity : 60%

Serial No. : E08033101 Date of Test : Apr 03, 2008

Test Mode : DVI 1280*1024@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	7.88	15.77	0.93	--	24.58	40.00	5.17	QP
	159.010	17.09	9.42	2.13	--	28.64	43.50	13.97	
	261.830	22.09	12.73	2.88	--	37.70	46.00	13.24	
	409.270	17.15	16.36	3.65	--	37.16	46.00	8.83	
	634.310	17.01	19.09	4.45	--	40.55	46.00	10.49	
	755.560	16.14	19.91	5.15	--	41.20	46.00	7.96	
	1102.000	50.28	22.25	6.89	37.42	42.00	70.00	28.00	PK
	1404.000	52.70	24.48	8.01	36.72	48.47	70.00	21.53	
	1512.000	51.86	25.25	8.43	36.51	49.03	70.00	20.97	
	1621.000	50.22	25.45	8.78	36.31	48.14	70.00	21.86	
	1728.000	47.70	26.18	9.07	36.12	46.83	70.00	23.17	
	1882.000	46.17	26.88	9.57	35.87	46.75	70.00	23.25	
Vertical	36.790	18.72	14.15	0.94	--	33.81	40.00	15.95	QP
	105.660	16.29	10.82	1.74	--	28.85	43.50	18.82	
	167.740	13.19	8.98	2.17	--	24.34	43.50	7.21	
	263.770	16.20	12.61	2.89	--	31.70	46.00	12.47	
	395.690	19.56	15.60	3.59	--	38.75	46.00	10.39	
	634.310	17.95	19.09	4.45	--	41.49	46.00	9.11	
	1039.000	57.50	22.35	6.76	37.59	49.02	70.00	20.98	PK
	1179.000	48.80	23.45	7.04	37.22	42.07	70.00	27.93	
	1332.000	50.18	23.72	7.75	36.87	44.78	70.00	25.22	
	1519.000	49.97	25.20	8.50	36.49	47.18	70.00	22.82	
	1599.000	50.03	25.45	8.71	36.34	47.85	70.00	22.15	
	1776.000	45.10	25.85	9.24	36.04	44.15	70.00	25.85	

TEST ENGINEER: LEO XUE

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
Aluminum foil	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photos 17