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

LCD Monitor

Model No.: W1752TT

Serial No.: E07103002

FCC ID : BEJW1752TT

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

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F07049
Date of Test : Nov 05 – 07, 2007
Date of Report : Nov 12, 2007

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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. : W1752TT
		(B) Serial No. : E07103002
		(C) Power Supply : 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B 2007.05 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: W1752TT; S/N: E07103002) which was tested in 3m anechoic chamber on Nov 05 – 07, 2007 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 : Oct 30 – Nov 05, 2007

Prepared By: Alan He 2007.11.15
ALAN HE / Assistant

Reviewer: 2007.11.15
SAMMY CHEN / Deputy Assistant Manager

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

Approved Signatory: Ian Chien 2007.11.15
Authorized Signature EMC IAN CHIEN / 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 / Test Item	Test Standard	Results	Meets Limit
EMISSION			
Conducted Disturbance At main terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B 2007.05 AND ANSI C63.4-2003	Pass	15.107(a) Class B
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B 2007.05 AND ANSI C63.4-2003	Pass	15.109(a) Class B

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	LCD Monitor
Type of EUT	:	☑ Production ☐ Pre-product ☐ Pro-type
Model No.	:	W1752TT
Serial No.	:	E07103002
Real Power	:	22W
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 : LM171WX3 (TL) (A1)
D-Sub Cable	:	Shielded, Detachable, 1.85m, with two cores
DVI Cable	:	Shielded, Detachable, 1.90m, with two cores

Remark:

The EUT is a LCD Monitor which input/output ports as follows:

(1) One D-Sub Input Port :Connected with PC
(2) One DVI Input Port :Connected with PC
(3) AC In Port :Connected with Power

2.2 Supported Simulators

2.2.1 PC

Manufacturer	:	HP
Model Number	:	dx6120MT
Serial Number	:	CNG53004J2
Power Cable	:	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 Keyboard

Manufacturer	:	Microsoft
Model Number	:	RT2300
Serial Number	:	7668200662248
Data Cable	:	Shielded, Detachable ,1.8m
Certificate	:	CE/EMC, FCC DoC, VCCI, MIC, C-Tick, BSMI

2.2.3 Mouse

Manufacturer	:	Microsoft
Model Number	:	RT2300
Serial Number	:	6965712071551
Data Cable	:	Shielded ,Detachable, 1.85m.
Certificate	:	FCC DoC, VCCI, CE/EMC, MIC, GS

2.2.4 Printer

Manufacturer	:	HP
Model Number	:	C3990A
Serial Number	:	JPZX020487
Data Cable	:	Shielded, Detachable, 1.5m
Certificate	:	GS, CE/EMC, C-Tick, FCC DoC

2.2.5 Modem

Manufacturer	:	Aceex
Model Number	:	1414
Serial Number	:	980013576
Data Cable	:	Shielded, Detachable, 1.8m
Certificate	:	FCC ID: IFAXDM1414

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

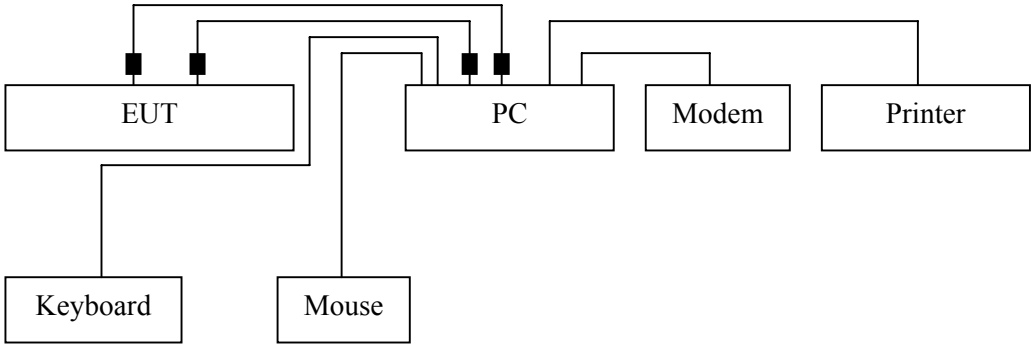
3.1 Test Equipment

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	Apr 08, 2007	Apr 08, 2008
2.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-5	Apr 06, 2007	Apr 06, 2008
3.	AMN	R&S	ESH2-Z5	843890/011	Apr 06, 2007	Apr 06, 2008
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 18, 2007	Mar 18, 2008
5.	Software	Audix	E3	SET00200 9804M592	--	--

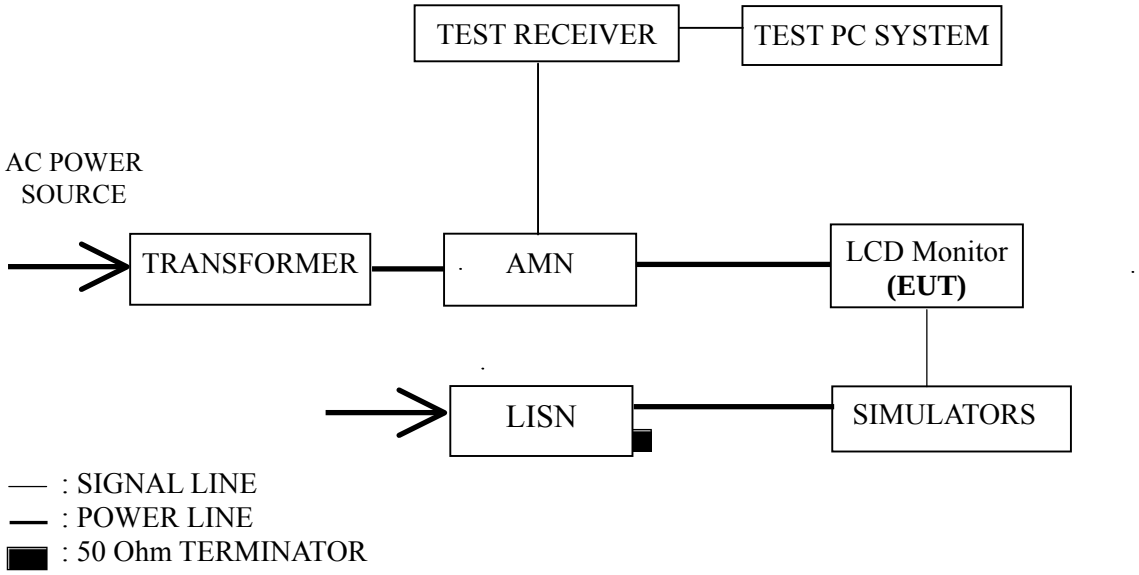
3.2 Block Diagram of Test Setup

3.2.1 EUT & Supported Simulators



■ : 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 (μV)	
	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

NOTE 3 – If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

3.4 Test Configuration

The EUT (listed in Sec.2.1) and the simulators (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 simulators as shown in Sec. 3.2.

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

3.5.3 Set the contrast control to maximum.

3.5.4 Set the brightness control to maximum or at raster extinction if raster extinction occurs at less than maximum brightness.

3.5.5 For color monitors, use white letters on a black background to represent all color.

3.5.6 Select the worse case of positive or negative video if both alternatives are available.

3.5.7 Set character size and number of characters per line so that typically the greatest number of characters per screen is displayed.

3.5.8 For monitors with graphics capabilities, a pattern consisting of all scrolling Hs should be displayed. For monitors with text only capability, a pattern consisting of random text shall be displayed. If neither of the above is applied, use a typical display.

3.5.9 Set the EUT on the test modes in turn, and then test it.

3.5.10 The test modes are as follows:

Test Mode
VGA 640*480@60Hz
VGA 1024*768@60Hz
VGA 1440*900@60Hz
DVI 640*480@60Hz
DVI 1024*768@60Hz
DVI 1440*900@60Hz

3.6 Test Procedures

The EUT was connected to the power mains through a Line Impedance Stabilization Network (LISN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line (VA & VB) 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 1440*900@60Hz	P14
DVI 640*480@60Hz	P15
DVI 1024*768@60Hz	P16
DVI 1440*900@60Hz	P17

NOTE 1 – Factor = Cable Loss + LISN Factor.
NOTE 2 – Emission Level = Meter Reading + Factor.
NOTE 3 –All reading are Quasi-Peak values and Average values.
NOTE 4 – The worst case is for DVI 640*480@60Hz mode. The worst emission is detected at 1.110 MHz with corrected signal level of 36.35 (μV) (limit is 46.00 dB (μV)), when the VB (Average Value) of the EUT is connected to LISN.

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity	:	60%
Serial No.	:	E07103002	Date of Test	:	Nov 05, 2007
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
VA	0.191	46.60	0.72	47.32	63.99	16.67	QP
	0.241	41.00	0.72	41.72	62.06	20.34	
	0.366	37.80	0.68	38.48	58.59	20.11	
	0.486	37.00	0.66	37.66	56.24	18.58	
	1.100	36.00	0.56	36.56	56.00	19.44	
	4.990	31.80	0.66	32.46	56.00	23.54	
	0.191	35.90	0.72	36.62	53.99	17.37	AV
	0.241	37.80	0.72	38.52	52.06	13.54	
	0.366	25.70	0.68	26.38	48.59	22.21	
	0.486	**33.60**	**0.66**	**34.26**	**46.24**	**11.98**	
	1.100	25.60	0.56	26.16	46.00	19.84	
	4.990	25.90	0.66	26.56	46.00	19.44	
VB	0.188	47.71	0.63	48.34	64.12	15.78	QP
	0.241	43.00	0.66	43.66	62.06	18.40	
	0.336	37.01	0.65	37.66	59.30	21.64	
	0.484	36.90	0.65	37.55	56.27	18.72	
	1.120	37.50	0.55	38.05	56.00	17.95	
	4.360	35.80	0.54	36.34	56.00	19.66	
	0.188	37.11	0.63	37.74	54.12	16.38	AV
	0.241	39.90	0.66	40.56	52.06	11.50	
	0.336	29.11	0.65	29.76	49.30	19.54	
	0.484	33.90	0.65	34.55	46.27	11.72	
	1.120	**35.50**	**0.55**	**36.05**	**46.00**	**9.95**	
	4.360	29.80	0.54	30.34	46.00	15.66	

TEST ENGINEER: RAVEN JIN

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity :	60%	
Serial No.	:	E07103002	Date of Test :	Nov 05, 2007	
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
VA	0.193	47.30	0.65	47.95	63.91	15.96	QP
	0.241	42.00	0.66	42.66	62.06	19.40	
	0.335	37.11	0.65	37.76	59.33	21.57	
	0.483	36.80	0.65	37.45	56.29	18.84	
	1.110	35.40	0.55	35.95	56.00	20.05	
	4.560	35.20	0.54	35.74	56.00	20.26	
	0.193	36.90	0.65	37.55	53.91	16.36	AV
	0.241	**39.80**	**0.66**	**40.46**	**52.06**	**11.60**	
	0.335	28.31	0.65	28.96	49.33	20.37	
	0.483	33.80	0.65	34.45	46.29	11.84	
	1.110	31.00	0.55	31.55	46.00	14.45	
	4.560	29.10	0.54	29.64	46.00	16.36	
VB	0.193	47.30	0.65	47.95	63.91	15.96	QP
	0.241	42.00	0.66	42.66	62.06	19.40	
	0.335	37.11	0.65	37.76	59.33	21.57	
	0.483	36.80	0.65	37.45	56.29	18.84	
	1.110	35.40	0.55	35.95	56.00	20.05	
	4.560	35.20	0.54	35.74	56.00	20.26	
	0.193	36.90	0.65	37.55	53.91	16.36	AV
	0.241	**39.80**	**0.66**	**40.46**	**52.06**	**11.60**	
	0.335	28.31	0.65	28.96	49.33	20.37	
	0.483	33.80	0.65	34.45	46.29	11.84	
	1.110	31.00	0.55	31.55	46.00	14.45	
	4.560	29.10	0.54	29.64	46.00	16.36	

TEST ENGINEER: RAVEN JIN

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity :	60%	
Serial No.	:	E07103002	Date of Test :	Nov 05, 2007	
Test Mode	:	VGA 1440*900@60Hz			

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
VA	0.190	45.90	0.72	46.62	64.04	17.42	QP
	0.242	41.30	0.72	42.02	62.03	20.01	
	0.369	37.50	0.68	38.18	58.52	20.34	
	0.486	36.80	0.66	37.46	56.24	18.78	
	1.110	34.40	0.55	34.95	56.00	21.05	
	1.590	42.60	0.50	43.10	56.00	12.90	
	0.190	34.60	0.72	35.32	54.04	18.72	AV
	0.242	37.80	0.72	38.52	52.03	13.51	
	0.369	25.00	0.68	25.68	48.52	22.84	
	0.486	**33.70**	**0.66**	**34.36**	**46.24**	**11.88**	
	1.110	32.60	0.55	33.15	46.00	12.85	
	1.590	33.10	0.50	33.60	46.00	12.40	
VB	0.188	47.01	0.63	47.64	64.12	16.48	QP
	0.241	42.00	0.66	42.66	62.06	19.40	
	0.337	37.01	0.65	37.66	59.28	21.62	
	0.483	37.30	0.65	37.95	56.29	18.34	
	0.983	36.30	0.56	36.86	56.00	19.14	
	4.550	35.30	0.54	35.84	56.00	20.16	
	0.188	32.71	0.63	33.34	54.12	20.78	AV
	0.241	**39.80**	**0.66**	**40.46**	**52.06**	**11.60**	
	0.337	29.41	0.65	30.06	49.28	19.22	
	0.483	33.80	0.65	34.45	46.29	11.84	
	0.983	25.30	0.56	25.86	46.00	20.14	
	4.550	29.30	0.54	29.84	46.00	16.16	

TEST ENGINEER: RAVEN JIN

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity :	60%	
Serial No.	:	E07103002	Date of Test :	Nov 05, 2007	
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
VA	0.190	45.60	0.72	46.32	64.04	17.72	QP
	0.241	40.40	0.72	41.12	62.06	20.94	
	0.482	35.40	0.66	36.06	56.30	20.24	
	1.110	35.20	0.55	35.75	56.00	20.25	
	1.590	36.78	0.50	37.28	56.00	18.72	
	24.000	42.90	0.92	43.82	60.00	16.18	
	0.190	34.40	0.72	35.12	54.04	18.92	AV
	0.241	37.40	0.72	38.12	52.06	13.94	
	0.482	33.60	0.66	34.26	46.30	12.04	
	1.110	**33.80**	**0.55**	**34.35**	**46.00**	**11.65**	
	1.590	33.60	0.50	34.10	46.00	11.90	
	24.000	37.00	0.92	37.92	50.00	12.08	
VB	0.191	46.71	0.64	47.35	63.99	16.64	QP
	0.239	39.90	0.66	40.56	62.13	21.57	
	0.483	37.20	0.65	37.85	56.29	18.44	
	1.110	38.10	0.55	38.65	56.00	17.35	
	4.500	34.80	0.54	35.34	56.00	20.66	
	24.000	39.79	1.01	40.80	60.00	19.20	
	0.191	36.21	0.64	36.85	53.99	17.14	AV
	0.239	38.50	0.66	39.16	52.13	12.97	
	0.483	33.80	0.65	34.45	46.29	11.84	
	1.110	**35.80**	**0.55**	**36.35**	**46.00**	**9.65**	
	4.500	29.50	0.54	30.04	46.00	15.96	
	24.000	33.59	1.01	34.60	50.00	15.40	

TEST ENGINEER: RAVEN JIN

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity :	60%	
Serial No.	:	E07103002	Date of Test :	Nov 05, 2007	
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
VA	0.191	45.70	0.72	46.42	63.99	17.57	QP
	0.242	41.10	0.72	41.82	62.03	20.21	
	0.365	37.61	0.68	38.29	58.61	20.32	
	0.483	35.30	0.66	35.96	56.29	20.33	
	1.110	35.90	0.55	36.45	56.00	19.55	
	24.010	43.20	0.92	44.12	60.00	15.88	
	0.191	35.20	0.72	35.92	53.99	18.07	AV
	0.242	37.60	0.72	38.32	52.03	13.71	
	0.365	25.51	0.68	26.19	48.61	22.42	
	0.483	33.70	0.66	34.36	46.29	11.93	
	1.110	25.50	0.55	26.05	46.00	19.95	
	24.010	**37.30**	**0.92**	**38.22**	**50.00**	**11.78**	
VB	0.188	46.71	0.63	47.34	64.12	16.78	QP
	0.242	42.30	0.66	42.96	62.03	19.07	
	0.483	37.30	0.65	37.95	56.29	18.34	
	0.981	36.40	0.56	36.96	56.00	19.04	
	1.110	37.50	0.55	38.05	56.00	17.95	
	25.730	40.00	1.01	41.01	60.00	18.99	
	0.188	32.71	0.63	33.34	54.12	20.78	AV
	0.242	39.80	0.66	40.46	52.03	11.57	
	0.483	33.80	0.65	34.45	46.29	11.84	
	0.981	26.20	0.56	26.76	46.00	19.24	
	1.110	**35.00**	**0.55**	**35.55**	**46.00**	**10.45**	
	25.730	34.40	1.01	35.41	50.00	14.59	

TEST ENGINEER: RAVEN JIN

EUT	:	LCD Monitor	Temperature :	22℃	
Model No.	:	W1752TT	Humidity	:	60%
Serial No.	:	E07103002	Date of Test	:	Nov 05, 2007
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
VA	0.193	45.91	0.72	46.63	63.91	17.28	QP
	0.242	41.00	0.72	41.72	62.03	20.31	
	0.365	36.81	0.68	37.49	58.61	21.12	
	0.486	36.20	0.66	36.86	56.24	19.38	
	1.110	36.30	0.55	36.85	56.00	19.15	
	24.010	43.50	0.92	44.42	60.00	15.58	
	0.193	35.71	0.72	36.43	53.91	17.48	AV
	0.242	37.60	0.72	38.32	52.03	13.71	
	0.365	24.31	0.68	24.99	48.61	23.62	
	0.486	33.50	0.66	34.16	46.24	12.08	
	1.110	**34.30**	**0.55**	**34.85**	**46.00**	**11.15**	
	24.010	37.90	0.92	38.82	50.00	11.18	
VB	0.188	46.61	0.63	47.24	64.12	16.88	QP
	0.242	42.20	0.66	42.86	62.03	19.17	
	0.486	36.60	0.65	37.25	56.24	18.99	
	1.110	35.90	0.55	36.45	56.00	19.55	
	4.360	35.60	0.54	36.14	56.00	19.86	
	24.140	39.89	1.01	40.90	60.00	19.10	
	0.188	32.91	0.63	33.54	54.12	20.58	AV
	0.242	**39.90**	**0.66**	**40.56**	**52.03**	**11.47**	
	0.486	33.60	0.65	34.25	46.24	11.99	
	1.110	31.30	0.55	31.85	46.00	14.15	
	4.360	29.30	0.54	29.84	46.00	16.16	
	24.140	33.79	1.01	34.80	50.00	15.20	

TEST ENGINEER: RAVEN JIN

4 RADIATED EMISSION TEST

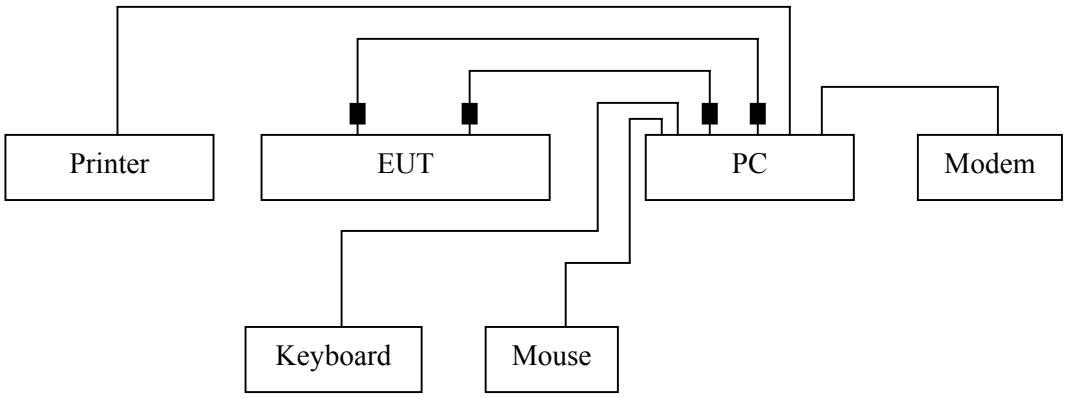
4.1 Test Equipment

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	Apr 06, 2007	Apr 06, 2008
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 19, 2007	Mar 19, 2008
3.	Preamplifier	HP	8449B	3008A00864	Apr 06, 2007	Apr 06, 2008
4.	Bi-log Antenna	Chase	CBL6111	1145	Sep 18, 2007	Mar 18, 2008
5.	Horn Antenna	EMCO	3115	9607-4878	Apr 06, 2007	Apr 06, 2008
6.	Spectrum	Agilent	E7405A	MY45106600	Apr 06, 2007	Apr 06, 2008
7.	Software	Audix	E3	SET00200 9912M295-2	--	--

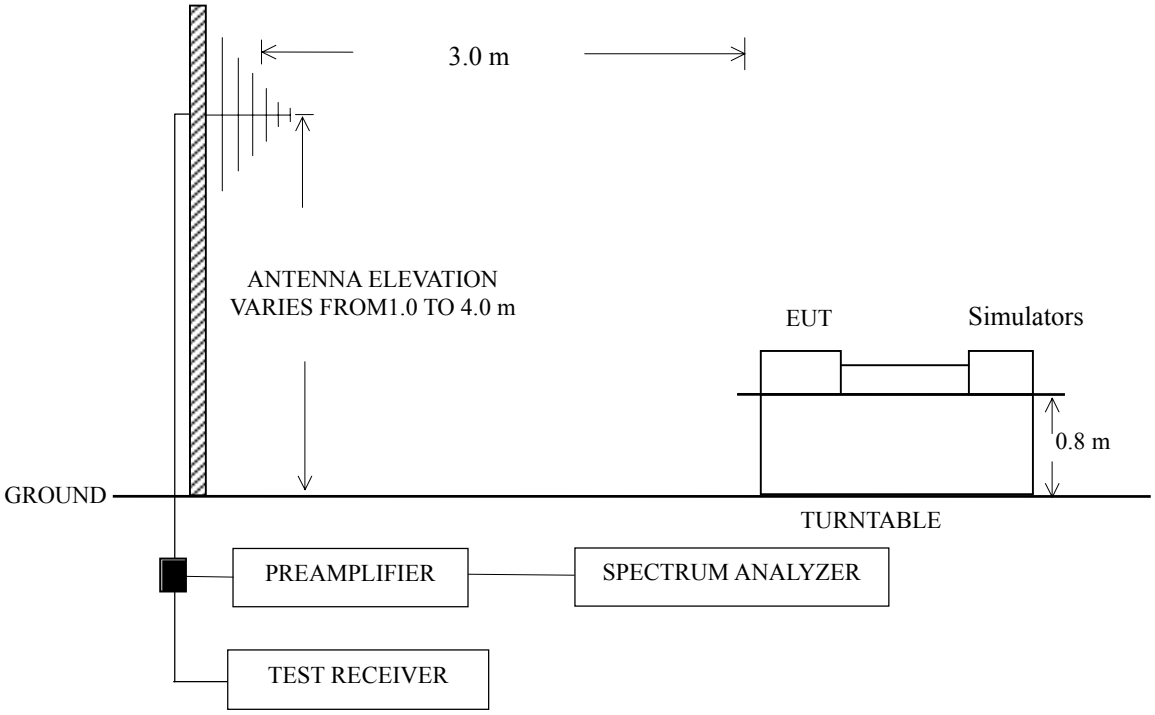
4.2 Block Diagram of Test Setup

4.2.1 EUT and simulators



■ : 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	
		(μV/m)	dB (μV/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 (μV/m) = 20 log Emission Level (μV/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 simulators 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 the test setup replaced by Sec.4.2.

4.6 Test Procedures

The EUT and simulators were placed on a turntable that is 0.8 meter above ground. The 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. The broadband antenna (Calibrated antenna) was used as receiving antenna below 1000MHz. The horn antenna was used as receiving antenna above 1000MHz. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. The broadband antenna (Calibrated Bilog Antenna) or the horn antenna was used as receiving antenna. 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 2000 MHz was checked.

The frequency range from 1 GHz to 2 GHz was checked for VGA 1440*900@60Hz and DVI 1440*900@60Hz mode.

The test modes were done on radiated disturbance test and all the test results are listed in Sec.4.7.

The test modes are as follows:

Test Mode
VGA 640*480@60Hz
VGA 1024*768@60Hz
VGA 1440*900@60Hz
DVI 640*480@60Hz
DVI 1024*768@60Hz
DVI 1440*900@60Hz

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 1440*900@60Hz	P24 – P25
DVI 640*480@60Hz	P26
DVI 1024*768@60Hz	P27
DVI 1440*900@60Hz	P28 – P29

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.(< 1GHz)

NOTE 2 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading.(> 1GHz)

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 1440*900@60Hz. The worst emission at horizontal polarization was detected at 208.480 MHz with corrected signal level of 40.03 dB (μV/m) (limit is 43.50 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 135°. The worst emission at vertical polarization was detected at 30.970 MHz with corrected signal level of 36.27 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 263°.

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
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	30.000	11.40	18.02	0.91	30.33	40.00	9.67
	41.640	17.72	6.24	0.96	24.92	40.00	15.08
	208.480	**22.18**	**13.23**	**2.41**	**37.82**	**43.50**	**5.68**
	261.830	13.94	13.69	2.88	30.51	46.00	15.49
	366.590	12.13	16.53	3.45	32.11	46.00	13.89
	795.330	3.95	23.82	5.36	33.13	46.00	12.87
Vertical	**30.000**	**16.78**	**18.02**	**0.91**	**35.71**	**40.00**	**4.29**
	87.230	15.84	11.27	1.59	28.70	40.00	11.30
	104.690	17.34	11.02	1.73	30.09	43.50	13.41
	191.990	19.34	12.50	2.30	34.14	43.50	9.36
	366.590	12.86	16.53	3.45	32.84	46.00	13.16
	741.980	8.06	22.40	5.07	35.53	46.00	10.47

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
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	30.000	13.53	18.02	0.91	32.46	40.00	7.54
	38.730	17.95	7.11	0.95	26.01	40.00	13.99
	211.390	**23.55**	**13.28**	**2.46**	**39.29**	**43.50**	**4.21**
	245.340	17.91	13.78	2.77	34.46	46.00	11.54
	366.590	19.13	16.53	3.45	39.11	46.00	6.89
	741.980	9.00	22.40	5.07	36.47	46.00	9.53
Vertical	**30.000**	**17.16**	**18.02**	**0.91**	**36.09**	**40.00**	**3.91**
	104.690	19.47	11.02	1.73	32.22	43.50	11.28
	179.380	20.98	11.56	2.24	34.78	43.50	8.72
	259.890	18.10	13.72	2.88	34.70	46.00	11.30
	366.590	16.78	16.53	3.45	36.76	46.00	9.24
	473.290	8.97	19.54	3.89	32.40	46.00	13.60

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
Test Mode	:	VGA 1440*900@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	30.000	13.92	18.02	0.91	32.85	40.00	7.15
	104.690	16.28	11.02	1.73	29.03	43.50	14.47
	208.480	**24.39**	**13.23**	**2.41**	**40.03**	**43.50**	**3.47**
	318.090	20.01	14.15	3.21	37.37	46.00	8.63
	366.590	19.94	16.53	3.45	39.92	46.00	6.08
	741.980	14.71	22.40	5.07	42.18	46.00	3.82
Vertical	**30.970**	**18.60**	**16.76**	**0.91**	**36.27**	**40.00**	**3.73**
	104.690	20.77	11.02	1.73	33.52	43.50	9.98
	179.380	20.98	11.56	2.24	34.78	43.50	8.72
	259.890	18.10	13.72	2.88	34.70	46.00	11.30
	371.440	21.78	16.76	3.48	42.02	46.00	3.98
	741.980	13.05	22.40	5.07	40.52	46.00	5.48

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :		22℃
Model No.	:	W1752TT	Humidity	:	60%
Serial No.	:	E07103002	Date of Test	:	Nov 07, 2007
Test Mode	:	VGA 1440*900@60Hz			

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1118.000	50.31	24.67	6.92	37.38	44.52	74.00	29.48	PK
	1248.000	42.75	25.22	7.33	37.06	38.24	74.00	35.76	
	1320.000	**48.32**	**25.50**	**7.66**	**36.89**	**44.59**	**74.00**	**29.41**	
	1410.000	41.83	25.84	8.01	36.70	38.98	74.00	35.02	
	1564.000	41.73	26.36	8.64	36.41	40.32	74.00	33.68	
	1741.000	42.22	26.90	9.15	36.10	42.17	74.00	31.83	
Vertical	1116.000	49.85	24.65	6.92	37.38	44.04	74.00	29.96	PK
	1208.000	44.36	25.05	7.16	37.15	39.42	74.00	34.58	
	1302.000	44.19	25.43	7.58	36.94	40.26	74.00	33.74	
	1388.000	48.25	25.75	7.92	36.76	45.16	74.00	28.84	
	1490.000	**50.96**	**26.11**	**8.35**	**36.55**	**48.87**	**74.00**	**25.13**	
	1601.000	43.87	26.48	8.71	36.34	42.72	74.00	31.28	

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
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	30.970	11.14	16.76	0.91	28.81	40.00	11.19
	208.480	21.20	13.23	2.41	36.84	43.50	6.66
	261.830	13.31	13.69	2.88	29.88	46.00	16.12
	318.090	15.18	14.15	3.21	32.54	46.00	13.46
	368.530	12.05	16.59	3.47	32.11	46.00	13.89
	531.490	**14.99**	**20.34**	**4.07**	**39.40**	**46.00**	**6.60**
Vertical	33.880	19.10	13.12	0.93	33.15	40.00	6.85
	104.690	19.43	11.02	1.73	32.18	43.50	11.32
	203.630	18.37	13.15	2.37	33.89	43.50	9.61
	261.830	19.48	13.69	2.88	36.05	46.00	9.95
	529.550	13.90	20.32	4.07	38.29	46.00	7.71
	735.190	**13.93**	**22.19**	**5.03**	**41.15**	**46.00**	**4.85**

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
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	30.000	8.67	18.02	0.91	27.60	40.00	12.40
	38.730	15.67	7.11	0.95	23.73	40.00	16.27
	209.450	19.29	13.24	2.43	34.96	43.50	8.54
	366.590	10.95	16.53	3.45	30.93	46.00	15.07
	531.490	12.72	20.34	4.07	37.13	46.00	8.87
	741.980	**11.69**	**22.40**	**5.07**	**39.16**	**46.00**	**6.84**
Vertical	30.000	16.13	18.02	0.91	35.06	40.00	4.94
	104.690	19.43	11.02	1.73	32.18	43.50	11.32
	203.630	18.37	13.15	2.37	33.89	43.50	9.61
	261.830	19.48	13.69	2.88	36.05	46.00	9.95
	530.520	16.22	20.32	4.07	40.61	46.00	5.39
	735.190	**13.93**	**22.19**	**5.03**	**41.15**	**46.00**	**4.85**

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :	22℃
Model No.	:	W1752TT	Humidity :	60%
Serial No.	:	E07103002	Date of Test :	Nov 07, 2007
Test Mode	:	DVI 1440*900@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	208.480	22.60	13.23	2.41	38.24	43.50	5.26
	261.830	20.32	13.69	2.88	36.89	46.00	9.11
	318.090	21.08	14.15	3.21	38.44	46.00	7.56
	366.590	19.07	16.53	3.45	39.05	46.00	6.95
	531.490	16.06	20.34	4.07	40.47	46.00	5.53
	740.040	**14.67**	**22.33**	**5.07**	**42.07**	**46.00**	**3.93**
Vertical	**30.970**	**15.44**	**16.76**	**0.91**	**33.11**	**40.00**	**6.89**
	77.530	15.07	12.26	1.50	28.83	40.00	11.17
	104.690	17.51	11.02	1.73	30.26	43.50	13.24
	158.040	16.49	11.06	2.12	29.67	43.50	13.83
	261.830	15.36	13.69	2.88	31.93	46.00	14.07
	530.520	14.06	20.32	4.07	38.45	46.00	7.55

TEST ENGINEER: KEN XU

EUT	:	LCD Monitor	Temperature :		22℃
Model No.	:	W1752TT	Humidity	:	60%
Serial No.	:	E07103002	Date of Test	:	Nov 07, 2007
Test Mode	:	DVI 1440*900@60Hz			

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1025.000	48.48	24.23	6.73	37.63	41.81	74.00	32.19	PK
	1114.000	45.59	24.64	6.92	37.39	39.76	74.00	34.24	
	1226.000	44.61	25.12	7.24	37.11	39.86	74.00	34.14	
	1381.000	45.47	25.73	7.92	36.76	42.36	74.00	31.64	
	1493.000	43.06	26.13	8.35	36.54	41.00	74.00	33.00	
	1599.000	**44.77**	**26.46**	**8.71**	**36.34**	**43.60**	**74.00**	**30.40**	
Vertical	**1080.000**	**49.26**	**24.49**	**6.85**	**37.47**	**43.13**	**74.00**	**30.87**	PK
	1226.000	46.76	25.12	7.24	37.11	42.01	74.00	31.99	
	1329.000	43.41	25.53	7.66	36.88	39.72	74.00	34.28	
	1458.000	43.32	26.00	8.26	36.61	40.97	74.00	33.03	
	1578.000	42.79	26.40	8.64	36.38	41.45	74.00	32.55	
	1692.000	42.57	26.75	8.99	36.18	42.13	74.00	31.87	

TEST ENGINEER: KEN XU

5 DEVIATION TO TEST SPECIFICATIONS

None

6 DEBUG DESCRIPTION

Name	M/N	Specifications (mm)	Manufacturer	Location
Aluminum foil	T-308	30mm*50mm	DAEHUNG SUBSIDIARY MATERIALS	See Internal Photos 14, 15, 16, 19
Gasket	--	50mm*9mm*2T	EXPAND	See Internal Photos 20
Gasket	--	165mm*9mm*2T	EXPAND	See Internal Photos 20