

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

LCD Monitor

Model No.: E2251VZ

Serial No.: 112NDUN2S166

FCC ID : BEJE2251VR

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 and 4F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai 200233, China

Tel: +86-21-64955500
Fax: +86-21-64955491

Report No. : ACI-F12001
Date of Test : Dec 21, 2011
Date of Report : Jan 05, 2012

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.....	8
2.4 Measurement Uncertainty.....	8
3 CONDUCTED EMISSION TEST.....	9
3.1 Test Equipment.....	9
3.2 Block Diagram of Test Setup.....	9
3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)].....	10
3.4 Test Configuration.....	10
3.5 Operating Condition of EUT.....	11
3.6 Test Procedures.....	12
3.7 Test Results.....	12
4 RADIATED EMISSION TEST.....	27
4.1 Test Equipment.....	27
4.2 Block Diagram of Test Setup.....	27
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)].....	29
4.4 Test Configuration.....	29
4.5 Operating Condition of EUT.....	29
4.6 Test Procedures.....	30
4.7 Test Results.....	31
5 DEVIATION TO TEST SPECIFICATIONS.....	52
6 DEBUG DESCRIPTION.....	53

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. : E2251VZ
(B) Serial No. : 112NDUN2S166
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2010
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: E2251VZ; S/N: 112NDUN25166) which was tested in 3m anechoic chamber Dec 21, 2011 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 : Dec 21, 2011 Date of Report : Jan 05, 2012

Producer : Kathy Wang
KATHY WANG / Assistant

Review : Dio Yang
DIO YANG / Assistant Manager

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

Signatory : Byron Kwo
Authorized Signature EMC BYRON KWO / Senior 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 2010 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2010 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.	: E2251VZ
Serial No.	: 112NDUN2S166
Real Power	: 24.80W (Adapter #1) 24.10W (Adapter #2) 24.80W (Adapter #3) 24.90W (Adapter #4)
AC Adapter #1	: Manufacturer : LIEN CHANG Model Number : LCAP21A Input : 100-240V~, 50-60Hz 1.1A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m, with one core
AC Adapter #2	: Manufacturer : LIEN CHANG Model Number : LCAP26A-* (* can be A, E, I, B, LCAP26A-A was selected as the test model.) Input : 100-240V~, 50-60Hz 1.1A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #3	: Manufacturer : HONOR Model Number : ADS-40SG-19-3 19032G Input : 100-240V~, 50-60Hz 1.0A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #4	: Manufacturer : HONOR Model Number : ADS-40FSG-19 19032G***-1 (*** can be PG, PBR, PI, PCU, ADS-40FSG-19 19032GPCU-1 was selected as the test model.) Input : 100-240V~, 50-60Hz 1.0A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m

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: L&T Display Technology (Fujian) Ltd.
M/N : BM215WF4

Max Resolution : 1920*1080@60Hz

D-Sub Cable #1 : Shielded, Detachable, 1.50m, with two cores on cable

D-Sub Cable #2 : Shielded, Detachable, 1.85m, with two cores in connector

DVI Cable #1 : Shielded, Detachable, 1.50m, with two cores on cable

DVI Cable #2 : Shielded, Detachable, 1.85m, with two cores in connector

Power Cord : Unshielded, Detachable, 1.80m

Note : The D-Sub cable #2 and DVI cable #2 were selected to
be used in the test.

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 DVD
- (4) One Earphone Port : Connected with Earphone
- (5) One DC In Port : Connected with Adapter

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : dx7200MT
Serial Number : CNG622017W
Power Cord : Unshielded, Detachable, 1.8m
Certificate : FCC DoC; CE/EMC; VCCI; C-Tick; UL
BSMI (R33001) 3C (A000111)
MIC (E-A011-04-2659(B))

2.2.2 Graphics Card (Used in PC)

Manufacturer : Asus
Model Number : EAH6670
Output port : DVI, D-Sub, HDMI

2.2.3 Printer

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

2.2.4 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

2.2.5 Mouse

Manufacturer : Microsoft
Model Number : RT2300
Serial Number : 6965712071551
Data Cable : Shielded, Undetachable, 1.8m.
Certificate : CE/EMC, FCC DoC, VCCI, MIC, C-Tick, BSMI

2.2.6 Modem

Manufacturer : TP-LINK
Model Number : TM-EC5658V
Serial Number : 07123301053
Data Cable : Shielded, Detachable, 1.8m
Certificate : FCC DoC, CE/EMC, CCC

2.2.7 DVD

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120108
Data Cable : Shielded, Detachable, 1.80m
Certificate : FCC DoC, CE/EMC, CCC

2.2.8 Earphone

Manufacturer : SONY
Model Number : MDR-E808
Serial Number : 1808030805305506
Data Cable : Shielded, Detachable, 1.8m

2.3 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
Apr 29, 2009 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 = 3.38 dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.58 dB (Horizontal)
U = 4.70 dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.84 dB (Horizontal)
U = 4.70 dB (Vertical)

Radiated Emission Expanded Uncertainty (Above 1GHz):
U= 4.60 dB (Horizontal)
U= 4.18 dB (Vertical)

3 CONDUCTED EMISSION TEST

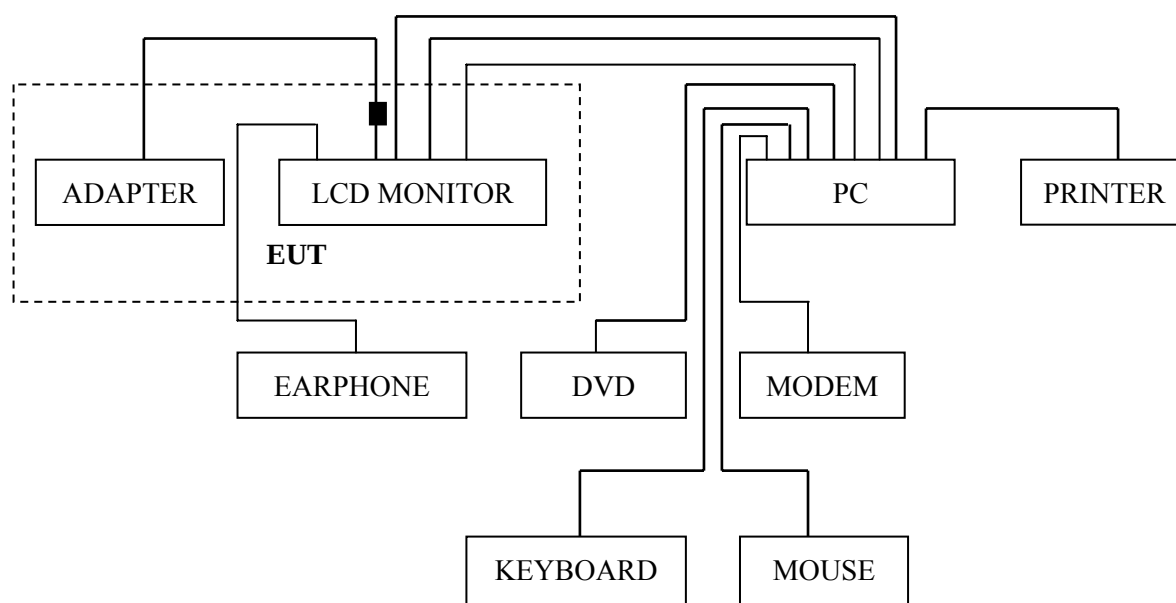
3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2011	Mar 22, 2012
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Mar 22, 2011	Mar 22, 2012
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 22, 2011	Mar 22, 2012
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 18, 2011	Mar 18, 2012
5.	50 Ω Terminator	Anritsu	BNC	001	Mar 22, 2011	Mar 22, 2012
6.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

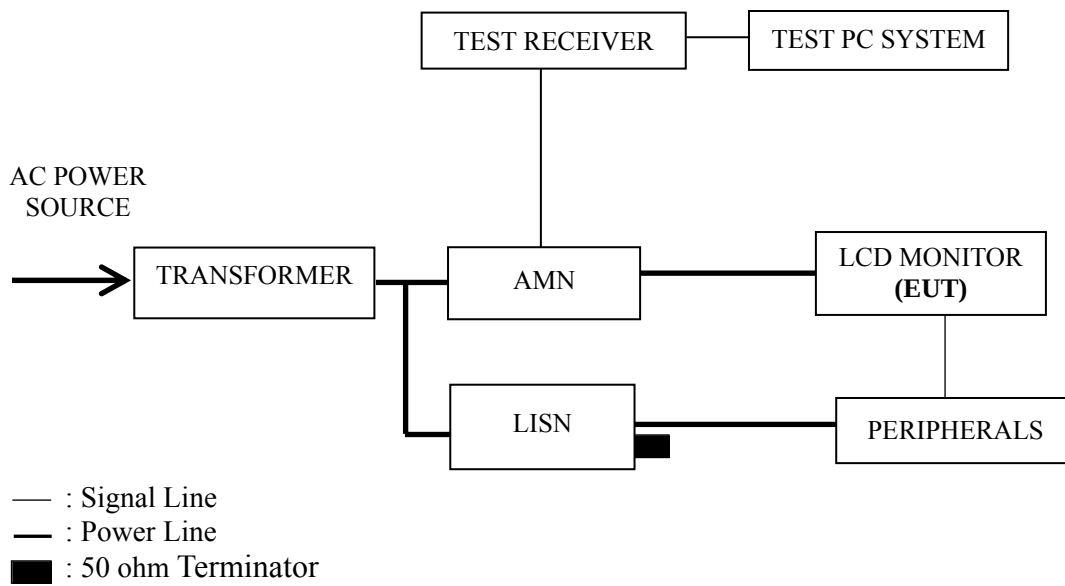
3.2.1 EUT & Peripherals



■ : Ferrite core

Note: Ferrite core only for Adapter #2

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 (we use white letters on a black background to represent all colors), the EUT's screen displayed and filled with "H" pattern by its resolution (Via D-Sub/DVI Input).

3.5.5 In HDMI mode, the EUT connected to DVD through HDMI port.

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:

Adapter	Test Mode
Adapter #1	D-Sub 640*480@60Hz
	D-Sub 1280*1024@75Hz
	D-Sub 1680*1050@60Hz
	D-Sub 1920*1080@60Hz
	DVI 640*480@60Hz
	DVI 1280*1024@75Hz
	DVI 1680*1050@60Hz
	DVI 1920*1080@60Hz
	HDMI 480p
	HDMI 720p
	HDMI 1080i
Adapter #2	DVI 640*480@60Hz
Adapter #3	DVI 640*480@60Hz
Adapter #4	DVI 640*480@60Hz

NOTE: We tested the EUT with adapter #1 and selected the worst test mode to perform test with adapter #2/#3/#4.

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 ESCI was set at 9 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.

Adaptor	Test Mode	Page
Adapter #1	D-Sub 640*480@60Hz	P13
	D-Sub 1280*1024@75Hz	P14
	D-Sub 1680*1050@60Hz	P15
	D-Sub 1920*1080@60Hz	P16
	DVI 640*480@60Hz	P17
	DVI 1280*1024@75Hz	P18
	DVI 1680*1050@60Hz	P19
	DVI 1920*1080@60Hz	P20
	HDMI 480p	P21
	HDMI 720p	P22
	HDMI 1080i	P23
Adapter #2	DVI 640*480@60Hz	P24
Adapter #3	DVI 640*480@60Hz	P25
Adapter #4	DVI 640*480@60Hz	P26

NOTE 1 – The **bold test mode** listed above means the worst test mode.

NOTE 2 – Factor = Cable Loss + AMN Factor.

NOTE 3 – Emission Level = Meter Reading + Factor.

NOTE 4 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

NOTE 5 – The worst case is for DVI 640*480@60Hz test mode (Adaptor #2). The worst emission is detected at 0.156 MHz (Average Value) with corrected signal level of 47.18 dB (μV) (limit is 55.65 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 640*480@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.162	43.89	9.89	53.78	65.34	11.56	QP
	0.223	35.24	9.78	45.02	62.70	17.68	
	0.461	27.36	9.75	37.11	56.67	19.56	
	1.800	23.62	10.14	33.76	56.00	22.24	
	3.943	29.94	10.08	40.02	56.00	15.98	
	17.568	27.44	10.26	37.70	60.00	22.30	
	0.162	33.58	9.89	43.47	55.34	11.87	AV
	0.223	25.48	9.78	35.26	52.70	17.44	
	0.461	18.90	9.75	28.65	46.67	18.02	
	1.800	15.60	10.14	25.74	46.00	20.26	
	3.943	20.14	10.08	30.22	46.00	15.78	
	17.568	18.46	10.26	28.72	50.00	21.28	
Neutral	0.162	44.28	9.88	54.16	65.34	11.18	QP
	0.220	34.13	9.76	43.89	62.83	18.94	
	0.461	27.30	9.75	37.05	56.67	19.62	
	2.012	23.77	10.01	33.78	56.00	22.22	
	4.202	26.68	10.19	36.87	56.00	19.13	
	17.383	27.26	10.16	37.42	60.00	22.58	
	0.162	34.15	9.88	44.03	55.34	11.31	AV
	0.220	24.78	9.76	34.54	52.83	18.29	
	0.461	18.59	9.75	28.34	46.67	18.33	
	2.012	14.50	10.01	24.51	46.00	21.49	
	4.202	16.91	10.19	27.10	46.00	18.90	
	17.383	18.25	10.16	28.41	50.00	21.59	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1280*1024@75Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.164	44.39	9.88	54.27	65.25	10.98	QP
	0.221	34.73	9.78	44.51	62.79	18.28	
	0.466	27.63	9.75	37.38	56.58	19.20	
	1.949	23.72	10.14	33.86	56.00	22.14	
	4.224	27.45	10.07	37.52	56.00	18.48	
	17.383	27.79	10.27	38.06	60.00	21.94	
	0.164	33.50	9.88	43.38	55.25	11.87	AV
	0.221	24.60	9.78	34.38	52.79	18.41	
	0.466	17.70	9.75	27.45	46.58	19.13	
	1.949	14.30	10.14	24.44	46.00	21.56	
	4.224	17.30	10.07	27.37	46.00	18.63	
	17.383	18.19	10.27	28.46	50.00	21.54	
Neutral	0.164	44.38	9.88	54.26	65.25	10.99	QP
	0.221	34.79	9.76	44.55	62.79	18.24	
	0.461	27.00	9.75	36.75	56.67	19.92	
	2.133	23.60	10.01	33.61	56.00	22.39	
	3.985	29.52	10.19	39.71	56.00	16.29	
	15.146	27.09	10.20	37.29	60.00	22.71	
	0.164	33.70	9.88	43.58	55.25	11.67	AV
	0.221	24.90	9.76	34.66	52.79	18.13	
	0.461	16.60	9.75	26.35	46.67	20.32	
	2.133	13.50	10.01	23.51	46.00	22.49	
	3.985	19.20	10.19	29.39	46.00	16.61	
	15.146	16.50	10.20	26.70	50.00	23.30	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1680*1050@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.161	44.43	9.89	54.32	65.43	11.11	QP
	0.221	34.49	9.78	44.27	62.79	18.52	
	0.461	27.17	9.75	36.92	56.67	19.75	
	1.819	24.30	10.14	34.44	56.00	21.56	
	3.943	29.23	10.08	39.31	56.00	16.69	
	17.199	28.80	10.27	39.07	60.00	20.93	
	0.161	34.16	9.89	44.05	55.43	11.38	AV
	0.221	25.60	9.78	35.38	52.79	17.41	
	0.461	18.40	9.75	28.15	46.67	18.52	
	1.819	15.90	10.14	26.04	46.00	19.96	
	3.943	20.88	10.08	30.96	46.00	15.04	
	17.199	19.76	10.27	30.03	50.00	19.97	
Neutral	0.159	44.35	9.89	54.24	65.52	11.28	QP
	0.220	34.15	9.76	43.91	62.83	18.92	
	0.459	26.33	9.75	36.08	56.71	20.63	
	1.800	23.80	10.01	33.81	56.00	22.19	
	4.269	29.43	10.19	39.62	56.00	16.38	
	15.552	27.63	10.20	37.83	60.00	22.17	
	0.159	34.26	9.89	44.15	55.52	11.37	AV
	0.220	25.03	9.76	34.79	52.83	18.04	
	0.459	17.46	9.75	27.21	46.71	19.50	
	1.800	14.88	10.01	24.89	46.00	21.11	
	4.269	20.91	10.19	31.10	46.00	14.90	
	15.552	18.36	10.20	28.56	50.00	21.44	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.164	43.54	9.88	53.42	65.25	11.83	QP
	0.233	34.21	9.78	43.99	62.35	18.36	
	0.459	26.76	9.75	36.51	56.71	20.20	
	1.800	23.44	10.14	33.58	56.00	22.42	
	4.315	28.00	10.07	38.07	56.00	17.93	
	14.986	28.07	10.28	38.35	60.00	21.65	
	0.164	33.30	9.88	43.18	55.25	12.07	AV
	0.233	23.80	9.78	33.58	52.35	18.77	
	0.459	17.50	9.75	27.25	46.71	19.46	
	1.800	13.60	10.14	23.74	46.00	22.26	
	4.315	17.40	10.07	27.47	46.00	18.53	
	14.986	18.60	10.28	28.88	50.00	21.12	
Neutral	0.168	43.94	9.87	53.81	65.08	11.27	QP
	0.223	33.92	9.76	43.68	62.70	19.02	
	0.461	27.29	9.75	37.04	56.67	19.63	
	1.991	24.33	10.01	34.34	56.00	21.66	
	4.224	29.48	10.19	39.67	56.00	16.33	
	15.146	28.20	10.20	38.40	60.00	21.60	
	0.168	33.20	9.87	43.07	55.08	12.01	AV
	0.223	23.30	9.76	33.06	52.70	19.64	
	0.461	17.20	9.75	26.95	46.67	19.72	
	1.991	14.10	10.01	24.11	46.00	21.89	
	4.224	19.41	10.19	29.60	46.00	16.40	
	15.146	18.90	10.20	29.10	50.00	20.90	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.164	44.77	9.88	54.65	65.25	10.60	QP
	0.220	35.21	9.78	44.99	62.83	17.84	
	0.476	27.17	9.75	36.92	56.41	19.49	
	1.991	23.25	10.14	33.39	56.00	22.61	
	4.269	27.82	10.07	37.89	56.00	18.11	
	17.568	27.84	10.26	38.10	60.00	21.90	
	0.164	33.70	9.88	43.58	55.25	11.67	AV
	0.220	25.70	9.78	35.48	52.83	17.35	
	0.476	16.90	9.75	26.65	46.41	19.76	
	1.991	14.00	10.14	24.14	46.00	21.86	
	4.269	17.60	10.07	27.67	46.00	18.33	
	17.568	18.50	10.26	28.76	50.00	21.24	
Neutral	0.161	45.49	9.89	55.48	65.43	10.05	QP
	0.221	34.84	9.76	44.60	62.79	18.19	
	0.461	26.77	9.75	36.52	56.67	20.15	
	1.858	23.99	10.01	34.00	56.00	22.00	
	4.202	28.51	10.19	38.70	56.00	17.30	
	17.568	27.40	10.15	37.55	60.00	22.45	
	0.161	34.80	9.89	44.69	55.43	10.74	AV
	0.221	24.60	9.76	34.36	52.79	18.43	
	0.461	16.40	9.75	26.15	46.67	20.52	
	1.858	14.10	10.01	24.11	46.00	21.89	
	4.202	19.51	10.19	29.70	46.00	16.30	
	17.568	17.60	10.15	27.75	50.00	22.25	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1280*1024@75Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.161	44.57	9.89	54.46	65.43	10.97	QP
	0.220	34.90	9.78	44.68	62.83	18.15	
	0.461	26.93	9.75	36.68	56.67	19.99	
	2.033	24.09	10.14	34.23	56.00	21.77	
	4.224	28.40	10.07	38.47	56.00	17.53	
	17.568	28.41	10.26	38.67	60.00	21.33	
	0.161	34.70	9.89	44.59	55.43	10.84	AV
	0.220	24.10	9.78	33.88	52.83	18.95	
	0.461	17.40	9.75	27.15	46.67	19.52	
	2.033	13.70	10.14	23.84	46.00	22.16	
	4.224	18.50	10.07	28.57	46.00	17.43	
	17.568	19.40	10.26	29.66	50.00	20.34	
Neutral	0.161	44.89	9.89	54.78	65.43	10.65	QP
	0.221	34.77	9.76	44.53	62.79	18.26	
	0.459	26.85	9.75	36.60	56.71	20.11	
	1.878	24.64	10.01	34.65	56.00	21.35	
	4.158	28.21	10.19	38.40	56.00	17.60	
	15.552	28.17	10.20	38.37	60.00	21.63	
	0.161	34.70	9.89	44.59	55.43	10.84	AV
	0.221	24.40	9.76	34.16	52.79	18.63	
	0.459	17.20	9.75	26.95	46.71	19.76	
	1.878	15.30	10.01	25.31	46.00	20.69	
	4.158	18.30	10.19	28.49	46.00	17.51	
	15.552	18.10	10.20	28.30	50.00	21.70	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1680*1050@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.161	44.16	9.89	54.05	65.43	11.38	QP
	0.237	35.07	9.78	44.85	62.22	17.37	
	0.461	26.37	9.75	36.12	56.67	20.55	
	2.012	23.78	10.14	33.92	56.00	22.08	
	4.158	29.30	10.07	39.37	56.00	16.63	
	17.199	28.32	10.27	38.59	60.00	21.41	
	0.161	34.40	9.89	44.29	55.43	11.14	AV
	0.237	24.40	9.78	34.18	52.22	18.04	
	0.461	16.80	9.75	26.55	46.67	20.12	
	2.012	13.20	10.14	23.34	46.00	22.66	
	4.158	18.50	10.07	28.57	46.00	17.43	
	17.199	17.90	10.27	28.17	50.00	21.83	
Neutral	0.161	44.01	9.89	53.90	65.43	11.53	QP
	0.228	35.37	9.76	45.13	62.52	17.39	
	0.459	26.94	9.75	36.69	56.71	20.02	
	2.012	23.84	10.01	33.85	56.00	22.15	
	4.224	30.29	10.19	40.48	56.00	15.52	
	15.388	29.08	10.20	39.28	60.00	20.72	
	0.161	33.70	9.89	43.59	55.43	11.84	AV
	0.228	24.70	9.76	34.46	52.52	18.06	
	0.459	17.10	9.75	26.85	46.71	19.86	
	2.012	14.80	10.01	24.81	46.00	21.19	
	4.224	20.41	10.19	30.60	46.00	15.40	
	15.388	19.60	10.20	29.80	50.00	20.20	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.162	44.78	9.89	54.67	65.34	10.67	QP
	0.220	34.85	9.78	44.63	62.83	18.20	
	0.471	27.03	9.75	36.78	56.49	19.71	
	1.716	24.34	10.14	34.48	56.00	21.52	
	4.269	28.82	10.07	38.89	56.00	17.11	
	15.226	27.87	10.28	38.15	60.00	21.85	
	0.162	34.59	9.89	44.48	55.34	10.86	AV
	0.220	24.10	9.78	33.88	52.83	18.95	
	0.471	17.40	9.75	27.15	46.49	19.34	
	1.716	14.10	10.14	24.24	46.00	21.76	
	4.269	18.60	10.07	28.67	46.00	17.33	
	15.226	17.20	10.28	27.48	50.00	22.52	
Neutral	0.159	45.10	9.89	54.99	65.52	10.53	QP
	0.221	34.79	9.76	44.55	62.79	18.24	
	0.459	26.20	9.75	35.95	56.71	20.76	
	2.012	23.97	10.01	33.98	56.00	22.02	
	4.158	30.18	10.19	40.37	56.00	15.63	
	14.828	29.01	10.20	39.21	60.00	20.79	
	0.159	34.70	9.89	44.59	55.52	10.93	AV
	0.221	25.20	9.76	34.96	52.79	17.83	
	0.459	17.70	9.75	27.45	46.71	19.26	
	2.012	14.60	10.01	24.61	46.00	21.39	
	4.158	20.30	10.19	30.49	46.00	15.51	
	14.828	20.10	10.20	30.30	50.00	19.70	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : HDMI 480p Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.161	45.43	9.89	55.32	65.43	10.11	QP
	0.220	34.67	9.78	44.45	62.83	18.38	
	0.521	27.22	9.76	36.98	56.00	19.02	
	1.908	23.61	10.14	33.75	56.00	22.25	
	4.158	28.99	10.07	39.06	56.00	16.94	
	17.383	29.34	10.27	39.61	60.00	20.39	
	0.161	35.40	9.89	45.29	55.43	10.14	AV
	0.220	24.70	9.78	34.48	52.83	18.35	
	0.521	17.40	9.76	27.16	46.00	18.84	
	1.908	13.40	10.14	23.54	46.00	22.46	
	4.158	18.30	10.07	28.37	46.00	17.63	
	17.383	19.69	10.27	29.96	50.00	20.04	
Neutral	0.161	45.08	9.89	54.97	65.43	10.46	QP
	0.221	35.49	9.76	45.25	62.79	17.54	
	0.529	26.34	9.75	36.09	56.00	19.91	
	2.012	23.54	10.01	33.55	56.00	22.45	
	4.315	29.15	10.19	39.34	56.00	16.66	
	17.383	28.22	10.16	38.38	60.00	21.62	
	0.161	34.50	9.89	44.39	55.43	11.04	AV
	0.221	25.20	9.76	34.96	52.79	17.83	
	0.529	16.41	9.75	26.16	46.00	19.84	
	2.012	13.90	10.01	23.91	46.00	22.09	
	4.315	18.71	10.19	28.90	46.00	17.10	
	17.383	18.59	10.16	28.75	50.00	21.25	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : HDMI 720p Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.166	44.41	9.88	54.29	65.16	10.87	QP
	0.221	35.76	9.78	45.54	62.79	17.25	
	0.461	26.98	9.75	36.73	56.67	19.94	
	1.800	24.01	10.14	34.15	56.00	21.85	
	4.114	28.51	10.07	38.58	56.00	17.42	
	17.568	27.50	10.26	37.76	60.00	22.24	
	0.166	34.60	9.88	44.48	55.16	10.68	AV
	0.221	25.00	9.78	34.78	52.79	18.01	
	0.461	17.50	9.75	27.25	46.67	19.42	
	1.800	14.80	10.14	24.94	46.00	21.06	
	4.114	18.30	10.07	28.37	46.00	17.63	
	17.568	17.20	10.26	27.46	50.00	22.54	
Neutral	0.157	45.20	9.89	55.09	65.60	10.51	QP
	0.221	34.90	9.76	44.66	62.79	18.13	
	0.466	26.63	9.75	36.38	56.58	20.20	
	1.858	23.70	10.01	33.71	56.00	22.29	
	4.070	27.47	10.19	37.66	56.00	18.34	
	15.718	27.12	10.19	37.31	60.00	22.69	
	0.157	34.80	9.89	44.69	55.60	10.91	AV
	0.221	24.80	9.76	34.56	52.79	18.23	
	0.466	16.70	9.75	26.45	46.58	20.13	
	1.858	13.80	10.01	23.81	46.00	22.19	
	4.070	17.80	10.19	27.99	46.00	18.01	
	15.718	17.51	10.19	27.70	50.00	22.30	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : HDMI 1080i Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.164	45.19	9.88	55.07	65.25	10.18	QP
	0.220	35.49	9.78	45.27	62.83	17.56	
	0.466	26.75	9.75	36.50	56.58	20.08	
	1.878	23.40	10.14	33.54	56.00	22.46	
	4.202	29.27	10.07	39.34	56.00	16.66	
	17.199	28.04	10.27	38.31	60.00	21.69	
	0.164	34.70	9.88	44.58	55.25	10.67	AV
	0.220	25.00	9.78	34.78	52.83	18.05	
	0.466	17.40	9.75	27.15	46.58	19.43	
	1.878	14.50	10.14	24.64	46.00	21.36	
	4.202	20.20	10.07	30.27	46.00	15.73	
	17.199	18.30	10.27	28.57	50.00	21.43	
Neutral	0.162	44.76	9.88	54.64	65.34	10.70	QP
	0.228	34.99	9.76	44.75	62.52	17.77	
	0.461	26.78	9.75	36.53	56.67	20.14	
	2.066	23.64	10.01	33.65	56.00	22.35	
	4.114	27.07	10.19	37.26	56.00	18.74	
	17.383	28.14	10.16	38.30	60.00	21.70	
	0.162	34.70	9.88	44.58	55.34	10.76	AV
	0.228	24.80	9.76	34.56	52.52	17.96	
	0.461	16.90	9.75	26.65	46.67	20.02	
	2.066	14.60	10.01	24.61	46.00	21.39	
	4.114	17.40	10.19	27.59	46.00	18.41	
	17.383	18.39	10.16	28.55	50.00	21.45	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #2 : LCAP26A-A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.156	46.18	9.89	56.07	65.65	9.58	QP
	0.220	35.39	9.78	45.17	62.83	17.66	
	0.461	23.45	9.75	33.20	56.67	23.47	
	2.155	19.81	10.14	29.95	56.00	26.05	
	4.952	23.51	10.07	33.58	56.00	22.42	
	17.755	15.54	10.26	25.80	60.00	34.20	
	0.156	36.74	9.89	46.63	55.65	9.02	AV
	0.220	25.69	9.78	35.47	52.83	17.36	
	0.461	14.60	9.75	24.35	46.67	22.32	
	2.155	11.03	10.14	21.17	46.00	24.83	
	4.952	14.26	10.07	24.33	46.00	21.67	
	17.755	10.70	10.26	20.96	50.00	29.04	
Neutral	0.156	46.69	9.89	56.58	65.65	9.07	QP
	0.220	35.78	9.76	45.54	62.83	17.29	
	0.459	25.40	9.75	35.15	56.71	21.56	
	1.032	18.21	9.92	28.13	56.00	27.87	
	5.058	21.98	10.21	32.19	60.00	27.81	
	22.063	17.32	10.18	27.50	60.00	32.50	
	0.156	37.29	9.89	47.18	55.65	8.47	AV
	0.220	25.69	9.76	35.45	52.83	17.38	
	0.459	16.48	9.75	26.23	46.71	20.48	
	1.032	10.23	9.92	20.15	46.00	25.85	
	5.058	12.03	10.21	22.24	50.00	27.76	
	22.063	10.44	10.18	20.62	50.00	29.38	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #3 : ADS-40SG-19-3
19032G

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.168	42.70	9.87	52.57	65.08	12.51	QP
	0.226	32.07	9.78	41.85	62.61	20.76	
	0.505	29.17	9.75	38.92	56.00	17.08	
	1.645	26.68	10.14	36.82	56.00	19.18	
	4.822	27.09	10.07	37.16	56.00	18.84	
	10.905	25.04	10.19	35.23	60.00	24.77	
	0.168	32.89	9.87	42.76	55.08	12.32	AV
	0.226	22.56	9.78	32.34	52.61	20.27	
	0.505	20.76	9.75	30.51	46.00	15.49	
	1.645	17.49	10.14	27.63	46.00	18.37	
	4.822	18.43	10.07	28.50	46.00	17.50	
	10.905	16.02	10.19	26.21	50.00	23.79	
Neutral	0.168	42.16	9.87	52.03	65.08	13.05	QP
	0.221	32.01	9.76	41.77	62.79	21.02	
	0.494	28.37	9.75	38.12	56.10	17.98	
	1.628	26.63	9.99	36.62	56.00	19.38	
	4.926	28.18	10.21	38.39	56.00	17.61	
	11.080	26.74	10.34	37.08	60.00	22.92	
	0.168	32.74	9.87	42.61	55.08	12.47	AV
	0.221	24.69	9.76	34.45	52.79	18.34	
	0.494	19.48	9.75	29.23	46.10	16.87	
	1.628	17.43	9.99	27.42	46.00	18.58	
	4.926	19.47	10.21	29.68	46.00	16.32	
	11.080	17.03	10.34	27.37	50.00	22.63	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 48%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #4 : ADS-40FSG-19
19032GPCU-1

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.168	41.81	9.87	51.68	65.08	13.40	QP
	0.223	28.32	9.78	38.10	62.70	24.60	
	0.822	24.39	10.12	34.51	56.00	21.49	
	1.418	24.34	10.17	34.51	56.00	21.49	
	3.565	26.54	10.07	36.61	56.00	19.39	
	11.317	21.03	10.19	31.22	60.00	28.78	
	0.168	31.26	9.87	41.13	55.08	13.95	AV
	0.223	18.46	9.78	28.24	52.70	24.46	
	0.822	15.70	10.12	25.82	46.00	20.18	
	1.418	15.30	10.17	25.47	46.00	20.53	
	3.565	17.59	10.07	27.66	46.00	18.34	
	11.317	11.79	10.19	21.98	50.00	28.02	
Neutral	0.164	41.54	9.88	51.42	65.25	13.83	QP
	0.228	31.72	9.76	41.48	62.52	21.04	
	0.516	29.31	9.75	39.06	56.00	16.94	
	2.012	27.54	10.01	37.55	56.00	18.45	
	3.293	26.34	10.12	36.46	56.00	19.54	
	11.080	22.21	10.34	32.55	60.00	27.45	
	0.164	31.26	9.88	41.14	55.25	14.11	AV
	0.228	21.03	9.76	30.79	52.52	21.73	
	0.516	20.78	9.75	30.53	46.00	15.47	
	2.012	18.46	10.01	28.47	46.00	17.53	
	3.293	17.48	10.12	27.60	46.00	18.40	
	11.080	15.90	10.34	26.24	50.00	23.76	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

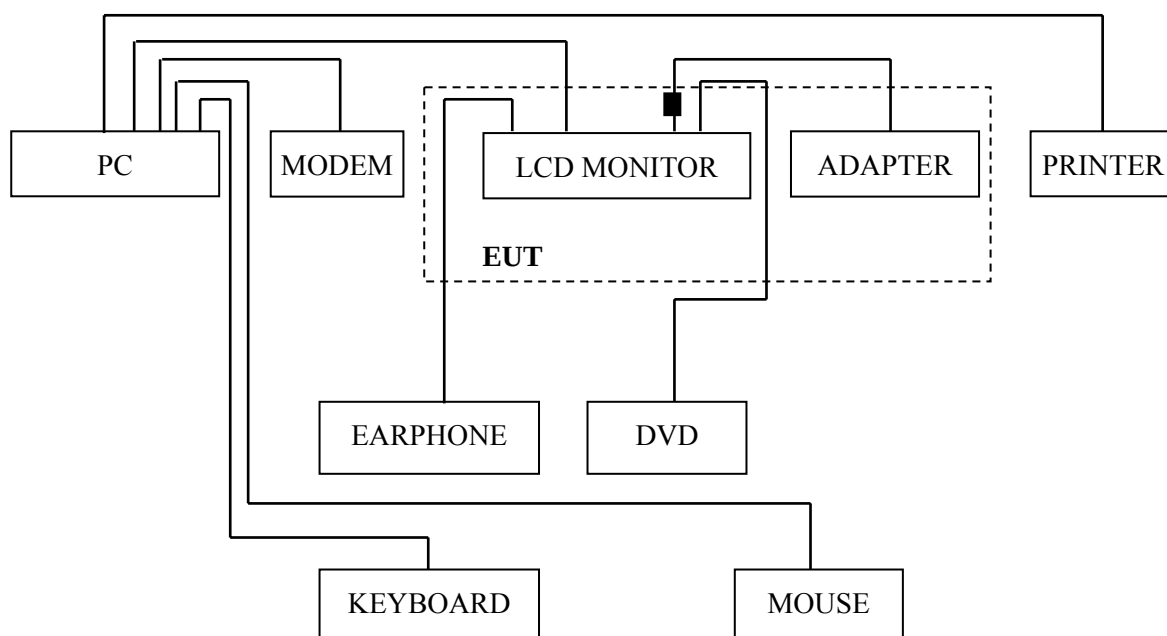
4.1 Test Equipment

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 22, 2011	Mar 22, 2012
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 18, 2011	Mar 18, 2012
3.	Preamplifier	HP	8449B	3008A00864	Mar 22, 2011	Mar 22, 2012
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2011	Dec 01, 2012
5.	Horn Antenna	EMCO	3115	9607-4878	May 06, 2011	May 06, 2012
6.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2011	Mar 22, 2012
7.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426390	Sep 18, 2011	Mar 18, 2012
8.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals

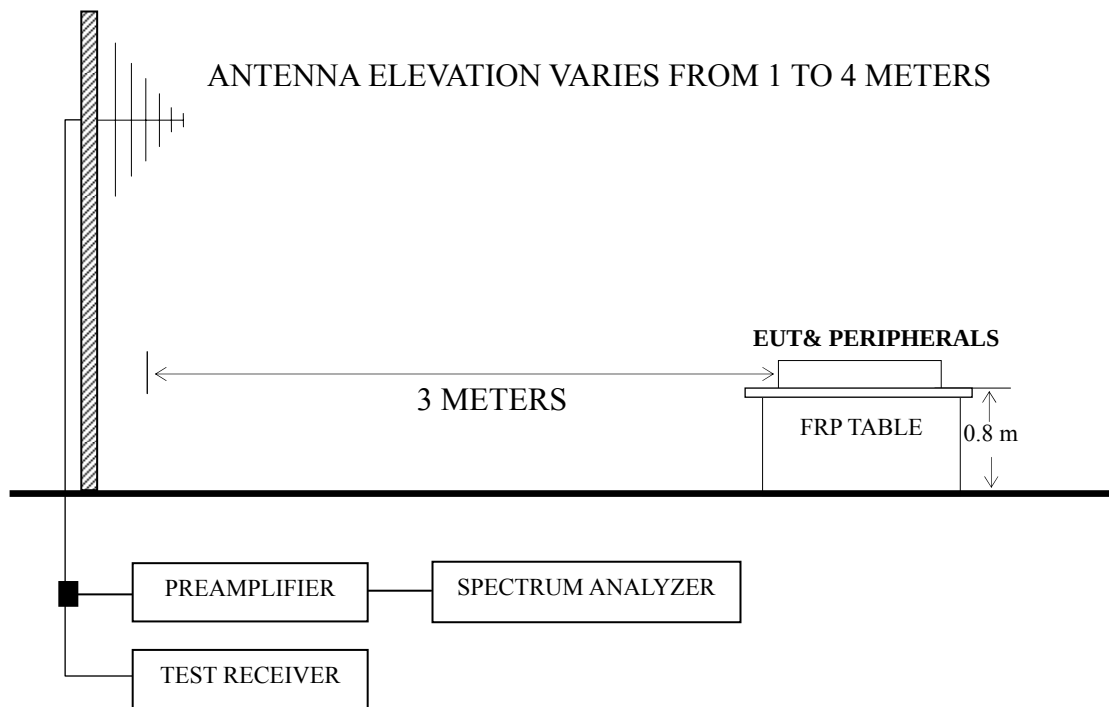


■ : Ferrite core

Note: Ferrite core only for Adapter #2

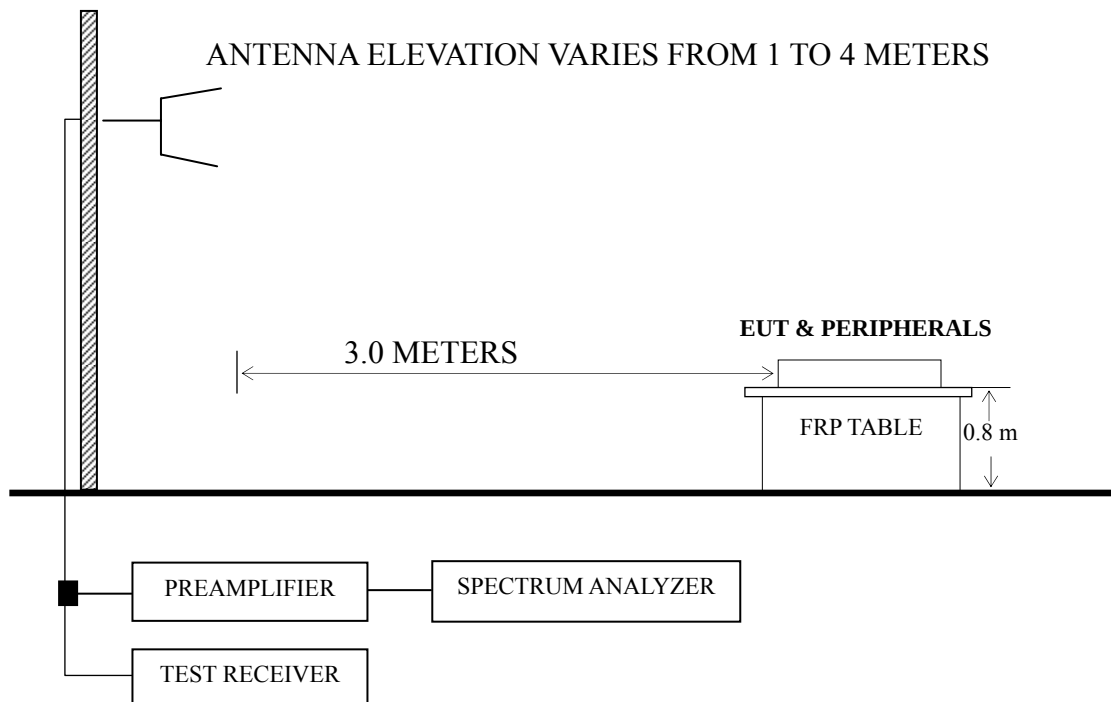
4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



■ : 50 ohm Coaxial Switch

4.2.2.2 Above 1GHz



■ : 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) or Horn 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 I.F. 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 1280*1024@75Hz, 1680*1050@60Hz and 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.

Adapter	Test Mode	Data Page
Adapter #1	D-Sub 640*480@60Hz	P32
	D-Sub 1280*1024@75Hz	P33 – P34
	D-Sub 1680*1050@60Hz	P35 – P36
	D-Sub 1920*1080@60Hz	P37 – P38
	DVI 640*480@60Hz	P39
	DVI 1280*1024@75Hz	P40 – P41
	DVI 1680*1050@60Hz	P42 – P43
	DVI 1920*1080@60Hz	P44 – P45
	HDMI 480p	P46
	HDMI 720p	P47
	HDMI 1080i	P48
Adapter #2	DVI 640*480@60Hz	P49
Adapter #3	DVI 640*480@60Hz	P50
Adapter #4	DVI 640*480@60Hz	P51

NOTE 1 – **The bold test mode** listed above means the worst test mode.

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

NOTE 3 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading.(> 1GHz)

NOTE 4 – All readings are Quasi-Peak values below or equal to 1GHz, Peak values above 1GHz. (according to ANSI C63.4-2003 8.3.1.2 NOTES 1: Where limits are specified by agencies for both average and peak (or quasi-peak) detection, if the peak (or quasipeak) measured value complies with the average limit, it is unnecessary to perform an average measurement.)

NOTE 5 – The emission levels that are 20dB below the official limit are not reported.

NOTE 6 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 7 – We tested the EUT with adapter #1 and selected the worst test mode to perform test with adapter #2/#3/#4.

NOTE 8 – The worst case is for DVI 640*480@60Hz test mode (Adapter #1). The worst emission at horizontal polarization was detected at 800.180 MHz with corrected signal level of 43.85 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 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 32.96 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 140°.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 640*480@60Hz Adapter #1 : LCAP21A

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	50.370	12.55	8.51	0.78	21.84	40.00	18.16
	98.870	16.84	11.31	1.03	29.18	43.50	14.32
	197.810	24.74	9.82	1.44	36.00	43.50	7.50
	337.490	24.24	14.74	1.88	40.86	46.00	5.14
	686.690	6.15	19.33	2.65	28.13	46.00	17.87
	800.180	20.11	20.60	2.89	43.60	46.00	2.40
Vertical	50.370	24.12	8.51	0.78	33.41	40.00	6.59
	83.350	24.98	10.70	0.96	36.64	40.00	3.36
	116.330	18.51	11.07	1.12	30.70	43.50	12.80
	248.250	15.16	11.90	1.60	28.66	46.00	17.34
	395.690	14.44	16.20	2.05	32.69	46.00	13.31
	593.570	11.73	18.17	2.44	32.34	46.00	13.66

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1280*1024@75Hz Adapter #1 : LCAP21A

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	83.350	13.18	10.70	0.96	--	24.84	40.00	15.16	QP
	98.870	17.49	11.31	1.03	--	29.83	43.50	13.67	
	161.920	16.44	10.23	1.29	--	27.96	43.50	15.54	
	197.810	24.86	9.82	1.44	--	36.12	43.50	7.38	
	336.520	25.19	14.74	1.88	--	41.81	46.00	4.19	
	800.180	17.39	20.60	2.89	--	40.88	46.00	5.12	PK
	1070.000	42.43	25.19	4.50	37.27	34.85	74.00	39.15	
	1180.000	42.93	25.71	4.51	37.05	36.10	74.00	37.90	
	1375.000	40.55	26.62	4.54	36.60	35.11	74.00	38.89	
	1595.000	42.87	27.08	4.56	36.11	38.40	74.00	35.60	
	1665.000	42.12	27.14	4.57	36.00	37.83	74.00	36.17	
	1855.000	39.68	27.31	4.64	35.75	35.88	74.00	38.12	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1280*1024@75Hz Adapter #1 : LCAP21A

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
Vertical	50.370	25.45	8.51	0.78	--	34.74	40.00	5.26	QP
	65.890	24.40	9.55	0.87	--	34.82	40.00	5.18	
	83.350	24.56	10.70	0.96	--	36.22	40.00	3.78	
	116.330	20.38	11.07	1.12	--	32.57	43.50	10.93	
	197.810	18.92	9.82	1.44	--	30.18	43.50	13.32	
	395.690	14.88	16.20	2.05	--	33.13	46.00	12.87	
	1080.000	44.21	25.24	4.50	37.25	36.70	74.00	37.30	PK
	1175.000	40.88	25.69	4.51	37.06	34.02	74.00	39.98	
	1305.000	39.21	26.34	4.53	36.77	33.31	74.00	40.69	
	1470.000	39.88	26.92	4.55	36.36	34.99	74.00	39.01	
	1675.000	38.88	27.14	4.57	35.98	34.61	74.00	39.39	
	1760.000	41.03	27.23	4.58	35.86	36.98	74.00	37.02	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1680*1050@60Hz Adapter #1 : LCAP21A

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	50.370	12.99	8.51	0.78	--	22.28	40.00	17.72	QP
	83.350	12.79	10.70	0.96	--	24.45	40.00	15.55	
	98.870	17.49	11.31	1.03	--	29.83	43.50	13.67	
	197.810	24.78	9.82	1.44	--	36.04	43.50	7.46	
	336.520	25.54	14.74	1.88	--	42.16	46.00	3.84	
	800.180	12.81	20.60	2.89	--	36.30	46.00	9.70	PK
	1075.000	49.82	25.21	4.50	37.26	42.27	74.00	31.73	
	1280.000	45.14	26.23	4.53	36.83	39.07	74.00	34.93	
	1365.000	46.94	26.59	4.54	36.62	41.45	74.00	32.55	
	1595.000	44.76	27.08	4.56	36.11	40.29	74.00	33.71	
	1665.000	44.06	27.14	4.57	36.00	39.77	74.00	34.23	
	1760.000	47.87	27.23	4.58	35.86	43.82	74.00	30.18	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1680*1050@60Hz Adapter #1 : LCAP21A

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
Vertical	50.370	24.44	8.51	0.78	--	33.73	40.00	6.27	QP
	83.350	25.44	10.70	0.96	--	37.10	40.00	2.90	
	116.330	19.02	11.07	1.12	--	31.21	43.50	12.29	
	197.810	18.27	9.82	1.44	--	29.53	43.50	13.97	
	395.690	14.93	16.20	2.05	--	33.18	46.00	12.82	
	593.570	12.11	18.17	2.44	--	32.72	46.00	13.28	
	1025.000	42.61	25.01	4.49	37.35	34.76	74.00	39.24	PK
	1135.000	39.53	25.49	4.51	37.14	32.39	74.00	41.61	
	1275.000	42.90	26.21	4.53	36.84	36.80	74.00	37.20	
	1465.000	41.95	26.90	4.55	36.37	37.03	74.00	36.97	
	1670.000	43.97	27.14	4.57	35.99	39.69	74.00	34.31	
	1850.000	41.22	27.30	4.64	35.75	37.41	74.00	36.59	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : LCAP21A

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	98.870	17.03	11.31	1.03	--	29.37	43.50	14.13	QP
	159.010	16.42	10.27	1.28	--	27.97	43.50	15.53	
	197.810	25.28	9.82	1.44	--	36.54	43.50	6.96	
	336.520	24.38	14.74	1.88	--	41.00	46.00	5.00	
	375.320	13.86	15.79	1.99	--	31.64	46.00	14.36	
	800.180	12.94	20.60	2.89	--	36.43	46.00	9.57	PK
	1075.000	43.19	25.21	4.50	37.26	35.64	74.00	38.36	
	1170.000	39.73	25.66	4.51	37.07	32.83	74.00	41.17	
	1240.000	40.93	26.03	4.52	36.92	34.56	74.00	39.44	
	1675.000	40.74	27.14	4.57	35.98	36.47	74.00	37.53	
	1710.000	39.58	27.18	4.57	35.93	35.40	74.00	38.60	
	1870.000	40.54	27.32	4.67	35.73	36.80	74.00	37.20	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : LCAP21A

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
Vertical	50.370	22.34	8.51	0.78	--	31.63	40.00	8.37	QP
	65.890	21.83	9.55	0.87	--	32.25	40.00	7.75	
	83.350	23.65	10.70	0.96	--	35.31	40.00	4.69	
	116.330	17.92	11.07	1.12	--	30.11	43.50	13.39	
	395.690	14.15	16.20	2.05	--	32.40	46.00	13.60	
	593.570	10.60	18.17	2.44	--	31.21	46.00	14.79	
	1035.000	43.71	25.04	4.49	37.33	35.91	74.00	38.09	PK
	1075.000	42.92	25.21	4.50	37.26	35.37	74.00	38.63	
	1375.000	44.50	26.62	4.54	36.60	39.06	74.00	34.94	
	1415.000	40.71	26.75	4.54	36.49	35.51	74.00	38.49	
	1600.000	41.87	27.08	4.56	36.10	37.41	74.00	36.59	
	1710.000	42.56	27.18	4.57	35.93	38.38	74.00	35.62	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #1 : LCAP21A

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	100.810	6.68	11.34	1.05	19.07	43.50	24.43
	158.040	15.03	10.28	1.28	26.59	43.50	16.91
	257.950	16.04	12.31	1.62	29.97	46.00	16.03
	336.520	24.01	14.74	1.88	40.63	46.00	5.37
	375.320	15.81	15.79	1.99	33.59	46.00	12.41
	800.180	20.36	20.60	2.89	43.85	46.00	2.15
Vertical	30.970	14.54	17.78	0.64	32.96	40.00	7.04
	35.820	12.45	15.19	0.68	28.32	40.00	11.68
	65.890	19.83	9.55	0.87	30.25	40.00	9.75
	348.160	10.36	15.09	1.91	27.36	46.00	18.64
	556.710	8.66	17.95	2.36	28.97	46.00	17.03
	800.180	10.58	20.60	2.89	34.07	46.00	11.93

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1280*1024@75Hz Adapter #1 : LCAP21A

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	98.870	6.19	11.31	1.03	--	18.53	43.50	24.97	QP
	158.040	15.04	10.28	1.28	--	26.60	43.50	16.90	
	200.720	16.53	9.83	1.45	--	27.81	43.50	15.69	
	336.520	25.83	14.74	1.88	--	42.45	46.00	3.55	
	374.350	14.96	15.75	1.99	--	32.70	46.00	13.30	
	800.180	20.19	20.60	2.89	--	43.68	46.00	2.32	
	1035.000	46.38	25.04	4.49	37.33	38.58	74.00	35.42	PK
	1155.000	42.99	25.59	4.51	37.10	35.99	74.00	38.01	
	1285.000	42.93	26.26	4.53	36.82	36.90	74.00	37.10	
	1415.000	43.39	26.75	4.54	36.49	38.19	74.00	35.81	
	1570.000	45.94	27.06	4.56	36.16	41.40	74.00	32.60	
	1760.000	43.32	27.23	4.58	35.86	39.27	74.00	34.73	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1280*1024@75Hz Adapter #1 : LCAP21A

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
Vertical	35.820	19.56	15.19	0.68	--	35.43	40.00	4.57	QP
	63.950	20.54	9.41	0.86	--	30.81	40.00	9.19	
	81.410	15.60	10.62	0.95	--	27.17	40.00	12.83	
	173.560	13.85	10.07	1.35	--	25.27	43.50	18.23	
	336.520	10.58	14.74	1.88	--	27.20	46.00	18.80	
	800.180	14.94	20.60	2.89	--	38.43	46.00	7.57	
	1020.000	41.97	24.98	4.49	37.36	34.08	74.00	39.92	PK
	1365.000	41.69	26.59	4.54	36.62	36.20	74.00	37.80	
	1455.000	42.57	26.88	4.55	36.39	37.61	74.00	36.39	
	1565.000	41.61	27.05	4.56	36.17	37.05	74.00	36.95	
	1735.000	41.04	27.20	4.57	35.90	36.91	74.00	37.09	
	1785.000	41.99	27.25	4.58	35.83	37.99	74.00	36.01	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1680*1050@60Hz Adapter #1 : LCAP21A

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	-1.25	17.78	0.64	--	17.17	40.00	22.83	QP
	103.720	4.69	11.29	1.06	--	17.04	43.50	26.46	
	159.010	14.66	10.27	1.28	--	26.21	43.50	17.29	
	200.720	17.58	9.83	1.45	--	28.86	43.50	14.64	
	336.520	25.43	14.74	1.88	--	42.05	46.00	3.95	
	800.180	18.00	20.60	2.89	--	41.49	46.00	4.51	PK
	1075.000	43.89	25.21	4.50	37.26	36.34	74.00	37.66	
	1275.000	43.96	26.21	4.53	36.84	37.86	74.00	36.14	
	1560.000	41.83	27.05	4.56	36.18	37.26	74.00	36.74	
	1600.000	42.63	27.08	4.56	36.10	38.17	74.00	35.83	
	1665.000	40.99	27.14	4.57	36.00	36.70	74.00	37.30	
	1960.000	38.67	27.38	4.75	35.64	35.16	74.00	38.84	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1680*1050@60Hz Adapter #1 : LCAP21A

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
Vertical	30.970	13.48	17.78	0.64	--	31.90	40.00	8.10	QP
	63.950	20.52	9.41	0.86	--	30.79	40.00	9.21	
	85.290	14.29	10.80	0.97	--	26.06	40.00	13.94	
	173.560	13.13	10.07	1.35	--	24.55	43.50	18.95	
	417.030	8.12	16.52	2.10	--	26.74	46.00	19.26	
	556.710	8.15	17.95	2.36	--	28.46	46.00	17.54	
	1055.000	41.35	25.13	4.49	37.30	33.67	74.00	40.33	PK
	1280.000	40.30	26.23	4.53	36.83	34.23	74.00	39.77	
	1325.000	41.34	26.42	4.53	36.73	35.56	74.00	38.44	
	1470.000	40.23	26.92	4.55	36.36	35.34	74.00	38.66	
	1595.000	41.56	27.08	4.56	36.11	37.09	74.00	36.91	
	1760.000	41.77	27.23	4.58	35.86	37.72	74.00	36.28	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21A

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	106.630	10.35	11.24	1.07	--	22.66	43.50	20.84	QP
	159.980	15.20	10.25	1.28	--	26.73	43.50	16.77	
	200.720	17.75	9.83	1.45	--	29.03	43.50	14.47	
	336.520	25.69	14.74	1.88	--	42.31	46.00	3.69	
	374.350	15.68	15.75	1.99	--	33.42	46.00	12.58	
	800.180	18.40	20.60	2.89	--	41.89	46.00	4.11	PK
	1020.000	41.50	24.98	4.49	37.36	33.61	74.00	40.39	
	1180.000	41.20	25.71	4.51	37.05	34.37	74.00	39.63	
	1335.000	39.09	26.47	4.53	36.70	33.39	74.00	40.61	
	1520.000	38.65	27.02	4.55	36.24	33.98	74.00	40.02	
	1665.000	40.06	27.14	4.57	36.00	35.77	74.00	38.23	
	1850.000	37.84	27.30	4.64	35.75	34.03	74.00	39.97	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21A

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
Vertical	63.950	20.02	9.41	0.86	--	30.29	40.00	9.71	QP
	85.290	15.67	10.80	0.97	--	27.44	40.00	12.56	
	160.950	13.68	10.24	1.29	--	25.21	43.50	18.29	
	338.460	11.56	14.78	1.88	--	28.22	46.00	17.78	
	555.740	7.25	17.95	2.36	--	27.56	46.00	18.44	
	871.960	15.46	20.38	2.98	--	38.82	46.00	7.18	
	1025.000	47.61	25.01	4.49	37.35	39.76	74.00	34.24	PK
	1275.000	47.90	26.21	4.53	36.84	41.80	74.00	32.20	
	1365.000	48.17	26.59	4.54	36.62	42.68	74.00	31.32	
	1660.000	46.29	27.13	4.57	36.00	41.99	74.00	32.01	
	1850.000	46.22	27.30	4.64	35.75	42.41	74.00	31.59	
	1930.000	45.36	27.36	4.72	35.67	41.77	74.00	32.23	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : HDMI 480p Adapter #1 : LCAP21A

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	14.84	11.24	1.03	27.11	43.50	16.39
	216.240	30.10	10.45	1.50	42.05	46.00	3.95
	323.910	22.19	14.38	1.84	38.41	46.00	7.59
	431.580	18.09	16.72	2.13	36.94	46.00	9.06
	755.560	9.12	20.12	2.80	32.04	46.00	13.96
	872.930	10.52	20.37	2.98	33.87	46.00	12.13
Vertical	93.050	23.81	11.12	1.01	35.94	43.50	7.56
	107.600	19.80	11.22	1.07	32.09	43.50	11.41
	161.920	15.95	10.23	1.29	27.47	43.50	16.03
	216.240	25.64	10.45	1.50	37.59	46.00	8.41
	431.580	19.42	16.72	2.13	38.27	46.00	7.73
	755.560	10.63	20.12	2.80	33.55	46.00	12.45

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : HDMI 720p Adapter #1 : LCAP21A

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	98.870	14.55	11.31	1.03	26.89	43.50	16.61
	216.240	19.52	10.45	1.50	31.47	46.00	14.53
	315.180	11.62	14.12	1.81	27.55	46.00	18.45
	431.580	16.08	16.72	2.13	34.93	46.00	11.07
	480.080	11.32	17.37	2.22	30.91	46.00	15.09
	798.240	3.83	20.57	2.89	27.29	46.00	18.71
Vertical	91.110	25.22	11.05	1.00	37.27	43.50	6.23
	214.300	22.01	10.37	1.50	33.88	43.50	9.62
	284.140	14.99	13.24	1.72	29.95	46.00	16.05
	323.910	14.41	14.38	1.84	30.63	46.00	15.37
	431.580	18.62	16.72	2.13	37.47	46.00	8.53
	480.080	11.32	17.37	2.22	30.91	46.00	15.09

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 19, 2011

Test Mode : HDMI 1080i Adapter #1 : Dec 21, 2011

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	102.750	14.05	11.31	1.05	26.41	43.50	17.09
	216.240	20.56	10.45	1.50	32.51	46.00	13.49
	243.400	18.64	11.65	1.58	31.87	46.00	14.13
	431.580	23.30	16.72	2.13	42.15	46.00	3.85
	480.080	11.53	17.37	2.22	31.12	46.00	14.88
	755.560	7.76	20.12	2.80	30.68	46.00	15.32
Vertical	63.950	17.42	9.41	0.86	27.69	40.00	12.31
	91.110	24.71	11.05	1.00	36.76	43.50	6.74
	195.870	17.01	9.84	1.43	28.28	43.50	15.22
	216.240	19.97	10.45	1.50	31.92	46.00	14.08
	431.580	18.77	16.72	2.13	37.62	46.00	8.38
	496.570	22.77	17.56	2.26	42.59	46.00	3.41

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #3 : LCAP26A-A

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	-1.64	17.78	0.64	16.78	40.00	23.22
	200.720	13.36	9.83	1.45	24.64	43.50	18.86
	228.850	8.76	11.01	1.54	21.31	46.00	24.69
	336.520	21.40	14.74	1.88	38.02	46.00	7.98
	375.320	15.51	15.79	1.99	33.29	46.00	12.71
	800.180	20.15	20.60	2.89	43.64	46.00	2.36
Vertical	35.820	11.62	15.19	0.68	27.49	40.00	12.51
	200.720	12.36	9.83	1.45	23.64	43.50	19.86
	336.520	22.40	14.74	1.88	39.02	46.00	6.98
	375.320	15.51	15.79	1.99	33.29	46.00	12.71
	800.180	16.15	20.60	2.89	39.64	46.00	6.36
	871.960	16.23	20.38	2.98	39.59	46.00	6.41

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #2 : ADS-40SG-19-3
19032G

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	44.550	20.15	10.47	0.75	31.37	40.00	8.63
	83.350	18.58	10.70	0.96	30.24	40.00	9.76
	159.980	18.64	10.25	1.28	30.17	43.50	13.33
	347.190	16.97	15.04	1.91	33.92	46.00	12.08
	487.840	9.41	17.46	2.24	29.11	46.00	16.89
	676.990	9.81	19.22	2.63	31.66	46.00	14.34
Vertical	45.520	18.43	10.09	0.76	29.28	40.00	10.72
	98.870	17.90	11.31	1.03	30.24	43.50	13.26
	161.920	18.02	10.23	1.29	29.54	43.50	13.96
	200.720	13.21	9.83	1.45	24.49	43.50	19.01
	406.360	11.12	16.39	2.08	29.59	46.00	16.41
	486.870	9.66	17.46	2.24	29.36	46.00	16.64

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2251VZ Humidity : 60%RH

Serial No. : 112NDUN2S166 Date of Test : Dec 21, 2011

Test Mode : DVI 640*480@60Hz Adapter #4 : ADS-40FSG-19
19032GPCU-1

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	98.870	10.83	11.31	1.03	23.17	43.50	20.33
	160.950	15.72	10.24	1.29	27.25	43.50	16.25
	200.720	18.31	9.83	1.45	29.59	43.50	13.91
	336.520	26.78	14.74	1.88	43.40	46.00	2.60
	375.320	15.34	15.79	1.99	33.12	46.00	12.88
	800.180	18.07	20.60	2.89	41.56	46.00	4.44
Vertical	56.190	20.02	8.88	0.82	29.72	40.00	10.28
	83.350	18.22	10.70	0.96	29.88	40.00	10.12
	98.870	18.40	11.31	1.03	30.74	43.50	12.76
	161.920	15.18	10.23	1.29	26.70	43.50	16.80
	336.520	15.11	14.74	1.88	31.73	46.00	14.27
	407.330	9.43	16.39	2.08	27.90	46.00	18.10

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	Specifications (mm)	Manufacturer	Location
Aluminum Tape	50*30	DAEHUNG SUBSIDIARY MATERIALS	See Appendix Figure 17
EMI Sponge	140mm*1T	EXPANELectronics SUZHOU Co., Ltd.	See Appendix Figure 18
EMI tape	30mm*20mm*0.5um	EXPANELectronics SUZHOU Co., Ltd.	See Appendix Figure 18

Note: We had required the applicant and manufacturer that all electrical and mechanical devices employed for spurious radiation suppression, including any modifications made during certification testing, must be incorporated in each unit marked

TEST ENGINEER:



(RAVEN JIN)