

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

LCD Monitor

Model No.: E2341VX

Serial No.: E2010101804

FCC ID : BEJE2341VX

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

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Report No. : ACI-F10153
Date of Test : Nov 12, 2010
Date of Report : Nov 17, 2010

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.....	23
4.1 Test Equipment.....	23
4.2 Block Diagram of Test Setup.....	23
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)].....	24
4.4 Test Configuration.....	24
4.5 Operating Condition of EUT.....	25
4.6 Test Procedures.....	25
4.7 Test Results.....	26
5 DEVIATION TO TEST SPECIFICATIONS.....	44
6 DEBUG DESCRIPTION.....	45

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. : E2341VX
(B) Serial No. : E2010101804
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2009
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: E2341VX; S/N: E2010101804) which was tested in 3m anechoic chamber Nov 12, 2010 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 : Nov 12, 2010 Date of Report : . Nov 17, 2010

Producer : Kathy Wang
KATHY WANG / Assistant

Review : Dio Yang
DIO YANG / Deputy Assistant Manager

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

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Deputy 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 2009 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2009 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.	: E2341VX
Serial No.	: E2010101804
Real Power	: 29.20W
Applicant	: LG Electronics U.S.A., Inc. 1000 Sylvan Avenue, Englewood Cliffs, NJ 07632, United States
Manufacturer	: LG Electronics Nanjing Display Co., Ltd. No.346, Yao Xin Road, Economic & Technical Development Zone, Nanjing, China
LCD Panel	: Manufacturer: LG Display M/N : LM230WF5 (TL) (D1)
Max Resolution	: 1920*1080@60Hz
D-Sub Cable #1	: Shielded, Detachable, 1.85m, with two cores on cable
D-Sub Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
DVI Cable #1	: Shielded, Detachable, 1.85m, with two cores on cable
DVI Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
HDMI Cable	: Shielded, Detachable, 1.00m, without core
Power Cord	: Unshielded, Detachable, 1.80m
Note	: After evaluation, the D-Sub cable#1 and DVI cable#1 were used in the test for they will cause the maximum emission.

Remark:

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

- | | |
|-----------------------|---------------------------|
| (1) One D-Sub Port | : Connected with PC |
| (2) One DVI Port | : Connected with PC |
| (3) One Earphone Port | : Connected with Earphone |
| (4) One HDMI Port | : Connected with DVD |
| (5) One AC In Port | : Connected with Power |

2.2 Peripherals

2.2.1 PC #1

Manufacturer	:	HP
Model Number	:	dx7400MT
Serial Number	:	CNG8130K89
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 PC #2

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))

2.2.3 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	:	KU-0459
Serial Number	:	7691402450604
Data Cable	:	Shielded, Undetachable, 1.8m
Certificate	:	CE/EMC, FCC DoC, VCCI, MIC, C-Tick, BSMI

2.2.5 Mouse

Manufacturer : DELL
Model Number : MO56UO
Serial Number : 443048231
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
Certificate : FCC DoC, CE/EMC, CCC

2.2.8 Earphone

Manufacturer : SONY
Model Number : MDR-E808
Serial Number : 1808030805305506

Note: PC #1 was used in Conducted Emission Test while PC #2 was used in Radiated Emission Test.

2.3 Description of Test Facility

Site Description : Sept. 17, 1998 file on
(Semi-Anechoic Chamber) 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 = 1.26 dB
Radiated Emission Expanded Uncertainty : U = 3.02 dB

3 CONDUCTED EMISSION TEST

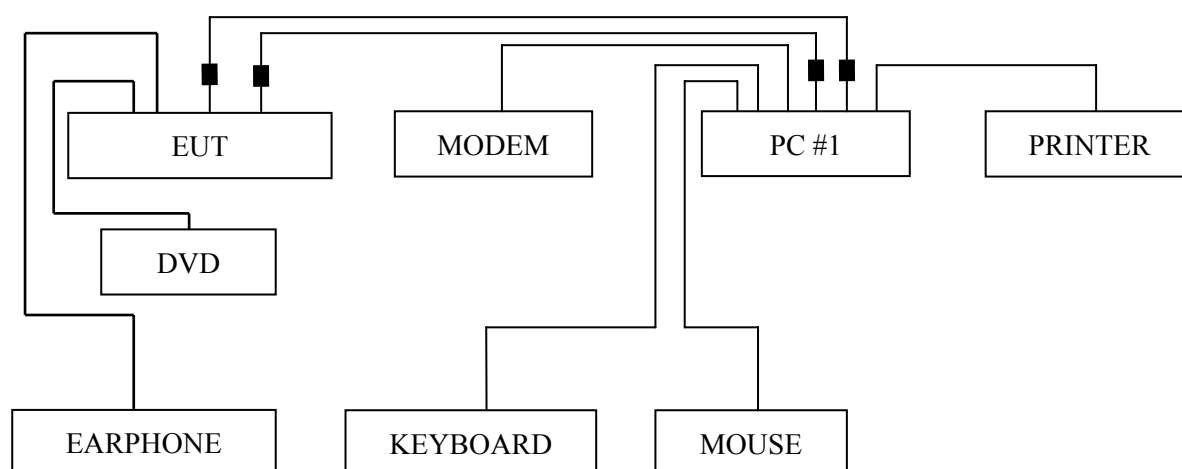
3.1 Test Equipment

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	Oct 15, 2010	Oct 15, 2011
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Apr 02, 2010	Apr 02, 2011
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 02, 2010	Apr 02, 2011
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Sep 19, 2010	Mar 19, 2011
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 02, 2010	Apr 02, 2011
6.	Software	Audix	E3	SET00200 9804M592	--	--

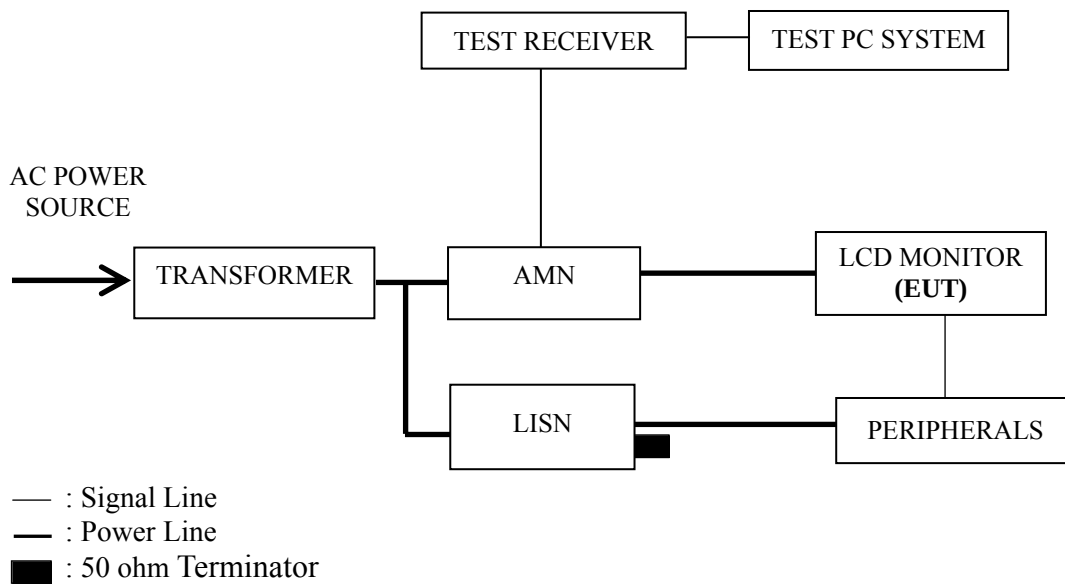
3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



■ : Ferrite core

3.2.2 Conducted Disturbance Test Setup



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

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

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

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

Test Mode
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 1080P

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.

Test Mode	Page
D-Sub 640*480@60Hz	P12
D-Sub 1280*1024@75Hz	P13
D-Sub 1680*1050@60Hz	P14
D-Sub 1920*1080@60Hz	P15
DVI 640*480@60Hz	P16
DVI 1280*1024@75Hz	P17
DVI 1680*1050@60Hz	P18
DVI 1920*1080@60Hz	P19
HDMI 480P	P20
HDMI 720P	P21
HDMI 1080P	P22

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 D-Sub 1680*1050@60Hz test mode. The worst emission is detected at 2.396 MHz (Average Value) with corrected signal level of 26.75 dB (μV) (limit is 46.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.153	41.36	0.37	41.73	65.82	24.09	QP
	0.186	41.22	0.38	41.60	64.20	22.60	
	0.440	30.25	0.50	30.75	57.07	26.32	
	2.707	31.93	0.67	32.60	56.00	23.40	
	6.056	33.60	0.85	34.45	60.00	25.55	
	25.864	36.71	1.82	38.53	60.00	21.47	
	0.153	30.26	0.37	30.63	55.82	25.19	AV
	0.186	31.26	0.38	31.64	54.20	22.56	
	0.440	21.47	0.50	21.97	47.07	25.10	
	2.707	21.55	0.67	22.22	46.00	23.78	
	6.056	23.64	0.85	24.49	50.00	25.51	
	25.864	25.17	1.82	26.99	50.00	23.01	
Neutral	0.150	43.11	0.32	43.43	66.00	22.57	QP
	0.206	41.51	0.31	41.82	63.36	21.54	
	0.466	31.73	0.48	32.21	56.58	24.37	
	2.237	32.76	0.60	33.36	56.00	22.64	
	9.302	36.57	0.99	37.56	60.00	22.44	
	22.896	37.11	1.83	38.94	60.00	21.06	
	0.150	33.26	0.32	33.58	56.00	22.42	AV
	0.206	31.26	0.31	31.57	53.36	21.79	
	0.466	21.13	0.48	21.61	46.58	24.97	
	2.237	21.36	0.60	21.96	46.00	24.04	
	9.302	26.15	0.99	27.14	50.00	22.86	
	22.896	28.14	1.83	29.97	50.00	20.03	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1280*1024@75Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.155	40.82	0.37	41.19	65.74	24.55	QP
	0.188	40.76	0.39	41.15	64.11	22.96	
	0.456	29.55	0.50	30.05	56.76	26.71	
	2.650	32.40	0.67	33.07	56.00	22.93	
	6.056	34.29	0.85	35.14	60.00	24.86	
	23.140	37.07	1.73	38.80	60.00	21.20	
	0.155	30.29	0.37	30.66	55.74	25.08	AV
	0.188	21.53	0.39	21.92	54.11	32.19	
	0.456	18.15	0.50	18.65	46.76	28.11	
	2.650	22.17	0.67	22.84	46.00	23.16	
	6.056	24.17	0.85	25.02	50.00	24.98	
	23.140	24.16	1.73	25.89	50.00	24.11	
Neutral	0.152	42.64	0.32	42.96	65.91	22.95	QP
	0.204	39.73	0.31	40.04	63.45	23.41	
	1.324	30.55	0.54	31.09	56.00	24.91	
	2.396	34.45	0.62	35.07	56.00	20.93	
	7.687	35.71	0.90	36.61	60.00	23.39	
	21.830	37.46	1.81	39.27	60.00	20.73	
	0.152	31.26	0.32	31.58	55.91	24.33	AV
	0.204	24.15	0.31	24.46	53.45	28.99	
	1.324	21.46	0.54	22.00	46.00	24.00	
	2.396	24.16	0.62	24.78	46.00	21.22	
	7.687	25.31	0.90	26.21	50.00	23.79	
	21.830	24.57	1.81	26.38	50.00	23.62	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1680*1050@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.152	41.72	0.37	42.09	65.91	23.82	QP
	0.186	39.66	0.38	40.04	64.20	24.16	
	0.466	29.47	0.51	29.98	56.58	26.60	
	2.650	32.86	0.67	33.53	56.00	22.47	
	6.056	33.76	0.85	34.61	60.00	25.39	
	24.142	37.09	1.77	38.86	60.00	21.14	
	0.152	31.27	0.37	31.64	55.91	24.27	AV
	0.186	26.34	0.38	26.72	54.20	27.48	
	0.466	18.57	0.51	19.08	46.58	27.50	
	2.650	22.34	0.67	23.01	46.00	22.99	
	6.056	23.15	0.85	24.00	50.00	26.00	
	24.142	27.14	1.77	28.91	50.00	21.09	
Neutral	0.152	43.00	0.32	43.32	65.91	22.59	QP
	0.199	40.50	0.30	40.80	63.67	22.87	
	1.433	30.51	0.54	31.05	56.00	24.95	
	2.396	34.58	0.62	35.20	56.00	20.80	
	9.302	36.37	0.99	37.36	60.00	22.64	
	22.535	37.29	1.83	39.12	60.00	20.88	
	0.152	31.26	0.32	31.58	55.91	24.33	AV
	0.199	31.26	0.30	31.56	53.67	22.11	
	1.433	21.17	0.54	21.71	46.00	24.29	
	2.396	26.13	0.62	26.75	46.00	19.25	
	9.302	26.35	0.99	27.34	50.00	22.66	
	22.535	24.57	1.83	26.40	50.00	23.60	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.153	39.96	0.37	40.33	65.82	25.49	QP
	0.192	40.15	0.38	40.53	63.93	23.40	
	0.402	29.53	0.48	30.01	57.81	27.80	
	2.707	32.65	0.67	33.32	56.00	22.68	
	6.056	33.39	0.85	34.24	60.00	25.76	
	25.591	36.89	1.81	38.70	60.00	21.30	
	0.153	28.46	0.37	28.83	55.82	26.99	AV
	0.192	30.26	0.38	30.64	53.93	23.29	
	0.402	18.54	0.48	19.02	47.81	28.79	
	2.707	22.65	0.67	23.32	46.00	22.68	
	6.056	23.64	0.85	24.49	50.00	25.51	
	25.591	26.17	1.81	27.98	50.00	22.02	
Neutral	0.150	43.47	0.32	43.79	66.00	22.21	QP
	0.200	40.46	0.30	40.76	63.62	22.86	
	1.433	30.65	0.54	31.19	56.00	24.81	
	2.237	32.70	0.60	33.30	56.00	22.70	
	9.302	36.73	0.99	37.72	60.00	22.28	
	25.864	37.82	1.89	39.71	60.00	20.29	
	0.150	33.60	0.32	33.92	56.00	22.08	AV
	0.200	30.25	0.30	30.55	53.62	23.07	
	1.433	21.54	0.54	22.08	46.00	23.92	
	2.237	22.36	0.60	22.96	46.00	23.04	
	9.302	26.54	0.99	27.53	50.00	22.47	
	25.864	28.46	1.89	30.35	50.00	19.65	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

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	42.07	0.37	42.44	66.00	23.56	QP
	0.190	39.87	0.38	40.25	64.02	23.77	
	0.614	28.86	0.52	29.38	56.00	26.62	
	2.707	33.25	0.67	33.92	56.00	22.08	
	6.056	34.01	0.85	34.86	60.00	25.14	
	22.535	37.85	1.72	39.57	60.00	20.43	
	0.150	31.26	0.37	31.63	56.00	24.37	AV
	0.190	28.45	0.38	28.83	54.02	25.19	
	0.614	18.45	0.52	18.97	46.00	27.03	
	2.707	23.18	0.67	23.85	46.00	22.15	
	6.056	24.17	0.85	25.02	50.00	24.98	
	22.535	27.13	1.72	28.85	50.00	21.15	
Neutral	0.153	42.82	0.32	43.14	65.82	22.68	QP
	0.188	41.02	0.31	41.33	64.11	22.78	
	0.408	31.08	0.44	31.52	57.68	26.16	
	2.384	33.95	0.62	34.57	56.00	21.43	
	7.687	36.04	0.90	36.94	60.00	23.06	
	22.298	37.69	1.81	39.50	60.00	20.50	
	0.153	32.15	0.32	32.47	55.82	23.35	AV
	0.188	31.27	0.31	31.58	54.11	22.53	
	0.408	21.36	0.44	21.80	47.68	25.88	
	2.384	23.70	0.62	24.32	46.00	21.68	
	7.687	25.47	0.90	26.37	50.00	23.63	
	22.298	24.75	1.81	26.56	50.00	23.44	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 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	41.99	0.37	42.36	66.00	23.64	QP
	0.192	40.24	0.38	40.62	63.93	23.31	
	0.447	29.83	0.50	30.33	56.93	26.60	
	2.650	33.00	0.67	33.67	56.00	22.33	
	6.056	33.81	0.85	34.66	60.00	25.34	
	25.864	37.05	1.82	38.87	60.00	21.13	
	0.150	31.26	0.37	31.63	56.00	24.37	AV
	0.192	30.26	0.38	30.64	53.93	23.29	
	0.447	18.54	0.50	19.04	46.93	27.89	
	2.650	22.14	0.67	22.81	46.00	23.19	
	6.056	23.15	0.85	24.00	50.00	26.00	
	25.864	25.14	1.82	26.96	50.00	23.04	
Neutral	0.150	42.15	0.32	42.47	66.00	23.53	QP
	0.184	39.92	0.31	40.23	64.28	24.05	
	0.466	31.54	0.48	32.02	56.58	24.56	
	2.261	33.29	0.60	33.89	56.00	22.11	
	9.302	36.30	0.99	37.29	60.00	22.71	
	22.655	37.38	1.83	39.21	60.00	20.79	
	0.150	31.24	0.32	31.56	56.00	24.44	AV
	0.184	28.47	0.31	28.78	54.28	25.50	
	0.466	21.70	0.48	22.18	46.58	24.40	
	2.261	23.16	0.60	23.76	46.00	22.24	
	9.302	26.35	0.99	27.34	50.00	22.66	
	22.655	27.47	1.83	29.30	50.00	20.70	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1680*1050@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	42.33	0.37	42.70	66.00	23.30	QP
	0.194	40.07	0.38	40.45	63.84	23.39	
	0.524	29.42	0.52	29.94	56.00	26.06	
	2.554	31.61	0.66	32.27	56.00	23.73	
	6.056	33.34	0.85	34.19	60.00	25.81	
	25.321	37.27	1.80	39.07	60.00	20.93	
	0.150	33.26	0.37	33.63	56.00	22.37	AV
	0.194	30.24	0.38	30.62	53.84	23.22	
	0.524	18.47	0.52	18.99	46.00	27.01	
	2.554	21.48	0.66	22.14	46.00	23.86	
	6.056	21.34	0.85	22.19	50.00	27.81	
	25.321	27.16	1.80	28.96	50.00	21.04	
Neutral	0.157	41.43	0.32	41.75	65.60	23.85	QP
	0.208	40.27	0.31	40.58	63.27	22.69	
	1.433	30.61	0.54	31.15	56.00	24.85	
	2.384	33.62	0.62	34.24	56.00	21.76	
	9.302	36.11	0.99	37.10	60.00	22.90	
	23.636	37.25	1.85	39.10	60.00	20.90	
	0.157	31.25	0.32	31.57	55.60	24.03	AV
	0.208	30.26	0.31	30.57	53.27	22.70	
	1.433	21.47	0.54	22.01	46.00	23.99	
	2.384	23.13	0.62	23.75	46.00	22.25	
	9.302	26.35	0.99	27.34	50.00	22.66	
	23.636	28.46	1.85	30.31	50.00	19.69	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.155	40.55	0.37	40.92	65.74	24.82	QP
	0.186	39.09	0.38	39.47	64.20	24.73	
	0.447	30.47	0.50	30.97	56.93	25.96	
	2.736	31.59	0.67	32.26	56.00	23.74	
	6.056	33.80	0.85	34.65	60.00	25.35	
	26.139	37.33	1.83	39.16	60.00	20.84	
	0.155	30.26	0.37	30.63	55.74	25.11	AV
	0.186	28.15	0.38	28.53	54.20	25.67	
	0.447	21.17	0.50	21.67	46.93	25.26	
	2.736	21.48	0.67	22.15	46.00	23.85	
	6.056	23.64	0.85	24.49	50.00	25.51	
	26.139	28.14	1.83	29.97	50.00	20.03	
Neutral	0.152	42.76	0.32	43.08	65.91	22.83	QP
	0.206	40.39	0.31	40.70	63.36	22.66	
	0.516	31.29	0.49	31.78	56.00	24.22	
	2.384	33.22	0.62	33.84	56.00	22.16	
	7.687	36.39	0.90	37.29	60.00	22.71	
	22.535	37.24	1.83	39.07	60.00	20.93	
	0.152	31.26	0.32	31.58	55.91	24.33	AV
	0.206	31.26	0.31	31.57	53.36	21.79	
	0.516	21.17	0.49	21.66	46.00	24.34	
	2.384	21.13	0.62	21.75	46.00	24.25	
	7.687	26.15	0.90	27.05	50.00	22.95	
	22.535	24.57	1.83	26.40	50.00	23.60	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 480P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.157	40.34	0.37	40.71	65.60	24.89	QP
	0.184	40.75	0.38	41.13	64.28	23.15	
	0.452	29.99	0.50	30.49	56.85	26.36	
	2.650	32.55	0.67	33.22	56.00	22.78	
	6.056	33.16	0.85	34.01	60.00	25.99	
	22.298	36.69	1.70	38.39	60.00	21.61	
	0.157	30.27	0.37	30.64	55.60	24.96	AV
	0.184	30.25	0.38	30.63	54.28	23.65	
	0.452	15.48	0.50	15.98	46.85	30.87	
	2.650	23.61	0.67	24.28	46.00	21.72	
	6.056	23.15	0.85	24.00	50.00	26.00	
	22.298	26.16	1.70	27.86	50.00	22.14	
Neutral	0.152	42.94	0.32	43.26	65.91	22.65	QP
	0.188	41.54	0.31	41.85	64.11	22.26	
	0.435	31.16	0.45	31.61	57.15	25.54	
	2.581	31.46	0.63	32.09	56.00	23.91	
	7.769	36.37	0.91	37.28	60.00	22.72	
	23.140	37.79	1.83	39.62	60.00	20.38	
	0.152	32.15	0.32	32.47	55.91	23.44	AV
	0.188	30.26	0.31	30.57	54.11	23.54	
	0.435	21.48	0.45	21.93	47.15	25.22	
	2.581	21.47	0.63	22.10	46.00	23.90	
	7.769	21.36	0.91	22.27	50.00	27.73	
	23.140	23.47	1.83	25.30	50.00	24.70	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 720P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	42.15	0.37	42.52	66.00	23.48	QP
	0.190	40.69	0.38	41.07	64.02	22.95	
	0.435	28.88	0.49	29.37	57.15	27.78	
	2.736	32.27	0.67	32.94	56.00	23.06	
	6.056	33.74	0.85	34.59	60.00	25.41	
	23.888	36.85	1.76	38.61	60.00	21.39	
	0.150	30.25	0.37	30.62	56.00	25.38	AV
	0.190	30.24	0.38	30.62	54.02	23.40	
	0.435	15.61	0.49	16.10	47.15	31.05	
	2.736	21.26	0.67	21.93	46.00	24.07	
	6.056	23.17	0.85	24.02	50.00	25.98	
	23.888	24.18	1.76	25.94	50.00	24.06	
Neutral	0.157	41.41	0.32	41.73	65.60	23.87	QP
	0.197	40.95	0.30	41.25	63.76	22.51	
	0.466	31.34	0.48	31.82	56.58	24.76	
	2.334	33.39	0.61	34.00	56.00	22.00	
	7.769	36.81	0.91	37.72	60.00	22.28	
	23.387	37.14	1.84	38.98	60.00	21.02	
	0.157	31.24	0.32	31.56	55.60	24.04	AV
	0.197	30.26	0.30	30.56	53.76	23.20	
	0.466	21.47	0.48	21.95	46.58	24.63	
	2.334	23.15	0.61	23.76	46.00	22.24	
	7.769	26.14	0.91	27.05	50.00	22.95	
	23.387	28.47	1.84	30.31	50.00	19.69	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 48%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 1080P

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	41.08	0.37	41.45	66.00	24.55	QP
	0.186	40.72	0.38	41.10	64.20	23.10	
	0.456	29.50	0.50	30.00	56.76	26.76	
	2.650	32.64	0.67	33.31	56.00	22.69	
	6.056	33.53	0.85	34.38	60.00	25.62	
	23.387	37.65	1.74	39.39	60.00	20.61	
	0.150	30.25	0.37	30.62	56.00	25.38	AV
	0.186	31.25	0.38	31.63	54.20	22.57	
	0.456	12.34	0.50	12.84	46.76	33.92	
	2.650	23.15	0.67	23.82	46.00	22.18	
	6.056	23.16	0.85	24.01	50.00	25.99	
	23.387	24.18	1.74	25.92	50.00	24.08	
Neutral	0.150	42.77	0.32	43.09	66.00	22.91	QP
	0.200	41.02	0.30	41.32	63.62	22.30	
	0.408	30.79	0.44	31.23	57.68	26.45	
	2.285	33.44	0.60	34.04	56.00	21.96	
	7.175	38.11	0.87	38.98	60.00	21.02	
	22.655	37.40	1.83	39.23	60.00	20.77	
	0.150	31.23	0.32	31.55	56.00	24.45	AV
	0.200	21.47	0.30	21.77	53.62	31.85	
	0.408	21.15	0.44	21.59	47.68	26.09	
	2.285	23.16	0.60	23.76	46.00	22.24	
	7.175	28.15	0.87	29.02	50.00	20.98	
	22.655	21.46	1.83	23.29	50.00	26.71	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

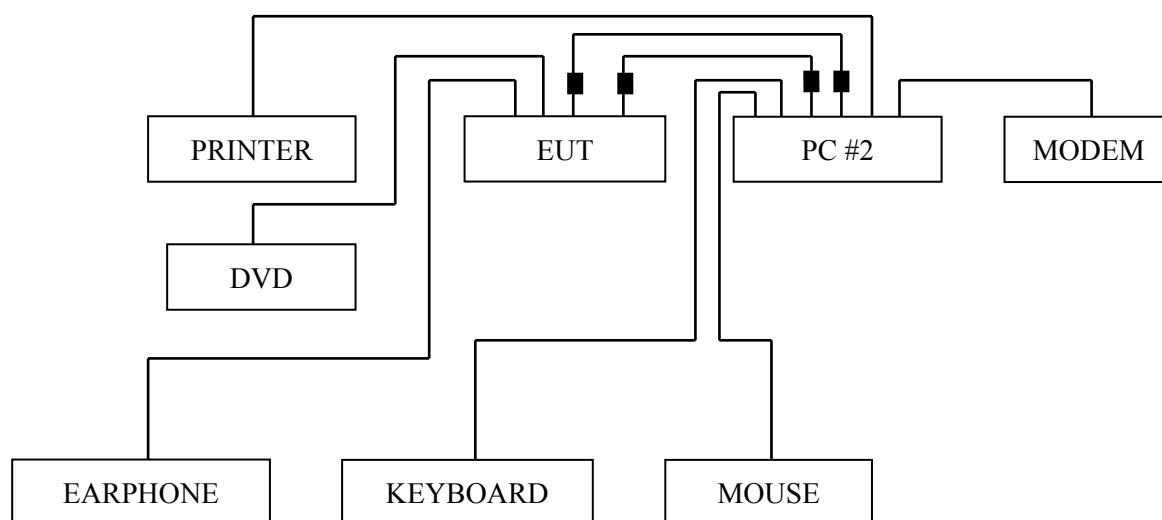
4.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Mar 07, 2010	Mar 07, 2011
2.	Preamplifier	Agilent	8447D	2944A10548	Sep 19, 2010	Mar 19, 2011
3.	Preamplifier	HP	8449B	3008A00864	Apr 29, 2010	Apr 29, 2011
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2009	Dec 01, 2010
5.	Spectrum	Agilent	E7405A	MY45106600	May 19, 2010	May 19, 2011
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

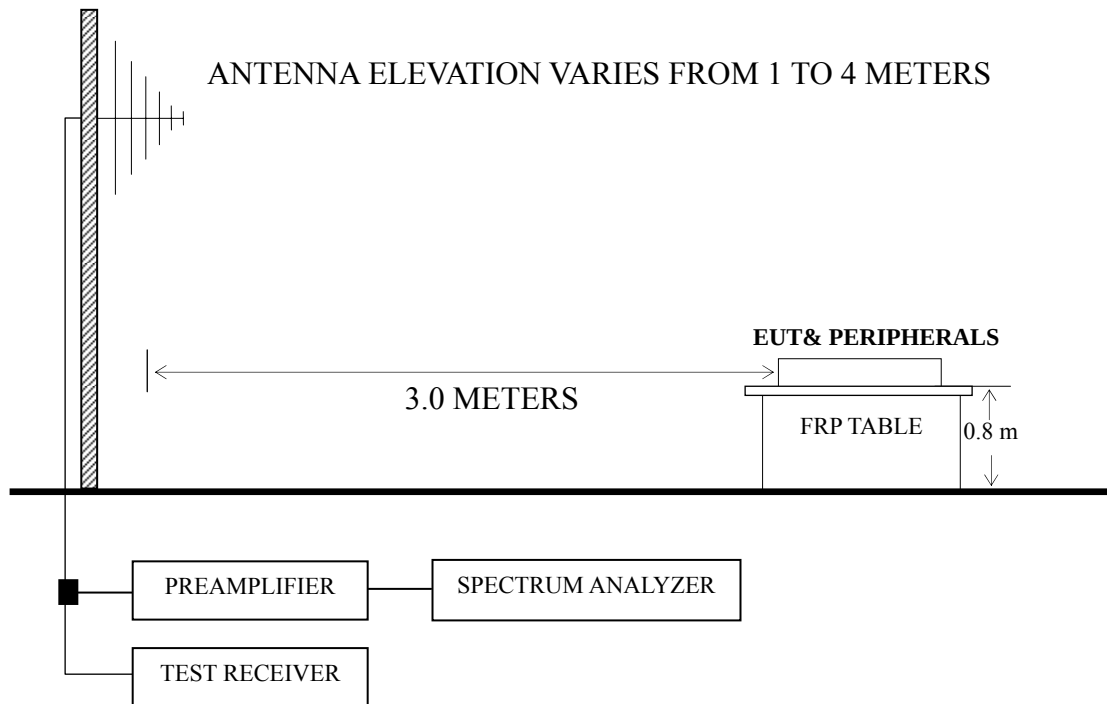
4.2 Block Diagram of Test Setup

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 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.

Test Mode	Page
D-Sub 640*480@60Hz	P27
D-Sub 1280*1024@75Hz	P28 – P29
D-Sub 1680*1050@60Hz	P30 – P31
D-Sub 1920*1080@60Hz	P32 – P33
DVI 640*480@60Hz	P34
DVI 1280*1024@75Hz	P35 – P36
DVI 1680*1050@60Hz	P37 – P38
DVI 1920*1080@60Hz	P39 – P40
HDMI 480P	P41
HDMI 720P	P42
HDMI 1080P	P43

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

NOTE 2 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.($< 1\text{GHz}$)

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

NOTE 4 – All readings are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.

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 – The worst case is for HDMI 1080P test mode. The worst emission at horizontal polarization was detected at 831.220 MHz with corrected signal level of 43.34 dB ($\mu\text{V/m}$) (limit is 46.00dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 165° . The worst emission at vertical polarization was detected at 648.860 MHz with corrected signal level of 40.88 dB ($\mu\text{V/m}$) (limit is 46.00 dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 300° .

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 640*480@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	58.130	24.07	6.96	0.83	31.86	40.00	8.14
	135.730	17.71	12.28	1.19	31.18	43.50	12.32
	293.840	21.02	13.79	1.74	36.55	46.00	9.45
	390.840	15.28	16.30	2.03	33.61	46.00	12.39
	489.780	18.34	17.78	2.25	38.37	46.00	7.63
	681.840	7.56	19.62	2.63	29.81	46.00	16.19
Vertical	34.850	15.73	16.97	0.68	33.38	40.00	6.62
	48.430	21.65	9.62	0.77	32.04	40.00	7.96
	72.680	24.12	6.85	0.91	31.88	40.00	8.12
	119.240	17.43	12.97	1.12	31.52	43.50	11.98
	293.840	20.99	13.79	1.74	36.52	46.00	9.48
	489.780	21.79	17.78	2.25	41.82	46.00	4.18

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 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	56.190	21.45	7.46	0.82	--	29.73	40.00	10.27	QP
	72.680	25.38	6.85	0.91	--	33.14	40.00	6.86	
	133.790	17.95	12.35	1.18	--	31.48	43.50	12.02	
	295.780	22.39	13.84	1.76	--	37.99	46.00	8.01	
	315.180	22.18	14.32	1.81		38.31	46.00	7.69	
	489.780	15.48	17.78	2.25	--	35.51	46.00	10.49	
	1013.000	54.19	22.49	4.49	37.38	43.79	74.00	30.21	PK
	1201.000	52.87	23.74	4.51	37.00	44.12	74.00	29.88	
	1334.000	52.86	24.78	4.53	36.71	45.46	74.00	28.54	
	1467.000	52.89	25.60	4.55	36.36	46.68	74.00	27.32	
	1716.000	52.00	26.71	4.57	35.92	47.36	74.00	26.64	
	1944.000	49.18	27.76	4.75	35.65	46.04	74.00	27.96	
	1013.000	40.19	22.49	4.49	37.38	29.79	54.00	24.21	AV
	1201.000	37.87	23.74	4.51	37.00	29.12	54.00	24.88	
	1334.000	36.86	24.78	4.53	36.71	29.46	54.00	24.54	
	1467.000	38.89	25.60	4.55	36.36	32.68	54.00	21.32	
	1716.000	39.00	26.71	4.57	35.92	34.36	54.00	19.64	
	1944.000	34.18	27.76	4.75	35.65	31.04	54.00	22.96	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 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
Vertical	33.880	15.29	17.44	0.67	--	33.40	40.00	6.60	QP
	72.680	25.13	6.85	0.91	--	32.89	40.00	7.11	
	119.240	18.31	12.97	1.12	--	32.40	43.50	11.10	
	293.840	22.12	13.79	1.74	--	37.65	46.00	8.35	
	489.780	22.37	17.78	2.25		42.40	46.00	3.60	
	870.990	12.59	21.42	2.98	--	36.99	46.00	9.01	
	1044.000	56.62	22.69	4.49	37.32	46.48	74.00	27.52	PK
	1200.000	55.51	23.70	4.51	37.00	46.72	74.00	27.28	
	1286.000	50.80	24.40	4.53	36.82	42.91	74.00	31.09	
	1600.000	53.50	26.40	4.56	36.10	48.36	74.00	25.64	
	1799.000	50.35	26.90	4.58	35.81	46.02	74.00	27.98	
	1997.000	48.35	28.10	4.78	35.61	45.62	74.00	28.38	
	1044.000	46.62	22.69	4.49	37.32	36.48	54.00	17.52	AV
	1200.000	40.51	23.70	4.51	37.00	31.72	54.00	22.28	
	1286.000	35.80	24.40	4.53	36.82	27.91	54.00	26.09	
	1600.000	37.50	26.40	4.56	36.10	32.36	54.00	21.64	
	1799.000	39.35	26.90	4.58	35.81	35.02	54.00	18.98	
	1997.000	35.35	28.10	4.78	35.61	32.62	54.00	21.38	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	58.130	24.07	6.96	0.83	--	31.86	40.00	8.14	QP
	72.680	23.84	6.85	0.91	--	31.60	40.00	8.40	
	135.730	19.55	12.28	1.19	--	33.02	43.50	10.48	
	293.840	26.79	13.79	1.74	--	42.32	46.00	3.68	
	487.840	17.33	17.75	2.24	--	37.32	46.00	8.68	
	751.680	9.73	20.23	2.80	--	32.76	46.00	13.24	
	1053.000	53.63	22.76	4.49	37.30	43.58	74.00	30.42	PK
	1201.000	53.87	23.74	4.51	37.00	45.12	74.00	28.88	
	1334.000	53.86	24.78	4.53	36.71	46.46	74.00	27.54	
	1467.000	51.89	25.60	4.55	36.36	45.68	74.00	28.32	
	1600.000	53.16	26.40	4.56	36.10	48.02	74.00	25.98	
	1716.000	51.00	26.71	4.57	35.92	46.36	74.00	27.64	
	1053.000	46.63	22.76	4.49	37.30	36.58	54.00	17.42	AV
	1201.000	37.87	23.74	4.51	37.00	29.12	54.00	24.88	
	1334.000	39.86	24.78	4.53	36.71	32.46	54.00	21.54	
	1467.000	36.89	25.60	4.55	36.36	30.68	54.00	23.32	
	1600.000	42.16	26.40	4.56	36.10	37.02	54.00	16.98	
	1716.000	38.00	26.71	4.57	35.92	33.36	54.00	20.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	48.430	21.70	9.62	0.77	--	32.09	40.00	7.91	QP
	72.680	24.94	6.85	0.91	--	32.70	40.00	7.30	
	119.240	18.68	12.97	1.12	--	32.77	43.50	10.73	
	295.780	22.48	13.84	1.76	--	38.08	46.00	7.92	
	487.840	21.35	17.75	2.24	--	41.34	46.00	4.66	
	870.990	15.76	21.42	2.98	--	40.16	46.00	5.84	
	1078.000	52.01	22.95	4.50	37.25	42.21	74.00	31.79	PK
	1200.000	54.51	23.70	4.51	37.00	45.72	74.00	28.28	
	1396.000	49.57	25.16	4.54	36.55	42.72	74.00	31.28	
	1498.000	52.44	25.80	4.55	36.30	46.49	74.00	27.51	
	1600.000	51.50	26.40	4.56	36.10	46.36	74.00	27.64	
	1798.000	47.23	26.90	4.58	35.81	42.90	74.00	31.10	
	1078.000	44.01	22.95	4.50	37.25	34.21	54.00	19.79	AV
	1200.000	40.51	23.70	4.51	37.00	31.72	54.00	22.28	
	1396.000	34.57	25.16	4.54	36.55	27.72	54.00	26.28	
	1498.000	38.44	25.80	4.55	36.30	32.49	54.00	21.51	
	1600.000	41.50	26.40	4.56	36.10	36.36	54.00	17.64	
	1798.000	35.23	26.90	4.58	35.81	30.90	54.00	23.10	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	58.130	23.04	6.96	0.83	--	30.83	40.00	9.17	QP
	72.680	24.63	6.85	0.91	--	32.39	40.00	7.61	
	138.640	19.31	12.17	1.21	--	32.69	43.50	10.81	
	218.180	20.64	11.52	1.51	--	33.67	46.00	12.33	
	293.840	22.67	13.79	1.74	--	38.20	46.00	7.80	
	489.780	17.06	17.78	2.25	--	37.09	46.00	8.91	
	1041.000	53.32	22.69	4.49	37.33	43.17	74.00	30.83	PK
	1101.000	52.11	23.11	4.50	37.20	42.52	74.00	31.48	
	1201.000	52.87	23.74	4.51	37.00	44.12	74.00	29.88	
	1334.000	52.86	24.78	4.53	36.71	45.46	74.00	28.54	
	1467.000	52.89	25.60	4.55	36.36	46.68	74.00	27.32	
	1600.000	54.16	26.40	4.56	36.10	49.02	74.00	24.98	
	1041.000	46.32	22.69	4.49	37.33	36.17	54.00	17.83	AV
	1101.000	39.11	23.11	4.50	37.20	29.52	54.00	24.48	
	1201.000	38.87	23.74	4.51	37.00	30.12	54.00	23.88	
	1334.000	38.86	24.78	4.53	36.71	31.46	54.00	22.54	
	1467.000	42.89	25.60	4.55	36.36	36.68	54.00	17.32	
	1600.000	43.16	26.40	4.56	36.10	38.02	54.00	15.98	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : D-Sub 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	36.790	16.99	15.80	0.69	--	33.48	40.00	6.52	QP
	51.340	23.17	8.61	0.79	--	32.57	40.00	7.43	
	72.680	24.45	6.85	0.91	--	32.21	40.00	7.79	
	116.330	18.78	12.78	1.12	--	32.68	43.50	10.82	
	295.780	20.17	13.84	1.76	--	35.77	46.00	10.23	
	489.780	20.62	17.78	2.25	--	40.65	46.00	5.35	
	1031.000	49.82	22.60	4.49	37.34	39.57	74.00	34.43	PK
	1125.000	49.35	23.27	4.50	37.16	39.96	74.00	34.04	
	1286.000	47.80	24.40	4.53	36.82	39.91	74.00	34.09	
	1396.000	46.57	25.16	4.54	36.55	39.72	74.00	34.28	
	1498.000	51.44	25.80	4.55	36.30	45.49	74.00	28.51	
	1600.000	50.50	26.40	4.56	36.10	45.36	74.00	28.64	
	1031.000	43.82	22.60	4.49	37.34	33.57	54.00	20.43	AV
	1125.000	34.35	23.27	4.50	37.16	24.96	54.00	29.04	
	1286.000	35.80	24.40	4.53	36.82	27.91	54.00	26.09	
	1396.000	32.57	25.16	4.54	36.55	25.72	54.00	28.28	
	1498.000	44.44	25.80	4.55	36.30	38.49	54.00	15.51	
	1600.000	39.50	26.40	4.56	36.10	34.36	54.00	19.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

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	56.190	22.43	7.46	0.82	30.71	40.00	9.29
	72.680	24.24	6.85	0.91	32.00	40.00	8.00
	135.730	19.85	12.28	1.19	33.32	43.50	10.18
	293.840	22.51	13.79	1.74	38.04	46.00	7.96
	492.690	16.89	17.80	2.25	36.94	46.00	9.06
	870.990	9.71	21.42	2.98	34.11	46.00	11.89
Vertical	51.340	23.19	8.61	0.79	32.59	40.00	7.41
	72.680	24.75	6.85	0.91	32.51	40.00	7.49
	124.090	18.79	12.81	1.15	32.75	43.50	10.75
	293.840	20.62	13.79	1.74	36.15	46.00	9.85
	489.780	20.86	17.78	2.25	40.89	46.00	5.11
	875.840	12.67	21.46	3.00	37.13	46.00	8.87

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 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	58.130	22.48	6.96	0.83	--	30.27	40.00	9.73	QP
	72.680	24.38	6.85	0.91	--	32.14	40.00	7.86	
	135.730	20.11	12.28	1.19	--	33.58	43.50	9.92	
	218.180	20.06	11.52	1.51	--	33.09	46.00	12.91	
	322.940	16.99	14.54	1.84	--	33.37	46.00	12.63	
	390.840	14.49	16.30	2.03	--	32.82	46.00	13.18	
	1013.000	41.19	22.49	4.49	37.38	30.79	74.00	43.21	PK
	1264.000	37.32	24.23	4.52	36.86	29.21	74.00	44.79	
	1393.000	38.61	25.16	4.54	36.55	31.76	74.00	42.24	
	1500.000	39.44	25.80	4.55	36.30	33.49	74.00	40.51	
	1600.000	42.16	26.40	4.56	36.10	37.02	74.00	36.98	
	1716.000	41.00	26.71	4.57	35.92	36.36	74.00	37.64	
	1013.000	27.19	22.49	4.49	37.38	16.79	54.00	37.21	AV
	1264.000	20.32	24.23	4.52	36.86	12.21	54.00	41.79	
	1393.000	18.61	25.16	4.54	36.55	11.76	54.00	42.24	
	1500.000	22.44	25.80	4.55	36.30	16.49	54.00	37.51	
	1600.000	28.16	26.40	4.56	36.10	23.02	54.00	30.98	
	1716.000	29.00	26.71	4.57	35.92	24.36	54.00	29.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 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
Vertical	51.340	23.15	8.61	0.79	--	32.55	40.00	7.45	QP
	121.180	18.45	12.95	1.13	--	32.53	43.50	10.97	
	153.190	19.82	11.04	1.25	--	32.11	43.50	11.39	
	295.780	20.57	13.84	1.76	--	36.17	46.00	9.83	
	487.840	21.44	17.75	2.24	--	41.43	46.00	4.57	
	870.990	15.67	21.42	2.98	--	40.07	46.00	5.93	
	1044.000	54.62	22.69	4.49	37.32	44.48	74.00	29.52	PK
	1125.000	55.35	23.27	4.50	37.16	45.96	74.00	28.04	
	1197.000	50.64	23.70	4.51	37.01	41.84	74.00	32.16	
	1333.000	47.06	24.74	4.53	36.71	39.62	74.00	34.38	
	1466.000	48.94	25.60	4.55	36.37	42.72	74.00	31.28	
	1600.000	50.50	26.40	4.56	36.10	45.36	74.00	28.64	
	1044.000	41.62	22.69	4.49	37.32	31.48	54.00	22.52	AV
	1125.000	40.35	23.27	4.50	37.16	30.96	54.00	23.04	
	1197.000	36.64	23.70	4.51	37.01	27.84	54.00	26.16	
	1333.000	32.06	24.74	4.53	36.71	24.62	54.00	29.38	
	1466.000	37.94	25.60	4.55	36.37	31.72	54.00	22.28	
	1600.000	39.50	26.40	4.56	36.10	34.36	54.00	19.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	58.130	46.97	6.96	0.83	--	26.83	40.00	13.17	QP
	72.680	49.45	6.85	0.91	--	29.39	40.00	10.61	
	138.640	43.84	12.17	1.21	--	29.69	43.50	13.81	
	293.840	46.56	13.79	1.74	--	35.20	46.00	10.80	
	489.780	43.13	17.78	2.25	--	35.09	46.00	10.91	
	870.990	36.46	21.42	2.98	--	33.31	46.00	12.69	
	1041.000	52.32	22.69	4.49	37.33	42.17	74.00	31.83	PK
	1201.000	48.87	23.74	4.51	37.00	40.12	74.00	33.88	
	1334.000	47.86	24.78	4.53	36.71	40.46	74.00	33.54	
	1393.000	48.61	25.16	4.54	36.55	41.76	74.00	32.24	
	1467.000	48.89	25.60	4.55	36.36	42.68	74.00	31.32	
	1600.000	48.16	26.40	4.56	36.10	43.02	74.00	30.98	
	1041.000	38.32	22.69	4.49	37.33	28.17	54.00	25.83	AV
	1201.000	32.87	23.74	4.51	37.00	24.12	54.00	29.88	
	1334.000	31.86	24.78	4.53	36.71	24.46	54.00	29.54	
	1393.000	32.61	25.16	4.54	36.55	25.76	54.00	28.24	
	1467.000	37.89	25.60	4.55	36.36	31.68	54.00	22.32	
	1600.000	38.16	26.40	4.56	36.10	33.02	54.00	20.98	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1680*1050@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	72.680	49.27	6.85	0.91	--	29.21	40.00	10.79	QP
	116.330	43.51	12.78	1.12	--	29.68	43.50	13.82	
	218.180	43.90	11.52	1.51	--	29.94	46.00	16.06	
	295.780	46.06	13.84	1.76	--	34.77	46.00	11.23	
	489.780	44.69	17.78	2.25	--	36.65	46.00	9.35	
	870.990	39.33	21.42	2.98	--	36.18	46.00	9.82	
	1044.000	50.62	22.69	4.49	37.32	40.48	74.00	33.52	PK
	1125.000	52.35	23.27	4.50	37.16	42.96	74.00	31.04	
	1197.000	50.64	23.70	4.51	37.01	41.84	74.00	32.16	
	1333.000	48.06	24.74	4.53	36.71	40.62	74.00	33.38	
	1498.000	51.44	25.80	4.55	36.30	45.49	74.00	28.51	
	1600.000	50.50	26.40	4.56	36.10	45.36	74.00	28.64	
	1044.000	38.62	22.69	4.49	37.32	28.48	54.00	25.52	AV
	1125.000	36.35	23.27	4.50	37.16	26.96	54.00	27.04	
	1197.000	34.64	23.70	4.51	37.01	25.84	54.00	28.16	
	1333.000	33.06	24.74	4.53	36.71	25.62	54.00	28.38	
	1498.000	41.44	25.80	4.55	36.30	35.49	54.00	18.51	
	1600.000	40.50	26.40	4.56	36.10	35.36	54.00	18.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	56.190	55.38	7.46	0.82	--	35.71	40.00	4.29	QP
	72.680	56.06	6.85	0.91	--	36.00	40.00	4.00	
	135.730	50.40	12.28	1.19	--	36.32	43.50	7.18	
	293.840	51.40	13.79	1.74	--	40.04	46.00	5.96	
	492.690	46.98	17.80	2.25	--	38.94	46.00	7.06	
	870.990	39.26	21.42	2.98	--	36.11	46.00	9.89	
	1053.000	53.63	22.76	4.49	37.30	43.58	74.00	30.42	PK
	1264.000	51.32	24.23	4.52	36.86	43.21	74.00	30.79	
	1467.000	50.89	25.60	4.55	36.36	44.68	74.00	29.32	
	1600.000	53.16	26.40	4.56	36.10	48.02	74.00	25.98	
	1797.000	49.70	26.90	4.58	35.81	45.37	74.00	28.63	
	1989.000	47.02	28.05	4.78	35.61	44.24	74.00	29.76	
	1053.000	38.63	22.76	4.49	37.30	28.58	54.00	25.42	AV
	1264.000	39.32	24.23	4.52	36.86	31.21	54.00	22.79	
	1467.000	34.89	25.60	4.55	36.36	28.68	54.00	25.32	
	1600.000	37.16	26.40	4.56	36.10	32.02	54.00	21.98	
	1797.000	36.70	26.90	4.58	35.81	32.37	54.00	21.63	
	1989.000	30.02	28.05	4.78	35.61	27.24	54.00	26.76	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : DVI 1920*1080@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	51.340	22.19	8.61	0.79	--	31.59	40.00	8.41	QP
	72.680	23.75	6.85	0.91	--	31.51	40.00	8.49	
	124.090	16.79	12.81	1.15	--	30.75	43.50	12.75	
	293.840	18.62	13.79	1.74	--	34.15	46.00	11.85	
	489.780	19.86	17.78	2.25	--	39.89	46.00	6.11	
	875.840	10.67	21.46	3.00	--	35.13	46.00	10.87	
	1017.000	51.51	22.51	4.49	37.37	41.14	74.00	32.86	PK
	1200.000	54.51	23.70	4.51	37.00	45.72	74.00	28.28	
	1600.000	50.50	26.40	4.56	36.10	45.36	74.00	28.64	
	1676.000	50.05	26.59	4.57	35.97	45.24	74.00	28.76	
	1799.000	49.35	26.90	4.58	35.81	45.02	74.00	28.98	
	1944.000	46.35	27.76	4.75	35.65	43.21	74.00	30.79	
	1017.000	31.51	22.51	4.49	37.37	21.14	54.00	32.86	AV
	1200.000	33.51	23.70	4.51	37.00	24.72	54.00	29.28	
	1600.000	35.50	26.40	4.56	36.10	30.36	54.00	23.64	
	1676.000	36.05	26.59	4.57	35.97	31.24	54.00	22.76	
	1799.000	37.35	26.90	4.58	35.81	33.02	54.00	20.98	
	1944.000	31.35	27.76	4.75	35.65	28.21	54.00	25.79	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 480P

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	58.130	17.48	6.96	0.83	25.27	40.00	14.73
	124.090	11.27	12.81	1.15	25.23	43.50	18.27
	135.730	16.11	12.28	1.19	29.58	43.50	13.92
	295.780	21.22	13.84	1.76	36.82	46.00	9.18
	489.780	12.26	17.78	2.25	32.29	46.00	13.71
	870.990	7.15	21.42	2.98	31.55	46.00	14.45
Vertical	50.370	19.53	8.85	0.78	29.16	40.00	10.84
	72.680	21.47	6.85	0.91	29.23	40.00	10.77
	128.940	16.49	12.58	1.17	30.24	43.50	13.26
	295.780	17.57	13.84	1.76	33.17	46.00	12.83
	487.840	19.44	17.75	2.24	39.43	46.00	6.57
	870.990	13.67	21.42	2.98	38.07	46.00	7.93

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 720P

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	15.72	19.60	0.63	35.95	40.00	4.05
	138.640	23.60	12.17	1.19	36.96	43.50	6.54
	279.290	20.39	13.52	1.80	35.71	46.00	10.29
	389.870	19.47	16.30	2.18	37.95	46.00	8.05
	519.850	15.68	18.15	2.49	36.32	46.00	9.68
	842.860	13.09	21.12	3.32	37.53	46.00	8.47
Vertical	30.000	11.58	19.60	0.63	31.81	40.00	8.19
	129.910	19.25	12.52	1.17	32.94	43.50	10.56
	237.580	21.19	12.44	1.67	35.30	46.00	10.70
	389.870	15.97	16.30	2.18	34.45	46.00	11.55
	519.850	16.88	18.15	2.49	37.52	46.00	8.48
	608.120	18.15	19.25	2.76	40.16	46.00	5.84

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2341VX Humidity : 60%RH

Serial No. : E2010101804 Date of Test : Nov 12, 2010

Test Mode : HDMI 1080P

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	92.080	21.78	9.82	1.03	32.63	43.50	10.87
	166.770	18.06	10.31	1.34	29.71	43.50	13.79
	224.970	22.25	11.89	1.62	35.76	46.00	10.24
	389.870	15.96	16.30	2.18	34.44	46.00	11.56
	519.850	21.07	18.15	2.49	41.71	46.00	4.29
	831.220	19.07	21.01	3.26	43.34	46.00	2.66
Vertical	30.000	14.63	19.60	0.63	34.86	40.00	5.14
	107.600	21.02	12.10	1.10	34.22	43.50	9.28
	202.660	25.36	10.81	1.55	37.72	43.50	5.78
	389.870	18.15	16.30	2.18	36.63	46.00	9.37
	519.850	18.93	18.15	2.49	39.57	46.00	6.43
	648.860	18.59	19.45	2.84	40.88	46.00	5.12

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
Tape	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photos Figure 1

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)