

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

LCD Monitor

Model No.: E2442VA

Serial No.: E1202154-01/01

FCC ID : BEJE2442VA

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-F12026
Date of Test : Feb 17 – 22, 2012
Date of Report : Feb 24, 2012

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TEST REPORT FOR FCC CERTIFICATE

Applicant : LG Electronics U.S.A., Inc.
Manufacturer : LG Electronics Nanjing Display Co., Ltd.
EUT Description : LCD Monitor
(A) Model No. : E2442VA
(B) Serial No. : E1202154-01/01
(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: E2442VA; S/N: E1202154-01/01) which was tested in 3m anechoic chamber Feb 17 – 22, 2012 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 : Feb 17 – 22, 2012 Date of Report : Feb 24, 2012

Producer : Yenny Yu.
YENNY YU / Assistant

Review : Dio Yang.
DIO YANG / 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 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
Model No.	: E2442VA
Serial No.	: E1202154-01/01
Real Power	: 26.70W (Adapter #1) 26.30W (Adapter #2) 26.90W (Adapter #3) 26.30W (Adapter #4)
AC Adapter #1	: Manufacturer : HONOR Model Number : ADS-40SG-19-3 19032G Input : 100-240V~, 50-60Hz 1.0A Output : 19V  1.7A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #2	: Manufacturer : HONOR Model Number : ADS-40FSG-19 19032G***-1 (*** can be PG, PBR, PI, PCU, ADS-40FSG-19 19032GPCU-1 was selected was the test model.) Input : 100-240V~, 50-60Hz 1.0A Output : 19V  1.7A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #3	: Manufacturer : LIEN CHANG Model Number : LCAP21A Input : 100-240V~, 50-60Hz 1.1A Output : 19V  1.7A Output Cable : Unshielded, Undetachable, 1.8m, with one core
AC Adapter #4	: 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  1.7A Output Cable : Unshielded, Undetachable, 1.8m

Applicant	: LG Electronics Nanjing Display Co., Ltd. No.346, YaoXin Road Economic&Technical Development Zone, Nanjing, China
Manufacturer	: LG Electronics Nanjing Display Co., Ltd. No.346, YaoXin Road Economic&Technical Development Zone, Nanjing, China
LCD Panel	: Manufacturer : AU Optronics M/N : M240HW01
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, 1.50m
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 PC / DVD PLAYER
- (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 PLAYER

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

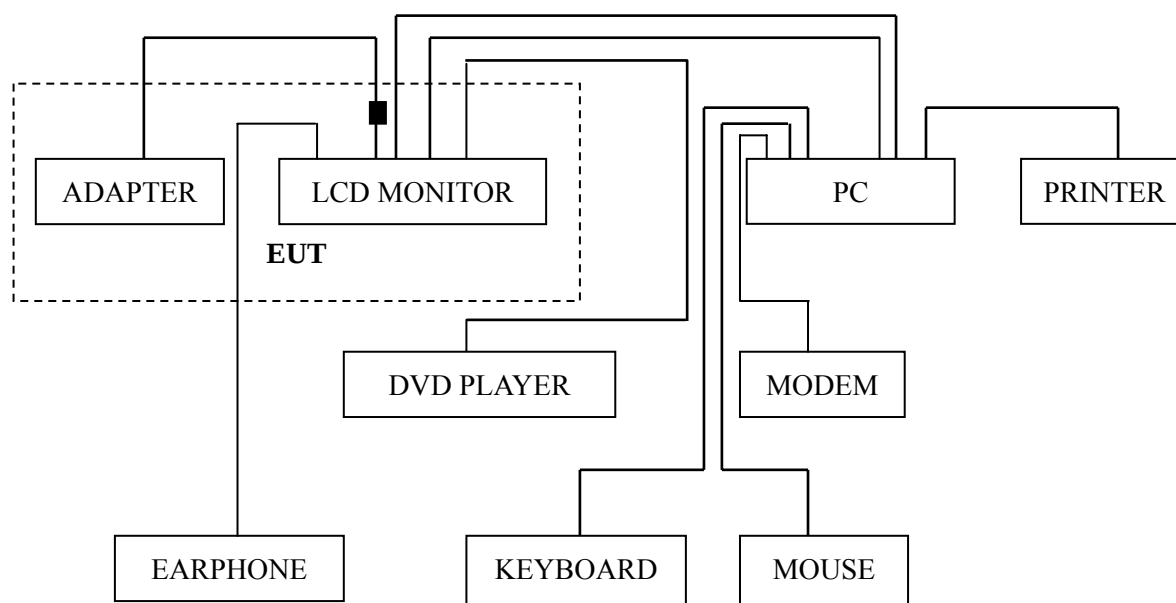
3.1 Test Equipment

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 #1)	R&S	ESH2-Z5	843890/011	Mar 22, 2011	Mar 22, 2012
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	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

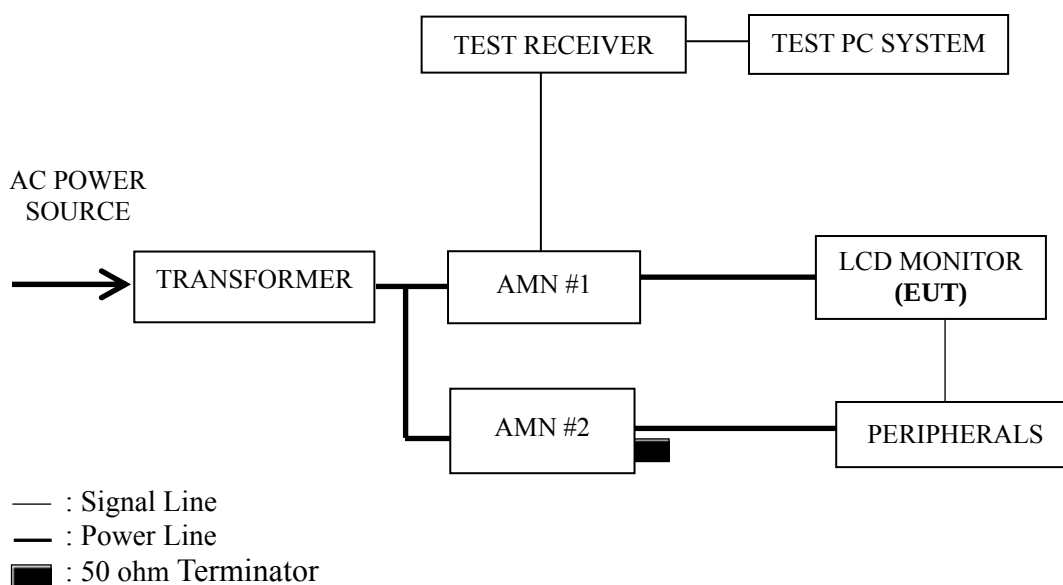
3.2.1 EUT & Peripherals



■ : Ferrite core

Note: Ferrite core only for Adapter #3

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 PC or DVD PLAYER 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 1920*1080@60Hz
	DVI 1920*1080@60Hz
	HDMI 1920*1080@60Hz
	HDMI 1080P
	D-Sub 1680*1050@60Hz
	D-Sub 1280*1024@75Hz
	D-Sub 640*480@60Hz
Adapter #2	D-Sub 1920*1080@60Hz
Adapter #3	D-Sub 1920*1080@60Hz
Adapter #4	D-Sub 1920*1080@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.

Adapter	Test Mode	Page
Adapter #1	D-Sub 1920*1080@60Hz	P13
	DVI 1920*1080@60Hz	P14
	HDMI 1920*1080@60Hz	P15
	HDMI 1080P	P16
	DVI 1680*1050@60Hz	P17
	DVI 1280*1024@75Hz	P18
	DVI 640*480@60Hz	P19
Adapter #2	DVI 1920*1080@60Hz	P20
Adapter #3	DVI 1920*1080@60Hz	P21
Adapter #4	DVI 1920*1080@60Hz	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 DVI 1920*1080@60Hz test mode (Adapter #3). The worst emission is detected at 0.172 MHz (Average Value) with corrected signal level of 47.72 dB (μV) (limit is 54.86 dB (μV)), when the Line of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : 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	0.180	48.43	0.23	48.66	64.50	15.84	QP
	0.317	43.95	0.26	44.21	59.80	15.59	
	0.524	42.90	0.31	43.21	56.00	12.79	
	1.141	41.16	0.37	41.53	56.00	14.47	
	4.926	40.87	0.55	41.42	56.00	14.58	
	8.637	37.31	0.73	38.04	60.00	21.96	
	0.180	38.50	0.23	38.73	54.50	15.77	AV
	0.317	32.80	0.26	33.06	49.80	16.74	
	0.524	31.81	0.31	32.12	46.00	13.88	
	1.141	30.51	0.37	30.88	46.00	15.12	
	4.926	30.50	0.55	31.05	46.00	14.95	
	8.637	27.89	0.73	28.62	50.00	21.38	
Neutral	0.178	50.11	0.19	50.30	64.59	14.29	QP
	0.322	44.50	0.21	44.71	59.66	14.95	
	0.524	43.01	0.24	43.25	56.00	12.75	
	1.160	40.17	0.45	40.62	56.00	15.38	
	3.985	40.50	0.74	41.24	56.00	14.76	
	16.839	37.59	1.17	38.76	60.00	21.24	
	0.178	40.10	0.19	40.29	54.59	14.30	AV
	0.322	34.70	0.21	34.91	49.66	14.75	
	0.524	32.96	0.24	33.20	46.00	12.80	
	1.160	29.50	0.45	29.95	46.00	16.05	
	3.985	30.40	0.74	31.14	46.00	14.86	
	16.839	26.30	1.17	27.47	50.00	22.53	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #1 : 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	0.194	48.39	0.23	48.62	63.84	15.22	QP
	0.313	44.88	0.26	45.14	59.88	14.74	
	0.524	46.32	0.31	46.63	56.00	9.37	
	0.751	41.05	0.40	41.45	56.00	14.55	
	4.822	42.72	0.55	43.27	56.00	12.73	
	6.627	38.15	0.66	38.81	60.00	21.19	
	0.194	37.20	0.23	37.43	53.84	16.41	AV
	0.313	32.30	0.26	32.56	49.88	17.32	
	0.524	34.51	0.31	34.82	46.00	11.18	
	0.751	28.60	0.40	29.00	46.00	17.00	
	4.822	30.20	0.55	30.75	46.00	15.25	
	6.627	26.09	0.66	26.75	50.00	23.25	
Neutral	0.196	47.62	0.19	47.81	63.80	15.99	QP
	0.320	46.73	0.20	46.93	59.71	12.78	
	0.505	44.26	0.24	44.50	56.00	11.50	
	1.535	42.56	0.52	43.08	56.00	12.92	
	4.027	41.20	0.74	41.94	56.00	14.06	
	16.398	38.80	1.17	39.97	60.00	20.03	
	0.196	36.60	0.19	36.79	53.80	17.01	AV
	0.320	35.41	0.20	35.61	49.71	14.10	
	0.505	33.20	0.24	33.44	46.00	12.56	
	1.535	31.36	0.52	31.88	46.00	14.12	
	4.027	30.70	0.74	31.44	46.00	14.56	
	16.398	27.89	1.17	29.06	50.00	20.94	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #1 : 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	0.176	49.06	0.23	49.29	64.68	15.39	QP
	0.317	44.09	0.26	44.35	59.80	15.45	
	0.516	43.23	0.31	43.54	56.00	12.46	
	1.160	41.38	0.37	41.75	56.00	14.25	
	4.721	42.51	0.55	43.06	56.00	12.94	
	8.729	36.13	0.73	36.86	60.00	23.14	
	0.176	39.30	0.23	39.53	54.68	15.15	AV
	0.317	33.40	0.26	33.66	49.80	16.14	
	0.516	33.30	0.31	33.61	46.00	12.39	
	1.160	30.81	0.37	31.18	46.00	14.82	
	4.721	31.60	0.55	32.15	46.00	13.85	
	8.729	26.40	0.73	27.13	50.00	22.87	
Neutral	0.176	50.03	0.19	50.22	64.68	14.46	QP
	0.320	44.62	0.20	44.82	59.71	14.89	
	0.524	42.94	0.24	43.18	56.00	12.82	
	1.117	41.67	0.44	42.11	56.00	13.89	
	4.926	40.91	0.76	41.67	56.00	14.33	
	16.486	37.89	1.17	39.06	60.00	20.94	
	0.176	39.50	0.19	39.69	54.68	14.99	AV
	0.320	33.81	0.20	34.01	49.71	15.70	
	0.524	32.20	0.24	32.44	46.00	13.56	
	1.117	31.31	0.44	31.75	46.00	14.25	
	4.926	30.20	0.76	30.96	46.00	15.04	
	16.486	27.29	1.17	28.46	50.00	21.54	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : HDMI 1080P Adapter #1 : 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	0.183	49.17	0.23	49.40	64.33	14.93	QP
	0.313	44.36	0.26	44.62	59.88	15.26	
	0.516	42.97	0.31	43.28	56.00	12.72	
	1.106	40.60	0.37	40.97	56.00	15.03	
	4.874	43.78	0.55	44.33	56.00	11.67	
	8.729	37.47	0.73	38.20	60.00	21.80	
	0.183	38.30	0.23	38.53	54.33	15.80	AV
	0.313	33.70	0.26	33.96	49.88	15.92	
	0.516	31.60	0.31	31.91	46.00	14.09	
	1.106	30.40	0.37	30.77	46.00	15.23	
	4.874	33.10	0.55	33.65	46.00	12.35	
	8.729	27.80	0.73	28.53	50.00	21.47	
Neutral	0.176	50.16	0.19	50.35	64.68	14.33	QP
	0.320	44.49	0.20	44.69	59.71	15.02	
	0.524	43.45	0.24	43.69	56.00	12.31	
	1.106	41.87	0.44	42.31	56.00	13.69	
	3.985	42.76	0.74	43.50	56.00	12.50	
	16.055	37.67	1.16	38.83	60.00	21.17	
	0.176	39.30	0.19	39.49	54.68	15.19	AV
	0.320	33.11	0.20	33.31	49.71	16.40	
	0.524	33.30	0.24	33.54	46.00	12.46	
	1.106	31.51	0.44	31.95	46.00	14.05	
	3.985	32.40	0.74	33.14	46.00	12.86	
	16.055	27.70	1.16	28.86	50.00	21.14	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1680*1050@60Hz Adapter #1 : 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	0.180	50.14	0.23	50.37	64.50	14.13	QP
	0.313	44.88	0.26	45.14	59.88	14.74	
	0.524	43.32	0.31	43.63	56.00	12.37	
	1.117	40.55	0.37	40.92	56.00	15.08	
	4.874	43.08	0.55	43.63	56.00	12.37	
	16.661	37.45	0.89	38.34	60.00	21.66	
	0.180	40.60	0.23	40.83	54.50	13.67	AV
	0.313	34.30	0.26	34.56	49.88	15.32	
	0.524	33.51	0.31	33.82	46.00	12.18	
	1.117	30.50	0.37	30.87	46.00	15.13	
	4.874	32.90	0.55	33.45	46.00	12.55	
	16.661	27.39	0.89	28.28	50.00	21.72	
Neutral	0.176	50.34	0.19	50.53	64.68	14.15	QP
	0.320	44.73	0.20	44.93	59.71	14.78	
	0.524	43.88	0.24	44.12	56.00	11.88	
	1.094	41.22	0.44	41.66	56.00	14.34	
	4.027	42.20	0.74	42.94	56.00	13.06	
	16.839	37.98	1.17	39.15	60.00	20.85	
	0.176	40.70	0.19	40.89	54.68	13.79	AV
	0.320	33.41	0.20	33.61	49.71	16.10	
	0.524	33.10	0.24	33.34	46.00	12.66	
	1.094	31.21	0.44	31.65	46.00	14.35	
	4.027	31.70	0.74	32.44	46.00	13.56	
	16.839	27.30	1.17	28.47	50.00	21.53	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1280*1024@75Hz Adapter #1 : 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	0.178	50.32	0.23	50.55	64.59	14.04	QP
	0.320	44.15	0.26	44.41	59.71	15.30	
	0.521	43.67	0.31	43.98	56.00	12.02	
	1.129	40.70	0.37	41.07	56.00	14.93	
	4.822	43.46	0.55	44.01	56.00	11.99	
	8.592	37.34	0.72	38.06	60.00	21.94	
	0.178	40.70	0.23	40.93	54.59	13.66	AV
	0.320	33.20	0.26	33.46	49.71	16.25	
	0.521	33.20	0.31	33.51	46.00	12.49	
	1.129	30.20	0.37	30.57	46.00	15.43	
	4.822	33.30	0.55	33.85	46.00	12.15	
	8.592	26.80	0.72	27.52	50.00	22.48	
Neutral	0.174	50.33	0.19	50.52	64.77	14.25	QP
	0.317	44.70	0.20	44.90	59.80	14.90	
	0.521	43.25	0.24	43.49	56.00	12.51	
	1.310	41.98	0.47	42.45	56.00	13.55	
	3.943	42.54	0.74	43.28	56.00	12.72	
	16.839	37.80	1.17	38.97	60.00	21.03	
	0.174	39.50	0.19	39.69	54.77	15.08	AV
	0.317	34.10	0.20	34.30	49.80	15.50	
	0.521	33.90	0.24	34.14	46.00	11.86	
	1.310	31.80	0.47	32.27	46.00	13.73	
	3.943	32.89	0.74	33.63	46.00	12.37	
	16.839	27.50	1.17	28.67	50.00	21.33	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 640*480@60Hz Adapter #1 : 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	0.176	50.79	0.23	51.02	64.68	13.66	QP
	0.317	43.70	0.26	43.96	59.80	15.84	
	0.524	43.55	0.31	43.86	56.00	12.14	
	1.117	41.16	0.37	41.53	56.00	14.47	
	4.721	42.28	0.55	42.83	56.00	13.17	
	8.822	37.10	0.73	37.83	60.00	22.17	
	0.176	40.50	0.23	40.73	54.68	13.95	AV
	0.317	33.70	0.26	33.96	49.80	15.84	
	0.524	32.41	0.31	32.72	46.00	13.28	
	1.117	31.00	0.37	31.37	46.00	14.63	
	4.721	32.50	0.55	33.05	46.00	12.95	
	8.822	27.70	0.73	28.43	50.00	21.57	
Neutral	0.178	50.22	0.19	50.41	64.59	14.18	QP
	0.313	44.38	0.20	44.58	59.88	15.30	
	0.505	43.01	0.24	43.25	56.00	12.75	
	1.117	41.77	0.44	42.21	56.00	13.79	
	3.901	43.14	0.74	43.88	56.00	12.12	
	16.055	38.04	1.16	39.20	60.00	20.80	
	0.178	40.30	0.19	40.49	54.59	14.10	AV
	0.313	34.60	0.20	34.80	49.88	15.08	
	0.505	33.60	0.24	33.84	46.00	12.16	
	1.117	31.51	0.44	31.95	46.00	14.05	
	3.901	33.79	0.74	34.53	46.00	11.47	
	16.055	27.40	1.16	28.56	50.00	21.44	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #2 : 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	0.152	38.89	0.22	39.11	65.91	26.80	QP
	0.385	36.90	0.29	37.19	58.17	20.98	
	0.880	25.02	0.38	25.40	56.00	30.60	
	1.269	24.48	0.39	24.87	56.00	31.13	
	4.070	32.72	0.54	33.26	56.00	22.74	
	8.235	30.94	0.70	31.64	60.00	28.36	
	0.152	28.30	0.22	28.52	55.91	27.39	AV
	0.385	26.90	0.29	27.19	48.17	20.98	
	0.880	15.50	0.38	15.88	46.00	30.12	
	1.269	15.80	0.39	16.19	46.00	29.81	
	4.070	22.70	0.54	23.24	46.00	22.76	
	8.235	20.60	0.70	21.30	50.00	28.70	
Neutral	0.166	51.59	0.19	51.78	65.16	13.38	QP
	0.223	38.35	0.18	38.53	62.70	24.17	
	0.499	33.74	0.24	33.98	56.01	22.03	
	0.953	34.12	0.43	34.55	56.00	21.45	
	1.819	32.84	0.55	33.39	56.00	22.61	
	6.252	30.32	0.91	31.23	60.00	28.77	
	0.166	41.60	0.19	41.79	55.16	13.37	AV
	0.223	28.20	0.18	28.38	52.70	24.32	
	0.499	23.30	0.24	23.54	46.01	22.47	
	0.953	24.30	0.43	24.73	46.00	21.27	
	1.819	22.89	0.55	23.44	46.00	22.56	
	6.252	20.90	0.91	21.81	50.00	28.19	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #3 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.172	57.39	0.23	57.62	64.86	7.24	QP
	0.221	48.65	0.22	48.87	62.79	13.92	
	0.521	34.83	0.31	35.14	56.00	20.86	
	1.269	32.46	0.39	32.85	56.00	23.15	
	4.269	39.23	0.54	39.77	56.00	16.23	
	8.062	34.83	0.69	35.52	60.00	24.48	
	0.172	47.49	0.23	47.72	54.86	7.14	AV
	0.221	38.51	0.22	38.73	52.79	14.06	
	0.521	24.30	0.31	24.61	46.00	21.39	
	1.269	22.90	0.39	23.29	46.00	22.71	
	4.269	29.40	0.54	29.94	46.00	16.06	
	8.062	25.90	0.69	26.59	50.00	23.41	
Neutral	0.170	57.60	0.19	57.79	64.94	7.15	QP
	0.226	48.45	0.18	48.63	62.61	13.98	
	0.510	35.51	0.24	35.75	56.00	20.25	
	1.262	32.70	0.46	33.16	56.00	22.84	
	4.269	39.36	0.74	40.10	56.00	15.90	
	7.769	37.05	0.99	38.04	60.00	21.96	
	0.170	46.20	0.19	46.39	54.94	8.55	AV
	0.226	38.10	0.18	38.28	52.61	14.33	
	0.510	25.90	0.24	26.14	46.00	19.86	
	1.262	22.60	0.46	23.06	46.00	22.94	
	4.269	29.71	0.74	30.45	46.00	15.55	
	7.769	27.80	0.99	28.79	50.00	21.21	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 48%RH

Serial No. : E1202154-01/01 Date of Test : Feb 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #4 : LCAP26A-A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.174	55.83	0.23	56.06	64.77	8.71	QP
	0.230	46.09	0.22	46.31	62.44	16.13	
	0.510	35.70	0.31	36.01	56.00	19.99	
	1.197	33.21	0.38	33.59	56.00	22.41	
	4.772	36.10	0.55	36.65	56.00	19.35	
	7.935	36.15	0.69	36.84	60.00	23.16	
	0.174	45.02	0.23	45.25	54.77	9.52	AV
	0.230	36.21	0.22	36.43	52.44	16.01	
	0.510	25.70	0.31	26.01	46.00	19.99	
	1.197	23.10	0.38	23.48	46.00	22.52	
	4.772	25.60	0.55	26.15	46.00	19.85	
	7.935	25.70	0.69	26.39	50.00	23.61	
Neutral	0.170	56.51	0.19	56.70	64.94	8.24	QP
	0.230	45.67	0.18	45.85	62.44	16.59	
	0.505	33.57	0.24	33.81	56.00	22.19	
	1.153	28.94	0.45	29.39	56.00	26.61	
	4.952	35.61	0.76	36.37	56.00	19.63	
	8.323	32.57	1.00	33.57	60.00	26.43	
	0.170	45.50	0.19	45.69	54.94	9.25	AV
	0.230	34.60	0.18	34.78	52.44	17.66	
	0.505	22.10	0.24	22.34	46.00	23.66	
	1.153	20.20	0.45	20.65	46.00	25.35	
	4.952	25.20	0.76	25.96	46.00	20.04	
	8.323	22.51	1.00	23.51	50.00	26.49	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

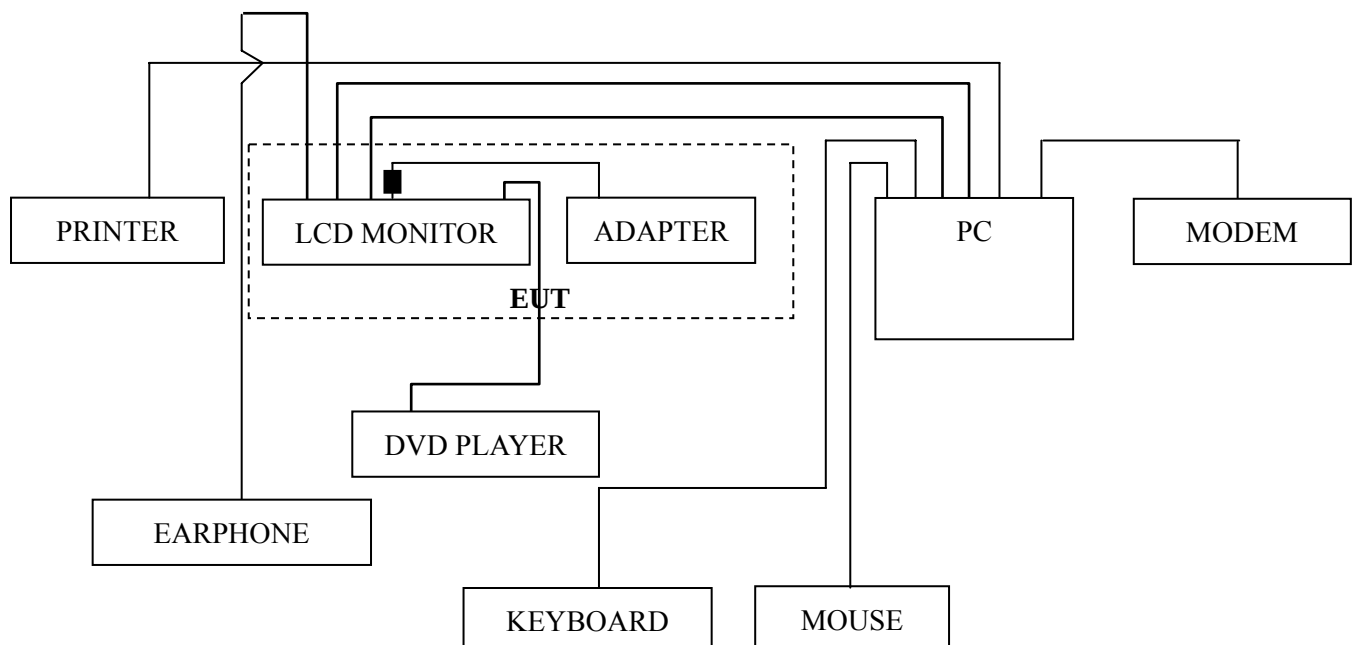
4.1 Test Equipment

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

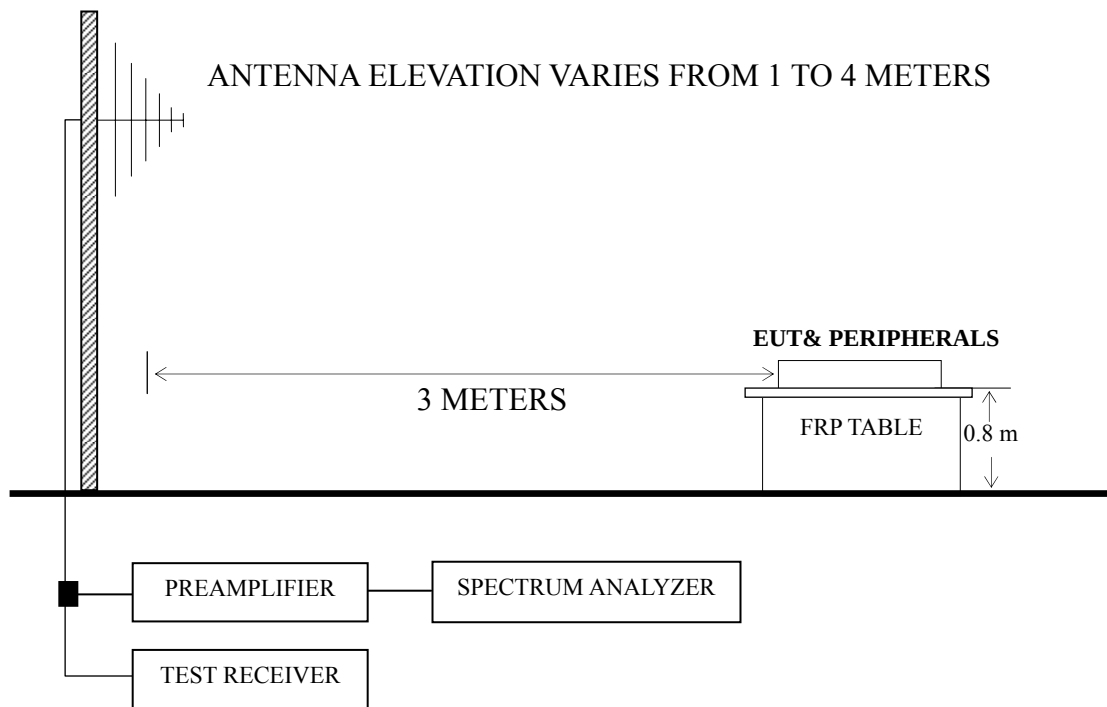


■ : Ferrite core

Note: Ferrite core only for Adapter #3

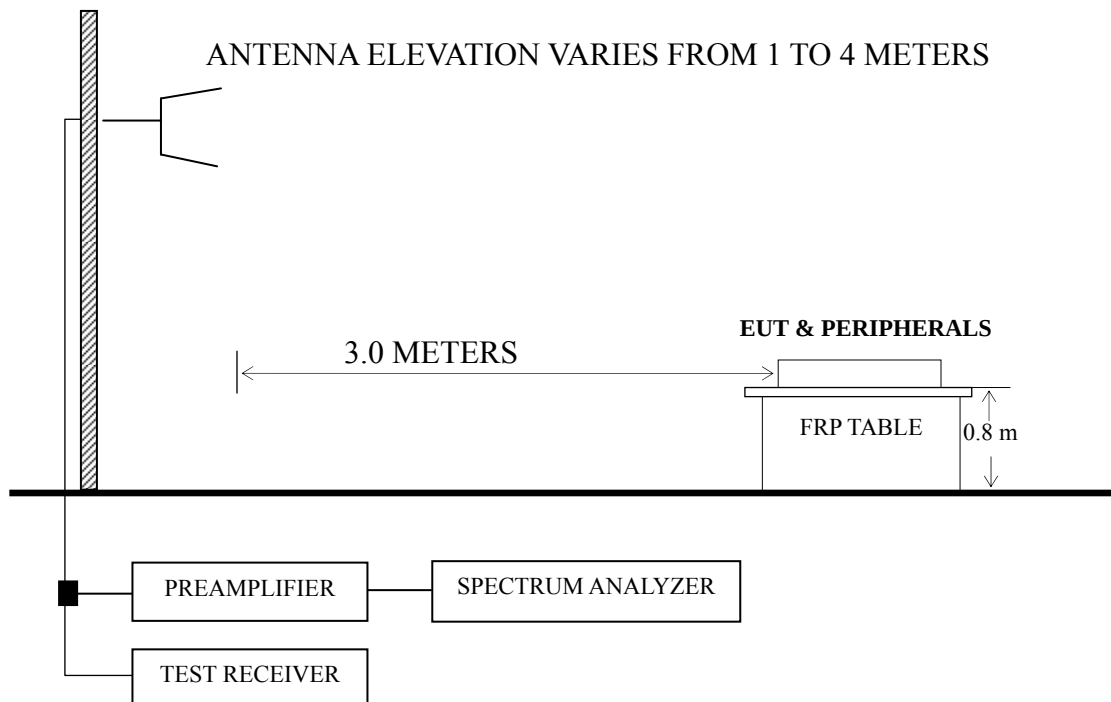
4.2.2 Radiated emission test setup

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 worst test mode in 30 – 1000 MHz test.

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 1920*1080@60Hz	P28
	DVI 1920*1080@60Hz	P29
	HDMI 1920*1080@60Hz	P30 – P31
	HDMI 1080P	P32
	HDMI 1680*1050@60Hz	P33
	HDMI 1280*1024@75Hz	P34
	HDMI 640*480@60Hz	P35
Adapter #2	HDMI 1920*1080@60Hz	P36 – P37
Adapter #3	HDMI 1920*1080@60Hz	P38 – P39
Adapter #4	HDMI 1920*1080@60Hz	P40 – P41

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 – 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 HDMI 1920*1080@60Hz test mode (Adapter #1). The worst emission at horizontal polarization was detected at 177.440 MHz with corrected signal level of 42.48 dB ($\mu\text{V/m}$) (limit is 43.50 dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 120° . The worst emission at vertical polarization was detected at 36.790 MHz with corrected signal level of 34.63 dB ($\mu\text{V/m}$) (limit is 40.00 dB ($\mu\text{V/m}$)), when the antenna was 1.20 m height and the turntable was at 290° .

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : 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	85.290	14.72	10.80	1.66	27.18	40.00	12.82
	150.280	19.07	10.41	2.23	31.71	43.50	11.79
	208.480	22.14	10.15	2.46	34.75	43.50	8.75
	281.230	17.75	13.17	2.70	33.62	46.00	12.38
	458.740	9.83	17.09	3.15	30.07	46.00	15.93
	837.040	10.99	20.48	4.34	35.81	46.00	10.19
Vertical	33.880	15.30	16.26	0.83	32.39	40.00	7.61
	53.280	23.55	8.70	1.01	33.26	40.00	6.74
	140.580	22.14	10.60	2.18	34.92	43.50	8.58
	281.230	19.98	13.17	2.70	35.85	46.00	10.15
	494.630	17.25	17.53	3.25	38.03	46.00	7.97
	875.840	15.62	20.37	4.75	40.74	46.00	5.26

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #1 : 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	33.880	16.04	16.26	0.83	33.13	40.00	6.87
	92.080	19.20	11.08	1.75	32.03	43.50	11.47
	130.880	20.11	10.80	2.11	33.02	43.50	10.48
	286.080	25.92	13.32	2.72	41.96	46.00	4.04
	502.390	17.54	17.61	3.27	38.42	46.00	7.58
	872.930	17.32	20.37	4.60	42.29	46.00	3.71
Vertical	72.680	14.97	10.08	1.47	26.52	40.00	13.48
	145.430	18.57	10.50	2.20	31.27	43.50	12.23
	216.240	24.00	10.45	2.49	36.94	46.00	9.06
	286.080	16.98	13.32	2.72	33.02	46.00	12.98
	494.630	10.09	17.53	3.25	30.87	46.00	15.13
	837.040	9.33	20.48	4.34	34.15	46.00	11.85

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #1 : ADS-40SG-19-3
19032G

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	90.140	20.61	11.00	1.73	--	33.34	43.50	10.16	QP
	133.790	20.90	10.74	2.12	--	33.76	43.50	9.74	
	177.440	30.11	10.02	2.35	--	42.48	43.50	1.02	
	264.740	23.52	12.62	2.65	--	38.79	46.00	7.21	
	407.330	13.67	16.39	3.01	--	33.07	46.00	12.93	
	541.190	14.03	17.86	3.34	--	35.23	46.00	10.77	
	1080.000	43.24	22.24	5.27	38.03	32.72	74.00	41.28	PK
	1275.000	40.65	24.25	5.47	37.57	32.80	74.00	41.20	
	1365.000	40.66	24.80	5.55	37.33	33.68	74.00	40.32	
	1465.000	38.26	26.11	5.72	37.06	33.03	74.00	40.97	
	1600.000	41.52	26.40	5.93	36.76	37.09	74.00	36.91	
	1760.000	43.08	26.96	6.17	36.49	39.72	74.00	34.28	
	1080.000	32.24	22.24	5.27	38.03	21.72	54.00	32.28	AV
	1275.000	29.65	24.25	5.47	37.57	21.80	54.00	32.20	
	1365.000	28.66	24.80	5.55	37.33	21.68	54.00	32.32	
	1465.000	22.26	26.11	5.72	37.06	17.03	54.00	36.97	
	1600.000	29.52	26.40	5.93	36.76	25.09	54.00	28.91	
	1760.000	30.08	26.96	6.17	36.49	26.72	54.00	27.28	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #1 : ADS-40SG-19-3
19032G

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	47.36	14.57	0.85	--	34.63	40.00	5.37	QP
	92.080	50.78	11.08	1.75	--	35.72	43.50	7.78	
	111.480	50.85	11.15	1.96	--	36.18	43.50	7.32	
	174.530	50.92	10.06	2.33	--	35.91	43.50	7.59	
	274.440	47.78	12.94	2.68	--	36.52	46.00	9.48	
	812.790	43.27	20.56	3.99	--	40.11	46.00	5.89	
	1080.000	43.24	22.24	5.27	38.03	32.72	74.00	41.28	PK
	1275.000	40.65	24.25	5.47	37.57	32.80	74.00	41.20	
	1365.000	40.66	24.80	5.55	37.33	33.68	74.00	40.32	
	1465.000	38.26	26.11	5.72	37.06	33.03	74.00	40.97	
	1600.000	41.52	26.40	5.93	36.76	37.09	74.00	36.91	
	1760.000	43.08	26.96	6.17	36.49	39.72	74.00	34.28	
	1080.000	32.24	22.24	5.27	38.03	21.72	54.00	32.28	AV
	1275.000	29.65	24.25	5.47	37.57	21.80	54.00	32.20	
	1365.000	28.66	24.80	5.55	37.33	21.68	54.00	32.32	
	1465.000	22.26	26.11	5.72	37.06	17.03	54.00	36.97	
	1600.000	29.52	26.40	5.93	36.76	25.09	54.00	28.91	
	1760.000	30.08	26.96	6.17	36.49	26.72	54.00	27.28	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1080P Adapter #1 : 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	36.790	47.36	14.57	0.85	34.63	40.00	5.37
	75.590	51.98	10.27	1.53	35.91	40.00	4.09
	92.080	53.14	11.08	1.75	38.08	43.50	5.42
	177.440	56.06	10.02	2.35	41.05	43.50	2.45
	349.130	46.20	15.09	2.88	36.94	46.00	9.06
	875.840	46.29	20.37	4.75	43.86	46.00	2.14
Vertical	61.040	46.71	9.21	1.21	29.23	40.00	10.77
	85.290	48.61	10.80	1.66	33.16	40.00	6.84
	177.440	55.22	10.02	2.35	40.21	43.50	3.29
	261.830	47.28	12.49	2.64	35.54	46.00	10.46
	541.190	46.02	17.86	3.34	39.00	46.00	7.00
	880.690	37.97	20.35	4.75	35.54	46.00	10.46

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1680*1050@60Hz Adapter #1 : 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	33.880	15.56	16.26	0.83	32.65	40.00	7.35
	92.080	19.66	11.08	1.75	32.49	43.50	11.01
	133.790	18.79	10.74	2.12	31.65	43.50	11.85
	286.080	17.68	13.32	2.72	33.72	46.00	12.28
	499.480	16.94	17.60	3.27	37.81	46.00	8.19
	872.930	16.51	20.37	4.60	41.48	46.00	4.52
Vertical	72.680	14.56	10.08	1.47	26.11	40.00	13.89
	143.490	18.29	10.54	2.19	31.02	43.50	12.48
	213.330	26.56	10.33	2.47	39.36	43.50	4.14
	284.140	17.08	13.24	2.71	33.03	46.00	12.97
	502.390	10.39	17.61	3.27	31.27	46.00	14.73
	837.040	11.90	20.48	4.34	36.72	46.00	9.28

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI Adapter #1 : ADS-40SG-19-3
1280*1024@75Hz 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	77.530	9.67	10.39	1.56	21.62	40.00	18.38
	145.430	16.38	10.50	2.20	29.08	43.50	14.42
	213.330	24.12	10.33	2.47	36.92	43.50	6.58
	286.080	19.13	13.32	2.72	35.17	46.00	10.83
	502.390	8.97	17.61	3.27	29.85	46.00	16.15
	834.130	11.57	20.49	4.22	36.28	46.00	9.72
Vertical	36.790	15.81	14.57	0.85	31.23	40.00	8.77
	75.590	20.08	10.27	1.53	31.88	40.00	8.12
	111.480	17.07	11.15	1.96	30.18	43.50	13.32
	286.080	21.04	13.32	2.72	37.08	46.00	8.92
	494.630	11.93	17.53	3.25	32.71	46.00	13.29
	872.930	14.34	20.37	4.60	39.31	46.00	6.69

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 640*480@60Hz Adapter #1 : 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	90.140	17.90	11.00	1.73	30.63	43.50	12.87
	177.440	22.30	10.02	2.35	34.67	43.50	8.83
	261.830	21.16	12.49	2.64	36.29	46.00	9.71
	407.330	14.10	16.39	3.01	33.50	46.00	12.50
	541.190	18.31	17.86	3.34	39.51	46.00	6.49
	837.040	10.33	20.48	4.34	35.15	46.00	10.85
Vertical	33.880	15.72	16.26	0.83	32.81	40.00	7.19
	92.080	19.66	11.08	1.75	32.49	43.50	11.01
	135.730	19.56	10.71	2.14	32.41	43.50	11.09
	264.740	17.56	12.62	2.65	32.83	46.00	13.17
	541.190	16.07	17.86	3.34	37.27	46.00	8.73
	875.840	13.94	20.37	4.75	39.06	46.00	6.94

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : ADS-40FSG-19
19032GPCU-1

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	87.230	14.71	10.88	1.70	--	27.29	40.00	12.71	QP
	177.440	27.63	10.02	2.35	--	40.00	43.50	3.50	
	206.540	24.34	10.04	2.45	--	36.83	43.50	6.67	
	250.190	23.73	11.99	2.61	--	38.33	46.00	7.67	
	541.190	14.44	17.86	3.34	--	35.64	46.00	10.36	
	834.130	11.83	20.49	4.22	--	36.54	46.00	9.46	
	1075.000	52.88	22.16	5.27	38.04	42.27	74.00	31.73	PK
	1250.000	47.46	24.05	5.42	37.65	39.28	74.00	34.72	
	1365.000	48.43	24.80	5.55	37.33	41.45	74.00	32.55	
	1465.000	43.20	26.11	5.72	37.06	37.97	74.00	36.03	
	1595.000	44.72	26.41	5.93	36.77	40.29	74.00	33.71	
	1760.000	41.18	26.96	6.17	36.49	37.82	74.00	36.18	
	1075.000	41.88	22.16	5.27	38.04	31.27	54.00	22.73	AV
	1250.000	29.46	24.05	5.42	37.65	21.28	54.00	32.72	
	1365.000	36.43	24.80	5.55	37.33	29.45	54.00	24.55	
	1465.000	30.20	26.11	5.72	37.06	24.97	54.00	29.03	
	1595.000	35.72	26.41	5.93	36.77	31.29	54.00	22.71	
	1760.000	31.18	26.96	6.17	36.49	27.82	54.00	26.18	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : ADS-40FSG-19
19032GPCU-1

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	48.430	26.33	9.02	0.90	--	36.25	40.00	3.75	QP
	92.080	19.80	11.08	1.75	--	32.63	43.50	10.87	
	177.440	19.80	10.02	2.35	--	32.17	43.50	11.33	
	264.740	29.12	12.62	2.65	--	44.39	46.00	1.61	
	541.190	18.76	17.86	3.34	--	39.96	46.00	6.04	
	872.930	13.48	20.37	4.60	--	38.45	46.00	7.55	
	1080.000	44.24	22.24	5.27	38.03	33.72	74.00	40.28	PK
	1170.000	42.47	23.38	5.34	37.83	33.36	74.00	40.64	
	1315.000	44.87	24.50	5.51	37.48	37.40	74.00	36.60	
	1465.000	39.26	26.11	5.72	37.06	34.03	74.00	39.97	
	1600.000	42.52	26.40	5.93	36.76	38.09	74.00	35.91	
	1760.000	44.08	26.96	6.17	36.49	40.72	74.00	33.28	
	1080.000	34.24	22.24	5.27	38.03	23.72	54.00	30.28	AV
	1170.000	32.47	23.38	5.34	37.83	23.36	54.00	30.64	
	1315.000	30.87	24.50	5.51	37.48	23.40	54.00	30.60	
	1465.000	24.26	26.11	5.72	37.06	19.03	54.00	34.97	
	1600.000	22.52	26.40	5.93	36.76	18.09	54.00	35.91	
	1760.000	34.08	26.96	6.17	36.49	30.72	54.00	23.28	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : 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	87.230	15.13	10.88	1.70	--	27.71	40.00	12.29	QP
	177.440	26.57	10.02	2.35	--	38.94	43.50	4.56	
	206.540	20.86	10.04	2.45	--	33.35	43.50	10.15	
	261.830	21.74	12.49	2.64	--	36.87	46.00	9.13	
	334.580	19.98	14.66	2.84	--	37.48	46.00	8.52	
	541.190	14.67	17.86	3.34	--	35.87	46.00	10.13	
	1075.000	57.88	22.16	5.27	38.04	47.27	74.00	26.73	PK
	1180.000	51.35	23.49	5.34	37.81	42.37	74.00	31.63	
	1250.000	52.46	24.05	5.42	37.65	44.28	74.00	29.72	
	1365.000	53.43	24.80	5.55	37.33	46.45	74.00	27.55	
	1465.000	48.20	26.11	5.72	37.06	42.97	74.00	31.03	
	1595.000	49.72	26.41	5.93	36.77	45.29	74.00	28.71	
	1075.000	42.88	22.16	5.27	38.04	32.27	54.00	21.73	AV
	1180.000	39.35	23.49	5.34	37.81	30.37	54.00	23.63	
	1250.000	39.46	24.05	5.42	37.65	31.28	54.00	22.72	
	1365.000	39.43	24.80	5.55	37.33	32.45	54.00	21.55	
	1465.000	38.20	26.11	5.72	37.06	32.97	54.00	21.03	
	1595.000	34.72	26.41	5.93	36.77	30.29	54.00	23.71	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : 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	53.280	24.37	8.70	1.01	--	34.08	40.00	5.92	QP
	87.230	18.34	10.88	1.70	--	30.92	40.00	9.08	
	109.540	20.81	11.19	1.93	--	33.93	43.50	9.57	
	177.440	24.16	10.02	2.35	--	36.53	43.50	6.97	
	261.830	18.38	12.49	2.64	--	33.51	46.00	12.49	
	676.990	16.91	19.22	3.64	--	39.77	46.00	6.23	
	1080.000	55.01	22.24	4.50	38.03	43.72	74.00	30.28	PK
	1170.000	52.30	23.38	4.51	37.83	42.36	74.00	31.64	
	1315.000	54.85	24.50	4.53	37.48	46.40	74.00	27.60	
	1465.000	49.43	26.11	4.55	37.06	43.03	74.00	30.97	
	1600.000	52.89	26.40	4.56	36.76	47.09	74.00	26.91	
	1670.000	51.13	26.62	4.57	36.63	45.69	74.00	28.31	
	1080.000	42.01	22.24	4.50	38.03	30.72	54.00	23.28	AV
	1170.000	39.30	23.38	4.51	37.83	29.36	54.00	24.64	
	1315.000	43.85	24.50	4.53	37.48	35.40	54.00	18.60	
	1465.000	38.43	26.11	4.55	37.06	32.03	54.00	21.97	
	1600.000	43.89	26.40	4.56	36.76	38.09	54.00	15.91	
	1670.000	35.13	26.62	4.57	36.63	29.69	54.00	24.31	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #4 : LCAP26A-A

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	46.490	24.54	9.72	0.90	--	35.16	40.00	4.84	QP
	75.590	21.60	10.27	1.53	--	33.40	40.00	6.60	
	145.430	17.74	10.50	2.20	--	30.44	43.50	13.06	
	279.290	26.72	13.09	2.70	--	42.51	46.00	3.49	
	615.880	13.79	18.43	3.49	--	35.71	46.00	10.29	
	875.840	15.64	20.37	4.75	--	40.76	46.00	5.24	
	1075.000	55.88	22.16	5.27	38.04	45.27	74.00	28.73	PK
	1250.000	50.46	24.05	5.42	37.65	42.28	74.00	31.72	
	1365.000	51.43	24.80	5.55	37.33	44.45	74.00	29.55	
	1465.000	46.20	26.11	5.72	37.06	40.97	74.00	33.03	
	1595.000	47.72	26.41	5.93	36.77	43.29	74.00	30.71	
	1760.000	50.18	26.96	6.17	36.49	46.82	74.00	27.18	
	1075.000	40.88	22.16	5.27	38.04	30.27	54.00	23.73	AV
	1250.000	32.46	24.05	5.42	37.65	24.28	54.00	29.72	
	1365.000	35.43	24.80	5.55	37.33	28.45	54.00	25.55	
	1465.000	33.20	26.11	5.72	37.06	27.97	54.00	26.03	
	1595.000	30.72	26.41	5.93	36.77	26.29	54.00	27.71	
	1760.000	30.18	26.96	6.17	36.49	26.82	54.00	27.18	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2442VA Humidity : 60%RH

Serial No. : E1202154-01/01 Date of Test : Feb 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #4 : LCAP26A-A

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	87.230	14.87	10.88	1.70	--	27.45	40.00	12.55	QP
	174.530	23.82	10.06	2.33	--	36.21	43.50	7.29	
	203.630	23.01	9.94	2.44	--	35.39	43.50	8.11	
	250.190	19.20	11.99	2.61	--	33.80	46.00	12.20	
	407.330	18.60	16.39	3.01	--	38.00	46.00	8.00	
	837.040	10.37	20.48	4.34	--	35.19	46.00	10.81	
	1080.000	52.01	22.24	4.50	38.03	40.72	74.00	33.28	PK
	1170.000	50.30	23.38	4.51	37.83	40.36	74.00	33.64	
	1315.000	52.85	24.50	4.53	37.48	44.40	74.00	29.60	
	1465.000	47.43	26.11	4.55	37.06	41.03	74.00	32.97	
	1600.000	50.89	26.40	4.56	36.76	45.09	74.00	28.91	
	1760.000	52.67	26.96	4.58	36.49	47.72	74.00	26.28	
	1080.000	42.01	22.24	4.50	38.03	30.72	54.00	23.28	AV
	1170.000	38.30	23.38	4.51	37.83	28.36	54.00	25.64	
	1315.000	39.85	24.50	4.53	37.48	31.40	54.00	22.60	
	1465.000	34.43	26.11	4.55	37.06	28.03	54.00	25.97	
	1600.000	42.89	26.40	4.56	36.76	37.09	54.00	16.91	
	1760.000	37.67	26.96	4.58	36.49	32.72	54.00	21.28	

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.