

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

LCD Monitor

Model No.: D2542PY

Serial No.: E1105353-01/01

FCC ID : BEJD2542PY

Prepared For : LG Electronics U.S.A., Inc.
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Report No. : ACI-F11074
Date of Test : May 14 – 27, 2011
Date of Report : Jun 03, 2011

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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. : D2542PY
(B) Serial No. : E1105353-01/01
(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: D2542PY; S/N: E1105353-01/01) which was tested in 3m anechoic chamber May 14 – 27, 2011 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : May 14 – 27, 2011 Date of Report : Jun 03, 2011

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 2010 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2010 AND ANSI C63.4-2003	15.109(a) Class B	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	: LCD Monitor
Type of EUT	: ☒ Production ☐ Pre-product ☐ Pro-type
Model No.	: D2542PY
Serial No.	: E1105353-01/01
Real Power	: 37.40W
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 : LM250WF3 (TL)(A1)
Max Resolution	: 1920*1080@60Hz
D-Sub Cable #1	: Shielded, Detachable, 1.50m, with two cores on cable
D-Sub Cable #2	: Shielded, Detachable, 1.50m, with two cores in connector
DVI Cable #1	: Shielded, Detachable, 1.50m, with two cores on cable
DVI Cable #2	: Shielded, Detachable, 1.50m, with two cores in connector
Power Cord	: Unshielded, Detachable, 1.80m
Note	: The D-Sub cable #2 and DVI cable #2 were selected to be used in the test.

Remark:

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

- | | |
|-----------------------|---------------------------|
| (1) One D-Sub Port | : Connected with PC |
| (2) One DVI Port | : Connected with PC |
| (3) One 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

Manufacturer	:	HP
Model Number	:	dx7200MT
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 Printer

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

2.2.3 Keyboard

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

2.2.4 Mouse

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

2.2.5 Modem

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

2.2.6 DVD

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120108
HDMI Cable : Shielded, Detachable, 1.8m
Certificate : FCC DoC, CE/EMC, CCC

2.2.7 Earphone

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

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 = 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)

3 CONDUCTED EMISSION TEST

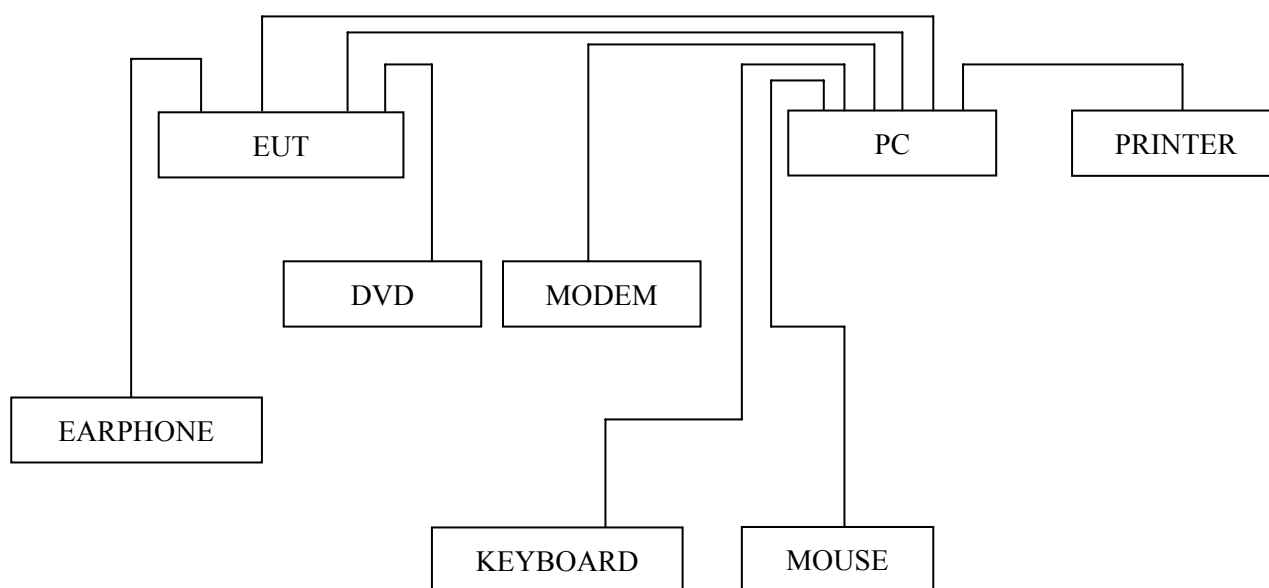
3.1 Test Equipment

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

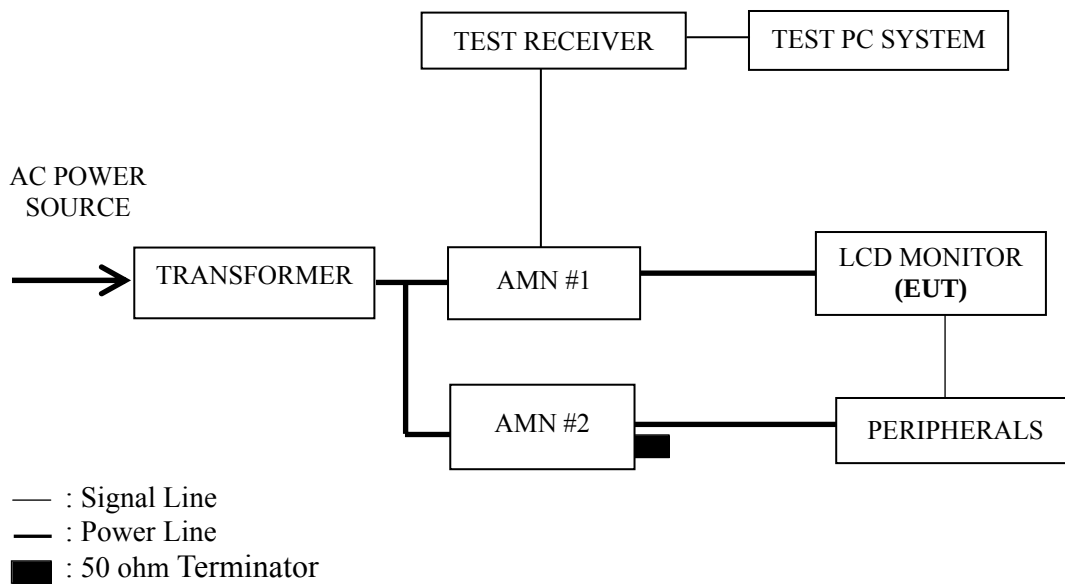
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2011	Mar 22, 2012
2.	Artificial Mains Network (AMN #1)	R&S	ESH2-Z5	843890/011	Mar 22, 2011	Mar 22, 2012
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	Mar 22, 2011	Mar 22, 2012
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2011	Sep 18, 2011
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



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/HDMI 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@60Hz
D-Sub 1680*1050@60Hz
D-Sub 1920*1080@60Hz
DVI 640*480@60Hz
DVI 1280*1024@60Hz
DVI 1680*1050@60Hz
DVI 1920*1080@60Hz
HDMI 720p
HDMI 1080p
HDMI PC Mode (see 4.7 NOTE2)

Note: HDMI PC Mode was selected to perform the additional Radiated Emission Test.

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@60Hz	P13
D-Sub 1680*1050@60Hz	P14
D-Sub 1920*1080@60Hz	P15
DVI 640*480@60Hz	P16
DVI 1280*1024@60Hz	P17
DVI 1680*1050@60Hz	P18
DVI 1920*1080@60Hz	P19
HDMI 720p	P20
HDMI 1080p	P21

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 HDMI 1080p test mode. The worst emission is detected at 0.197 MHz (Quasi-Peak Value) with corrected signal level of 45.78 dB (μV) (limit is 63.76 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.194	44.82	0.23	45.05	63.84	18.79	QP
	0.264	38.07	0.23	38.30	61.29	22.99	
	0.332	33.61	0.27	33.88	59.40	25.52	
	3.681	29.99	0.53	30.52	56.00	25.48	
	7.687	30.10	0.69	30.79	60.00	29.21	
	24.529	34.57	1.19	35.76	60.00	24.24	
	0.194	34.35	0.23	34.58	53.84	19.26	AV
	0.264	27.64	0.23	27.87	51.29	23.42	
	0.332	23.15	0.27	23.42	49.40	25.98	
	3.681	19.42	0.53	19.95	46.00	26.05	
	7.687	19.63	0.69	20.32	50.00	29.68	
	24.529	24.11	1.19	25.30	50.00	24.70	
Neutral	0.199	45.26	0.19	45.45	63.67	18.22	QP
	0.270	38.34	0.19	38.53	61.12	22.59	
	0.336	34.57	0.21	34.78	59.31	24.53	
	4.269	27.16	0.74	27.90	56.00	28.10	
	8.062	32.95	1.00	33.95	60.00	26.05	
	23.888	34.59	1.32	35.91	60.00	24.09	
	0.199	34.89	0.19	35.08	53.67	18.59	AV
	0.270	27.83	0.19	28.02	51.12	23.10	
	0.336	24.00	0.21	24.21	49.31	25.10	
	4.269	16.71	0.74	17.45	46.00	28.55	
	8.062	22.31	1.00	23.31	50.00	26.69	
	23.888	24.01	1.32	25.33	50.00	24.67	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

Test Mode : D-Sub 1280*1024@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.197	45.13	0.23	45.36	63.76	18.40	QP
	0.273	37.24	0.23	37.47	61.03	23.56	
	0.348	35.36	0.28	35.64	59.00	23.36	
	3.881	30.42	0.53	30.95	56.00	25.05	
	8.062	30.40	0.69	31.09	60.00	28.91	
	24.142	33.81	1.19	35.00	60.00	25.00	
	0.197	34.75	0.23	34.98	53.76	18.78	AV
	0.273	26.76	0.23	26.99	51.03	24.04	
	0.348	24.80	0.28	25.08	49.00	23.92	
	3.881	20.04	0.53	20.57	46.00	25.43	
	8.062	19.86	0.69	20.55	50.00	29.45	
	24.142	23.24	1.19	24.43	50.00	25.57	
Neutral	0.197	45.15	0.19	45.34	63.76	18.42	QP
	0.273	37.81	0.19	38.00	61.03	23.03	
	0.343	33.62	0.21	33.83	59.13	25.30	
	4.027	28.10	0.74	28.84	56.00	27.16	
	7.769	32.80	0.99	33.79	60.00	26.21	
	23.888	33.84	1.32	35.16	60.00	24.84	
	0.197	34.82	0.19	35.01	53.76	18.75	AV
	0.273	27.13	0.19	27.32	51.03	23.71	
	0.343	23.21	0.21	23.42	49.13	25.71	
	4.027	17.43	0.74	18.17	46.00	27.83	
	7.769	22.34	0.99	23.33	50.00	26.67	
	23.888	23.40	1.32	24.72	50.00	25.28	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.197	44.87	0.23	45.10	63.76	18.66	QP
	0.267	38.63	0.23	38.86	61.20	22.34	
	0.336	33.77	0.27	34.04	59.31	25.27	
	3.901	30.29	0.54	30.83	56.00	25.17	
	7.769	30.31	0.69	31.00	60.00	29.00	
	24.142	35.31	1.19	36.50	60.00	23.50	
	0.197	34.12	0.23	34.35	53.76	19.41	AV
	0.267	28.16	0.23	28.39	51.20	22.81	
	0.336	23.13	0.27	23.40	49.31	25.91	
	3.901	19.83	0.54	20.37	46.00	25.63	
	7.769	19.73	0.69	20.42	50.00	29.58	
	24.142	24.73	1.19	25.92	50.00	24.08	
Neutral	0.199	45.29	0.19	45.48	63.67	18.19	QP
	0.273	39.85	0.19	40.04	61.03	20.99	
	0.339	35.05	0.21	35.26	59.22	23.96	
	3.943	29.64	0.74	30.38	56.00	25.62	
	7.606	33.25	0.99	34.24	60.00	25.76	
	24.400	34.35	1.33	35.68	60.00	24.32	
	0.199	34.86	0.19	35.05	53.67	18.62	AV
	0.273	29.40	0.19	29.59	51.03	21.44	
	0.339	24.60	0.21	24.81	49.22	24.41	
	3.943	19.12	0.74	19.86	46.00	26.14	
	7.606	22.80	0.99	23.79	50.00	26.21	
	24.400	23.87	1.33	25.20	50.00	24.80	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.199	44.65	0.23	44.88	63.67	18.79	QP
	0.267	38.47	0.23	38.70	61.20	22.50	
	0.325	33.60	0.27	33.87	59.57	25.70	
	3.840	29.76	0.53	30.29	56.00	25.71	
	8.148	31.09	0.69	31.78	60.00	28.22	
	24.400	34.39	1.19	35.58	60.00	24.42	
	0.199	34.13	0.23	34.36	53.67	19.31	AV
	0.267	27.84	0.23	28.07	51.20	23.13	
	0.325	23.12	0.27	23.39	49.57	26.18	
	3.840	19.13	0.53	19.66	46.00	26.34	
	8.148	20.48	0.69	21.17	50.00	28.83	
	24.400	23.85	1.19	25.04	50.00	24.96	
Neutral	0.199	45.01	0.19	45.20	63.67	18.47	QP
	0.273	39.35	0.19	39.54	61.03	21.49	
	0.339	33.55	0.21	33.76	59.22	25.46	
	4.224	26.63	0.74	27.37	56.00	28.63	
	7.935	32.51	1.00	33.51	60.00	26.49	
	22.896	34.58	1.30	35.88	60.00	24.12	
	0.199	34.56	0.19	34.75	53.67	18.92	AV
	0.273	28.76	0.19	28.95	51.03	22.08	
	0.339	23.04	0.21	23.25	49.22	25.97	
	4.224	16.14	0.74	16.88	46.00	29.12	
	7.935	22.10	1.00	23.10	50.00	26.90	
	22.896	24.16	1.30	25.46	50.00	24.54	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.197	44.91	0.23	45.14	63.76	18.62	QP
	0.267	36.49	0.23	36.72	61.20	24.48	
	0.329	33.36	0.27	33.63	59.49	25.86	
	4.114	29.76	0.54	30.30	56.00	25.70	
	7.977	32.59	0.69	33.28	60.00	26.72	
	24.400	34.88	1.19	36.07	60.00	23.93	
	0.197	34.26	0.23	34.49	53.76	19.27	AV
	0.267	26.02	0.23	26.25	51.20	24.95	
	0.329	22.87	0.27	23.14	49.49	26.35	
	4.114	19.46	0.54	20.00	46.00	26.00	
	7.977	22.11	0.69	22.80	50.00	27.20	
	24.400	24.35	1.19	25.54	50.00	24.46	
Neutral	0.199	44.41	0.19	44.60	63.67	19.07	QP
	0.270	36.77	0.19	36.96	61.12	24.16	
	0.336	33.34	0.21	33.55	59.31	25.76	
	3.901	28.36	0.74	29.10	56.00	26.90	
	7.977	31.95	1.00	32.95	60.00	27.05	
	24.142	34.54	1.33	35.87	60.00	24.13	
	0.199	34.05	0.19	34.24	53.67	19.43	AV
	0.270	26.24	0.19	26.43	51.12	24.69	
	0.336	22.94	0.21	23.15	49.31	26.16	
	3.901	17.70	0.74	18.44	46.00	27.56	
	7.977	21.43	1.00	22.43	50.00	27.57	
	24.142	24.10	1.33	25.43	50.00	24.57	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

Test Mode : DVI 1280*1024@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.200	44.77	0.23	45.00	63.62	18.62	QP
	0.262	36.36	0.23	36.59	61.38	24.79	
	0.339	33.77	0.27	34.04	59.22	25.18	
	3.642	31.01	0.52	31.53	56.00	24.47	
	7.977	32.51	0.69	33.20	60.00	26.80	
	24.142	34.21	1.19	35.40	60.00	24.60	
	0.200	34.21	0.23	34.44	53.62	19.18	AV
	0.262	25.94	0.23	26.17	51.38	25.21	
	0.339	23.24	0.27	23.51	49.22	25.71	
	3.642	20.64	0.52	21.16	46.00	24.84	
	7.977	22.03	0.69	22.72	50.00	27.28	
	24.142	23.87	1.19	25.06	50.00	24.94	
Neutral	0.199	44.95	0.19	45.14	63.67	18.53	QP
	0.267	38.58	0.19	38.77	61.20	22.43	
	0.343	34.71	0.21	34.92	59.13	24.21	
	4.114	27.83	0.74	28.57	56.00	27.43	
	8.062	33.06	1.00	34.06	60.00	25.94	
	24.142	34.10	1.33	35.43	60.00	24.57	
	0.199	34.21	0.19	34.40	53.67	19.27	AV
	0.267	28.31	0.19	28.50	51.20	22.70	
	0.343	24.13	0.21	24.34	49.13	24.79	
	4.114	17.25	0.74	17.99	46.00	28.01	
	8.062	22.47	1.00	23.47	50.00	26.53	
	24.142	23.50	1.33	24.83	50.00	25.17	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.197	44.81	0.23	45.04	63.76	18.72	QP
	0.264	37.17	0.23	37.40	61.29	23.89	
	0.332	33.96	0.27	34.23	59.40	25.17	
	3.840	29.69	0.53	30.22	56.00	25.78	
	7.977	30.24	0.69	30.93	60.00	29.07	
	24.142	34.38	1.19	35.57	60.00	24.43	
	0.197	34.26	0.23	34.49	53.76	19.27	AV
	0.264	26.80	0.23	27.03	51.29	24.26	
	0.332	23.43	0.27	23.70	49.40	25.70	
	3.840	19.13	0.53	19.66	46.00	26.34	
	7.977	19.86	0.69	20.55	50.00	29.45	
	24.142	23.87	1.19	25.06	50.00	24.94	
Neutral	0.197	44.57	0.19	44.76	63.76	19.00	QP
	0.273	39.46	0.19	39.65	61.03	21.38	
	0.336	34.95	0.21	35.16	59.31	24.15	
	4.114	29.17	0.74	29.91	56.00	26.09	
	7.977	32.79	1.00	33.79	60.00	26.21	
	23.140	33.68	1.30	34.98	60.00	25.02	
	0.197	34.02	0.19	34.21	53.76	19.55	AV
	0.273	29.13	0.19	29.32	51.03	21.71	
	0.336	24.34	0.21	24.55	49.31	24.76	
	4.114	18.67	0.74	19.41	46.00	26.59	
	7.977	22.31	1.00	23.31	50.00	26.69	
	23.140	23.15	1.30	24.45	50.00	25.55	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.204	43.91	0.23	44.14	63.45	19.31	QP
	0.273	37.97	0.23	38.20	61.03	22.83	
	0.332	34.48	0.27	34.75	59.40	24.65	
	3.901	30.72	0.54	31.26	56.00	24.74	
	7.935	31.88	0.69	32.57	60.00	27.43	
	23.636	34.90	1.17	36.07	60.00	23.93	
	0.204	33.42	0.23	33.65	53.45	19.80	AV
	0.273	27.40	0.23	27.63	51.03	23.40	
	0.332	24.10	0.27	24.37	49.40	25.03	
	3.901	20.33	0.54	20.87	46.00	25.13	
	7.935	21.25	0.69	21.94	50.00	28.06	
	23.636	24.17	1.17	25.34	50.00	24.66	
Neutral	0.197	44.51	0.19	44.70	63.76	19.06	QP
	0.273	37.27	0.19	37.46	61.03	23.57	
	0.343	34.54	0.21	34.75	59.13	24.38	
	4.070	27.03	0.74	27.77	56.00	28.23	
	7.687	31.87	0.99	32.86	60.00	27.14	
	23.888	34.19	1.32	35.51	60.00	24.49	
	0.197	34.05	0.19	34.24	53.76	19.52	AV
	0.273	26.76	0.19	26.95	51.03	24.08	
	0.343	24.10	0.21	24.31	49.13	24.82	
	4.070	16.72	0.74	17.46	46.00	28.54	
	7.687	21.24	0.99	22.23	50.00	27.77	
	23.888	23.64	1.32	24.96	50.00	25.04	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.199	44.39	0.23	44.62	63.67	19.05	QP
	0.270	36.36	0.23	36.59	61.12	24.53	
	0.329	33.31	0.27	33.58	59.49	25.91	
	3.642	30.84	0.52	31.36	56.00	24.64	
	7.977	32.53	0.69	33.22	60.00	26.78	
	23.888	33.76	1.19	34.95	60.00	25.05	
	0.199	33.87	0.23	34.10	53.67	19.57	AV
	0.270	25.94	0.23	26.17	51.12	24.95	
	0.329	22.86	0.27	23.13	49.49	26.36	
	3.642	20.24	0.52	20.76	46.00	25.24	
	7.977	22.10	0.69	22.79	50.00	27.21	
	23.888	23.23	1.19	24.42	50.00	25.58	
Neutral	0.197	44.73	0.19	44.92	63.76	18.84	QP
	0.267	39.42	0.19	39.61	61.20	21.59	
	0.346	34.88	0.21	35.09	59.05	23.96	
	4.158	26.56	0.74	27.30	56.00	28.70	
	7.977	34.59	1.00	35.59	60.00	24.41	
	23.636	34.66	1.31	35.97	60.00	24.03	
	0.197	34.20	0.19	34.39	53.76	19.37	AV
	0.267	29.00	0.19	29.19	51.20	22.01	
	0.346	24.16	0.21	24.37	49.05	24.68	
	4.158	16.07	0.74	16.81	46.00	29.19	
	7.977	24.10	1.00	25.10	50.00	24.90	
	23.636	24.19	1.31	25.50	50.00	24.50	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 48%RH

Serial No. : E1105353-01/01 Date of Test : May 14, 2011

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	0.194	44.68	0.23	44.91	63.84	18.93	QP
	0.264	36.50	0.23	36.73	61.29	24.56	
	0.329	33.56	0.27	33.83	59.49	25.66	
	3.799	31.61	0.53	32.14	56.00	23.86	
	7.977	31.47	0.69	32.16	60.00	27.84	
	24.400	34.75	1.19	35.94	60.00	24.06	
	0.194	34.10	0.23	34.33	53.84	19.51	AV
	0.264	26.04	0.23	26.27	51.29	25.02	
	0.329	23.10	0.27	23.37	49.49	26.12	
	3.799	21.20	0.53	21.73	46.00	24.27	
	7.977	20.90	0.69	21.59	50.00	28.41	
	24.400	24.21	1.19	25.40	50.00	24.60	
Neutral	0.197	45.59	0.19	45.78	63.76	17.98	QP
	0.270	36.83	0.19	37.02	61.12	24.10	
	0.339	33.17	0.21	33.38	59.22	25.84	
	4.070	28.95	0.74	29.69	56.00	26.31	
	7.687	32.38	0.99	33.37	60.00	26.63	
	23.888	34.77	1.32	36.09	60.00	23.91	
	0.197	35.10	0.19	35.29	53.76	18.47	AV
	0.270	26.31	0.19	26.50	51.12	24.62	
	0.339	22.50	0.21	22.71	49.22	26.51	
	4.070	18.43	0.74	19.17	46.00	26.83	
	7.687	21.76	0.99	22.75	50.00	27.25	
	23.888	24.54	1.32	25.86	50.00	24.14	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

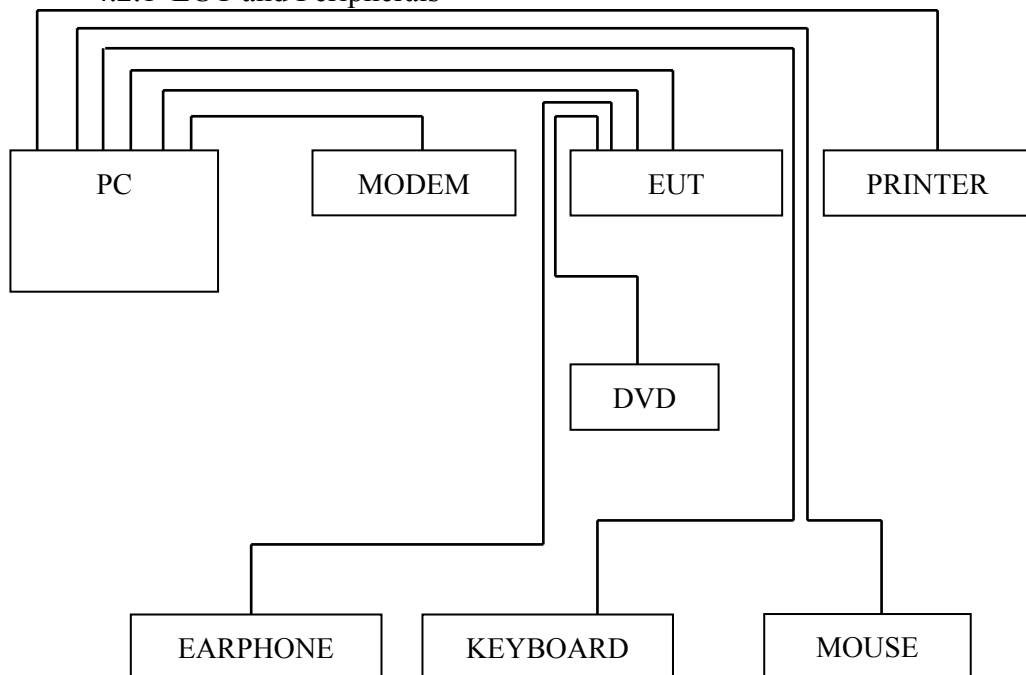
4.1 Test Equipment

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	Mar 18, 2011	Sep 18, 2011
3.	Preamplifier	HP	8449B	3008A00864	Mar 22, 2011	Mar 22, 2012
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2010	Dec 01, 2011
5.	Horn Antenna	EMCO	3115	9607-4878	May 13, 2010	May 13, 2011
6.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2011	Mar 22, 2012
7.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2011	Sep 18, 2011
8.	Software	Audix	E3	SET00200 9912M295-2	--	--

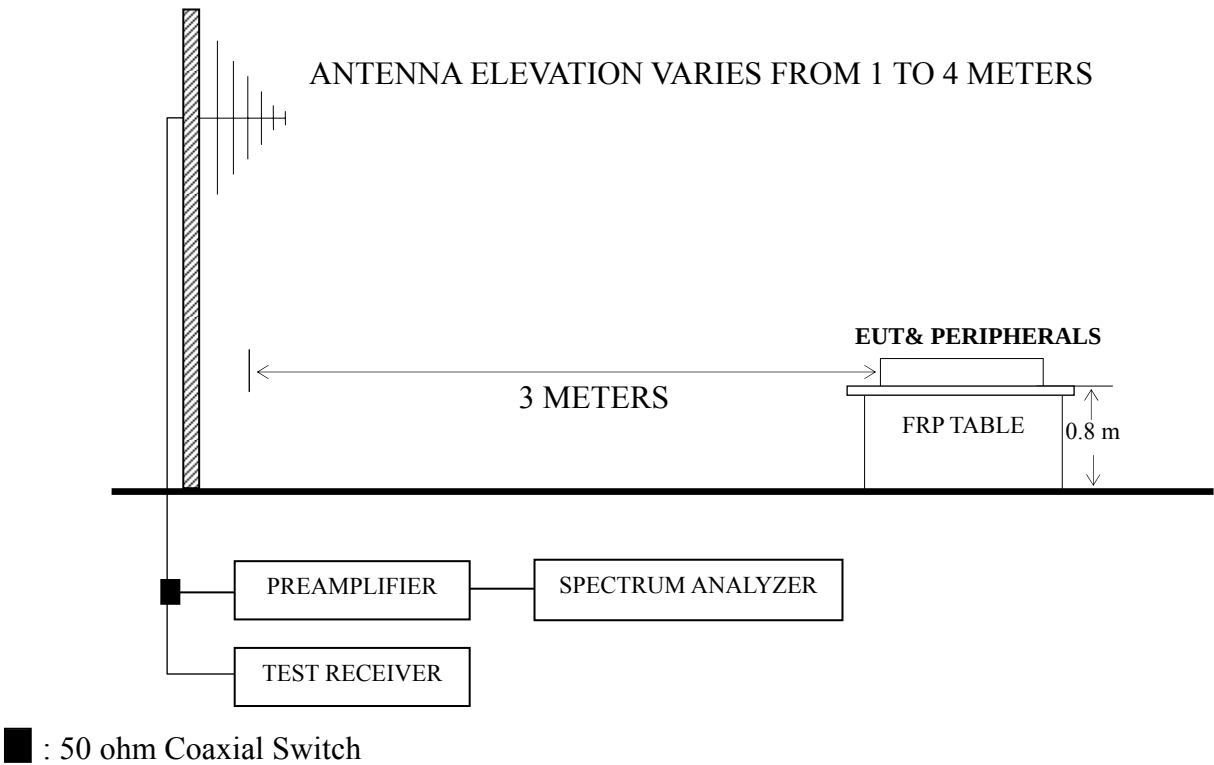
4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals

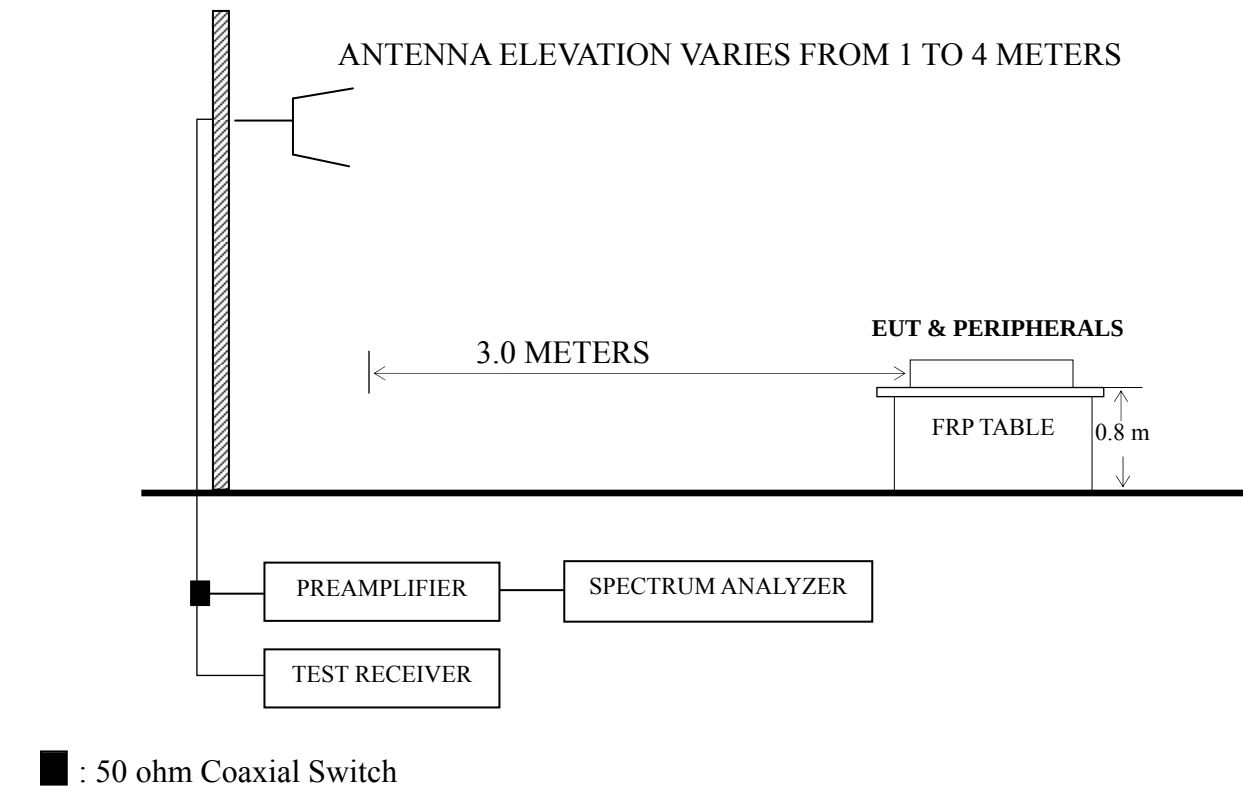


4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



4.2.2.2 Above 1GHz



4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)]

Frequency (MHz)	Distance (m)	Field strength limits	
		($\mu\text{V/m}$)	dB ($\mu\text{V/m}$)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 log Emission Level ($\mu\text{V/m}$) NOTE 2 - The tighter limit applies at the band edges. NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system. NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz. NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT.			

4.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.4.2.

4.6 Test Procedures

The EUT and peripherals were placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna) or Horn Antenna was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 requirements during radiated emission test.

The I.F. bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz below 1GHz and The Spectrum Agilent E7405A was set at 1MHz above 1GHz.

The frequency range from 30 MHz to 1000MHz was checked for all test modes.

The frequency range from 1 GHz to 2 GHz was checked for D-Sub/DVI 1280*1024@60Hz, 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@60Hz	P28 – P29
D-Sub 1680*1050@60Hz	P30 – P31
D-Sub 1920*1080@60Hz	P32 – P33
DVI 640*480@60Hz	P34
DVI 1280*1024@60Hz	P35 – P36
DVI 1680*1050@60Hz	P37 – P38
DVI 1920*1080@60Hz	P39 – P40
HDMI 720p	P41
HDMI 1080p	P42
HDMI 640*480@60Hz	P43

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

NOTE 2 – We selected the worst resolution mode to perform the HDMI connected PC mode.

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

NOTE 4 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading.($> 1\text{GHz}$)

NOTE 5 – All readings are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.

NOTE 6 – The emission levels that are 20dB below the official limit are not reported.

NOTE 7 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 8 – The worst case is for D-Sub 640*480@60Hz test mode. The worst emission at horizontal polarization was detected at 806.000 MHz with corrected signal level of 41.35 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 330° . The worst emission at vertical polarization was detected at 38.730 MHz with corrected signal level of 38.00 dB ($\mu\text{V/m}$) (limit is 40.00 dB ($\mu\text{V/m}$)), when the antenna was 1.00 m height and the turntable was at 240° .

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	39.700	7.84	14.08	0.72	22.64	40.00	17.36
	68.800	16.98	6.51	0.89	24.38	40.00	15.62
	153.190	24.96	11.04	1.25	37.25	43.50	6.25
	231.760	20.80	12.20	1.55	34.55	46.00	11.45
	534.400	11.01	18.36	2.33	31.70	46.00	14.30
	806.000	17.68	20.77	2.90	41.35	46.00	4.65
Vertical	38.730	22.67	14.62	0.71	38.00	40.00	2.00
	66.860	21.72	6.53	0.88	29.13	40.00	10.87
	147.370	25.27	11.51	1.23	38.01	43.50	5.49
	306.450	20.21	14.07	1.78	36.06	46.00	9.94
	515.000	15.49	18.09	2.29	35.87	46.00	10.13
	872.930	16.08	21.46	2.98	40.52	46.00	5.48

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

Test Mode : D-Sub 1280*1024@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	39.700	7.83	14.08	0.72	--	22.63	40.00	17.37	QP
	69.770	17.24	6.50	0.89	--	24.63	40.00	15.37	
	146.400	23.95	11.61	1.23	--	36.79	43.50	6.71	
	349.130	14.25	15.29	1.91	--	31.45	46.00	14.55	
	715.790	9.77	19.85	2.72	--	32.34	46.00	13.66	
	806.000	16.95	20.77	2.90	--	40.62	46.00	5.38	
	1074.000	45.61	22.16	4.50	37.26	35.01	74.00	38.99	PK
	1205.000	42.11	23.73	4.51	37.00	33.35	74.00	40.65	
	1379.000	40.15	24.87	4.54	36.58	32.98	74.00	41.02	
	1566.000	40.23	26.46	4.56	36.16	35.09	74.00	38.91	
	1647.000	39.69	26.55	4.57	36.02	34.79	74.00	39.21	
	1926.000	39.90	25.46	4.72	35.67	34.41	74.00	39.59	
	1074.000	31.61	22.16	4.50	37.26	21.01	54.00	32.99	AV
	1205.000	25.11	23.73	4.51	37.00	16.35	54.00	37.65	
	1379.000	26.15	24.87	4.54	36.58	18.98	54.00	35.02	
	1566.000	30.23	26.46	4.56	36.16	25.09	54.00	28.91	
	1647.000	29.69	26.55	4.57	36.02	24.79	54.00	29.21	
	1926.000	25.90	25.46	4.72	35.67	20.41	54.00	33.59	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

Test Mode : D-Sub 1280*1024@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	38.730	22.02	14.62	0.71	--	37.35	40.00	2.65	QP
	94.020	16.43	10.27	1.02	--	27.72	43.50	15.78	
	153.190	17.02	11.04	1.25	--	29.31	43.50	14.19	
	279.290	18.60	13.52	1.70	--	33.82	46.00	12.18	
	512.090	9.96	18.06	2.29	--	30.31	46.00	15.69	
	878.750	13.91	21.49	3.00	--	38.40	46.00	7.60	
	1076.000	47.25	22.16	4.50	37.26	36.65	74.00	37.35	PK
	1275.000	37.52	24.25	4.53	36.84	29.46	74.00	44.54	
	1429.000	38.39	25.49	4.54	36.45	31.97	74.00	42.03	
	1527.000	38.14	26.54	4.55	36.23	33.00	74.00	41.00	
	1692.000	37.86	26.68	4.57	35.96	33.15	74.00	40.85	
	1964.000	40.53	24.92	4.75	35.64	34.56	74.00	39.44	
	1076.000	36.25	22.16	4.50	37.26	25.65	54.00	28.35	AV
	1275.000	26.52	24.25	4.53	36.84	18.46	54.00	35.54	
	1429.000	20.39	25.49	4.54	36.45	13.97	54.00	40.03	
	1527.000	26.14	26.54	4.55	36.23	21.00	54.00	33.00	
	1692.000	29.86	26.68	4.57	35.96	25.15	54.00	28.85	
	1964.000	26.53	24.92	4.75	35.64	20.56	54.00	33.44	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	39.700	5.55	14.08	0.72	--	20.35	40.00	19.65	QP
	92.080	7.53	9.82	1.00	--	18.35	43.50	25.15	
	141.550	20.15	12.01	1.21	--	33.37	43.50	10.13	
	263.770	15.93	13.20	1.65	--	30.78	46.00	15.22	
	515.000	7.94	18.09	2.29	--	28.32	46.00	17.68	
	806.000	10.69	20.77	2.90	--	34.36	46.00	11.64	
	1074.000	55.61	22.16	4.50	37.26	45.01	74.00	28.99	PK
	1205.000	50.11	23.73	4.51	37.00	41.35	74.00	32.65	
	1328.000	51.82	24.56	4.53	36.72	44.19	74.00	29.81	
	1467.000	49.70	26.11	4.55	36.36	44.00	74.00	30.00	
	1593.000	51.20	26.41	4.56	36.11	46.06	74.00	27.94	
	1701.000	47.71	26.70	4.57	35.94	43.04	74.00	30.96	
	1074.000	45.61	22.16	4.50	37.26	35.01	54.00	18.99	AV
	1205.000	41.11	23.73	4.51	37.00	32.35	54.00	21.65	
	1328.000	36.82	24.56	4.53	36.72	29.19	54.00	24.81	
	1467.000	38.70	26.11	4.55	36.36	33.00	54.00	21.00	
	1593.000	43.20	26.41	4.56	36.11	38.06	54.00	15.94	
	1701.000	31.71	26.70	4.57	35.94	27.04	54.00	26.96	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	33.880	16.77	17.44	0.67	--	34.88	40.00	5.12	QP
	52.310	18.59	8.41	0.79	--	27.79	40.00	12.21	
	107.600	21.38	12.10	1.07	--	34.55	43.50	8.95	
	215.270	14.86	11.39	1.50	--	27.75	43.50	15.75	
	492.690	15.92	17.80	2.25	--	35.97	46.00	10.03	
	878.750	15.11	21.49	3.00	--	39.60	46.00	6.40	
	1003.000	54.28	20.88	4.49	37.39	42.26	74.00	31.74	PK
	1148.000	51.76	23.15	4.51	37.12	42.30	74.00	31.70	
	1258.000	44.21	24.13	4.52	36.88	35.98	74.00	38.02	
	1366.000	47.87	24.80	4.54	36.62	40.59	74.00	33.41	
	1453.000	48.22	25.90	4.55	36.39	42.28	74.00	31.72	
	1593.000	48.07	26.41	4.56	36.11	42.93	74.00	31.07	
	1003.000	46.28	20.88	4.49	37.39	34.26	54.00	19.74	AV
	1148.000	35.76	23.15	4.51	37.12	26.30	54.00	27.70	
	1258.000	29.21	24.13	4.52	36.88	20.98	54.00	33.02	
	1366.000	38.87	24.80	4.54	36.62	31.59	54.00	22.41	
	1453.000	40.22	25.90	4.55	36.39	34.28	54.00	19.72	
	1593.000	34.07	26.41	4.56	36.11	28.93	54.00	25.07	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	39.700	9.90	14.08	0.72	--	24.70	40.00	15.30	QP
	69.770	20.65	6.50	0.89	--	28.04	40.00	11.96	
	146.400	25.91	11.61	1.23	--	38.75	43.50	4.75	
	303.540	16.58	14.00	1.78	--	32.36	46.00	13.64	
	513.060	12.18	18.06	2.29	--	32.53	46.00	13.47	
	806.000	16.99	20.77	2.90	--	40.66	46.00	5.34	
	1074.000	45.61	22.16	4.50	37.26	35.01	74.00	38.99	PK
	1328.000	41.82	24.56	4.53	36.72	34.19	74.00	39.81	
	1501.000	39.58	26.59	4.55	36.28	34.44	74.00	39.56	
	1593.000	41.20	26.41	4.56	36.11	36.06	74.00	37.94	
	1673.000	38.56	26.62	4.57	35.98	33.77	74.00	40.23	
	1955.000	42.83	25.02	4.75	35.64	36.96	74.00	37.04	
	1074.000	38.61	22.16	4.50	37.26	28.01	54.00	25.99	AV
	1328.000	28.82	24.56	4.53	36.72	21.19	54.00	32.81	
	1501.000	29.58	26.59	4.55	36.28	24.44	54.00	29.56	
	1593.000	29.20	26.41	4.56	36.11	24.06	54.00	29.94	
	1673.000	32.56	26.62	4.57	35.98	27.77	54.00	26.23	
	1955.000	29.83	25.02	4.75	35.64	23.96	54.00	30.04	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	38.730	21.95	14.62	0.71	--	37.28	40.00	2.72	QP
	60.070	20.10	6.60	0.84	--	27.54	40.00	12.46	
	131.850	20.32	12.42	1.18	--	33.92	43.50	9.58	
	215.270	15.42	11.39	1.50	--	28.31	43.50	15.19	
	364.650	15.28	15.73	1.96	--	32.97	46.00	13.03	
	856.440	12.21	21.28	2.97	--	36.46	46.00	9.54	
	1076.000	53.25	22.16	4.50	37.26	42.65	74.00	31.35	PK
	1148.000	52.76	23.15	4.51	37.12	43.30	74.00	30.70	
	1344.000	48.51	24.67	4.53	36.67	41.04	74.00	32.96	
	1453.000	49.22	25.90	4.55	36.39	43.28	74.00	30.72	
	1639.000	49.99	26.53	4.57	36.03	45.06	74.00	28.94	
	1791.000	46.47	27.07	4.58	35.82	42.30	74.00	31.70	
	1076.000	46.25	22.16	4.50	37.26	35.65	54.00	18.35	AV
	1148.000	37.76	23.15	4.51	37.12	28.30	54.00	25.70	
	1344.000	37.51	24.67	4.53	36.67	30.04	54.00	23.96	
	1453.000	38.22	25.90	4.55	36.39	32.28	54.00	21.72	
	1639.000	37.99	26.53	4.57	36.03	33.06	54.00	20.94	
	1791.000	33.47	27.07	4.58	35.82	29.30	54.00	24.70	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	40.670	9.18	13.62	0.72	23.52	40.00	16.48
	89.170	18.92	9.24	0.99	29.15	43.50	14.35
	179.380	27.44	9.92	1.37	38.73	43.50	4.77
	540.000	15.70	18.42	2.33	36.45	46.00	9.55
	809.900	16.41	20.80	2.90	40.11	46.00	5.89
	870.020	18.56	21.42	2.98	42.96	46.00	3.04
Vertical	39.700	22.39	14.08	0.72	37.19	40.00	2.81
	67.830	22.11	6.52	0.88	29.51	40.00	10.49
	179.380	24.91	9.92	1.37	36.20	43.50	7.30
	358.830	25.68	15.57	1.95	43.20	46.00	2.80
	540.000	21.20	18.42	2.33	41.95	46.00	4.05
	809.880	16.33	20.80	2.90	40.03	46.00	5.97

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

Test Mode : DVI 1280*1024@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	40.670	6.95	13.62	0.72	--	21.29	40.00	18.71	QP
	69.770	16.66	6.50	0.89	--	24.05	40.00	15.95	
	132.820	19.08	12.40	1.18	--	32.66	43.50	10.84	
	224.970	20.63	11.89	1.53	--	34.05	46.00	11.95	
	368.530	11.44	15.81	1.98	--	29.23	46.00	16.77	
	881.400	18.40	21.53	3.00	--	42.93	46.00	3.07	
	1041.000	46.32	22.69	4.49	37.33	36.17	74.00	37.83	PK
	1264.000	44.32	24.23	4.52	36.86	36.21	74.00	37.79	
	1393.000	45.61	25.16	4.54	36.55	38.76	74.00	35.24	
	1467.000	45.89	25.60	4.55	36.36	39.68	74.00	34.32	
	1600.000	47.16	26.40	4.56	36.10	42.02	74.00	31.98	
	1797.000	44.70	26.90	4.58	35.81	40.37	74.00	33.63	
	1041.000	39.32	22.69	4.49	37.33	29.17	54.00	24.83	AV
	1264.000	30.32	24.23	4.52	36.86	22.21	54.00	31.79	
	1393.000	35.61	25.16	4.54	36.55	28.76	54.00	25.24	
	1467.000	34.89	25.60	4.55	36.36	28.68	54.00	25.32	
	1600.000	40.16	26.40	4.56	36.10	35.02	54.00	18.98	
	1797.000	33.70	26.90	4.58	35.81	29.37	54.00	24.63	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

Test Mode : DVI 1280*1024@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	40.670	21.72	13.62	0.72	--	36.06	40.00	3.94	QP
	67.830	21.49	6.52	0.88	--	28.89	40.00	11.11	
	154.160	24.84	10.94	1.26	--	37.04	43.50	6.46	
	300.630	18.50	13.93	1.77	--	34.20	46.00	11.80	
	516.940	17.04	18.12	2.29	--	37.45	46.00	8.55	
	881.660	19.34	21.53	3.00	--	43.87	46.00	2.13	
	1031.000	48.82	22.60	4.49	37.34	38.57	74.00	35.43	PK
	1200.000	48.51	23.70	4.51	37.00	39.72	74.00	34.28	
	1286.000	46.80	24.40	4.53	36.82	38.91	74.00	35.09	
	1498.000	50.44	25.80	4.55	36.30	44.49	74.00	29.51	
	1600.000	49.50	26.40	4.56	36.10	44.36	74.00	29.64	
	1676.000	45.05	26.59	4.57	35.97	40.24	74.00	33.76	
	1031.000	41.82	22.60	4.49	37.34	31.57	54.00	22.43	AV
	1200.000	36.51	23.70	4.51	37.00	27.72	54.00	26.28	
	1286.000	32.80	24.40	4.53	36.82	24.91	54.00	29.09	
	1498.000	36.44	25.80	4.55	36.30	30.49	54.00	23.51	
	1600.000	38.50	26.40	4.56	36.10	33.36	54.00	20.64	
	1676.000	33.05	26.59	4.57	35.97	28.24	54.00	25.76	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	31.940	-0.80	18.49	0.65	--	18.34	40.00	21.66	QP
	62.010	20.47	6.58	0.85	--	27.90	40.00	12.10	
	139.610	21.65	12.12	1.21	--	34.98	43.50	8.52	
	216.240	29.08	11.43	1.50	--	42.01	46.00	3.99	
	420.910	20.05	16.79	2.10	--	38.94	46.00	7.06	
	701.240	16.21	19.70	2.67	--	38.58	46.00	7.42	
	1041.000	54.32	22.69	4.49	37.33	44.17	74.00	29.83	PK
	1101.000	53.11	23.11	4.50	37.20	43.52	74.00	30.48	
	1201.000	53.87	23.74	4.51	37.00	45.12	74.00	28.88	
	1264.000	52.32	24.23	4.52	36.86	44.21	74.00	29.79	
	1558.000	51.23	26.19	4.56	36.18	45.80	74.00	28.20	
	1634.000	51.57	26.49	4.57	36.04	46.59	74.00	27.41	
	1041.000	41.32	22.69	4.49	37.33	31.17	54.00	22.83	AV
	1101.000	40.11	23.11	4.50	37.20	30.52	54.00	23.48	
	1201.000	43.87	23.74	4.51	37.00	35.12	54.00	18.88	
	1264.000	43.32	24.23	4.52	36.86	35.21	54.00	18.79	
	1558.000	42.23	26.19	4.56	36.18	36.80	54.00	17.20	
	1634.000	40.57	26.49	4.57	36.04	35.59	54.00	18.41	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	32.910	14.11	17.95	0.66	--	32.72	40.00	7.28	QP
	67.830	21.03	6.52	0.88	--	28.43	40.00	11.57	
	139.610	26.12	12.12	1.21	--	39.45	43.50	4.05	
	290.930	16.81	13.75	1.74	--	32.30	46.00	13.70	
	515.000	14.19	18.09	2.29	--	34.57	46.00	11.43	
	870.990	16.64	21.42	2.98	--	41.04	46.00	4.96	
	1024.000	54.53	22.57	4.49	37.36	44.23	74.00	29.77	PK
	1125.000	54.35	23.27	4.50	37.16	44.96	74.00	29.04	
	1286.000	52.80	24.40	4.53	36.82	44.91	74.00	29.09	
	1388.000	50.22	25.13	4.54	36.56	43.33	74.00	30.67	
	1676.000	51.05	26.59	4.57	35.97	46.24	74.00	27.76	
	1944.000	49.35	27.76	4.75	35.65	46.21	74.00	27.79	
	1024.000	47.53	22.57	4.49	37.36	37.23	54.00	16.77	AV
	1125.000	43.35	23.27	4.50	37.16	33.96	54.00	20.04	
	1286.000	41.80	24.40	4.53	36.82	33.91	54.00	20.09	
	1388.000	41.22	25.13	4.54	36.56	34.33	54.00	19.67	
	1676.000	41.05	26.59	4.57	35.97	36.24	54.00	17.76	
	1944.000	37.35	27.76	4.75	35.65	34.21	54.00	19.79	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	40.670	7.21	13.62	0.72	--	21.55	40.00	18.45	QP
	67.830	16.19	6.52	0.88	--	23.59	40.00	16.41	
	146.400	24.15	11.61	1.23	--	36.99	43.50	6.51	
	265.710	18.76	13.22	1.65	--	33.63	46.00	12.37	
	559.620	11.84	18.72	2.38	--	32.94	46.00	13.06	
	826.370	18.88	20.98	2.93	--	42.79	46.00	3.21	
	1041.000	54.32	22.69	4.49	37.33	44.17	74.00	29.83	PK
	1101.000	53.11	23.11	4.50	37.20	43.52	74.00	30.48	
	1201.000	53.87	23.74	4.51	37.00	45.12	74.00	28.88	
	1264.000	52.32	24.23	4.52	36.86	44.21	74.00	29.79	
	1558.000	51.23	26.19	4.56	36.18	45.80	74.00	28.20	
	1634.000	51.57	26.49	4.57	36.04	46.59	74.00	27.41	
	1041.000	41.32	22.69	4.49	37.33	31.17	54.00	22.83	AV
	1101.000	40.11	23.11	4.50	37.20	30.52	54.00	23.48	
	1201.000	43.87	23.74	4.51	37.00	35.12	54.00	18.88	
	1264.000	43.32	24.23	4.52	36.86	35.21	54.00	18.79	
	1558.000	42.23	26.19	4.56	36.18	36.80	54.00	17.20	
	1634.000	40.57	26.49	4.57	36.04	35.59	54.00	18.41	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	32.910	15.77	17.95	0.66	--	34.38	40.00	5.62	QP
	67.830	22.20	6.52	0.88	--	29.60	40.00	10.40	
	132.820	21.59	12.40	1.18	--	35.17	43.50	8.33	
	291.900	15.50	13.77	1.74	--	31.01	46.00	14.99	
	511.120	18.20	18.04	2.29	--	38.53	46.00	7.47	
	838.980	17.75	21.09	2.95	--	41.79	46.00	4.21	
	1024.000	44.23	54.53	37.36	22.57	4.49	74.00	29.77	PK
	1125.000	44.96	54.35	37.16	23.27	4.50	74.00	29.04	
	1286.000	44.91	52.80	36.82	24.40	4.53	74.00	29.09	
	1388.000	43.33	50.22	36.56	25.13	4.54	74.00	30.67	
	1676.000	46.24	51.05	35.97	26.59	4.57	74.00	27.76	
	1944.000	46.21	49.35	35.65	27.76	4.75	74.00	27.79	
	1024.000	37.23	47.53	37.36	22.57	4.49	54.00	16.77	AV
	1125.000	33.96	43.35	37.16	23.27	4.50	54.00	20.04	
	1286.000	33.91	41.80	36.82	24.40	4.53	54.00	20.09	
	1388.000	34.33	41.22	36.56	25.13	4.54	54.00	19.67	
	1676.000	36.24	41.05	35.97	26.59	4.57	54.00	17.76	
	1944.000	34.21	37.35	35.65	27.76	4.75	54.00	19.79	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	38.730	19.64	14.62	0.71	34.97	40.00	5.03
	68.800	18.80	6.51	0.89	26.20	40.00	13.80
	139.610	23.64	12.12	1.21	36.97	43.50	6.53
	262.800	17.64	13.17	1.65	32.46	46.00	13.54
	493.660	9.36	17.83	2.25	29.44	46.00	16.56
	870.990	11.88	21.42	2.98	36.28	46.00	9.72
Vertical	40.670	7.21	13.62	0.72	21.55	40.00	18.45
	68.800	13.48	6.51	0.89	20.88	40.00	19.12
	144.460	25.12	11.76	1.22	38.10	43.50	5.40
	266.680	20.45	13.25	1.66	35.36	46.00	10.64
	500.450	10.56	17.90	2.26	30.72	46.00	15.28
	806.000	13.27	20.77	2.90	36.94	46.00	9.06

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

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	40.670	18.83	13.62	0.72	33.17	40.00	6.83
	67.830	21.16	6.52	0.88	28.56	40.00	11.44
	146.400	21.55	11.61	1.23	34.39	43.50	9.11
	290.930	23.44	13.75	1.74	38.93	46.00	7.07
	526.640	8.21	18.24	2.32	28.77	46.00	17.23
	878.750	12.44	21.49	3.00	36.93	46.00	9.07
Vertical	39.700	6.75	14.08	0.72	21.55	40.00	18.45
	76.560	15.27	7.36	0.93	23.56	40.00	16.44
	141.550	26.87	12.01	1.21	40.09	43.50	3.41
	266.680	18.36	13.25	1.66	33.27	46.00	12.73
	496.570	10.16	17.85	2.26	30.27	46.00	15.73
	759.440	10.34	20.30	2.82	33.46	46.00	12.54

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : D2542PY Humidity : 60%RH

Serial No. : E1105353-01/01 Date of Test : May 27, 2011

Test Mode : HDMI 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	39.700	21.37	14.08	0.72	36.17	40.00	3.83
	89.170	15.25	9.24	0.99	25.48	43.50	18.02
	260.860	15.92	13.13	1.64	30.69	46.00	15.31
	399.570	11.11	16.50	2.06	29.67	46.00	16.33
	759.440	13.76	20.30	2.82	36.88	46.00	9.12
	878.750	14.76	21.49	3.00	39.25	46.00	6.75
Vertical	39.700	5.94	14.08	0.72	20.74	40.00	19.26
	66.860	12.05	6.53	0.88	19.46	40.00	20.54
	141.550	17.25	12.01	1.21	30.47	43.50	13.03
	266.680	21.78	13.25	1.66	36.69	46.00	9.31
	399.570	10.32	16.50	2.06	28.88	46.00	17.12
	759.440	18.94	20.30	2.82	42.06	46.00	3.94

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.

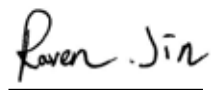
6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
SPONGE	LG END 3940TKK043C	295*10*1	EXPAN Electronics SUZHOU Co., Ltd.	See Internal Photos Figure 13
SPONGE	LG END 3940TKK043C	155*10*1	EXPAN Electronics SUZHOU Co., Ltd.	See Internal Photos Figure 13
SPONGE	LG END 3940TKK043C	120*10*1	EXPAN Electronics SUZHOU Co., Ltd.	See Internal Photos Figure 13
EMI TAPE	7250CP0005S	50*120	EXPAN Electronics SUZHOU Co., Ltd.	See Internal Photos Figure 15
Aluminum Tape	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photos Figure 12
DVI EMI SPONGE	--	36*21*1	EXPAN Electronics SUZHOU Co., Ltd.	See Internal Photos Figure 14

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)