

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

LCD Monitor

Model No.: E2541TX

Serial No.: E1103130-01/01

FCC ID : BEJE2541TX

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

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

Report No. : ACI-F11053
Date of Test : Mar 25 – Apr 21, 2011
Date of Report : Apr 27, 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. : E2541TX
(B) Serial No. : E1103130-01/01
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2009
AND ANSI C63.4-2003*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B (Class B), Issue 4 February 2004 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: E2541TX; S/N: E1103130-01/01) which was tested in 3m anechoic chamber Mar 25 – Apr 21, 2011 is technically compliance with the FCC official limits also.

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

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

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

Date of Test : Mar 25 – Apr 21, 2011 Date of Report : Apr 27, 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 2009 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2009 AND ANSI C63.4-2003	15.109(a) Class B	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	: LCD Monitor
Type of EUT	: ☒ Production ☐ Pre-product ☐ Pro-type
Model No.	: E2541TX
Serial No.	: E1103130-01/01
Real Power	: 35.40W
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 : LM250WF2 (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:

Back View:

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

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 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

2.3 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

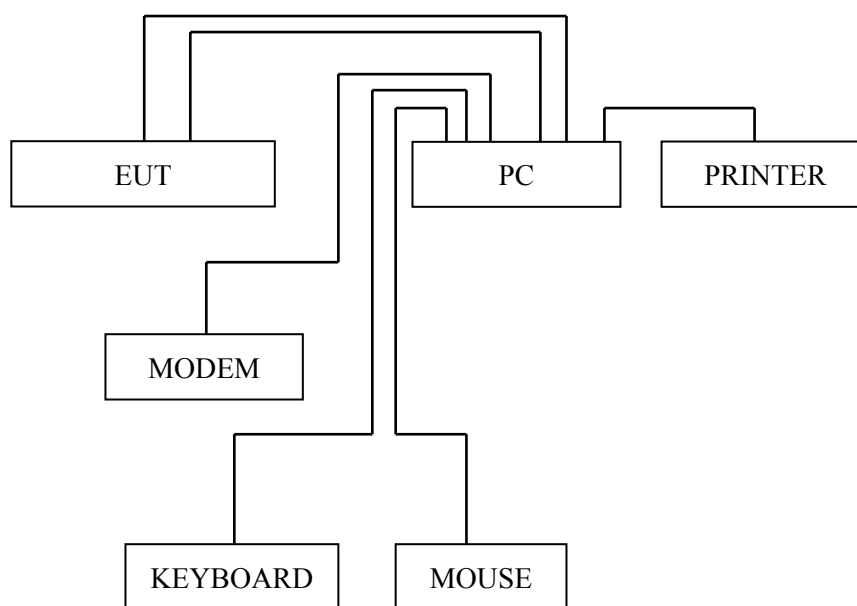
3.1 Test Equipment

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

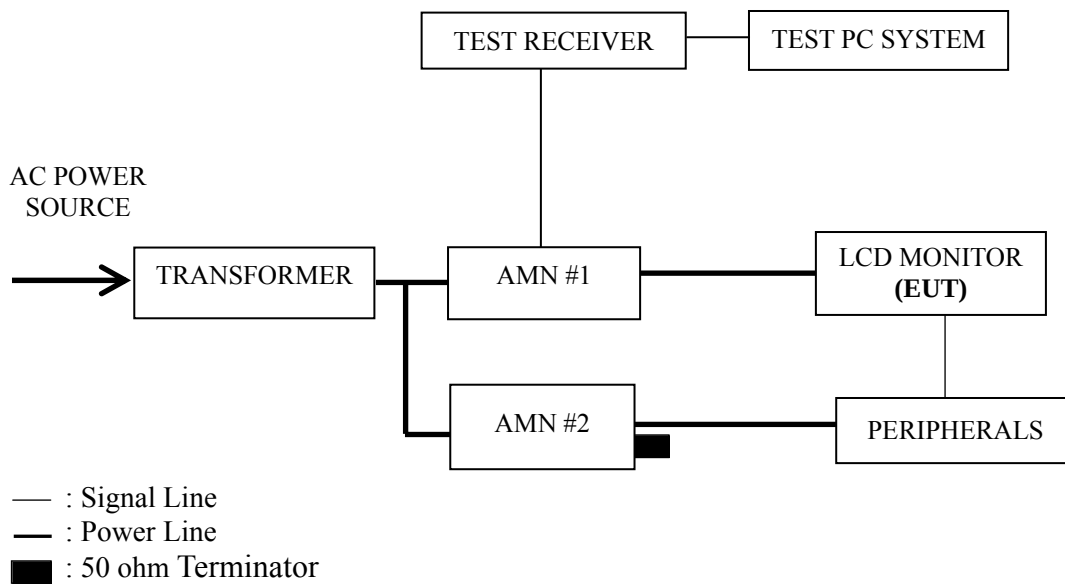
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2011	Mar 22, 2012
2.	Artificial Mains Network (AMN #1)	R&S	ESH2-Z5	843890/011	Mar 22, 2011	Mar 22, 2012
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	Mar 22, 2011	Mar 22, 2012
4.	50 Ω Coaxial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

3.5.5 Repeat above procedure from 3.5.3 to 3.5.4 for difference test mode.

3.5.6 The other peripherals devices were driven and operated during the test.

3.5.7 The test modes are as follows:

Test Mode
D-Sub 640*480@60Hz
D-Sub 1280*1024@75Hz
D-Sub 1680*1050@60Hz
D-Sub 1920*1080@60Hz
DVI 640*480@60Hz
DVI 1280*1024@75Hz
DVI 1680*1050@60Hz
DVI 1920*1080@60Hz

3.6 Test Procedures

The EUT and peripherals were connected to the power mains through an Artificial Mains Network (AMN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line (Line & Neutral) were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to ANSI C63.4:2003 during conducted emission test.

The bandwidth of R&S Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7.

3.7 Test Results

< PASS >

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

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

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

NOTE 2 – Factor = Cable Loss + AMN Factor.

NOTE 3 – Emission Level = Meter Reading + Factor.

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

NOTE 5 – The worst case is for D-Sub 640*480@60Hz test mode. The worst emission is detected at 0.197 MHz (Quasi-Peak Value) with corrected signal level of 48.91 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. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.206	48.00	0.33	48.33	63.36	15.03	QP
	0.273	39.80	0.32	40.12	61.03	20.91	
	0.419	30.36	0.33	30.69	57.46	26.77	
	3.901	25.15	0.60	25.75	56.00	30.25	
	8.148	30.30	0.85	31.15	60.00	28.85	
	25.591	31.81	1.73	33.54	60.00	26.46	
	0.206	32.15	0.33	32.48	53.36	20.88	AV
	0.273	28.54	0.32	28.86	51.03	22.17	
	0.419	21.36	0.33	21.69	47.46	25.77	
	3.901	15.46	0.60	16.06	46.00	29.94	
	8.148	21.36	0.85	22.21	50.00	27.79	
	25.591	21.45	1.73	23.18	50.00	26.82	
Neutral	0.197	48.66	0.25	48.91	63.76	14.85	QP
	0.262	38.48	0.25	38.73	61.38	22.65	
	0.419	31.71	0.29	32.00	57.46	25.46	
	2.650	25.19	0.44	25.63	56.00	30.37	
	8.235	32.35	0.82	33.17	60.00	26.83	
	25.864	33.49	1.80	35.29	60.00	24.71	
	0.197	32.15	0.25	32.40	53.76	21.36	AV
	0.262	28.54	0.25	28.79	51.38	22.59	
	0.419	21.36	0.29	21.65	47.46	25.81	
	2.650	15.64	0.44	16.08	46.00	29.92	
	8.235	22.34	0.82	23.16	50.00	26.84	
	25.864	23.14	1.80	24.94	50.00	25.06	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 2011

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.211	45.74	0.33	46.07	63.18	17.11	QP
	0.267	35.63	0.32	35.95	61.20	25.25	
	0.419	29.30	0.33	29.63	57.46	27.83	
	3.681	25.91	0.59	26.50	56.00	29.50	
	8.062	30.48	0.85	31.33	60.00	28.67	
	26.418	32.08	1.74	33.82	60.00	26.18	
	0.211	32.65	0.33	32.98	53.18	20.20	AV
	0.267	25.36	0.32	25.68	51.20	25.52	
	0.419	19.36	0.33	19.69	47.46	27.77	
	3.681	16.34	0.59	16.93	46.00	29.07	
	8.062	21.36	0.85	22.21	50.00	27.79	
	26.418	22.36	1.74	24.10	50.00	25.90	
Neutral	0.197	44.54	0.25	44.79	63.76	18.97	QP
	0.329	32.22	0.26	32.48	59.49	27.01	
	0.419	29.92	0.29	30.21	57.46	27.25	
	2.931	27.07	0.46	27.53	56.00	28.47	
	7.977	32.28	0.81	33.09	60.00	26.91	
	27.416	33.33	1.82	35.15	60.00	24.85	
	0.197	32.54	0.25	32.79	53.76	20.97	AV
	0.329	23.65	0.26	23.91	49.49	25.58	
	0.419	19.65	0.29	19.94	47.46	27.52	
	2.931	18.65	0.46	19.11	46.00	26.89	
	7.977	22.36	0.81	23.17	50.00	26.83	
	27.416	25.46	1.82	27.28	50.00	22.72	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.208	47.79	0.33	48.12	63.27	15.15	QP
	0.274	37.50	0.32	37.82	60.98	23.16	
	0.419	30.78	0.33	31.11	57.46	26.35	
	3.943	26.94	0.61	27.55	56.00	28.45	
	8.235	30.45	0.85	31.30	60.00	28.70	
	26.841	31.56	1.75	33.31	60.00	26.69	
	0.208	32.65	0.33	32.98	53.27	20.29	AV
	0.274	27.15	0.32	27.47	50.98	23.51	
	0.419	21.36	0.33	21.69	47.46	25.77	
	3.943	16.53	0.61	17.14	46.00	28.86	
	8.235	21.37	0.85	22.22	50.00	27.78	
	26.841	21.36	1.75	23.11	50.00	26.89	
Neutral	0.199	45.46	0.25	45.71	63.67	17.96	QP
	0.270	36.69	0.25	36.94	61.12	24.18	
	0.419	31.10	0.29	31.39	57.46	26.07	
	2.993	26.79	0.46	27.25	56.00	28.75	
	8.148	32.42	0.82	33.24	60.00	26.76	
	25.591	33.18	1.79	34.97	60.00	25.03	
	0.199	32.15	0.25	32.40	53.67	21.27	AV
	0.270	26.35	0.25	26.60	51.12	24.52	
	0.419	21.36	0.29	21.65	47.46	25.81	
	2.993	16.35	0.46	16.81	46.00	29.19	
	8.148	23.65	0.82	24.47	50.00	25.53	
	25.591	23.15	1.79	24.94	50.00	25.06	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.208	45.80	0.33	46.13	63.27	17.14	QP
	0.264	37.33	0.32	37.65	61.29	23.64	
	0.419	30.20	0.33	30.53	57.46	26.93	
	3.681	24.79	0.59	25.38	56.00	30.62	
	8.062	30.37	0.85	31.22	60.00	28.78	
	27.708	31.06	1.77	32.83	60.00	27.17	
	0.208	35.26	0.33	35.59	53.27	17.68	AV
	0.264	29.65	0.32	29.97	51.29	21.32	
	0.419	20.36	0.33	20.69	47.46	26.77	
	3.681	13.63	0.59	14.22	46.00	31.78	
	8.062	21.36	0.85	22.21	50.00	27.79	
	27.708	21.36	1.77	23.13	50.00	26.87	
Neutral	0.194	45.60	0.26	45.86	63.84	17.98	QP
	0.270	36.48	0.25	36.73	61.12	24.39	
	0.419	31.42	0.29	31.71	57.46	25.75	
	3.140	27.14	0.47	27.61	56.00	28.39	
	8.062	31.73	0.81	32.54	60.00	27.46	
	28.302	32.70	1.82	34.52	60.00	25.48	
	0.194	32.14	0.26	32.40	53.84	21.44	AV
	0.270	26.35	0.25	26.60	51.12	24.52	
	0.419	21.36	0.29	21.65	47.46	25.81	
	3.140	17.26	0.47	17.73	46.00	28.27	
	8.062	21.36	0.81	22.17	50.00	27.83	
	28.302	22.36	1.82	24.18	50.00	25.82	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.194	44.85	0.33	45.18	63.84	18.66	QP
	0.325	33.41	0.31	33.72	59.57	25.85	
	0.419	29.58	0.33	29.91	57.46	27.55	
	3.759	24.22	0.59	24.81	56.00	31.19	
	7.977	30.35	0.84	31.19	60.00	28.81	
	26.139	33.50	1.74	35.24	60.00	24.76	
	0.194	32.15	0.33	32.48	53.84	21.36	AV
	0.325	23.55	0.31	23.86	49.57	25.71	
	0.419	18.54	0.33	18.87	47.46	28.59	
	3.759	18.45	0.59	19.04	46.00	26.96	
	7.977	21.36	0.84	22.20	50.00	27.80	
	26.139	21.54	1.74	23.28	50.00	26.72	
Neutral	0.200	44.48	0.25	44.73	63.62	18.89	QP
	0.325	30.57	0.26	30.83	59.57	28.74	
	0.419	29.85	0.29	30.14	57.46	27.32	
	3.074	26.63	0.47	27.10	56.00	28.90	
	8.062	32.21	0.81	33.02	60.00	26.98	
	27.708	32.44	1.82	34.26	60.00	25.74	
	0.200	31.26	0.25	31.51	53.62	22.11	AV
	0.325	21.65	0.26	21.91	49.57	27.66	
	0.419	18.69	0.29	18.98	47.46	28.48	
	3.074	18.54	0.47	19.01	46.00	26.99	
	8.062	21.66	0.81	22.47	50.00	27.53	
	27.708	21.64	1.82	23.46	50.00	26.54	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 2011

Test Mode : DVI 1280*1024@75Hz

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.208	45.51	0.33	45.84	63.27	17.43	QP
	0.336	31.88	0.31	32.19	59.31	27.12	
	0.419	28.91	0.33	29.24	57.46	28.22	
	3.881	26.94	0.59	27.53	56.00	28.47	
	7.977	30.60	0.84	31.44	60.00	28.56	
	27.127	31.28	1.75	33.03	60.00	26.97	
	0.208	32.56	0.33	32.89	53.27	20.38	AV
	0.336	21.37	0.31	21.68	49.31	27.63	
	0.419	19.54	0.33	19.87	47.46	27.59	
	3.881	18.66	0.59	19.25	46.00	26.75	
	7.977	21.25	0.84	22.09	50.00	27.91	
	27.127	21.36	1.75	23.11	50.00	26.89	
Neutral	0.200	44.69	0.25	44.94	63.62	18.68	QP
	0.325	32.33	0.26	32.59	59.57	26.98	
	0.419	29.85	0.29	30.14	57.46	27.32	
	2.794	27.00	0.45	27.45	56.00	28.55	
	8.062	32.43	0.81	33.24	60.00	26.76	
	27.416	32.36	1.82	34.18	60.00	25.82	
	0.200	32.54	0.25	32.79	53.62	20.83	AV
	0.325	22.36	0.26	22.62	49.57	26.95	
	0.419	19.65	0.29	19.94	47.46	27.52	
	2.794	18.54	0.45	18.99	46.00	27.01	
	8.062	22.65	0.81	23.46	50.00	26.54	
	27.416	22.35	1.82	24.17	50.00	25.83	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.211	44.32	0.33	44.65	63.18	18.53	QP
	0.329	30.86	0.31	31.17	59.49	28.32	
	0.419	28.95	0.33	29.28	57.46	28.18	
	3.881	26.76	0.59	27.35	56.00	28.65	
	7.977	30.21	0.84	31.05	60.00	28.95	
	28.003	32.23	1.77	34.00	60.00	26.00	
	0.211	32.15	0.33	32.48	53.18	20.70	AV
	0.329	21.61	0.31	21.92	49.49	27.57	
	0.419	19.26	0.33	19.59	47.46	27.87	
	3.881	16.55	0.59	17.14	46.00	28.86	
	7.977	21.65	0.84	22.49	50.00	27.51	
	28.003	23.14	1.77	24.91	50.00	25.09	
Neutral	0.197	44.49	0.25	44.74	63.76	19.02	QP
	0.325	32.13	0.26	32.39	59.57	27.18	
	0.419	29.78	0.29	30.07	57.46	27.39	
	2.962	27.00	0.46	27.46	56.00	28.54	
	7.977	31.99	0.81	32.80	60.00	27.20	
	27.416	32.80	1.82	34.62	60.00	25.38	
	0.197	32.15	0.25	32.40	53.76	21.36	AV
	0.325	22.65	0.26	22.91	49.57	26.66	
	0.419	19.54	0.29	19.83	47.46	27.63	
	2.962	16.25	0.46	16.71	46.00	29.29	
	7.977	21.36	0.81	22.17	50.00	27.83	
	27.416	21.35	1.82	23.17	50.00	26.83	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 48%RH

Serial No. : E1103130-01/01 Date of Test : Mar 25, 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	0.202	44.90	0.33	45.23	63.54	18.31	QP
	0.329	31.65	0.31	31.96	59.49	27.53	
	0.419	28.99	0.33	29.32	57.46	28.14	
	3.881	26.52	0.59	27.11	56.00	28.89	
	7.977	31.26	0.84	32.10	60.00	27.90	
	25.864	32.46	1.73	34.19	60.00	25.81	
	0.202	32.64	0.33	32.97	53.54	20.57	AV
	0.329	22.37	0.31	22.68	49.49	26.81	
	0.419	18.65	0.33	18.98	47.46	28.48	
	3.881	20.36	0.59	20.95	46.00	25.05	
	7.977	21.60	0.84	22.44	50.00	27.56	
	25.864	22.36	1.73	24.09	50.00	25.91	
Neutral	0.197	44.52	0.25	44.77	63.76	18.99	QP
	0.336	31.85	0.26	32.11	59.31	27.20	
	0.419	30.09	0.29	30.38	57.46	27.08	
	3.074	26.41	0.47	26.88	56.00	29.12	
	7.769	31.30	0.80	32.10	60.00	27.90	
	28.003	32.01	1.82	33.83	60.00	26.17	
	0.197	35.12	0.25	35.37	53.76	18.39	AV
	0.336	21.36	0.26	21.62	49.31	27.69	
	0.419	21.65	0.29	21.94	47.46	25.52	
	3.074	18.54	0.47	19.01	46.00	26.99	
	7.769	21.60	0.80	22.40	50.00	27.60	
	28.003	22.45	1.82	24.27	50.00	25.73	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

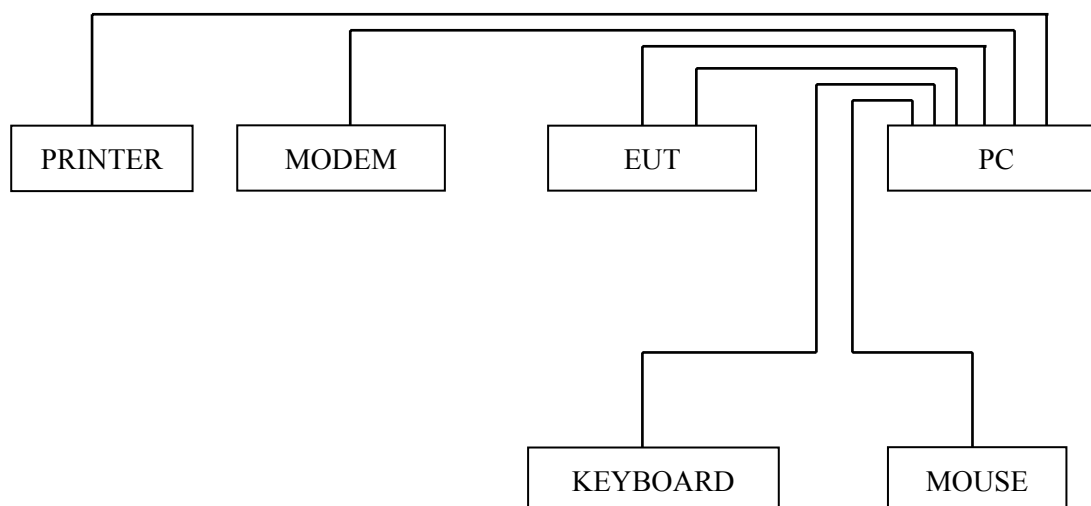
4.1 Test Equipment

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

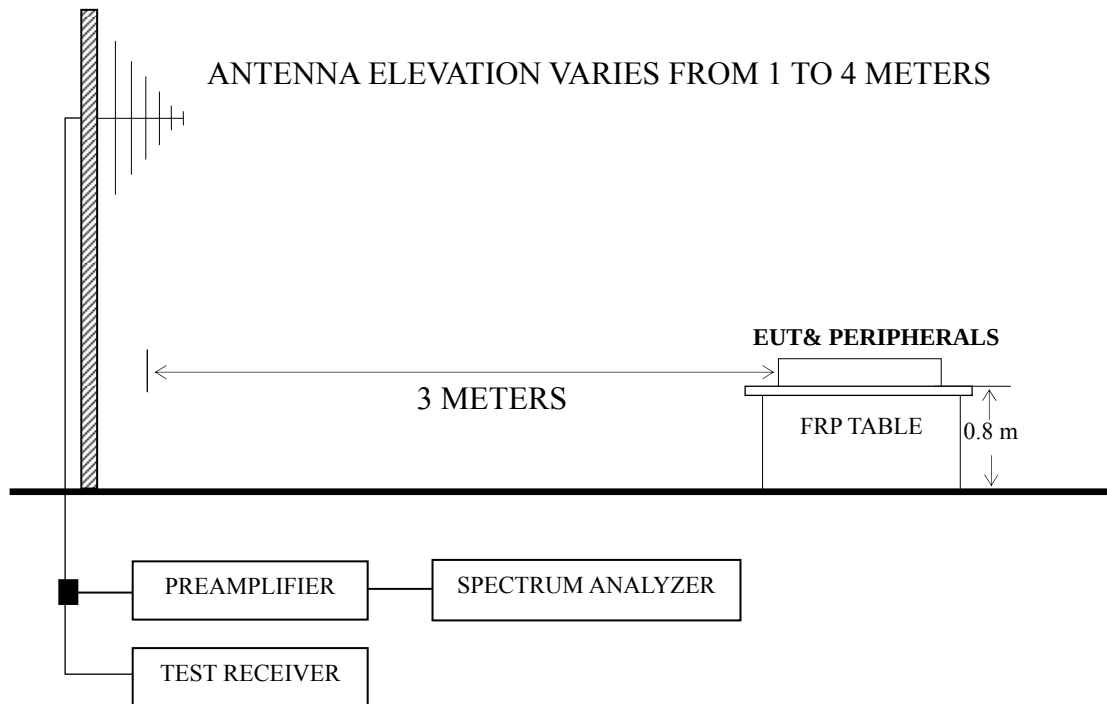
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Mar 22, 2011	Mar 22, 2012
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2011	Sep 18, 2011
3.	Preamplifier	HP	8449B	3008A00864	Mar 22, 2011	Mar 22, 2012
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 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



■ : 50 ohm Coaxial Switch

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

Frequency (MHz)	Distance (m)	Field strength limits	
		($\mu\text{V/m}$)	dB ($\mu\text{V/m}$)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 log Emission Level ($\mu\text{V/m}$)

NOTE 2 - The tighter limit applies at the band edges.

NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.

NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT.

4.4 Test Configuration

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

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

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

4.6 Test Procedures

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

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

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

The frequency range from 1 GHz to 2 GHz was checked for D-Sub/DVI 1280*1024@75Hz, 1680*1050@60Hz and 1920*1080@60Hz modes.

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

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Test Mode	Page
D-Sub 640*480@60Hz	P24
D-Sub 1280*1024@75Hz	P25 – P26
D-Sub 1680*1050@60Hz	P27 – P28
D-Sub 1920*1080@60Hz	P29 – P30
DVI 640*480@60Hz	P31
DVI 1280*1024@75Hz	P32 – P33
DVI 1680*1050@60Hz	P34 – P35
DVI 1920*1080@60Hz	P36 – P37

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

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

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

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

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

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

NOTE 7 – The worst case is for D-Sub 1680*1050@60Hz test mode. The worst emission at horizontal polarization was detected at 65.890 MHz with corrected signal level of 35.45 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 275°. The worst emission at vertical polarization was detected at 296.700 MHz with corrected signal level of 42.88 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 70°.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	126.030	23.38	10.89	2.07	36.34	43.50	7.16
	175.500	24.14	10.04	2.34	36.52	43.50	6.98
	283.170	19.87	13.24	2.71	35.82	46.00	10.18
	377.260	20.15	15.83	2.95	38.93	46.00	7.07
	400.540	20.04	16.30	2.99	39.33	46.00	6.67
	481.050	15.02	17.39	3.21	35.62	46.00	10.38
Vertical	100.810	21.23	11.34	1.86	34.43	43.50	9.07
	126.000	23.00	10.89	2.07	35.96	43.50	7.54
	175.500	23.86	10.04	2.34	36.24	43.50	7.26
	289.960	21.93	13.42	2.72	38.07	46.00	7.93
	400.540	20.53	16.30	2.99	39.82	46.00	6.18
	481.050	14.40	17.39	3.21	35.00	46.00	11.00

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 2011

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	135.000	23.80	10.72	2.14	--	36.66	43.50	6.84	QP
	180.350	23.13	9.99	2.36	--	35.48	43.50	8.02	
	269.590	25.02	12.78	2.66	--	40.46	46.00	5.54	
	315.180	24.59	14.12	2.79	--	41.50	46.00	4.50	
	458.740	17.17	17.09	3.15	--	37.41	46.00	8.59	
	540.220	19.37	17.84	3.34	--	40.55	46.00	5.45	
	1041.000	51.32	22.69	4.49	37.33	41.17	74.00	32.83	PK
	1201.000	50.87	23.74	4.51	37.00	42.12	74.00	31.88	
	1334.000	50.86	24.78	4.53	36.71	43.46	74.00	30.54	
	1467.000	50.89	25.60	4.55	36.36	44.68	74.00	29.32	
	1600.000	52.16	26.40	4.56	36.10	47.02	74.00	26.98	
	1716.000	50.00	26.71	4.57	35.92	45.36	74.00	28.64	
	1041.000	39.32	22.69	4.49	37.33	29.17	54.00	24.83	AV
	1201.000	39.87	23.74	4.51	37.00	31.12	54.00	22.88	
	1334.000	40.86	24.78	4.53	36.71	33.46	54.00	20.54	
	1467.000	42.89	25.60	4.55	36.36	36.68	54.00	17.32	
	1600.000	46.16	26.40	4.56	36.10	41.02	54.00	12.98	
	1716.000	39.00	26.71	4.57	35.92	34.36	54.00	19.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 2011

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	34.850	19.05	15.70	0.84	--	35.59	40.00	4.41	QP
	84.320	17.09	10.75	1.64	--	29.48	40.00	10.52	
	135.000	23.60	10.72	2.14	--	36.46	43.50	7.04	
	259.890	19.92	12.40	2.64	--	34.96	46.00	11.04	
	405.390	18.33	16.37	3.01	--	37.71	46.00	8.29	
	540.220	18.04	17.84	3.34	--	39.22	46.00	6.78	
	1031.000	52.82	22.60	4.49	37.34	42.57	74.00	31.43	PK
	1200.000	52.51	23.70	4.51	37.00	43.72	74.00	30.28	
	1286.000	50.80	24.40	4.53	36.82	42.91	74.00	31.09	
	1396.000	49.57	25.16	4.54	36.55	42.72	74.00	31.28	
	1676.000	49.05	26.59	4.57	35.97	44.24	74.00	29.76	
	1799.000	50.35	26.90	4.58	35.81	46.02	74.00	27.98	
	1031.000	46.82	22.60	4.49	37.34	36.57	54.00	17.43	AV
	1200.000	41.51	23.70	4.51	37.00	32.72	54.00	21.28	
	1286.000	37.80	24.40	4.53	36.82	29.91	54.00	24.09	
	1396.000	41.57	25.16	4.54	36.55	34.72	54.00	19.28	
	1676.000	39.05	26.59	4.57	35.97	34.24	54.00	19.76	
	1799.000	41.35	26.90	4.58	35.81	37.02	54.00	16.98	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	33.880	17.32	16.26	0.83	--	34.41	40.00	5.59	QP
	65.890	24.58	9.55	1.32	--	35.45	40.00	4.55	
	134.760	21.46	10.72	2.14	--	34.32	43.50	9.18	
	296.700	23.00	13.63	2.75	--	39.38	46.00	6.62	
	446.130	20.13	16.92	3.11	--	40.16	46.00	5.84	
	593.570	17.01	18.17	3.45	--	38.63	46.00	7.37	
	1041.000	53.32	22.69	4.49	37.33	43.17	74.00	30.83	PK
	1101.000	52.11	23.11	4.50	37.20	42.52	74.00	31.48	
	1201.000	52.87	23.74	4.51	37.00	44.12	74.00	29.88	
	1264.000	51.32	24.23	4.52	36.86	43.21	74.00	30.79	
	1467.000	52.89	25.60	4.55	36.36	46.68	74.00	27.32	
	1716.000	52.00	26.71	4.57	35.92	47.36	74.00	26.64	
	1041.000	43.32	22.69	4.49	37.33	33.17	54.00	20.83	AV
	1101.000	38.11	23.11	4.50	37.20	28.52	54.00	25.48	
	1201.000	39.87	23.74	4.51	37.00	31.12	54.00	22.88	
	1264.000	38.32	24.23	4.52	36.86	30.21	54.00	23.79	
	1467.000	39.89	25.60	4.55	36.36	33.68	54.00	20.32	
	1716.000	40.00	26.71	4.57	35.92	35.36	54.00	18.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	134.760	21.35	10.72	2.14	--	34.21	43.50	9.29	QP
	163.860	21.20	10.20	2.29	--	33.69	43.50	9.81	
	296.700	26.50	13.63	2.75	--	42.88	46.00	3.12	
	446.130	21.27	16.92	3.11	--	41.30	46.00	4.70	
	593.570	16.23	18.17	3.45	--	37.85	46.00	8.15	
	742.950	10.45	19.98	3.78	--	34.21	46.00	11.79	
	1031.000	56.82	22.60	4.49	37.34	46.57	74.00	27.43	PK
	1200.000	56.51	23.70	4.51	37.00	47.72	74.00	26.28	
	1333.000	54.06	24.74	4.53	36.71	46.62	74.00	27.38	
	1676.000	53.05	26.59	4.57	35.97	48.24	74.00	25.76	
	1840.000	52.75	27.12	4.64	35.77	48.74	74.00	25.26	
	1944.000	51.35	27.76	4.75	35.65	48.21	74.00	25.79	
	1031.000	44.82	22.60	4.49	37.34	34.57	54.00	19.43	AV
	1200.000	44.51	23.70	4.51	37.00	35.72	54.00	18.28	
	1333.000	40.06	24.74	4.53	36.71	32.62	54.00	21.38	
	1676.000	41.05	26.59	4.57	35.97	36.24	54.00	17.76	
	1840.000	41.75	27.12	4.64	35.77	37.74	54.00	16.26	
	1944.000	40.35	27.76	4.75	35.65	37.21	54.00	16.79	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	149.310	21.42	10.43	2.23	--	34.08	43.50	9.42	QP
	201.690	20.82	9.87	2.43	--	33.12	43.50	10.38	
	297.000	26.20	13.63	2.75	--	42.58	46.00	3.42	
	446.130	21.62	16.92	3.11	--	41.65	46.00	4.35	
	593.570	20.81	18.17	3.45	--	42.43	46.00	3.57	
	742.950	11.57	19.98	3.78	--	35.33	46.00	10.67	
	1041.000	48.32	22.69	4.49	37.33	38.17	74.00	35.83	PK
	1201.000	47.87	23.74	4.51	37.00	39.12	74.00	34.88	
	1334.000	47.86	24.78	4.53	36.71	40.46	74.00	33.54	
	1467.000	47.89	25.60	4.55	36.36	41.68	74.00	32.32	
	1600.000	49.16	26.40	4.56	36.10	44.02	74.00	29.98	
	1716.000	47.00	26.71	4.57	35.92	42.36	74.00	31.64	
	1041.000	41.32	22.69	4.49	37.33	31.17	54.00	22.83	AV
	1201.000	34.87	23.74	4.51	37.00	26.12	54.00	27.88	
	1334.000	37.86	24.78	4.53	36.71	30.46	54.00	23.54	
	1467.000	38.89	25.60	4.55	36.36	32.68	54.00	21.32	
	1600.000	41.16	26.40	4.56	36.10	36.02	54.00	17.98	
	1716.000	37.00	26.71	4.57	35.92	32.36	54.00	21.64	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	33.880	17.57	16.26	0.83	--	34.66	40.00	5.34	QP
	48.430	25.17	9.02	0.90	--	35.09	40.00	4.91	
	98.870	22.75	11.31	1.83	--	35.89	43.50	7.61	
	149.310	24.12	10.43	2.23	--	36.78	43.50	6.72	
	296.750	25.60	13.63	2.75	--	41.98	46.00	4.02	
	593.570	19.65	18.17	3.45	--	41.27	46.00	4.73	
	1031.000	50.82	22.60	4.49	37.34	40.57	74.00	33.43	PK
	1200.000	50.51	23.70	4.51	37.00	41.72	74.00	32.28	
	1286.000	48.80	24.40	4.53	36.82	40.91	74.00	33.09	
	1600.000	51.50	26.40	4.56	36.10	46.36	74.00	27.64	
	1799.000	48.35	26.90	4.58	35.81	44.02	74.00	29.98	
	1944.000	45.35	27.76	4.75	35.65	42.21	74.00	31.79	
	1031.000	42.82	22.60	4.49	37.34	32.57	54.00	21.43	AV
	1200.000	39.51	23.70	4.51	37.00	30.72	54.00	23.28	
	1286.000	37.80	24.40	4.53	36.82	29.91	54.00	24.09	
	1600.000	38.50	26.40	4.56	36.10	33.36	54.00	20.64	
	1799.000	41.35	26.90	4.58	35.81	37.02	54.00	16.98	
	1944.000	34.35	27.76	4.75	35.65	31.21	54.00	22.79	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	55.220	14.14	8.82	1.06	24.02	40.00	15.98
	133.790	14.43	10.74	2.12	27.29	43.50	16.21
	161.920	16.48	10.23	2.28	28.99	43.50	14.51
	288.020	20.60	13.39	2.72	36.71	46.00	9.29
	400.540	15.24	16.30	2.99	34.53	46.00	11.47
	486.870	11.99	17.46	3.23	32.68	46.00	13.32
Vertical	57.160	24.70	8.96	1.12	34.78	40.00	5.22
	140.580	20.58	10.60	2.18	33.36	43.50	10.14
	214.300	18.06	10.37	2.49	30.92	43.50	12.58
	284.140	12.16	13.24	2.71	28.11	46.00	17.89
	429.640	19.65	16.69	3.08	39.42	46.00	6.58
	666.320	9.61	19.08	3.62	32.31	46.00	13.69

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 2011

Test Mode : DVI 1280*1024@75Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	56.190	25.58	8.88	1.08	--	35.54	40.00	4.46	QP
	98.870	19.67	11.31	1.83	--	32.81	43.50	10.69	
	134.760	22.23	10.72	2.14	--	35.09	43.50	8.41	
	269.590	17.63	12.78	2.66	--	33.07	46.00	12.93	
	372.410	16.85	15.72	2.93	--	35.50	46.00	10.50	
	429.640	17.54	16.69	3.08	--	37.31	46.00	8.69	
	1041.000	46.32	22.69	4.49	37.33	36.17	74.00	37.83	PK
	1334.000	45.86	24.78	4.53	36.71	38.46	74.00	35.54	
	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	
	1716.000	45.00	26.71	4.57	35.92	40.36	74.00	33.64	
	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
	1334.000	32.86	24.78	4.53	36.71	25.46	54.00	28.54	
	1467.000	33.89	25.60	4.55	36.36	27.68	54.00	26.32	
	1600.000	34.16	26.40	4.56	36.10	29.02	54.00	24.98	
	1716.000	37.00	26.71	4.57	35.92	32.36	54.00	21.64	
	1797.000	31.70	26.90	4.58	35.81	27.37	54.00	26.63	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 2011

Test Mode : DVI 1280*1024@75Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	134.760	16.51	10.72	2.14	--	29.37	43.50	14.13	QP
	161.920	17.09	10.23	2.28	--	29.60	43.50	13.90	
	206.540	19.26	10.04	2.45	--	31.75	43.50	11.75	
	276.380	24.90	13.02	2.68	--	40.60	46.00	5.40	
	372.410	15.95	15.72	2.93	--	34.60	46.00	11.40	
	483.960	11.82	17.42	3.23	--	32.47	46.00	13.53	
	1031.000	47.82	22.60	4.49	37.34	37.57	74.00	36.43	PK
	1200.000	47.51	23.70	4.51	37.00	38.72	74.00	35.28	
	1396.000	44.57	25.16	4.54	36.55	37.72	74.00	36.28	
	1498.000	49.44	25.80	4.55	36.30	43.49	74.00	30.51	
	1600.000	48.50	26.40	4.56	36.10	43.36	74.00	30.64	
	1799.000	45.35	26.90	4.58	35.81	41.02	74.00	32.98	
	1031.000	38.82	22.60	4.49	37.34	28.57	54.00	25.43	AV
	1200.000	36.51	23.70	4.51	37.00	27.72	54.00	26.28	
	1396.000	34.57	25.16	4.54	36.55	27.72	54.00	26.28	
	1498.000	39.44	25.80	4.55	36.30	33.49	54.00	20.51	
	1600.000	41.50	26.40	4.56	36.10	36.36	54.00	17.64	
	1799.000	33.35	26.90	4.58	35.81	29.02	54.00	24.98	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	56.000	26.40	8.88	1.08	--	36.36	40.00	3.64	QP
	98.870	20.56	11.31	1.83	--	33.70	43.50	9.80	
	134.760	22.55	10.72	2.14	--	35.41	43.50	8.09	
	206.540	20.52	10.04	2.45	--	33.01	43.50	10.49	
	429.640	15.73	16.69	3.08	--	35.50	46.00	10.50	
	607.150	13.81	18.30	3.47	--	35.58	46.00	10.42	
	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. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	56.190	14.21	8.88	1.08	--	24.17	40.00	15.83	QP
	134.760	17.03	10.72	2.14	--	29.89	43.50	13.61	
	206.540	18.02	10.04	2.45	--	30.51	43.50	12.99	
	275.410	24.07	12.98	2.68	--	39.73	46.00	6.27	
	400.540	13.96	16.30	2.99	--	33.25	46.00	12.75	
	488.810	10.61	17.49	3.23	--	31.33	46.00	14.67	
	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. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	134.760	17.42	10.72	2.14	--	30.28	43.50	13.22	QP
	159.980	17.03	10.25	2.27	--	29.55	43.50	13.95	
	203.630	17.39	9.94	2.44	--	29.77	43.50	13.73	
	276.380	24.43	13.02	2.68	--	40.13	46.00	5.87	
	400.540	14.59	16.30	2.99	--	33.88	46.00	12.12	
	481.050	12.28	17.39	3.21	--	32.88	46.00	13.12	
	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. : E2541TX Humidity : 60%RH

Serial No. : E1103130-01/01 Date of Test : Apr 21, 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	56.190	25.35	8.88	1.08	--	35.31	40.00	4.69	QP
	83.350	19.88	10.70	1.64	--	32.22	40.00	7.78	
	134.760	21.52	10.72	2.14	--	34.38	43.50	9.12	
	206.540	18.33	10.04	2.45	--	30.82	43.50	12.68	
	400.540	16.80	16.30	2.99	--	36.09	46.00	9.91	
	429.640	17.13	16.69	3.08	--	36.90	46.00	9.10	
	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

5 DEVIATION TO TEST SPECIFICATIONS

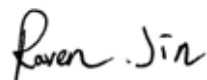
None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
Adhesive Tape	7250CP0005J	50*120	EXPAN Electronics SUZHOU Co.,Ltd	See Internal Photos Figure 12
Al Tape	T-308	50*30	DAEHUNG SUBSIDIARY MATERIALS.	See Internal Photos Figure 13

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)