

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

LCD Monitor

Model No.: IPS237LY

Serial No.: E1205611-01/01

FCC ID : BEJIPS237LY

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

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F12098
Date of Test : May 22 – 28, 2012
Date of Report : May 30, 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. : IPS237LY
(B) Serial No. : E1205611-01/01
(C) Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2011
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: IPS237LY; S/N: E1205611-01/01) which was tested in 3m anechoic chamber May 22 – 28, 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 : May 22 – 28, 2012 Date of Report : May 30, 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 2011 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2011 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.	: IPS237LY
Serial No.	: E1205611-01/01
Real Power	: 26.40W (Adapter #1) 26.62W (Adapter #2) 26.46W (Adapter #3) 26.52W (Adapter #4)
AC Adapter #1	: Manufacturer : LIEN CHANG Model Number : LCAP21A Input : 100-240V~, 50-60Hz 1.1A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m, with one core
AC Adapter #2	: Manufacturer : HONOR Model Number : ADS-40SG-19-3 19032G Input : 100-240V~, 50-60Hz 1.0A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #3	: Manufacturer : HONOR Model Number : ADS-40FSG-19 19032G***-1 (*** can be PG, PBR, PI, PCU, ADS-40FSG-19 19032GPCU-1 was selected as the test model.) Input : 100-240V~, 50-60Hz 1.0A Output : 19V $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m
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 $\overline{\text{---}}$ 1.7A Output Cable : Unshielded, Undetachable, 1.8m

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

Manufacturer : LG Electronics Nanjing Display Co., Ltd.
No.346, Yao Xin Road, Economic & Technical
Development Zone, Nanjing, China

LCD Panel : Manufacturer: LG Display
M/N : LM230WF3

Max Resolution : 1920*1080@60Hz

D-Sub Cable #1 : Shielded, Detachable, 1.85m

D-Sub Cable #2 : Shielded, Detachable, 1.50m

MHL Cable : Shielded, Detachable, 1.00m

Power Cord : Unshielded, Detachable, 1.80m

Note : The D-Sub cable #2 was 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 HDMI Port : Connected with DVD PLAYER / PC
- (3) One Earphone Port : Connected with Earphone
- (4) One DC In Port : Connected with Adapter
- (5) One MHL Port : Connected with Mobile Phone

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

2.2.9 Mobile Phone

Manufacturer : Samsung
Model Number : GT-I9100G
Serial Number : RV1C2250B7J

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 = 3.43 dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.67 dB (Horizontal)
U = 4.72 dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.81 dB (Horizontal)
U = 4.69 dB (Vertical)

Radiated Emission Expanded Uncertainty (Above 1GHz) :
U= 4.50 dB (Horizontal)
U= 4.16 dB (Vertical)

3 CONDUCTED EMISSION TEST

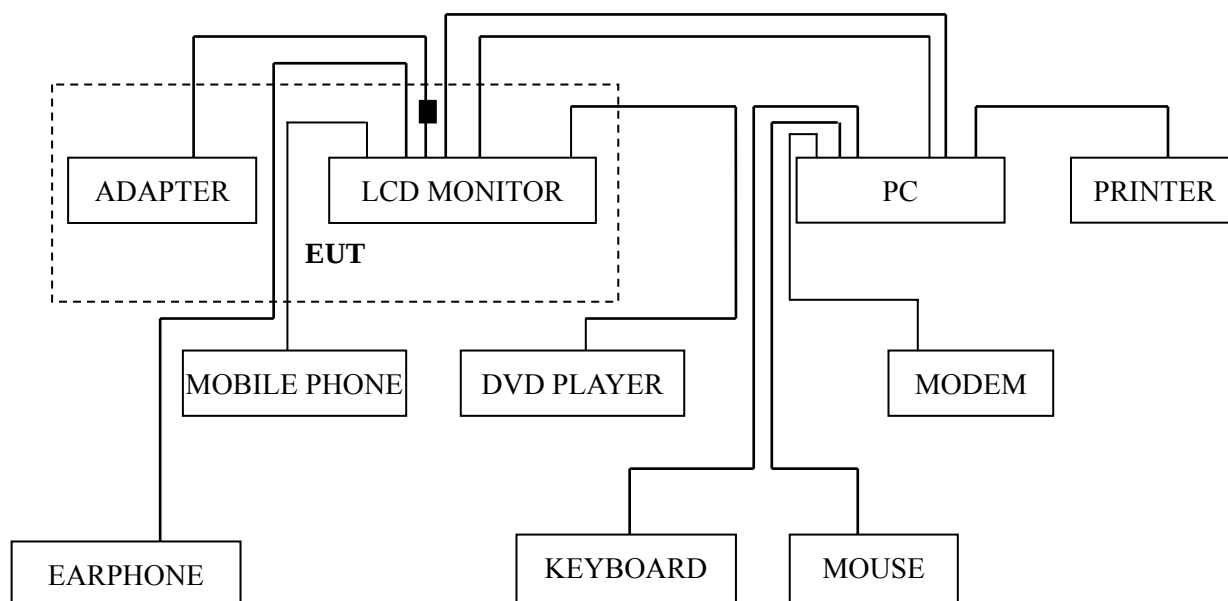
3.1 Test Equipment

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, 2012	Mar 22, 2013
2.	Artificial Mains Network (AMN #1)	R&S	ESH2-Z5	843890/011	Feb 13, 2012	Feb 13, 2013
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	Mar 22, 2012	Mar 22, 2013
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2012	Sep 18, 2012
5.	50 Ω Terminator	Anritsu	BNC	001	Mar 22, 2012	Mar 22, 2013
6.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

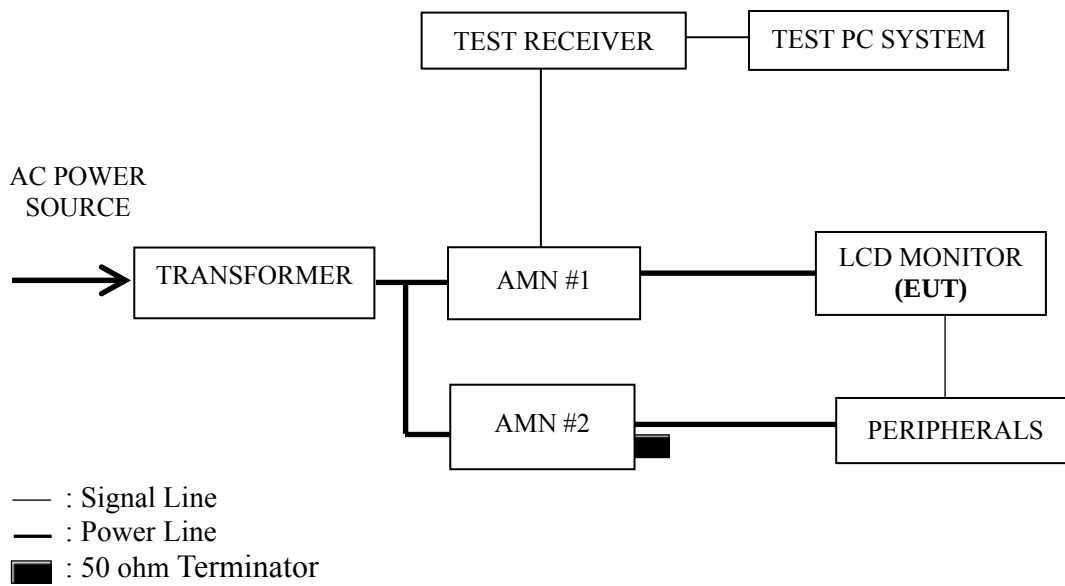
3.2.1 EUT & Peripherals



■ : Ferrite core

Note: Ferrite core only for Adapter #1

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 (μV)	
	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 Input).

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

3.5.6 In MHL mode, the EUT connected to mobile phone through MHL port.

3.5.7 Repeat above procedure from 3.5.3 to 3.5.6 for difference test mode.

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

3.5.9 The test modes are as follows:

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

NOTE: We tested the EUT using adapter #1 and selected the worst test mode to perform test with other adapters.

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	Data Page
Adapter #1	D-Sub 1920*1080@60Hz	P13
	HDMI 1920*1080@60Hz	P14
	HDMI 1080P	P15
	HDMI 1680*1050@60Hz	P16
	HDMI 1280*1024@75Hz	P17
	HDMI 640*480@60Hz	P18
	MHL	P19
Adapter #2	HDMI 1920*1080@60Hz	P20
Adapter #3	HDMI 1920*1080@60Hz	P21
Adapter #4	HDMI 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 HDMI 1920*1080@60Hz test mode (Adapter #4). The worst emission is detected at 0.180 MHz (Quasi-Peak Value) with corrected signal level of 55.57 dB (μV) (limit is 64.50 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.170	53.47	0.24	53.71	64.94	11.23	QP
	0.228	45.27	0.24	45.51	62.52	17.01	
	0.297	43.69	0.26	43.95	60.32	16.37	
	2.133	31.96	0.39	32.35	56.00	23.65	
	4.114	38.70	0.49	39.19	56.00	16.81	
	24.790	34.85	1.18	36.03	60.00	23.97	
	0.170	43.30	0.24	43.54	54.94	11.40	AV
	0.228	35.21	0.24	35.45	52.52	17.07	
	0.297	33.50	0.26	33.76	50.32	16.56	
	2.133	21.54	0.39	21.93	46.00	24.07	
	4.114	28.50	0.49	28.99	46.00	17.01	
	24.790	24.49	1.18	25.67	50.00	24.33	
Neutral	0.172	53.49	0.12	53.61	64.86	11.25	QP
	0.230	44.70	0.11	44.81	62.44	17.63	
	0.296	42.07	0.12	42.19	60.37	18.18	
	1.839	32.20	0.17	32.37	56.00	23.63	
	4.070	35.77	0.40	36.17	56.00	19.83	
	24.529	34.92	1.04	35.96	60.00	24.04	
	0.172	43.50	0.12	43.62	54.86	11.24	AV
	0.230	34.50	0.11	34.61	52.44	17.83	
	0.296	32.20	0.12	32.32	50.37	18.05	
	1.839	22.20	0.17	22.37	46.00	23.63	
	4.070	25.50	0.40	25.90	46.00	20.10	
	24.529	24.51	1.04	25.55	50.00	24.45	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.174	53.49	0.24	53.73	64.77	11.04	QP
	0.233	45.73	0.25	45.98	62.35	16.37	
	0.297	43.47	0.26	43.73	60.32	16.59	
	1.819	31.98	0.39	32.37	56.00	23.63	
	4.158	37.34	0.49	37.83	56.00	18.17	
	24.529	34.80	1.16	35.96	60.00	24.04	
	0.174	43.50	0.24	43.74	54.77	11.03	AV
	0.233	35.50	0.25	35.75	52.35	16.60	
	0.297	33.60	0.26	33.86	50.32	16.46	
	1.819	21.50	0.39	21.89	46.00	24.11	
	4.158	27.50	0.49	27.99	46.00	18.01	
	24.529	24.61	1.16	25.77	50.00	24.23	
Neutral	0.168	55.10	0.13	55.23	65.08	9.85	QP
	0.233	44.82	0.11	44.93	62.35	17.42	
	0.297	42.06	0.12	42.18	60.32	18.14	
	2.033	32.01	0.17	32.18	56.00	23.82	
	4.027	36.37	0.40	36.77	56.00	19.23	
	24.790	34.82	1.06	35.88	60.00	24.12	
	0.168	45.19	0.13	45.32	55.08	9.76	AV
	0.233	34.50	0.11	34.61	52.35	17.74	
	0.297	32.20	0.12	32.32	50.32	18.00	
	2.033	22.20	0.17	22.37	46.00	23.63	
	4.027	26.49	0.40	26.89	46.00	19.11	
	24.790	24.79	1.06	25.85	50.00	24.15	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

Test Mode : HDMI 1080P Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.170	53.53	0.24	53.77	64.94	11.17	QP
	0.237	44.93	0.25	45.18	62.22	17.04	
	0.296	43.45	0.26	43.71	60.37	16.66	
	1.819	31.67	0.39	32.06	56.00	23.94	
	4.070	38.09	0.49	38.58	56.00	17.42	
	24.790	35.60	1.18	36.78	60.00	23.22	
	0.170	43.50	0.24	43.74	54.94	11.20	AV
	0.237	34.50	0.25	34.75	52.22	17.47	
	0.296	33.20	0.26	33.46	50.37	16.91	
	1.819	21.50	0.39	21.89	46.00	24.11	
	4.070	28.20	0.49	28.69	46.00	17.31	
	24.790	25.19	1.18	26.37	50.00	23.63	
Neutral	0.172	53.53	0.12	53.65	64.86	11.21	QP
	0.228	44.40	0.11	44.51	62.52	18.01	
	0.297	42.03	0.12	42.15	60.32	18.17	
	1.949	32.64	0.17	32.81	56.00	23.19	
	4.027	38.27	0.40	38.67	56.00	17.33	
	24.529	36.37	1.04	37.41	60.00	22.59	
	0.172	43.20	0.12	43.32	54.86	11.54	AV
	0.228	34.20	0.11	34.31	52.52	18.21	
	0.297	32.20	0.12	32.32	50.32	18.00	
	1.949	22.50	0.17	22.67	46.00	23.33	
	4.027	28.29	0.40	28.69	46.00	17.31	
	24.529	26.51	1.04	27.55	50.00	22.45	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.170	54.19	0.24	54.43	64.94	10.51	QP
	0.233	45.79	0.25	46.04	62.35	16.31	
	0.296	43.39	0.26	43.65	60.37	16.72	
	1.839	31.81	0.39	32.20	56.00	23.80	
	4.114	37.35	0.49	37.84	56.00	18.16	
	24.529	34.64	1.16	35.80	60.00	24.20	
	0.170	44.30	0.24	44.54	54.94	10.40	AV
	0.233	35.60	0.25	35.85	52.35	16.50	
	0.296	33.50	0.26	33.76	50.37	16.61	
	1.839	21.50	0.39	21.89	46.00	24.11	
	4.114	27.50	0.49	27.99	46.00	18.01	
	24.529	24.61	1.16	25.77	50.00	24.23	
Neutral	0.170	54.38	0.12	54.50	64.94	10.44	QP
	0.230	44.98	0.11	45.09	62.44	17.35	
	0.297	42.29	0.12	42.41	60.32	17.91	
	2.088	32.11	0.17	32.28	56.00	23.72	
	4.070	36.12	0.40	36.52	56.00	19.48	
	24.529	34.98	1.04	36.02	60.00	23.98	
	0.170	44.50	0.12	44.62	54.94	10.32	AV
	0.230	34.60	0.11	34.71	52.44	17.73	
	0.297	32.60	0.12	32.72	50.32	17.60	
	2.088	22.20	0.17	22.37	46.00	23.63	
	4.070	26.40	0.40	26.80	46.00	19.20	
	24.529	24.61	1.04	25.65	50.00	24.35	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.169	53.93	0.24	54.17	64.99	10.82	QP
	0.228	45.35	0.24	45.59	62.52	16.93	
	0.300	43.30	0.27	43.57	60.24	16.67	
	1.858	32.13	0.39	32.52	56.00	23.48	
	4.070	36.01	0.49	36.50	56.00	19.50	
	24.529	34.63	1.16	35.79	60.00	24.21	
	0.169	43.50	0.24	43.74	54.99	11.25	AV
	0.228	35.61	0.24	35.85	52.52	16.67	
	0.300	33.60	0.27	33.87	50.24	16.37	
	1.858	22.60	0.39	22.99	46.00	23.01	
	4.070	26.20	0.49	26.69	46.00	19.31	
	24.529	24.51	1.16	25.67	50.00	24.33	
Neutral	0.170	53.93	0.12	54.05	64.94	10.89	QP
	0.230	44.26	0.11	44.37	62.44	18.07	
	0.296	42.04	0.12	42.16	60.37	18.21	
	2.178	32.08	0.17	32.25	56.00	23.75	
	4.114	37.35	0.40	37.75	56.00	18.25	
	24.142	34.47	1.04	35.51	60.00	24.49	
	0.170	43.50	0.12	43.62	54.94	11.32	AV
	0.230	34.50	0.11	34.61	52.44	17.83	
	0.296	32.20	0.12	32.32	50.37	18.05	
	2.178	22.11	0.17	22.28	46.00	23.72	
	4.114	27.50	0.40	27.90	46.00	18.10	
	24.142	24.50	1.04	25.54	50.00	24.46	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

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

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.172	54.12	0.24	54.36	64.86	10.50	QP
	0.237	45.73	0.25	45.98	62.22	16.24	
	0.297	43.65	0.26	43.91	60.32	16.41	
	1.662	31.17	0.37	31.54	56.00	24.46	
	4.027	36.84	0.49	37.33	56.00	18.67	
	24.529	35.13	1.16	36.29	60.00	23.71	
	0.172	44.20	0.24	44.44	54.86	10.42	AV
	0.237	35.50	0.25	35.75	52.22	16.47	
	0.297	33.50	0.26	33.76	50.32	16.56	
	1.662	21.21	0.37	21.58	46.00	24.42	
	4.027	26.50	0.49	26.99	46.00	19.01	
	24.529	25.41	1.16	26.57	50.00	23.43	
Neutral	0.172	54.68	0.12	54.80	64.86	10.06	QP
	0.233	45.41	0.11	45.52	62.35	16.83	
	0.296	42.40	0.12	42.52	60.37	17.85	
	1.839	32.06	0.17	32.23	56.00	23.77	
	4.070	35.97	0.40	36.37	56.00	19.63	
	24.790	34.23	1.06	35.29	60.00	24.71	
	0.172	44.50	0.12	44.62	54.86	10.24	AV
	0.233	35.20	0.11	35.31	52.35	17.04	
	0.296	32.20	0.12	32.32	50.37	18.05	
	1.839	22.00	0.17	22.17	46.00	23.83	
	4.070	25.60	0.40	26.00	46.00	20.00	
	24.790	24.49	1.06	25.55	50.00	24.45	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

Test Mode : MHL Adapter #1 : LCAP21A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.172	52.95	0.24	53.19	64.86	11.67	QP
	0.230	45.13	0.24	45.37	62.44	17.07	
	0.296	43.43	0.26	43.69	60.37	16.68	
	1.858	32.45	0.39	32.84	56.00	23.16	
	4.114	37.92	0.49	38.41	56.00	17.59	
	24.529	35.29	1.16	36.45	60.00	23.55	
	0.172	42.90	0.24	43.14	54.86	11.72	AV
	0.230	35.21	0.24	35.45	52.44	16.99	
	0.296	33.50	0.26	33.76	50.37	16.61	
	1.858	22.60	0.39	22.99	46.00	23.01	
	4.114	27.80	0.49	28.29	46.00	17.71	
	24.529	25.31	1.16	26.47	50.00	23.53	
Neutral	0.172	53.60	0.12	53.72	64.86	11.14	QP
	0.228	44.15	0.11	44.26	62.52	18.26	
	0.297	41.92	0.12	42.04	60.32	18.28	
	1.762	32.59	0.17	32.76	56.00	23.24	
	4.070	37.03	0.40	37.43	56.00	18.57	
	24.529	36.05	1.04	37.09	60.00	22.91	
	0.172	42.60	0.12	42.72	54.86	12.14	AV
	0.228	34.30	0.11	34.41	52.52	18.11	
	0.297	31.50	0.12	31.62	50.32	18.70	
	1.762	22.60	0.17	22.77	46.00	23.23	
	4.070	27.20	0.40	27.60	46.00	18.40	
	24.529	26.21	1.04	27.25	50.00	22.75	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : 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	0.174	52.62	0.24	52.86	64.77	11.91	QP
	0.242	44.59	0.25	44.84	62.04	17.20	
	0.307	43.06	0.27	43.33	60.06	16.73	
	2.178	33.22	0.39	33.61	56.00	22.39	
	4.361	35.61	0.49	36.10	56.00	19.90	
	15.885	32.50	0.85	33.35	60.00	26.65	
	0.174	42.80	0.24	43.04	54.77	11.73	AV
	0.242	34.50	0.25	34.75	52.04	17.29	
	0.307	33.20	0.27	33.47	50.06	16.59	
	2.178	23.10	0.39	23.49	46.00	22.51	
	4.361	25.40	0.49	25.89	46.00	20.11	
	15.885	22.40	0.85	23.25	50.00	26.75	
Neutral	0.174	53.19	0.12	53.31	64.77	11.46	QP
	0.234	44.52	0.11	44.63	62.30	17.67	
	0.307	40.86	0.12	40.98	60.06	19.08	
	2.033	32.30	0.17	32.47	56.00	23.53	
	4.926	34.22	0.42	34.64	56.00	21.36	
	18.039	33.53	0.80	34.33	60.00	25.67	
	0.174	43.20	0.12	43.32	54.77	11.45	AV
	0.234	34.50	0.11	34.61	52.30	17.69	
	0.307	30.50	0.12	30.62	50.06	19.44	
	2.033	22.50	0.17	22.67	46.00	23.33	
	4.926	24.30	0.42	24.72	46.00	21.28	
	18.039	23.50	0.80	24.30	50.00	25.70	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : 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	0.172	49.33	0.24	49.57	64.86	15.29	QP
	0.300	38.10	0.27	38.37	60.24	21.87	
	0.484	36.71	0.35	37.06	56.27	19.21	
	2.088	34.09	0.39	34.48	56.00	21.52	
	4.224	31.74	0.49	32.23	56.00	23.77	
	25.864	27.47	1.19	28.66	60.00	31.34	
	0.172	38.80	0.24	39.04	54.86	15.82	AV
	0.300	28.20	0.27	28.47	50.24	21.77	
	0.484	26.50	0.35	26.85	46.27	19.42	
	2.088	24.10	0.39	24.49	46.00	21.51	
	4.224	21.50	0.49	21.99	46.00	24.01	
	25.864	17.60	1.19	18.79	50.00	31.21	
Neutral	0.182	48.73	0.12	48.85	64.42	15.57	QP
	0.297	36.45	0.12	36.57	60.32	23.75	
	0.499	37.02	0.17	37.19	56.01	18.82	
	1.716	33.73	0.17	33.90	56.00	22.10	
	6.698	28.79	0.57	29.36	60.00	30.64	
	24.142	28.80	1.04	29.84	60.00	30.16	
	0.182	38.80	0.12	38.92	54.42	15.50	AV
	0.297	26.30	0.12	26.42	50.32	23.90	
	0.499	27.20	0.17	27.37	46.01	18.64	
	1.716	23.50	0.17	23.67	46.00	22.33	
	6.698	18.50	0.57	19.07	50.00	30.93	
	24.142	18.50	1.04	19.54	50.00	30.46	

TEST ENGINEER: SAWEN LI

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 48%RH

Serial No. : E1205611-01/01 Date of Test : May 22, 2012

Test Mode : HDMI 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	0.150	56.53	0.23	56.76	66.00	9.24	QP
	0.184	54.09	0.25	54.34	64.28	9.94	
	0.494	45.74	0.35	46.09	56.10	10.01	
	2.133	41.72	0.39	42.11	56.00	13.89	
	4.952	41.00	0.50	41.50	56.00	14.50	
	17.383	36.92	0.89	37.81	60.00	22.19	
	0.150	46.20	0.23	46.43	56.00	9.57	AV
	0.184	44.20	0.25	44.45	54.28	9.83	
	0.494	35.50	0.35	35.85	46.10	10.25	
	2.133	31.50	0.39	31.89	46.00	14.11	
	4.952	30.50	0.50	31.00	46.00	15.00	
	17.383	26.50	0.89	27.39	50.00	22.61	
Neutral	0.152	53.64	0.13	53.77	65.91	12.14	QP
	0.180	55.45	0.12	55.57	64.50	8.93	
	0.494	44.52	0.17	44.69	56.10	11.41	
	2.178	43.33	0.17	43.50	56.00	12.50	
	4.926	44.17	0.42	44.59	56.00	11.41	
	17.199	35.38	0.76	36.14	60.00	23.86	
	0.152	43.50	0.13	43.63	55.91	12.28	AV
	0.180	45.20	0.12	45.32	54.50	9.18	
	0.494	34.50	0.17	34.67	46.10	11.43	
	2.178	33.21	0.17	33.38	46.00	12.62	
	4.926	34.20	0.42	34.62	46.00	11.38	
	17.199	25.61	0.76	26.37	50.00	23.63	

TEST ENGINEER: SAWEN LI

4 RADIATED EMISSION TEST

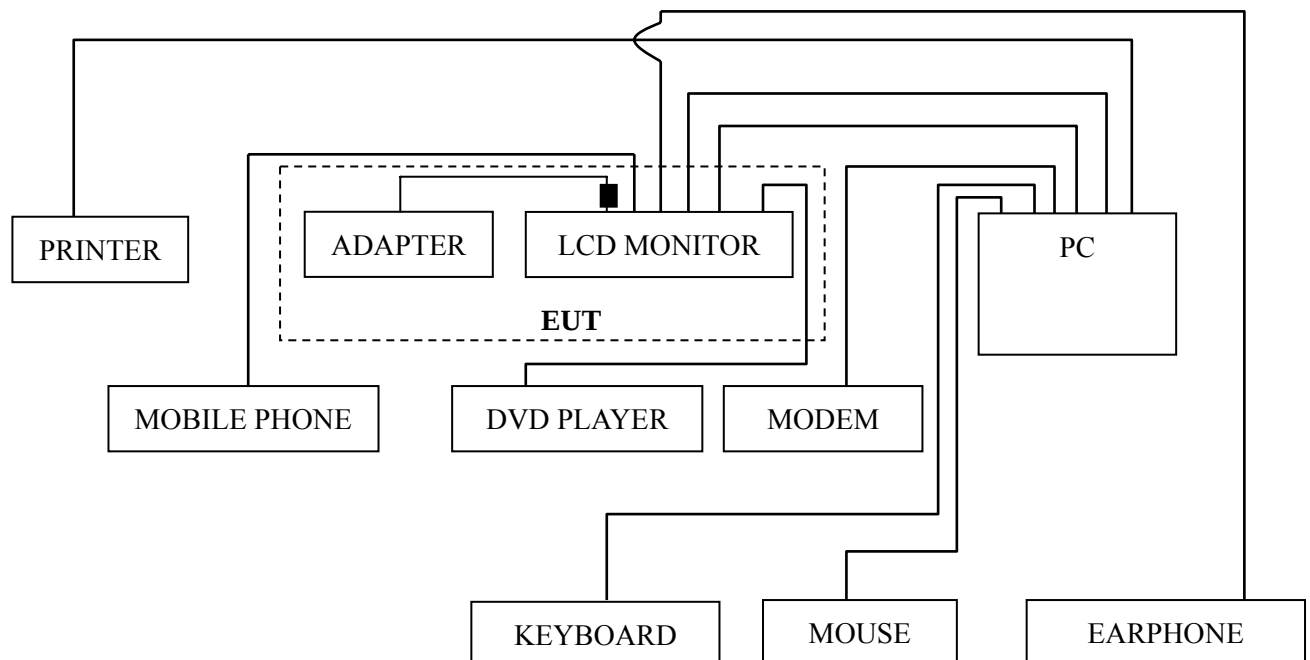
4.1 Test Equipment

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, 2012	Mar 22, 2013
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2012	Sep 18, 2012
3.	Preamplifier	HP	8449B	3008A00864	Mar 22, 2012	Mar 22, 2013
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2011	Dec 01, 2012
5.	Horn Antenna	EMCO	3115	9607-4878	May 06, 2012	May 06, 2013
6.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2012	Mar 22, 2013
7.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2012	Sep 18, 2012
8.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals

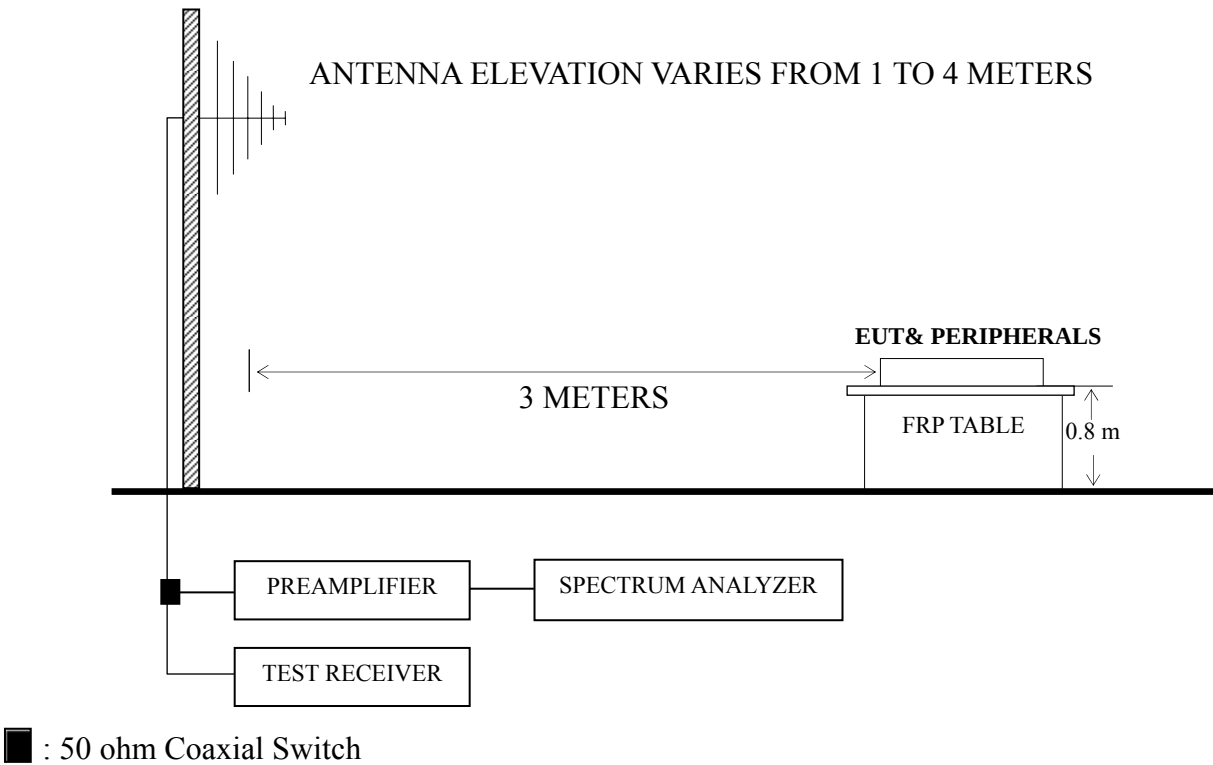


■ : Ferrite core

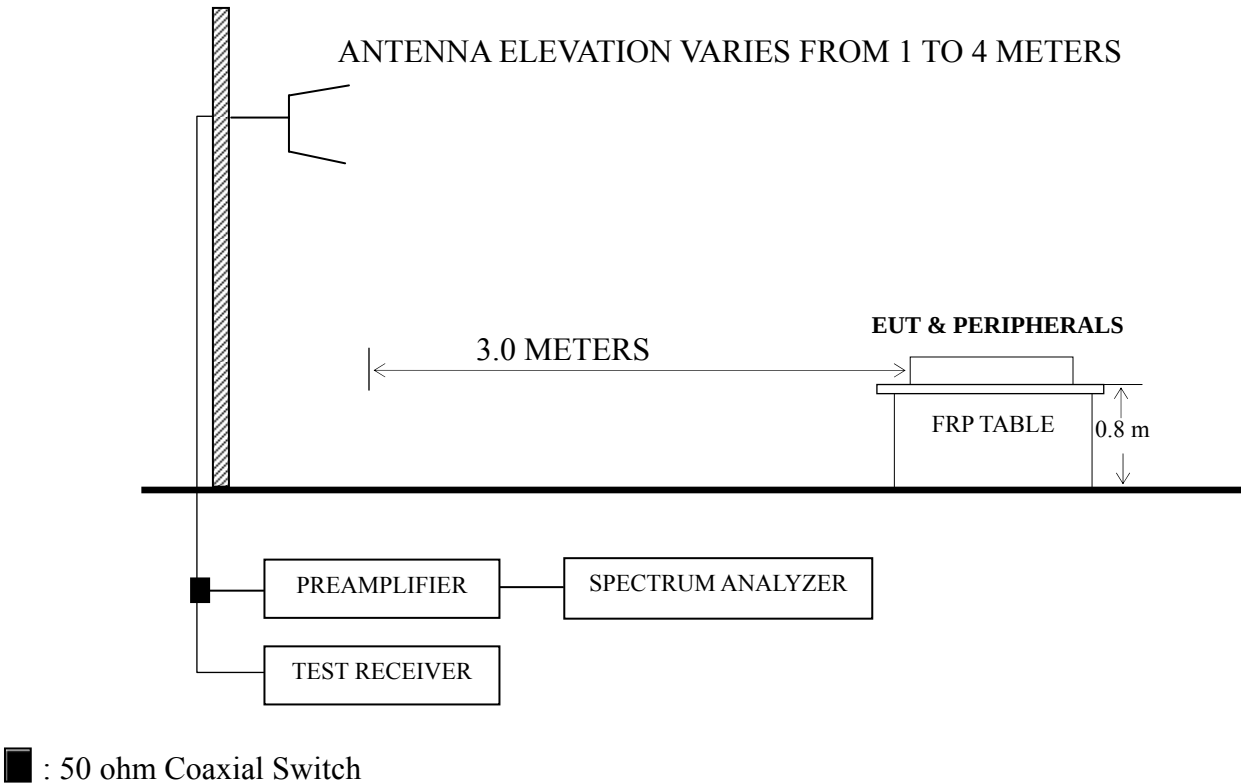
Note: Ferrite core only for Adapter #1

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 maximum resolution modes.

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

4.7 Test Results

<PASS>

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

Adapter	Test Mode	Data Page
Adapter #1	D-Sub 1920*1080@60Hz	P28
	HDMI 1920*1080@60Hz	P29-P30
	HDMI 1080P	P31
	HDMI 1680*1050@60Hz	P32
	HDMI 1280*1024@75Hz	P33
	HDMI 640*480@60Hz	P34
	MHL	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. (< 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 – We tested the EUT using adapter #1, and selected the worst test mode to perform test with other adapters.

NOTE 8 – The worst case is for HDMI 1920*1080@60Hz test mode (Adapter #1). The worst emission at horizontal polarization was detected at 305.480 MHz with corrected signal level of 44.61 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 120°. The worst emission at vertical polarization was detected at 305.480 MHz with corrected signal level of 42.24 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 280°.

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	33.880	12.16	16.26	0.83	29.25	40.00	10.75
	72.680	16.27	10.08	1.47	27.82	40.00	12.18
	92.080	17.89	11.08	1.75	30.72	43.50	12.78
	196.840	22.26	9.83	2.42	34.51	43.50	8.99
	538.280	16.61	17.83	3.34	37.78	46.00	8.22
	872.930	15.21	20.37	4.60	40.18	46.00	5.82
Vertical	72.680	12.85	10.08	1.47	24.40	40.00	15.60
	145.430	15.54	10.50	2.20	28.24	43.50	15.26
	196.840	21.75	9.83	2.42	34.00	43.50	9.50
	293.840	20.42	13.53	2.74	36.69	46.00	9.31
	329.730	17.83	14.54	2.83	35.20	46.00	10.80
	837.040	12.76	20.48	4.34	37.58	46.00	8.42

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	75.590	12.50	10.27	1.53	--	24.30	40.00	15.70	QP
	153.190	19.51	10.36	2.24	--	32.11	43.50	11.39	
	225.940	18.87	10.88	2.52	--	32.27	46.00	13.73	
	305.480	27.97	13.87	2.77	--	44.61	46.00	1.39	
	538.280	13.69	17.83	3.34	--	34.86	46.00	11.14	
	870.990	11.52	20.38	4.60	--	36.50	46.00	9.50	
	1075.000	48.88	22.16	5.27	38.04	38.27	74.00	35.73	PK
	1250.000	43.46	24.05	5.42	37.65	35.28	74.00	38.72	
	1365.000	44.43	24.80	5.55	37.33	37.45	74.00	36.55	
	1465.000	39.20	26.11	5.72	37.06	33.97	74.00	40.03	
	1595.000	40.72	26.41	5.93	36.77	36.29	74.00	37.71	
	1760.000	43.18	26.96	6.17	36.49	39.82	74.00	34.18	
	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	30.43	24.80	5.55	37.33	23.45	54.00	30.55	
	1465.000	26.20	26.11	5.72	37.06	20.97	54.00	33.03	
	1595.000	28.72	26.41	5.93	36.77	24.29	54.00	29.71	
	1760.000	29.18	26.96	6.17	36.49	25.82	54.00	28.18	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	31.940	9.99	17.29	0.82	--	28.10	40.00	11.90	QP
	77.530	16.41	10.39	1.56	--	28.36	40.00	11.64	
	221.090	17.48	10.68	2.51	--	30.67	46.00	15.33	
	305.480	25.60	13.87	2.77	--	42.24	46.00	3.76	
	538.280	16.12	17.83	3.34	--	37.29	46.00	8.71	
	875.840	14.96	20.37	4.75	--	40.08	46.00	5.92	
	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. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : HDMI 1080P Adapter #1 : LCAP21A

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	31.940	10.01	17.29	0.82	28.12	40.00	11.88
	72.680	26.75	10.08	1.47	38.30	40.00	1.70
	143.490	18.17	10.54	2.19	30.90	43.50	12.60
	303.540	21.15	13.80	2.77	37.72	46.00	8.28
	536.340	17.17	17.83	3.34	38.34	46.00	7.66
	875.840	13.11	20.37	4.75	38.23	46.00	7.77
Vertical	72.680	13.85	10.08	1.47	25.40	40.00	14.60
	150.280	22.34	10.41	2.23	34.98	43.50	8.52
	177.440	19.96	10.02	2.35	32.33	43.50	11.17
	303.540	23.25	13.80	2.77	39.82	46.00	6.18
	484.930	11.73	17.44	3.23	32.40	46.00	13.60
	861.290	15.37	20.42	4.45	40.24	46.00	5.76

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	72.680	12.15	10.08	1.47	23.70	40.00	16.30
	145.430	21.13	10.50	2.20	33.83	43.50	9.67
	187.140	16.90	9.92	2.38	29.20	43.50	14.30
	290.930	17.22	13.46	2.74	33.42	46.00	12.58
	538.280	12.07	17.83	3.34	33.24	46.00	12.76
	866.140	11.89	20.39	4.60	36.88	46.00	9.12
Vertical	33.880	12.83	16.26	0.83	29.92	40.00	10.08
	70.740	17.63	9.93	1.43	28.99	40.00	11.01
	114.390	18.43	11.10	1.97	31.50	43.50	12.00
	290.930	20.10	13.46	2.74	36.30	46.00	9.70
	538.280	17.01	17.83	3.34	38.18	46.00	7.82
	875.840	13.59	20.37	4.75	38.71	46.00	7.29

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	33.880	10.37	16.26	0.83	27.46	40.00	12.54
	77.530	23.05	10.39	1.56	35.00	40.00	5.00
	111.480	16.71	11.15	1.96	29.82	43.50	13.68
	303.540	26.89	13.80	2.77	43.46	46.00	2.54
	536.340	14.20	17.83	3.34	35.37	46.00	10.63
	875.840	13.02	20.37	4.75	38.14	46.00	7.86
Vertical	56.190	13.22	8.88	1.08	23.18	40.00	16.82
	75.590	13.48	10.27	1.53	25.28	40.00	14.72
	150.280	25.63	10.41	2.23	38.27	43.50	5.23
	305.480	20.76	13.87	2.77	37.40	46.00	8.60
	484.930	11.22	17.44	3.23	31.89	46.00	14.11
	870.990	14.10	20.38	4.60	39.08	46.00	6.92

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	72.680	20.26	10.08	1.47	31.81	40.00	8.19
	145.430	29.04	10.50	2.20	41.74	43.50	1.76
	150.280	28.92	10.41	2.23	41.56	43.50	1.94
	305.480	20.67	13.87	2.77	37.31	46.00	8.69
	484.930	14.97	17.44	3.23	35.64	46.00	10.36
	863.230	12.97	20.41	4.60	37.98	46.00	8.02
Vertical	33.880	12.47	16.26	0.83	29.56	40.00	10.44
	72.680	19.29	10.08	1.47	30.84	40.00	9.16
	153.190	27.84	10.36	2.24	40.44	43.50	3.06
	305.480	21.16	13.87	2.77	37.80	46.00	8.20
	536.340	15.93	17.83	3.34	37.10	46.00	8.90
	875.840	15.36	20.37	4.75	40.48	46.00	5.52

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : MHL Adapter #1 : LCAP21A

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	80.440	17.18	10.56	1.59	29.33	40.00	10.67
	143.490	15.29	10.54	2.19	28.02	43.50	15.48
	174.530	16.84	10.06	2.33	29.23	43.50	14.27
	237.580	14.62	11.41	2.57	28.60	46.00	17.40
	426.730	12.25	16.64	3.06	31.95	46.00	14.05
	851.590	8.28	20.44	4.45	33.17	46.00	12.83
Vertical	43.580	18.57	10.86	0.89	30.32	40.00	9.68
	96.930	14.77	11.24	1.82	27.83	43.50	15.67
	138.640	17.86	10.65	2.16	30.67	43.50	12.83
	193.930	22.80	9.86	2.41	35.07	43.50	8.43
	526.640	16.14	17.76	3.33	37.23	46.00	8.77
	667.290	17.34	19.12	3.62	40.08	46.00	5.92

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : ADS-40SG-19-3
19032G

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
Horizontal	31.940	13.59	17.29	0.82	--	31.70	40.00	8.30	QP
	80.440	17.45	10.56	1.59	--	29.60	40.00	10.40	
	135.730	17.48	10.71	2.14	--	30.33	43.50	13.17	
	193.930	19.64	9.86	2.41	--	31.91	43.50	11.59	
	526.640	12.90	17.76	3.33	--	33.99	46.00	12.01	
	667.290	8.05	19.12	3.62	--	30.79	46.00	15.21	
	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. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : 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	78.500	21.86	10.45	1.56	--	33.87	40.00	6.13	QP
	119.240	23.54	11.02	2.01	--	36.57	43.50	6.93	
	240.490	19.78	11.55	2.58	--	33.91	46.00	12.09	
	322.940	14.79	14.34	2.82	--	31.95	46.00	14.05	
	546.040	17.19	17.88	3.36	--	38.43	46.00	7.57	
	667.290	13.98	19.12	3.62	--	36.72	46.00	9.28	
	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	40.87	24.50	5.51	37.48	33.40	74.00	40.60	
	1465.000	34.26	26.11	5.72	37.06	29.03	74.00	44.97	
	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	34.87	24.50	5.51	37.48	27.40	54.00	26.60	
	1465.000	29.26	26.11	5.72	37.06	24.03	54.00	29.97	
	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. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : 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	41.640	18.48	11.78	0.88	--	31.14	40.00	8.86	QP
	85.290	16.80	10.80	1.66	--	29.26	40.00	10.74	
	121.180	16.70	10.99	2.03	--	29.72	43.50	13.78	
	193.930	22.20	9.86	2.41	--	34.47	43.50	9.03	
	478.140	10.05	17.34	3.21	--	30.60	46.00	15.40	
	667.290	17.80	19.12	3.62	--	40.54	46.00	5.46	
	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. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : 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	82.380	17.71	10.67	1.63	--	30.01	40.00	9.99	QP
	162.890	16.53	10.21	2.29	--	29.03	43.50	14.47	
	240.490	14.59	11.55	2.58	--	28.72	46.00	17.28	
	329.730	12.71	14.54	2.83	--	30.08	46.00	15.92	
	426.730	12.84	16.64	3.06	--	32.54	46.00	13.46	
	667.290	10.02	19.12	3.62	--	32.76	46.00	13.24	
	1080.000	52.01	22.24	4.50	38.03	40.72	74.00	33.28	PK
	1170.000	48.30	23.38	4.51	37.83	38.36	74.00	35.64	
	1315.000	49.85	24.50	4.53	37.48	41.40	74.00	32.60	
	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	40.30	23.38	4.51	37.83	30.36	54.00	23.64	
	1315.000	42.85	24.50	4.53	37.48	34.40	54.00	19.60	
	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

EUT : LCD Monitor Temperature : 22°C

Model No. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 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	80.440	15.93	10.56	1.59	--	28.08	40.00	11.92	QP
	169.680	13.70	10.11	2.32	--	26.13	43.50	17.37	
	193.930	19.47	9.86	2.41	--	31.74	43.50	11.76	
	230.790	13.74	11.10	2.55	--	27.39	46.00	18.61	
	546.040	12.21	17.88	3.36	--	33.45	46.00	12.55	
	667.290	11.37	19.12	3.62	--	34.11	46.00	11.89	
	1075.000	57.88	22.16	5.27	38.04	47.27	74.00	26.73	PK
	1180.000	49.35	23.49	5.34	37.81	40.37	74.00	33.63	
	1250.000	49.46	24.05	5.42	37.65	41.28	74.00	32.72	
	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	41.35	23.49	5.34	37.81	32.37	54.00	21.63	
	1250.000	42.46	24.05	5.42	37.65	34.28	54.00	19.72	
	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. : IPS237LY Humidity : 60%RH

Serial No. : E1205611-01/01 Date of Test : May 28, 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	80.440	19.99	10.56	1.59	--	32.14	40.00	7.86	QP
	121.180	20.32	10.99	2.03	--	33.34	43.50	10.16	
	193.930	25.65	9.86	2.41	--	37.92	43.50	5.58	
	242.430	15.74	11.65	2.58	--	29.97	46.00	16.03	
	546.040	16.39	17.88	3.36	--	37.63	46.00	8.37	
	667.290	10.59	19.12	3.62	--	33.33	46.00	12.67	
	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

5 DEVIATION TO TEST SPECIFICATIONS

None.