

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

LCD Monitor

Model No.: E2242VA

Serial No.: E1203277-01/01

FCC ID : BEJE2242VA

Prepared For : LG Electronics U.S.A., Inc.
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NJ 07632, United States

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Report No. : ACI-F12048
Date of Test : Mar 17 – 20, 2012
Date of Report : Mar 27, 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. : E2242VA
(B) Serial No. : E1203277-01/01
(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: E2242VA; S/N: E1203277-01/01) which was tested in 3m anechoic chamber Mar 17 – 20, 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 : Mar 17 – 20, 2012 Date of Report : Mar 27, 2012

Producer : Yenny Yu.
YENNY YU / Assistant

Review : Dio Yang.
DIO YANG / Assistant Manager

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

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Deputy Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description of Test Item	Standard	Limits	Results
EMISSION			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2010 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2010 AND ANSI C63.4-2003	15.109(a) Class B	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	: LCD Monitor
Model No.	: E2242VA
Serial No.	: E1203277-01/01
Real Power	: 22.50W (Adapter #1) 23.00W (Adapter #2) 22.60W (Adapter #3) 23.00W (Adapter #4)
AC Adapter #1	: Manufacturer : LIEN CHANG Model Number : LCAP21 Input : 100-240V~, 50-60Hz 1.1A Output : 19V  1.3A Output Cable : Unshielded, Undetachable, 1.8m, with one core
AC Adapter #2	: Manufacturer : HONOR Model Number : ADS-40SG-19-3 19025G Input : 100-240V~, 50-60Hz 1.0A Output : 19V  1.3A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #3	: Manufacturer : LIEN CHANG Model Number : LCAP26-* (* can be A, E, I, B, LCAP26-A was selected as the test model.) Input : 100-240V~, 50-60Hz 1.1A Output : 19V  1.3A Output Cable : Unshielded, Undetachable, 1.8m
AC Adapter #4	: Manufacturer : HONOR Model Number : ADS-40FSG-19 19025G***-1 (*** can be PG, PBR, PI, PCU, ADS-40FSG-19 19025GPCU-1 was selected as the test model.) Input : 100-240V~, 50-60Hz 1.1A Output : 19V  1.3A Output Cable : Unshielded, Undetachable, 1.8m

Applicant	: LG Electronics Nanjing Display Co., Ltd. No.346, YaoXin Road Economic&Technical Development Zone, Nanjing, China
Manufacturer	: LG Electronics Nanjing Display Co., Ltd. No.346, YaoXin Road Economic&Technical Development Zone, Nanjing, China
LCD Panel	: Manufacturer : AU Optronics M/N : M215HW03
Max Resolution	: 1920*1080@60Hz
D-Sub Cable #1	: Shielded, Detachable, 1.50m, with two cores on cable
D-Sub Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
DVI Cable #1	: Shielded, Detachable, 1.50m, with two cores on cable
DVI Cable #2	: Shielded, Detachable, 1.85m, with two cores in connector
Power Cord	Unshielded, Detachable, 1.50m
Note	: The D-Sub cable #2 and DVI cable #2 were selected to be used in the test.

Remark:

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

- | | |
|-----------------------|----------------------------------|
| (1) One D-Sub Port | : Connected with PC |
| (2) One DVI Port | : Connected with PC |
| (3) One HDMI Port | : Connected with PC / DVD PLAYER |
| (4) One Earphone Port | : Connected with Earphone |
| (5) One DC In Port | : Connected with Adapter |

2.2 Peripherals

2.2.1 PC

Manufacturer	: HP
Model Number	: dx7200MT
Serial Number	: CNG622017W
Power Cord	: Unshielded, Detachable, 1.8m
Certificate	: FCC DoC; CE/EMC; VCCI; C-Tick; UL BSMI (R33001) 3C (A000111) MIC (E-A011-04-2659(B))

2.2.2 Graphics Card (Used in PC)

Manufacturer : Asus
Model Number : EAH6670
Output port : DVI, D-Sub, HDMI

2.2.3 Printer

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

2.2.4 Keyboard

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

2.2.5 Mouse

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

2.2.6 Modem

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

2.2.7 DVD PLAYER

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120108
Data Cable : Shielded, Detachable, 1.80m
Certificate : FCC DoC, CE/EMC, CCC

2.2.8 Earphone

Manufacturer : SONY
Model Number : MDR-E808
Serial Number : 1808030805305506
Data Cable : Shielded, Detachable, 1.8m

2.3 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
Apr 29, 2009 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai 200233, China

NVLAP Lab Code : 200371-0

2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty: U = 3.38 dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.58 dB (Horizontal)
U = 4.70 dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.84 dB (Horizontal)
U = 4.70 dB (Vertical)

Radiated Emission Expanded Uncertainty (Above 1GHz):
U= 4.60 dB (Horizontal)
U= 4.18 dB (Vertical)

3 CONDUCTED EMISSION TEST

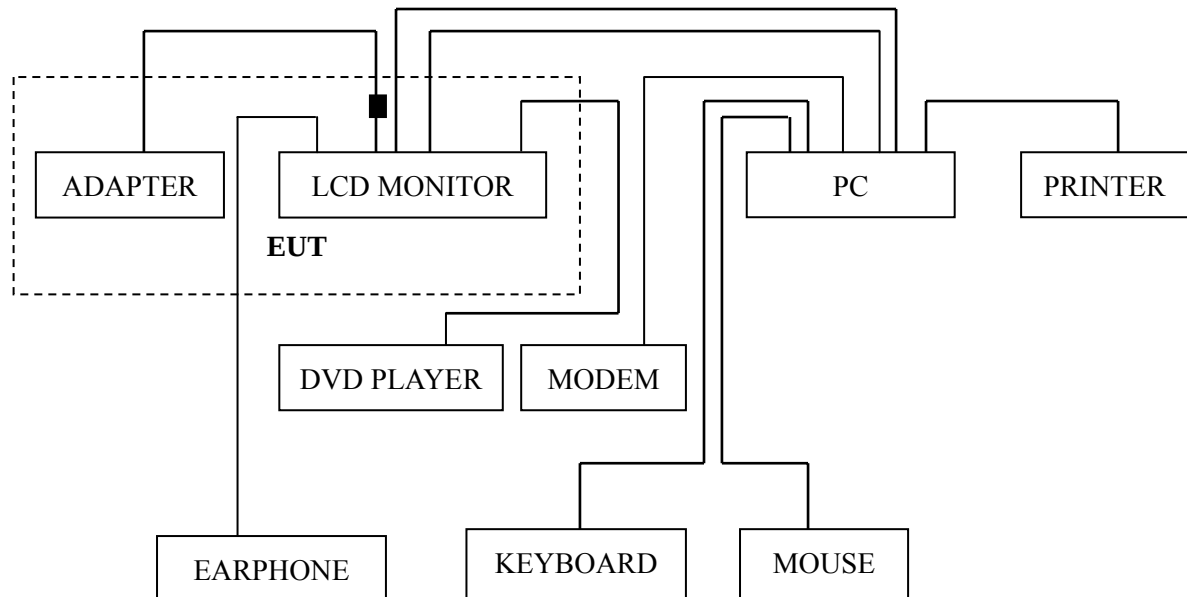
3.1 Test Equipment

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

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2011	Mar 22, 2012
2.	Artificial Mains Network (AMN #1)	R&S	ESH2-Z5	843890/011	Mar 22, 2011	Mar 22, 2012
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	Mar 22, 2011	Mar 22, 2012
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2012	Sep 18, 2012
5.	50 Ω Terminator	Anritsu	BNC	001	Mar 22, 2011	Mar 22, 2012
6.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

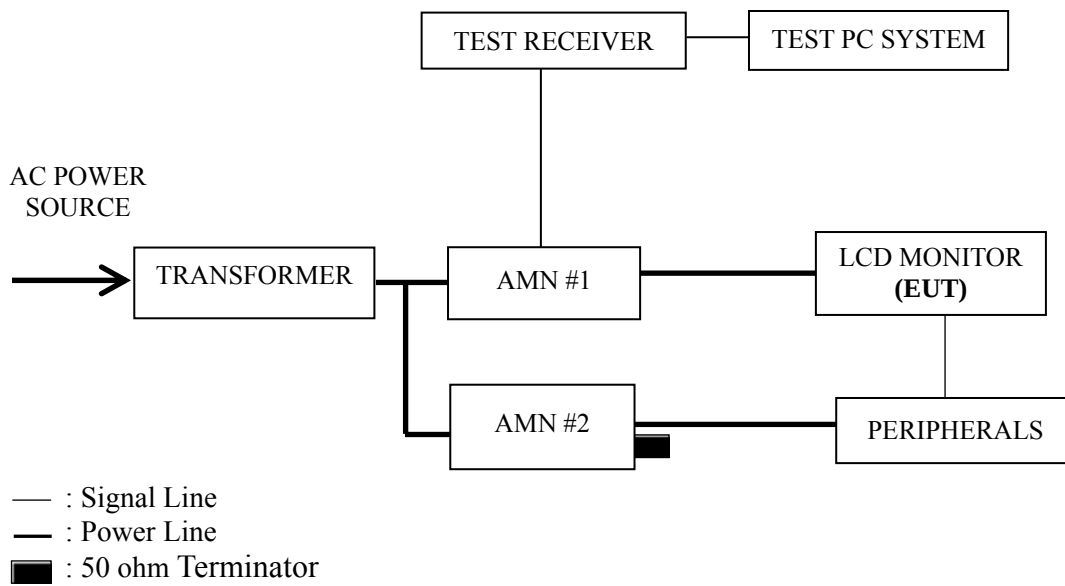
3.2.1 EUT & Peripherals



■ : Ferrite core

Note: Ferrite core only for Adapter #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 (μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50
NOTE 1 – The lower limit shall apply at the transition frequencies. NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz		

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

3.5.4 PC system ran the self-test program "EMC Test" by windows XP and sent "H" characters to EUT through graphic card (we use white letters on a black background to represent all colors), the EUT's screen displayed and filled with "H" pattern by its resolution (Via D-Sub/DVI Input).

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

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

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

3.5.8 The test modes are as follows:

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

NOTE: We tested the EUT with adapter #1 and selected the worst test mode to perform test with adapter #2/#3/#4.

3.6 Test Procedures

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

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

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

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

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

3.7 Test Results

< **PASS** >

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

Adapter	Test Mode	Page
Adapter #1	D-Sub 1920*1080@60Hz	P13
	DVI 1920*1080@60Hz	P14
	HDMI 1920*1080@60Hz	P15
	HDMI 1080P	P16
	HDMI 1680*1050@60Hz	P17
	HDMI 1280*1024@75Hz	P18
	HDMI 640*480@60Hz	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 #3). The worst emission is detected at 0.180 MHz (Average Value) with corrected signal level of 52.93 dB (μV) (limit is 54.50 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.168	59.66	0.25	59.91	65.08	5.17	QP
	0.286	45.26	0.36	45.62	60.63	15.01	
	0.481	36.33	0.49	36.82	56.32	19.50	
	1.464	27.55	0.58	28.13	56.00	27.87	
	4.407	34.87	0.69	35.56	56.00	20.44	
	6.420	30.47	0.75	31.22	60.00	28.78	
	0.168	50.21	0.25	50.46	55.08	4.62	AV
	0.286	35.10	0.36	35.46	50.63	15.17	
	0.481	26.30	0.49	26.79	46.32	19.53	
	1.464	18.50	0.58	19.08	46.00	26.92	
	4.407	24.70	0.69	25.39	46.00	20.61	
	6.420	20.81	0.75	21.56	50.00	28.44	
Neutral	0.176	59.25	0.23	59.48	64.68	5.20	QP
	0.292	45.35	0.31	45.66	60.46	14.80	
	0.461	38.78	0.41	39.19	56.67	17.48	
	1.602	27.96	0.70	28.66	56.00	27.34	
	4.622	35.34	0.90	36.24	56.00	19.76	
	6.285	31.10	1.04	32.14	60.00	27.86	
	0.176	50.30	0.23	50.53	54.68	4.15	AV
	0.292	35.50	0.31	35.81	50.46	14.65	
	0.461	28.80	0.41	29.21	46.67	17.46	
	1.602	18.20	0.70	18.90	46.00	27.10	
	4.622	25.80	0.90	26.70	46.00	19.30	
	6.285	21.81	1.04	22.85	50.00	27.15	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.169	60.61	0.26	60.87	64.99	4.12	QP
	0.303	46.17	0.37	46.54	60.15	13.61	
	0.471	37.17	0.49	37.66	56.49	18.83	
	1.628	28.26	0.60	28.86	56.00	27.14	
	4.501	34.50	0.69	35.19	56.00	20.81	
	6.252	29.24	0.75	29.99	60.00	30.01	
	0.169	50.10	0.26	50.36	54.99	4.63	AV
	0.303	36.50	0.37	36.87	50.15	13.28	
	0.471	27.90	0.49	28.39	46.49	18.10	
	1.628	18.60	0.60	19.20	46.00	26.80	
	4.501	24.70	0.69	25.39	46.00	20.61	
	6.252	20.40	0.75	21.15	50.00	28.85	
Neutral	0.176	59.00	0.23	59.23	64.68	5.45	QP
	0.277	45.98	0.30	46.28	60.90	14.62	
	0.471	38.37	0.42	38.79	56.49	17.70	
	1.269	28.71	0.63	29.34	56.00	26.66	
	4.721	35.68	0.91	36.59	56.00	19.41	
	6.285	31.75	1.04	32.79	60.00	27.21	
	0.176	50.10	0.23	50.33	54.68	4.35	AV
	0.277	35.10	0.30	35.40	50.90	15.50	
	0.471	28.70	0.42	29.12	46.49	17.37	
	1.269	19.50	0.63	20.13	46.00	25.87	
	4.721	25.49	0.91	26.40	46.00	19.60	
	6.285	21.81	1.04	22.85	50.00	27.15	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.170	61.80	0.26	62.06	64.94	2.88	QP
	0.296	47.18	0.37	47.55	60.37	12.82	
	0.481	37.25	0.49	37.74	56.32	18.58	
	1.610	27.63	0.59	28.22	56.00	27.78	
	4.874	36.59	0.70	37.29	56.00	18.71	
	6.627	31.83	0.77	32.60	60.00	27.40	
	0.170	51.70	0.26	51.96	54.94	2.98	AV
	0.296	37.50	0.37	37.87	50.37	12.50	
	0.481	27.20	0.49	27.69	46.32	18.63	
	1.610	18.41	0.59	19.00	46.00	27.00	
	4.874	26.40	0.70	27.10	46.00	18.90	
	6.627	22.69	0.77	23.46	50.00	26.54	
Neutral	0.168	60.80	0.22	61.02	65.08	4.06	QP
	0.297	46.72	0.32	47.04	60.32	13.28	
	0.481	38.24	0.42	38.66	56.32	17.66	
	1.839	27.08	0.72	27.80	56.00	28.20	
	4.822	37.19	0.91	38.10	56.00	17.90	
	6.698	30.28	1.07	31.35	60.00	28.65	
	0.168	50.10	0.22	50.32	55.08	4.76	AV
	0.297	36.10	0.32	36.42	50.32	13.90	
	0.481	29.20	0.42	29.62	46.32	16.70	
	1.839	18.40	0.72	19.12	46.00	26.88	
	4.822	27.30	0.91	28.21	46.00	17.79	
	6.698	20.20	1.07	21.27	50.00	28.73	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1080P Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.182	57.40	0.27	57.67	64.37	6.70	QP
	0.239	48.88	0.31	49.19	62.13	12.94	
	0.300	42.77	0.37	43.14	60.24	17.10	
	0.480	38.67	0.49	39.16	56.34	17.18	
	1.109	27.99	0.54	28.53	56.00	27.47	
	4.200	36.71	0.69	37.40	56.00	18.60	
	0.182	43.10	0.27	43.37	54.37	11.00	AV
	0.239	38.21	0.31	38.52	52.13	13.61	
	0.300	31.52	0.37	31.89	50.24	18.35	
	0.480	28.30	0.49	28.79	46.34	17.55	
	1.109	18.31	0.54	18.85	46.00	27.15	
	4.200	26.90	0.69	27.59	46.00	18.41	
Neutral	0.180	58.21	0.23	58.44	64.50	6.06	QP
	0.233	49.22	0.27	49.49	62.35	12.86	
	0.296	44.24	0.32	44.56	60.37	15.81	
	0.549	36.04	0.43	36.47	56.00	19.53	
	4.454	36.29	0.90	37.19	56.00	18.81	
	6.420	30.84	1.05	31.89	60.00	28.11	
	0.180	46.58	0.23	46.81	54.50	7.69	AV
	0.233	37.26	0.27	37.53	52.35	14.82	
	0.296	34.30	0.32	34.62	50.37	15.75	
	0.549	25.39	0.43	25.82	46.00	20.18	
	4.454	26.20	0.90	27.10	46.00	18.90	
	6.420	20.71	1.05	21.76	50.00	28.24	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1680*1050@60Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.169	59.66	0.26	59.92	64.99	5.07	QP
	0.280	45.06	0.35	45.41	60.81	15.40	
	0.471	36.65	0.49	37.14	56.49	19.35	
	1.449	28.07	0.58	28.65	56.00	27.35	
	4.574	34.98	0.69	35.67	56.00	20.33	
	6.420	30.50	0.75	31.25	60.00	28.75	
	0.169	49.10	0.26	49.36	54.99	5.63	AV
	0.280	35.50	0.35	35.85	50.81	14.96	
	0.471	26.20	0.49	26.69	46.49	19.80	
	1.449	19.14	0.58	19.72	46.00	26.28	
	4.574	24.30	0.69	24.99	46.00	21.01	
	6.420	20.31	0.75	21.06	50.00	28.94	
Neutral	0.170	58.82	0.22	59.04	64.94	5.90	QP
	0.296	44.96	0.32	45.28	60.37	15.09	
	0.481	38.56	0.42	38.98	56.32	17.34	
	1.602	28.78	0.70	29.48	56.00	26.52	
	4.361	36.17	0.89	37.06	56.00	18.94	
	6.285	33.07	1.04	34.11	60.00	25.89	
	0.170	48.70	0.22	48.92	54.94	6.02	AV
	0.296	34.90	0.32	35.22	50.37	15.15	
	0.481	28.40	0.42	28.82	46.32	17.50	
	1.602	19.50	0.70	20.20	46.00	25.80	
	4.361	26.70	0.89	27.59	46.00	18.41	
	6.285	23.61	1.04	24.65	50.00	25.35	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1280*1024@75Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.168	58.71	0.25	58.96	65.08	6.12	QP
	0.292	44.03	0.36	44.39	60.46	16.07	
	0.471	38.67	0.49	39.16	56.49	17.33	
	1.117	27.99	0.54	28.53	56.00	27.47	
	4.202	36.71	0.69	37.40	56.00	18.60	
	6.420	31.86	0.75	32.61	60.00	27.39	
	0.168	48.71	0.25	48.96	55.08	6.12	AV
	0.292	34.30	0.36	34.66	50.46	15.80	
	0.471	28.30	0.49	28.79	46.49	17.70	
	1.117	18.31	0.54	18.85	46.00	27.15	
	4.202	26.90	0.69	27.59	46.00	18.41	
	6.420	21.81	0.75	22.56	50.00	27.44	
Neutral	0.170	58.11	0.22	58.33	64.94	6.61	QP
	0.296	44.24	0.32	44.56	60.37	15.81	
	0.466	38.78	0.42	39.20	56.58	17.38	
	1.269	28.79	0.63	29.42	56.00	26.58	
	4.454	36.29	0.90	37.19	56.00	18.81	
	6.420	30.84	1.05	31.89	60.00	28.11	
	0.170	48.80	0.22	49.02	54.94	5.92	AV
	0.296	34.30	0.32	34.62	50.37	15.75	
	0.466	28.20	0.42	28.62	46.58	17.96	
	1.269	19.60	0.63	20.23	46.00	25.77	
	4.454	26.20	0.90	27.10	46.00	18.90	
	6.420	20.71	1.05	21.76	50.00	28.24	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 640*480@60Hz Adapter #1 : LCAP21

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.172	58.35	0.26	58.61	64.86	6.25	QP
	0.296	44.31	0.37	44.68	60.37	15.69	
	0.489	36.91	0.50	37.41	56.19	18.78	
	1.858	29.54	0.61	30.15	56.00	25.85	
	4.772	35.58	0.70	36.28	56.00	19.72	
	6.557	32.05	0.77	32.82	60.00	27.18	
	0.172	48.70	0.26	48.96	54.86	5.90	AV
	0.296	34.60	0.37	34.97	50.37	15.40	
	0.489	26.80	0.50	27.30	46.19	18.89	
	1.858	20.10	0.61	20.71	46.00	25.29	
	4.772	25.70	0.70	26.40	46.00	19.60	
	6.557	22.29	0.77	23.06	50.00	26.94	
Neutral	0.166	59.00	0.22	59.22	65.16	5.94	QP
	0.280	45.02	0.31	45.33	60.81	15.48	
	0.476	38.29	0.42	38.71	56.41	17.70	
	1.888	29.21	0.73	29.94	56.00	26.06	
	4.622	37.35	0.90	38.25	56.00	17.75	
	6.252	30.55	1.04	31.59	60.00	28.41	
	0.166	48.40	0.22	48.62	55.16	6.54	AV
	0.280	35.49	0.31	35.80	50.81	15.01	
	0.476	28.70	0.42	29.12	46.41	17.29	
	1.888	20.09	0.73	20.82	46.00	25.18	
	4.622	27.70	0.90	28.60	46.00	17.40	
	6.252	20.61	1.04	21.65	50.00	28.35	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #2 : ADS-40SG-19-3
19025G

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.161	53.85	0.25	54.10	65.43	11.33	QP
	0.339	37.09	0.42	37.51	59.22	21.71	
	0.529	38.77	0.51	39.28	56.00	16.72	
	1.296	34.88	0.56	35.44	56.00	20.56	
	2.155	34.30	0.63	34.93	56.00	21.07	
	5.653	34.47	0.72	35.19	60.00	24.81	
	0.161	43.70	0.25	43.95	55.43	11.48	AV
	0.339	27.70	0.42	28.12	49.22	21.10	
	0.529	28.70	0.51	29.21	46.00	16.79	
	1.296	24.20	0.56	24.76	46.00	21.24	
	2.155	24.90	0.63	25.53	46.00	20.47	
	5.653	24.90	0.72	25.62	50.00	24.38	
Neutral	0.159	54.20	0.22	54.42	65.52	11.10	QP
	0.325	37.26	0.35	37.61	59.57	21.96	
	0.529	39.11	0.43	39.54	56.00	16.46	
	0.933	35.72	0.60	36.32	56.00	19.68	
	2.622	33.85	0.77	34.62	56.00	21.38	
	5.594	34.52	0.95	35.47	60.00	24.53	
	0.159	44.59	0.22	44.81	55.52	10.71	AV
	0.325	27.70	0.35	28.05	49.57	21.52	
	0.529	30.90	0.43	31.33	46.00	14.67	
	0.933	25.40	0.60	26.00	46.00	20.00	
	2.622	23.80	0.77	24.57	46.00	21.43	
	5.594	24.60	0.95	25.55	50.00	24.45	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #3 : LCAP26-A

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.176	62.32	0.27	62.59	64.68	2.09	QP
	0.297	49.18	0.37	49.55	60.32	10.77	
	0.484	38.23	0.49	38.72	56.27	17.55	
	1.388	30.70	0.57	31.27	56.00	24.73	
	4.622	36.38	0.69	37.07	56.00	18.93	
	6.121	30.07	0.75	30.82	60.00	29.18	
	0.176	52.59	0.27	52.86	54.68	1.82	AV
	0.297	40.60	0.37	40.97	50.32	9.35	
	0.484	28.50	0.49	28.99	46.27	17.28	
	1.388	20.40	0.57	20.97	46.00	25.03	
	4.622	26.70	0.69	27.39	46.00	18.61	
	6.121	20.80	0.75	21.55	50.00	28.45	
Neutral	0.180	62.10	0.23	62.33	64.50	2.17	QP
	0.307	48.25	0.32	48.57	60.06	11.49	
	0.476	40.59	0.42	41.01	56.41	15.40	
	1.698	31.44	0.71	32.15	56.00	23.85	
	4.721	36.35	0.91	37.26	56.00	18.74	
	17.755	30.28	1.29	31.57	60.00	28.43	
	0.180	52.70	0.23	52.93	54.50	1.57	AV
	0.307	38.51	0.32	38.83	50.06	11.23	
	0.476	30.70	0.42	31.12	46.41	15.29	
	1.698	22.20	0.71	22.91	46.00	23.09	
	4.721	26.09	0.91	27.00	46.00	19.00	
	17.755	20.86	1.29	22.15	50.00	27.85	

TEST ENGINEER: WENCY YANG

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 48%RH

Serial No. : E1203277-01/01 Date of Test : Mar 20, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #4 : ADS-40FSG-19
19025GPCU-1

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.164	52.88	0.25	53.13	65.25	12.12	QP
	0.274	35.43	0.34	35.77	60.98	25.21	
	0.524	29.41	0.50	29.91	56.00	26.09	
	0.943	26.98	0.54	27.52	56.00	28.48	
	2.839	27.31	0.65	27.96	56.00	28.04	
	5.653	28.31	0.72	29.03	60.00	30.97	
	0.164	42.60	0.25	42.85	55.25	12.40	AV
	0.274	25.70	0.34	26.04	50.98	24.94	
	0.524	20.70	0.50	21.20	46.00	24.80	
	0.943	18.30	0.54	18.84	46.00	27.16	
	2.839	18.40	0.65	19.05	46.00	26.95	
	5.653	19.30	0.72	20.02	50.00	29.98	
Neutral	0.170	52.06	0.22	52.28	64.94	12.66	QP
	0.277	37.29	0.30	37.59	60.90	23.31	
	0.535	32.67	0.43	33.10	56.00	22.90	
	1.296	29.18	0.64	29.82	56.00	26.18	
	2.384	27.51	0.76	28.27	56.00	27.73	
	5.594	28.45	0.95	29.40	60.00	30.60	
	0.170	42.90	0.22	43.12	54.94	11.82	AV
	0.277	27.14	0.30	27.44	50.90	23.46	
	0.535	22.20	0.43	22.63	46.00	23.37	
	1.296	20.69	0.64	21.33	46.00	24.67	
	2.384	18.39	0.76	19.15	46.00	26.85	
	5.594	19.20	0.95	20.15	50.00	29.85	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

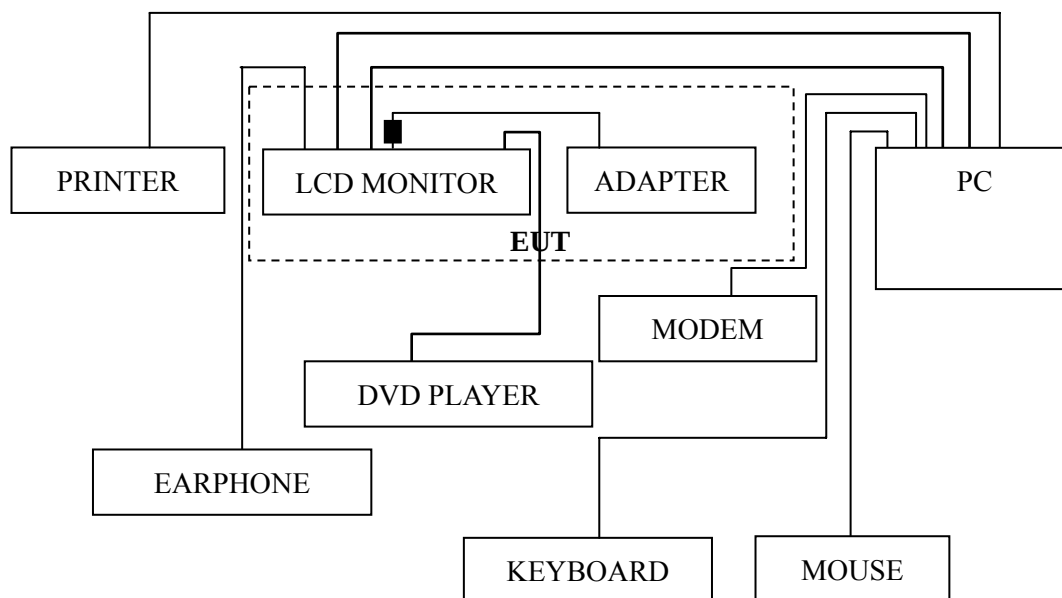
4.1 Test Equipment

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, 2012	Sep 18, 2012
3.	Preamplifier	HP	8449B	3008A00864	Mar 22, 2011	Mar 22, 2012
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2011	Dec 01, 2012
5.	Horn Antenna	EMCO	3115	9607-4878	May 06, 2011	May 06, 2012
6.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2011	Mar 22, 2012
7.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426390	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

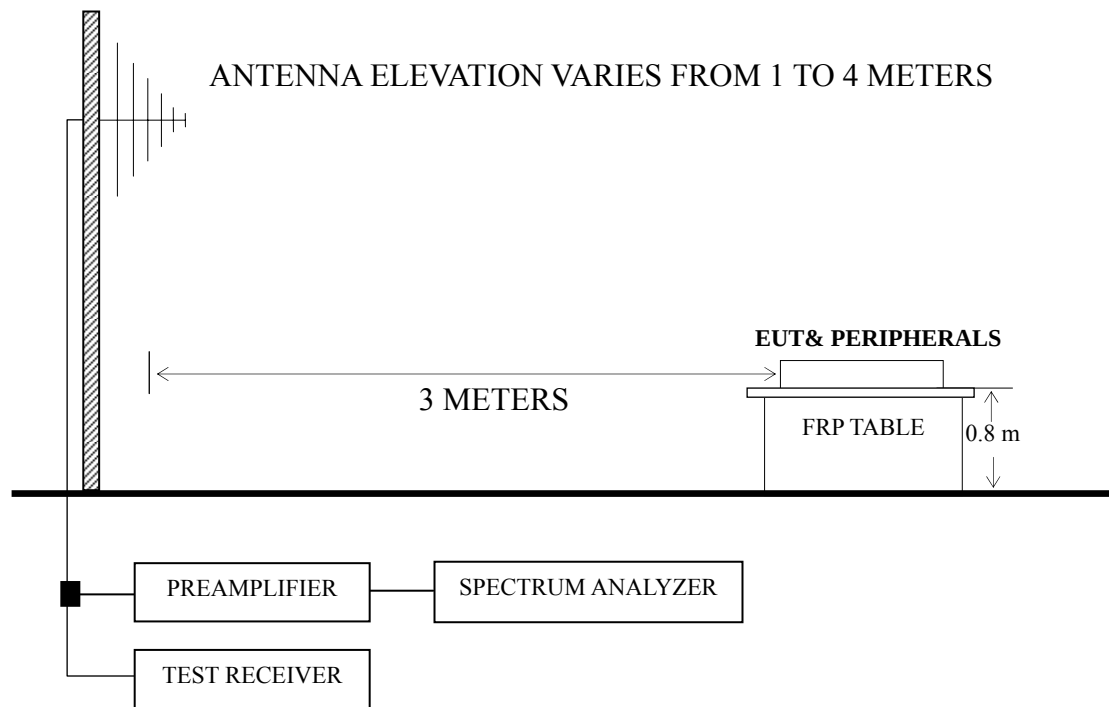


■ : Ferrite core

Note: Ferrite core only for Adapter #1

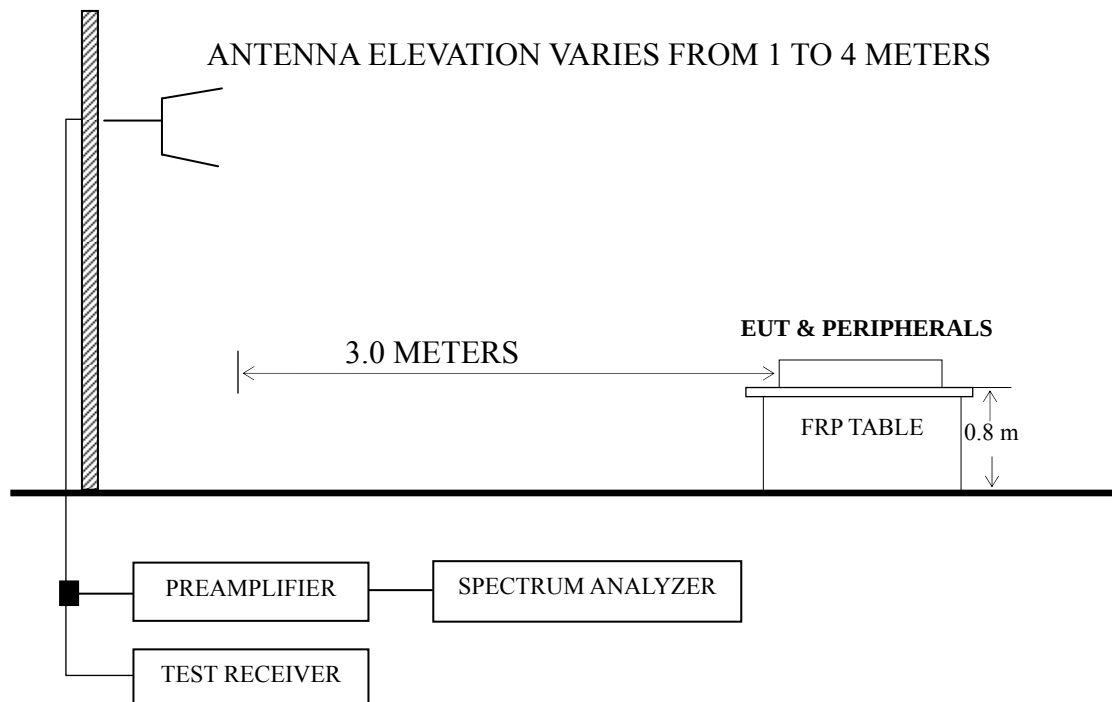
4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



■ : 50 ohm Coaxial Switch

4.2.2.2 Above 1GHz



■ : 50 ohm Coaxial Switch

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

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

4.4 Test Configuration

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

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

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

4.6 Test Procedures

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

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

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

The frequency range from 1 GHz to 2 GHz was checked for worst test mode in 30 – 1000 MHz test.

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

4.7 Test Results

<PASS>

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

Adapter	Test Mode	Data Page
Adapter #1	D-Sub 1920*1080@60Hz	P28
	DVI 1920*1080@60Hz	P29 – P30
	HDMI 1920*1080@60Hz	P32
	HDMI 1080P	P33
	DVI 1680*1050@60Hz	P34
	DVI 1280*1024@75Hz	P35
	DVI 640*480@60Hz	P36
Adapter #2	DVI 1920*1080@60Hz	P37 – P38
Adapter #3	DVI 1920*1080@60Hz	P39 – P40
Adapter #4	DVI 1920*1080@60Hz	P41 – P42

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

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

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

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

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

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

NOTE 7 – We tested the EUT with adapter #1 and selected the worst test mode to perform test with adapter #2/#3/#4.

NOTE 8 – The worst case is for DVI 1920*1080@60Hz test mode (Adapter #1). The worst emission at horizontal polarization was detected at 689.600 MHz with corrected signal level of 44.45 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 30° . The worst emission at vertical polarization was detected at 870.990 MHz with corrected signal level of 41.79 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 250° .

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : D-Sub 1920*1080@60Hz Adapter #1 : LCAP21

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	32.910	13.74	16.79	0.82	31.35	40.00	8.65
	79.470	17.44	10.51	1.58	29.53	40.00	10.47
	104.690	22.64	11.27	1.89	35.80	43.50	7.70
	235.640	24.90	11.32	2.56	38.78	46.00	7.22
	395.690	20.54	16.20	2.98	39.72	46.00	6.28
	792.420	17.71	20.54	3.88	42.13	46.00	3.87
Vertical	33.000	19.00	16.71	0.83	36.54	40.00	3.46
	54.250	19.75	8.76	1.03	29.54	40.00	10.46
	118.270	20.43	11.03	2.01	33.47	43.50	10.03
	165.800	22.39	10.17	2.30	34.86	43.50	8.64
	364.650	21.80	15.53	2.91	40.24	46.00	5.76
	872.930	16.28	20.37	4.60	41.25	46.00	4.75

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21

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	35.800	18.50	15.19	0.84	--	34.53	40.00	5.47	QP
	90.140	21.29	11.00	1.73	--	34.02	43.50	9.48	
	165.800	23.50	10.17	2.30	--	35.97	43.50	7.53	
	376.290	20.85	15.79	2.93	--	39.57	46.00	6.43	
	689.600	21.43	19.36	3.66	--	44.45	46.00	1.55	
	872.930	19.34	20.37	4.60	--	44.31	46.00	1.69	
	1040.000	43.71	25.07	4.49	38.12	35.15	70.00	34.85	PK
	1155.000	43.89	25.59	4.51	37.87	36.12	70.00	33.88	
	1260.000	45.18	26.14	4.52	37.62	38.22	70.00	31.78	
	1395.000	46.59	26.69	4.54	37.25	40.57	70.00	29.43	
	1510.000	43.33	27.01	4.55	36.95	37.94	70.00	32.06	
	1645.000	41.18	27.12	4.57	36.67	36.20	70.00	33.80	
	1040.000	36.71	25.07	4.49	38.12	28.15	50.00	21.85	AV
	1155.000	37.89	25.59	4.51	37.87	30.12	50.00	19.88	
	1260.000	39.18	26.14	4.52	37.62	32.22	50.00	17.78	
	1395.000	38.59	26.69	4.54	37.25	32.57	50.00	17.43	
	1510.000	34.33	27.01	4.55	36.95	28.94	50.00	21.06	
	1645.000	32.18	27.12	4.57	36.67	27.20	50.00	22.80	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #1 : LCAP21

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	15.00	16.79	0.82	--	32.61	40.00	7.39	QP
	88.200	21.02	10.93	1.70	--	33.65	43.50	9.85	
	224.000	25.66	10.80	2.52	--	38.98	46.00	7.02	
	450.010	15.55	16.98	3.13	--	35.66	46.00	10.34	
	565.440	19.92	18.01	3.39	--	41.32	46.00	4.68	
	870.990	16.81	20.38	4.60	--	41.79	46.00	4.21	
	1045.000	46.50	25.08	4.49	38.10	37.97	70.00	32.03	PK
	1120.000	45.19	25.42	4.50	37.94	37.17	70.00	32.83	
	1220.000	43.79	25.93	4.51	37.71	36.52	70.00	33.48	
	1365.000	46.54	26.59	4.54	37.33	40.34	70.00	29.66	
	1465.000	42.48	26.90	4.55	37.06	36.87	70.00	33.13	
	1610.000	43.61	27.09	4.56	36.74	38.52	70.00	31.48	
	1045.000	37.50	25.08	4.49	38.10	28.97	50.00	21.03	AV
	1120.000	37.19	25.42	4.50	37.94	29.17	50.00	20.83	
	1220.000	35.79	25.93	4.51	37.71	28.52	50.00	21.48	
	1365.000	41.54	26.59	4.54	37.33	35.34	50.00	14.66	
	1465.000	34.48	26.90	4.55	37.06	28.87	50.00	21.13	
	1610.000	40.61	27.09	4.56	36.74	35.52	50.00	14.48	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : HDMI 1920*1080@60Hz Adapter #1 : LCAP21

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	34.000	19.00	16.18	0.83	36.01	40.00	3.99
	56.190	20.29	8.88	1.08	30.25	40.00	9.75
	84.320	19.65	10.75	1.64	32.04	40.00	7.96
	156.100	21.20	10.31	2.26	33.77	43.50	9.73
	395.690	23.32	16.20	2.98	42.50	46.00	3.50
	875.840	15.50	20.37	4.75	40.62	46.00	5.38
Vertical	33.880	13.98	16.26	0.83	31.07	40.00	8.93
	104.690	23.54	11.27	1.89	36.70	43.50	6.80
	235.640	22.29	11.32	2.56	36.17	46.00	9.83
	395.690	21.12	16.20	2.98	40.30	46.00	5.70
	719.670	16.52	19.73	3.73	39.98	46.00	6.02
	990.300	11.55	20.76	5.18	37.49	54.00	16.51

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : HDMI 1080P Adapter #1 : LCAP21

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	36.790	16.44	14.57	0.85	31.86	40.00	8.14
	71.710	22.39	9.99	1.45	33.83	40.00	6.17
	165.800	21.89	10.17	2.30	34.36	43.50	9.14
	250.190	23.06	11.99	2.61	37.66	46.00	8.34
	365.620	21.46	15.53	2.91	39.90	46.00	6.10
	689.600	20.20	19.36	3.66	43.22	46.00	2.78
Vertical	32.910	16.27	16.79	0.82	33.88	40.00	6.12
	87.230	18.71	10.88	1.70	31.29	40.00	8.71
	165.800	23.15	10.17	2.30	35.62	43.50	7.88
	360.770	21.99	15.41	2.91	40.31	46.00	5.69
	510.150	22.61	17.66	3.28	43.55	46.00	2.45
	871.960	16.95	20.38	4.60	41.93	46.00	4.07

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1680*1050@60Hz Adapter #1 : LCAP21

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	35.800	20.00	15.19	0.84	36.03	40.00	3.97
	88.200	18.99	10.93	1.70	31.62	43.50	11.88
	166.770	22.37	10.16	2.30	34.83	43.50	8.67
	375.320	21.77	15.79	2.93	40.49	46.00	5.51
	450.010	22.04	16.98	3.13	42.15	46.00	3.85
	870.990	13.74	20.38	4.60	38.72	46.00	7.28
Vertical	32.910	7.66	16.79	0.82	25.27	40.00	14.73
	83.350	14.05	10.70	1.64	26.39	40.00	13.61
	166.770	22.11	10.16	2.30	34.57	43.50	8.93
	239.520	24.25	11.51	2.57	38.33	46.00	7.67
	364.650	24.12	15.53	2.91	42.56	46.00	3.44
	719.670	17.48	19.73	3.73	40.94	46.00	5.06

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1280*1024@75Hz Adapter #1 : LCAP21

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	33.500	18.60	16.49	0.83	35.92	40.00	4.08
	88.200	19.67	10.93	1.70	32.30	43.50	11.20
	166.770	24.32	10.16	2.30	36.78	43.50	6.72
	363.680	19.71	15.49	2.91	38.11	46.00	7.89
	630.430	20.48	18.60	3.53	42.61	46.00	3.39
	876.810	17.27	20.36	4.75	42.38	46.00	3.62
Vertical	32.910	10.24	16.79	0.82	27.85	40.00	12.15
	84.320	23.38	10.75	1.64	35.77	40.00	4.23
	165.800	24.12	10.17	2.30	36.59	43.50	6.91
	267.650	22.89	12.70	2.66	38.25	46.00	7.75
	395.690	21.83	16.20	2.98	41.01	46.00	4.99
	792.420	16.80	20.54	3.88	41.22	46.00	4.78

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 640*480@60Hz Adapter #1 : LCAP21

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	32.910	12.92	16.79	0.82	30.53	40.00	9.47
	68.800	21.11	9.79	1.39	32.29	40.00	7.71
	166.770	20.73	10.16	2.30	33.19	43.50	10.31
	250.190	21.27	11.99	2.61	35.87	46.00	10.13
	357.860	24.77	15.33	2.90	43.00	46.00	3.00
	719.670	19.65	19.73	3.73	43.11	46.00	2.89
Vertical	33.000	17.50	16.71	0.83	35.04	40.00	4.96
	68.800	20.61	9.79	1.39	31.79	40.00	8.21
	92.080	21.97	11.08	1.75	34.80	43.50	8.70
	157.070	24.63	10.30	2.26	37.19	43.50	6.31
	359.800	24.34	15.41	2.90	42.65	46.00	3.35
	872.930	18.03	20.37	4.60	43.00	46.00	3.00

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #2 : ADS-40SG-19-3
19025G

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	65.890	21.35	9.55	1.32	--	32.22	40.00	7.78	QP
	118.270	22.16	11.03	2.01	--	35.20	43.50	8.30	
	196.840	18.60	9.83	2.42	--	30.85	43.50	12.65	
	250.190	25.96	11.99	2.61	--	40.56	46.00	5.44	
	395.690	22.72	16.20	2.98	--	41.90	46.00	4.10	
	597.450	19.13	18.19	3.45	--	40.77	46.00	5.23	
	1080.000	46.79	25.24	4.50	38.03	38.50	70.00	31.50	PK
	1150.000	43.17	25.56	4.51	37.88	35.36	70.00	34.64	
	1240.000	45.27	26.03	4.52	37.67	38.15	70.00	31.85	
	1450.000	44.71	26.87	4.55	37.09	39.04	70.00	30.96	
	1595.000	49.42	27.08	4.56	36.77	44.29	70.00	25.71	
	1780.000	43.77	27.24	4.58	36.46	39.13	70.00	30.87	
	1080.000	42.79	25.24	4.50	38.03	34.50	50.00	15.50	AV
	1150.000	36.17	25.56	4.51	37.88	28.36	50.00	21.64	
	1240.000	37.27	26.03	4.52	37.67	30.15	50.00	19.85	
	1450.000	35.71	26.87	4.55	37.09	30.04	50.00	19.96	
	1595.000	38.42	27.08	4.56	36.77	33.29	50.00	16.71	
	1780.000	34.77	27.24	4.58	36.46	30.13	50.00	19.87	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #2 : ADS-40SG-19-3
19025G

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	44.550	20.99	10.47	0.89	--	32.35	40.00	7.65	QP
	101.780	19.60	11.32	1.86	--	32.78	43.50	10.72	
	157.070	19.87	10.30	2.26	--	32.43	43.50	11.07	
	250.190	22.17	11.99	2.61	--	36.77	46.00	9.23	
	600.360	20.29	18.20	3.47	--	41.96	46.00	4.04	
	870.990	17.52	20.38	4.60	--	42.50	46.00	3.50	
	1060.000	46.70	25.15	4.50	38.07	38.28	70.00	31.72	PK
	1170.000	51.02	25.66	4.51	37.83	43.36	70.00	26.64	
	1300.000	44.32	26.33	4.53	37.51	37.67	70.00	32.33	
	1440.000	44.18	26.83	4.55	37.12	38.44	70.00	31.56	
	1545.000	44.69	27.04	4.56	36.86	39.43	70.00	30.57	
	1655.000	46.08	27.13	4.57	36.65	41.13	70.00	28.87	
	1060.000	34.70	25.15	4.50	38.07	26.28	50.00	23.72	AV
	1170.000	38.02	25.66	4.51	37.83	30.36	50.00	19.64	
	1300.000	34.32	26.33	4.53	37.51	27.67	50.00	22.33	
	1440.000	35.18	26.83	4.55	37.12	29.44	50.00	20.56	
	1545.000	35.69	27.04	4.56	36.86	30.43	50.00	19.57	
	1655.000	36.08	27.13	4.57	36.65	31.13	50.00	18.87	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #3 : LCAP26-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	45.520	21.99	10.09	0.89	--	32.97	40.00	7.03	QP
	66.880	24.51	9.63	1.34	--	35.48	40.00	4.52	
	116.330	24.25	11.07	2.00	--	37.32	43.50	6.18	
	250.190	24.80	11.99	2.61	--	39.40	46.00	6.60	
	600.360	21.43	18.20	3.47	--	43.10	46.00	2.90	
	792.420	18.84	20.54	3.88	--	43.26	46.00	2.74	
	1070.000	46.79	25.19	4.50	38.05	38.43	70.00	31.57	PK
	1120.000	47.53	25.42	4.50	37.94	39.51	70.00	30.49	
	1200.000	44.25	25.82	4.51	37.76	36.82	70.00	33.18	
	1305.000	47.26	26.34	4.53	37.50	40.63	70.00	29.37	
	1420.000	42.94	26.77	4.54	37.17	37.08	70.00	32.92	
	1555.000	44.35	27.04	4.56	36.84	39.11	70.00	30.89	
	1070.000	36.79	25.19	4.50	38.05	28.43	50.00	21.57	AV
	1120.000	37.53	25.42	4.50	37.94	29.51	50.00	20.49	
	1200.000	35.25	25.82	4.51	37.76	27.82	50.00	22.18	
	1305.000	38.26	26.34	4.53	37.50	31.63	50.00	18.37	
	1420.000	31.94	26.77	4.54	37.17	26.08	50.00	23.92	
	1555.000	30.35	27.04	4.56	36.84	25.11	50.00	24.89	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #3 : LCAP26-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	44.550	22.00	10.47	0.89	--	33.36	40.00	6.64	QP
	94.990	20.15	11.18	1.80	--	33.13	43.50	10.37	
	126.030	21.71	10.89	2.07	--	34.67	43.50	8.83	
	250.190	22.86	11.99	2.61	--	37.46	46.00	8.54	
	395.690	24.00	16.20	2.98	--	43.18	46.00	2.82	
	601.330	21.94	18.23	3.47	--	43.64	46.00	2.36	
	1050.000	45.32	25.11	4.49	38.10	36.82	70.00	33.18	PK
	1155.000	44.11	25.59	4.51	37.87	36.34	70.00	33.66	
	1265.000	45.12	26.16	4.52	37.60	38.20	70.00	31.80	
	1400.000	45.77	26.70	4.54	37.24	39.77	70.00	30.23	
	1610.000	43.61	27.09	4.56	36.74	38.52	70.00	31.48	
	1850.000	56.30	27.30	4.64	36.37	51.87	70.00	18.13	
	1050.000	32.32	25.11	4.49	38.10	23.82	50.00	26.18	AV
	1155.000	33.11	25.59	4.51	37.87	25.34	50.00	24.66	
	1265.000	41.12	26.16	4.52	37.60	34.20	50.00	15.80	
	1400.000	39.77	26.70	4.54	37.24	33.77	50.00	16.23	
	1610.000	38.61	27.09	4.56	36.74	33.52	50.00	16.48	
	1850.000	45.30	27.30	4.64	36.37	40.87	50.00	9.13	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #4 : ADS-40FSG-19
19025GPCU-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	44.550	19.99	10.47	0.89	--	31.35	40.00	8.65	QP
	94.990	21.49	11.18	1.80	--	34.47	43.50	9.03	
	157.070	21.24	10.30	2.26	--	33.80	43.50	9.70	
	395.690	20.01	16.20	2.98	--	39.19	46.00	6.81	
	600.360	21.41	18.20	3.47	--	43.08	46.00	2.92	
	876.810	17.79	20.36	4.75	--	42.90	46.00	3.10	
	1030.000	47.06	25.02	4.49	38.14	38.43	70.00	31.57	PK
	1165.000	46.07	25.64	4.51	37.84	38.38	70.00	31.62	
	1270.000	45.47	26.19	4.52	37.59	38.59	70.00	31.41	
	1390.000	43.07	26.67	4.54	37.27	37.01	70.00	32.99	
	1570.000	44.72	27.06	4.56	36.82	39.52	70.00	30.48	
	1735.000	43.00	27.20	4.57	36.53	38.24	70.00	31.76	
	1030.000	40.06	25.02	4.49	38.14	31.43	50.00	18.57	AV
	1165.000	36.07	25.64	4.51	37.84	28.38	50.00	21.62	
	1270.000	38.47	26.19	4.52	37.59	31.59	50.00	18.41	
	1390.000	34.07	26.67	4.54	37.27	28.01	50.00	21.99	
	1570.000	32.72	27.06	4.56	36.82	27.52	50.00	22.48	
	1735.000	29.00	27.20	4.57	36.53	24.24	50.00	25.76	

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : E2242VA Humidity : 60%RH

Serial No. : E1203277-01/01 Date of Test : Mar 17, 2012

Test Mode : DVI 1920*1080@60Hz Adapter #4 : ADS-40FSG-19
19025GPCU-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
Vertical	65.890	17.94	9.55	1.32	--	28.81	40.00	11.19	QP
	120.210	18.83	11.00	2.03	--	31.86	43.50	11.64	
	199.750	24.39	9.81	2.43	--	36.63	43.50	6.87	
	395.690	19.79	16.20	2.98	--	38.97	46.00	7.03	
	602.300	20.13	18.23	3.47	--	41.83	46.00	4.17	
	792.420	16.18	20.54	3.88	--	40.60	46.00	5.40	
	1030.000	45.25	25.02	4.49	38.14	36.62	70.00	33.38	PK
	1105.000	43.26	25.36	4.50	37.97	35.15	70.00	34.85	
	1160.000	45.72	25.61	4.51	37.85	37.99	70.00	32.01	
	1460.000	44.27	26.89	4.55	37.07	38.64	70.00	31.36	
	1585.000	42.05	27.07	4.56	36.79	36.89	70.00	33.11	
	1745.000	45.48	27.21	4.57	36.51	40.75	70.00	29.25	
	1030.000	41.25	25.02	4.49	38.14	32.62	50.00	17.38	AV
	1105.000	37.26	25.36	4.50	37.97	29.15	50.00	20.85	
	1160.000	40.72	25.61	4.51	37.85	32.99	50.00	17.01	
	1460.000	38.27	26.89	4.55	37.07	32.64	50.00	17.36	
	1585.000	36.05	27.07	4.56	36.79	30.89	50.00	19.11	
	1745.000	38.48	27.21	4.57	36.51	33.75	50.00	16.25	

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.