

Application for FCC Certificate
On Behalf of
Hisense Electric Co., Ltd.

LCD Monitor

Model No.	Serial No.	Brand
LCD52B29GPUS	--	Hisense
NVU52FX5	E2009070602	NUVISION

FCC ID : W9HNVU52FX5

Prepared For : Hisense Electric Co., Ltd.
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Report No. : ACI-F09067
Date of Test : Jul 07 - 21, 2009
Date of Report : Jul 24, 2009

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TEST REPORT FOR FCC CERTIFICATE

Applicant : Hisense Electric Co., Ltd.
 Manufacturer : Hisense Electric Co., Ltd.
 EUT Description : LCD Monitor

(A) Model No.	LCD52B29GPUS	NVU52FX5
(B) Serial No.	--	E2009070602
(C) Brand	Hisense	NUVISION
(D) Power Supply	120V/60Hz	

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2008
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) 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: Refer to Sec.2.1; S/N: Refer to Sec.2.1) which was tested in 3m anechoic chamber Jul 07 – 21, 2009 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 : Jul 07 – 21, 2009 Date of Report : Jul 24, 2009

Producer : Zeno Gu
ZENO GU / Assistant

Review : Byron Wu
BYRON WU / Supervisor

AUDIX[®] For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Dio Yang
Authorized Signatory / Supervisor

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 2008 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2008 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	:	<input checked="" type="checkbox"/> Production <input type="checkbox"/> Pre-product <input type="checkbox"/> Pro-type	
Model No.	:	LTDN40V68US	NVU52FX5
Serial No.	:	--	E2009070602
Brand	:	Hisense	NUVISION
Note 1	:	The above models are all the same except for the different model number and brand.	
Note 2	:	The NVU52FX5 was tested and recorded in this report.	
Applicant	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China	
Manufacturer	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China	
LCD Panel	:	Manufacturer : SAMSUNG M/N : LTA520HE16	
Max Resolution	:	1920*1080@60Hz	
D-Sub Cable	:	Shielded, Detachable, 1.85m, with two cores on cable	
HDMI Cable	:	Shielded, Detachable, 1.85m, without core on cable	
Power Cord	:	Unshielded, Detachable, 1.80m	

Remark:

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

Bottom View:

- (1) Two Component of AV In Port
Connected with DVD #1/DVD #2
- (2) One Component of AV Out Port
Connected with TV

Side Port:

- (3) One VGA Port
Connected with PC
- (4) One VGA Audio Port
Connected with PC
- (5) One component of YPbPr1 Port
Connected with DVD #1
- (6) One component of YPbPr1 Audio Port
Connected with DVD #1
- (7) One component of YPbPr2 Port
Connected with DVD #2
- (8) One component of YPbPr2 Audio Port
Connected with DVD #2
- (9) One HDMI1 Port
Connected with DVD #1
- (10) One HDMI2 Port
Connected with DVD #2
- (11) One HDMI3 Port
Connected with PC
- (12) Digital Audio Port
Connected with TV
- (13) One S-Video Port
Connected with DVD #1
- (14) One NetWorx Port
Connected with PC RS232

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 DVD#1

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120108
Certificate : FCC DoC, CE/EMC, CCC

2.2.6 DVD#2

Manufacturer : PHILIPS
Model Number : DVP3986K/93
Serial Number : KX1A0902120082
Certificate : FCC DoC, CE/EMC, CCC

2.2.7 TV

Manufacturer : SOYEA
Model Number : V1453 (M)
Data Cable : Unshielded, undetachable, 1.5m
Certificate : FCC DoC, CE/EMC, CCC

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 = 1.26 dB
Radiated Emission Expanded Uncertainty : U = 3.02 dB

3 CONDUCTED EMISSION TEST

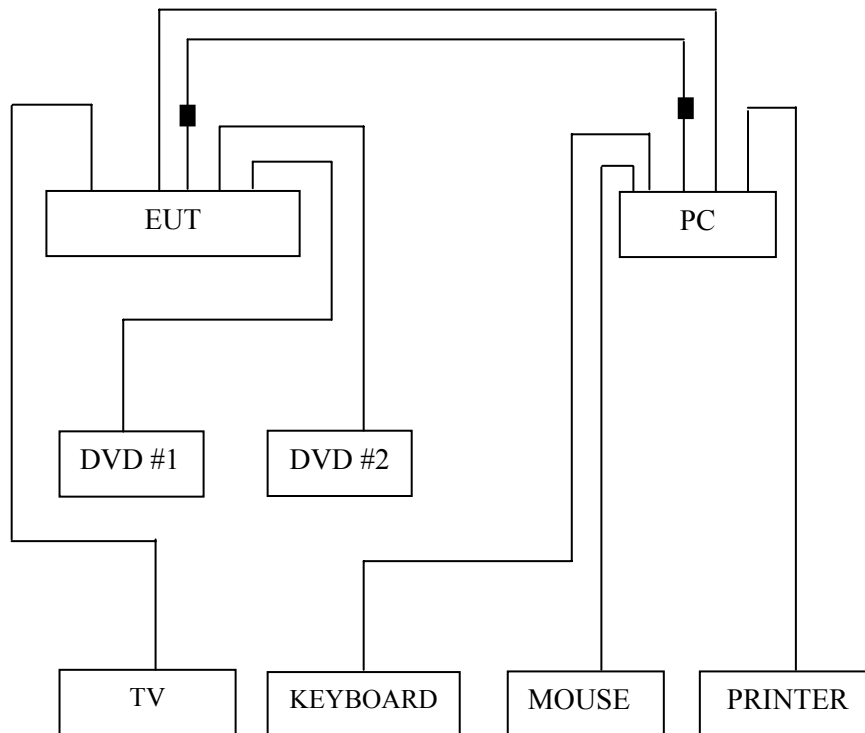
3.1.1 Test Equipment

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	Nov 21, 2008	Nov 21, 2009
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Apr 02, 2009	Apr 02, 2010
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Apr 02, 2009	Apr 02, 2010
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 19, 2009	Sep 19, 2009
5.	50 Ω Terminator	Anritsu	BNC	001	Apr 02, 2009	Apr 02, 2010
6.	Software	Audix	E3	SET00200 9804M592	--	--

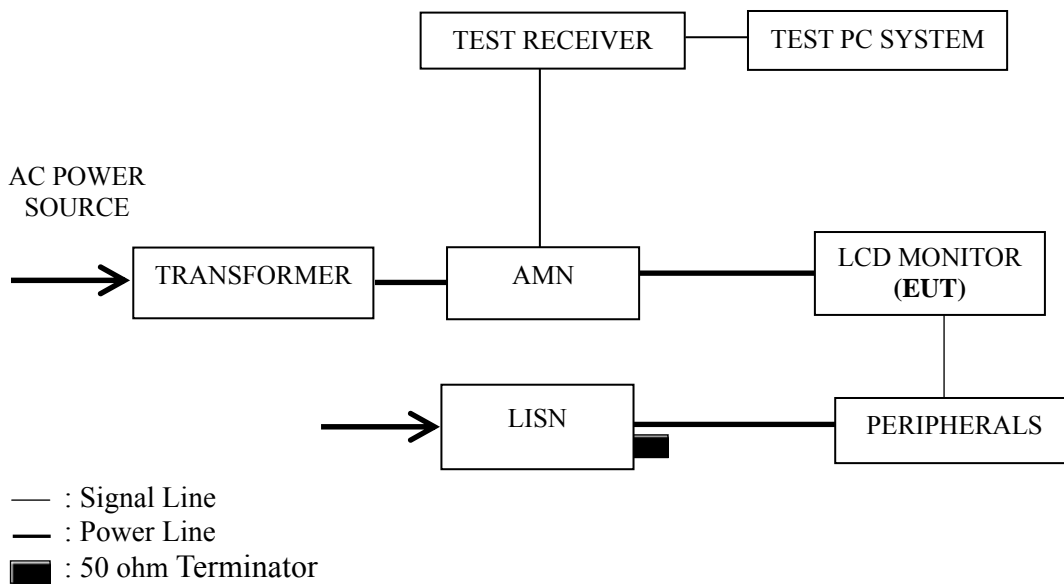
3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



■ : Ferrite core

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 In PC mode, PC system ran the self-test program “EMC Test” by windows XP and sent “H” characters to EUT through graphic card, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via D-Sub & HDMI 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 1024*768@60Hz
D-Sub 1600*1200@60Hz
D-Sub 1920*1080@60Hz
HDMI 640*480@60Hz
HDMI 1024*768@60Hz
HDMI 1600*1200@60Hz
HDMI 1920*1080@60Hz
AV
HDMI
YPbPr
S-Video

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	Data Page
D-Sub 640*480@60Hz	P13
D-Sub 1024*768@60Hz	P14
D-Sub 1600*1200@60Hz	P15
D-Sub 1920*1080@60Hz	P16
HDMI 640*480@60Hz	P17
HDMI 1024*768@60Hz	P18
HDMI 1600*1200@60Hz	P19
HDMI 1920*1080@60Hz	P20
AV	P21
HDMI	P22
YPbPr	P23
S-Video	P24

NOTE 1 – Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

NOTE 3 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

NOTE 4 – The worst case is for AV test mode. The worst emission is detected at 4.408 MHz (Average value) with corrected signal level of 53.84 dB (μ V) (limit is 56.00 dB (μ V)), when the Neutral of the EUT is connected to AMN.

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : D-Sub 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.206	44.78	0.22	45.00	63.36	18.36	QP
	0.274	36.18	0.25	36.43	60.98	24.55	
	1.433	32.10	0.34	32.44	56.00	23.56	
	1.858	31.17	0.36	31.53	56.00	24.47	
	13.989	41.40	0.67	42.07	60.00	17.93	
	17.849	41.66	0.83	42.49	60.00	17.51	
	AV	0.206	31.22	0.22	31.44	53.36	21.92
		0.274	25.42	0.25	25.67	50.98	25.31
		1.433	20.54	0.34	20.88	46.00	25.12
		1.858	20.60	0.36	20.96	46.00	25.04
		13.989	28.56	0.67	29.23	50.00	20.77
		17.849	29.02	0.83	29.85	50.00	20.15
Neutral	0.206	43.73	0.20	43.93	63.36	19.43	QP
	0.277	37.46	0.22	37.68	60.90	23.22	
	1.449	31.96	0.34	32.30	56.00	23.70	
	2.474	35.70	0.39	36.09	56.00	19.91	
	13.989	40.58	0.64	41.22	60.00	18.78	
	17.849	40.79	0.79	41.58	60.00	18.42	
	AV	0.206	32.70	0.20	32.90	53.36	20.46
		0.277	24.27	0.22	24.49	50.90	26.41
		1.449	23.99	0.34	24.33	46.00	21.67
		2.474	20.52	0.39	20.91	46.00	25.09
		13.989	28.79	0.64	29.43	50.00	20.57
		17.849	35.86	0.79	36.65	50.00	13.35

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : D-Sub 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.206	44.54	0.22	44.76	63.36	18.60	QP
	0.274	36.21	0.25	36.46	60.98	24.52	
	1.449	33.87	0.34	34.21	56.00	21.79	
	1.858	33.21	0.36	33.57	56.00	22.43	
	13.989	41.10	0.67	41.77	60.00	18.23	
	18.039	41.67	0.83	42.50	60.00	17.50	
	0.206	31.98	0.22	32.20	53.36	21.16	AV
	0.274	23.85	0.25	24.10	50.98	26.88	
	1.449	23.88	0.34	24.22	46.00	21.78	
	1.858	20.96	0.36	21.32	46.00	24.68	
	13.989	28.50	0.67	29.17	50.00	20.83	
	18.039	30.23	0.83	31.06	50.00	18.94	
Neutral	0.206	44.90	0.20	45.10	63.36	18.26	QP
	0.274	36.05	0.22	36.27	60.98	24.71	
	1.449	32.74	0.34	33.08	56.00	22.92	
	2.474	33.77	0.39	34.16	56.00	21.84	
	13.989	37.05	0.64	37.69	60.00	22.31	
	17.849	41.38	0.79	42.17	60.00	17.83	
	0.206	32.95	0.20	33.15	53.36	20.21	AV
	0.274	25.31	0.22	25.53	50.98	25.45	
	1.449	22.79	0.34	23.13	46.00	22.87	
	2.474	27.03	0.39	27.42	46.00	18.58	
	13.989	28.53	0.64	29.17	50.00	20.83	
	17.849	28.68	0.79	29.47	50.00	20.53	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : D-Sub 1600*1200@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.204	44.34	0.22	44.56	63.45	18.89	QP
	0.274	35.84	0.25	36.09	60.98	24.89	
	1.236	31.63	0.32	31.95	56.00	24.05	
	1.449	33.06	0.34	33.40	56.00	22.60	
	13.989	39.84	0.67	40.51	60.00	19.49	
	17.849	42.82	0.83	43.65	60.00	16.35	
	0.204	30.93	0.22	31.15	53.45	22.30	AV
	0.274	24.12	0.25	24.37	50.98	26.61	
	1.236	19.48	0.32	19.80	46.00	26.20	
	1.449	23.68	0.34	24.02	46.00	21.98	
	13.989	28.39	0.67	29.06	50.00	20.94	
	17.849	28.68	0.83	29.51	50.00	20.49	
Neutral	0.204	44.19	0.20	44.39	63.45	19.06	QP
	0.274	36.17	0.22	36.39	60.98	24.59	
	1.449	31.88	0.34	32.22	56.00	23.78	
	2.474	33.58	0.39	33.97	56.00	22.03	
	17.849	41.56	0.79	42.35	60.00	17.65	
	25.321	37.49	0.73	38.22	60.00	21.78	
	0.204	29.75	0.20	29.95	53.45	23.50	AV
	0.274	23.92	0.22	24.14	50.98	26.84	
	1.449	24.50	0.34	24.84	46.00	21.16	
	2.474	20.93	0.39	21.32	46.00	24.68	
	17.849	28.44	0.79	29.23	50.00	20.77	
	25.321	25.75	0.73	26.48	50.00	23.52	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : D-Sub 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.206	43.70	0.22	43.92	63.36	19.44	QP
	0.274	36.40	0.25	36.65	60.98	24.33	
	1.449	32.58	0.34	32.92	56.00	23.08	
	2.474	33.65	0.39	34.04	56.00	21.96	
	17.849	40.88	0.83	41.71	60.00	18.29	
	25.321	37.44	0.80	38.24	60.00	21.76	AV
	0.206	31.20	0.22	31.42	53.36	21.94	
	0.274	23.73	0.25	23.98	50.98	27.00	
	1.449	23.18	0.34	23.52	46.00	22.48	
	2.474	21.43	0.39	21.82	46.00	24.18	
17.849	28.36	0.83	29.19	50.00	20.81	Neutral	
25.321	26.21	0.80	27.01	50.00	22.99		
0.206	44.50	0.20	44.70	63.36	18.66		QP
0.274	36.21	0.22	36.43	60.98	24.55		
1.236	31.81	0.32	32.13	56.00	23.87		
1.858	32.89	0.36	33.25	56.00	22.75		
13.989	40.02	0.64	40.66	60.00	19.34		
	17.849	43.36	0.79	44.15	60.00	15.85	AV
	0.206	31.53	0.20	31.73	53.36	21.63	
	0.274	25.82	0.22	26.04	50.98	24.94	
	1.236	19.27	0.32	19.59	46.00	26.41	
	1.858	21.83	0.36	22.19	46.00	23.81	
	13.989	27.88	0.64	28.52	50.00	21.48	
	17.849	28.93	0.79	29.72	50.00	20.28	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : HDMI 640*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.208	42.62	0.22	42.84	63.27	20.43	QP
	0.277	37.73	0.25	37.98	60.90	22.92	
	1.449	31.85	0.34	32.19	56.00	23.81	
	3.173	29.63	0.41	30.04	56.00	25.96	
	15.552	45.78	0.73	46.51	60.00	13.49	
	24.790	37.44	0.81	38.25	60.00	21.75	
	0.208	30.52	0.22	30.74	53.27	22.53	AV
	0.277	24.42	0.25	24.67	50.90	26.23	
	1.449	23.75	0.34	24.09	46.00	21.91	
	3.173	16.07	0.41	16.48	46.00	29.52	
	15.552	32.94	0.73	33.67	50.00	16.33	
	24.790	21.26	0.81	22.07	50.00	27.93	
Neutral	0.206	43.37	0.20	43.57	63.36	19.79	QP
	0.274	35.34	0.22	35.56	60.98	25.42	
	1.449	33.31	0.34	33.65	56.00	22.35	
	2.474	32.04	0.39	32.43	56.00	23.57	
	15.552	42.83	0.69	43.52	60.00	16.48	
	25.055	36.68	0.73	37.41	60.00	22.59	
	0.206	30.85	0.20	31.05	53.36	22.31	AV
	0.274	24.17	0.22	24.39	50.98	26.59	
	1.449	23.05	0.34	23.39	46.00	22.61	
	2.474	26.81	0.39	27.20	46.00	18.80	
	15.552	34.38	0.69	35.07	50.00	14.93	
	25.055	19.48	0.73	20.21	50.00	29.79	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : HDMI 1024*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.277	37.00	0.25	37.25	60.90	23.65	QP
	0.830	31.53	0.29	31.82	56.00	24.18	
	1.449	32.00	0.34	32.34	56.00	23.66	
	15.388	44.74	0.72	45.46	60.00	14.54	
	23.888	36.81	0.82	37.63	60.00	22.37	
	0.206	29.48	0.22	29.70	53.36	23.66	
	0.277	25.46	0.25	25.71	50.90	25.19	AV
	0.830	22.31	0.29	22.60	46.00	23.40	
	1.449	23.59	0.34	23.93	46.00	22.07	
	15.388	35.01	0.72	35.73	50.00	14.27	
	23.888	27.23	0.82	28.05	50.00	21.95	
	0.277	37.00	0.25	37.25	60.90	23.65	
Neutral	0.206	43.98	0.20	44.18	63.36	19.18	QP
	0.277	35.68	0.22	35.90	60.90	25.00	
	0.963	31.87	0.30	32.17	56.00	23.83	
	1.449	33.10	0.34	33.44	56.00	22.56	
	15.388	45.01	0.68	45.69	60.00	14.31	
	24.400	36.55	0.75	37.30	60.00	22.70	
	0.206	32.06	0.20	32.26	53.36	21.10	AV
	0.277	24.13	0.22	24.35	50.90	26.55	
	0.963	20.54	0.30	20.84	46.00	25.16	
	1.449	23.44	0.34	23.78	46.00	22.22	
	15.388	33.33	0.68	34.01	50.00	15.99	
	24.400	18.92	0.75	19.67	50.00	30.33	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : HDMI 1600*1200@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.204	43.08	0.22	43.30	63.45	20.15	QP
	0.277	36.65	0.25	36.90	60.90	24.00	
	0.830	31.89	0.29	32.18	56.00	23.82	
	1.449	32.90	0.34	33.24	56.00	22.76	
	14.986	46.34	0.71	47.05	60.00	12.95	
	25.321	36.32	0.80	37.12	60.00	22.88	
	0.204	30.40	0.22	30.62	53.45	22.83	AV
	0.277	23.82	0.25	24.07	50.90	26.83	
	0.830	22.13	0.29	22.42	46.00	23.58	
	1.449	24.26	0.34	24.60	46.00	21.40	
	14.986	32.40	0.71	33.11	50.00	16.89	
	25.321	21.00	0.80	21.80	50.00	28.20	
Neutral	0.206	44.28	0.20	44.48	63.36	18.88	QP
	0.277	35.56	0.22	35.78	60.90	25.12	
	1.449	32.98	0.34	33.32	56.00	22.68	
	2.066	32.01	0.36	32.37	56.00	23.63	
	15.718	45.04	0.70	45.74	60.00	14.26	
	24.400	36.60	0.75	37.35	60.00	22.65	
	0.206	30.27	0.20	30.47	53.36	22.89	AV
	0.277	26.31	0.22	26.53	50.90	24.37	
	1.449	22.40	0.34	22.74	46.00	23.26	
	2.066	18.33	0.36	18.69	46.00	27.31	
	15.718	33.80	0.70	34.50	50.00	15.50	
	24.400	20.32	0.75	21.07	50.00	28.93	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : HDMI 1920*1080@60Hz

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.204	43.35	0.22	43.57	63.45	19.88	QP
	0.280	37.04	0.25	37.29	60.81	23.52	
	0.759	30.54	0.28	30.82	56.00	25.18	
	1.449	31.70	0.34	32.04	56.00	23.96	
	15.388	46.26	0.72	46.98	60.00	13.02	
	25.055	35.48	0.80	36.28	60.00	23.72	
	0.204	27.39	0.22	27.61	53.45	25.84	AV
	0.280	23.29	0.25	23.54	50.81	27.27	
	0.759	23.35	0.28	23.63	46.00	22.37	
	1.449	22.15	0.34	22.49	46.00	23.51	
	15.388	34.23	0.72	34.95	50.00	15.05	
	25.055	19.60	0.80	20.40	50.00	29.60	
Neutral	0.206	44.20	0.20	44.40	63.36	18.96	QP
	0.274	35.78	0.22	36.00	60.98	24.98	
	1.449	34.19	0.34	34.53	56.00	21.47	
	2.474	31.87	0.39	32.26	56.00	23.74	
	15.552	44.51	0.69	45.20	60.00	14.80	
	25.321	36.00	0.73	36.73	60.00	23.27	
	0.206	29.50	0.20	29.70	53.36	23.66	AV
	0.274	23.40	0.22	23.62	50.98	27.36	
	1.449	23.00	0.34	23.34	46.00	22.66	
	2.474	20.23	0.39	20.62	46.00	25.38	
	15.552	32.21	0.69	32.90	50.00	17.10	
	25.321	20.12	0.73	20.85	50.00	29.15	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : AV

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark	
Line	0.204	41.78	0.22	42.00	63.45	21.45	QP	
	0.286	39.69	0.25	39.94	60.63	20.69		
	1.249	38.37	0.32	38.69	56.00	17.31		
	4.407	43.85	0.44	44.29	56.00	11.71		
	15.146	35.13	0.71	35.84	60.00	24.16		
	19.532	39.93	0.88	40.81	60.00	19.19		
	0.204	31.25	0.22	31.47	53.45	21.98	AV	
	0.286	29.54	0.25	29.79	50.63	20.84		
	1.249	28.47	0.32	28.79	46.00	17.21		
	4.407	33.21	0.44	33.65	46.00	12.35		
	15.146	25.39	0.71	26.10	50.00	23.90		
	19.532	30.12	0.88	31.00	50.00	19.00		
	Neutral	0.242	40.84	0.22	41.06	62.04	20.98	QP
		0.456	38.48	0.26	38.74	56.76	18.02	
1.249		41.45	0.32	41.77	56.00	14.23		
4.408		53.39	0.45	53.84	56.00	2.16		
13.989		38.08	0.64	38.72	60.00	21.28		
18.820		43.91	0.83	44.74	60.00	15.26		
0.242		28.41	0.22	28.63	52.04	23.41	AV	
0.456		30.15	0.26	30.41	46.76	16.35		
1.249		31.32	0.32	31.64	46.00	14.36		
4.408		42.59	0.45	43.04	46.00	2.96		
13.989		30.14	0.64	30.78	50.00	19.22		
18.820		32.63	0.83	33.46	50.00	16.54		

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : HDMI

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.206	42.46	0.22	42.68	63.36	20.68	QP
	0.440	34.54	0.28	34.82	57.07	22.25	
	1.352	42.68	0.33	43.01	56.00	12.99	
	4.407	42.56	0.44	43.00	56.00	13.00	
	19.326	40.34	0.87	41.21	60.00	18.79	
	24.790	36.49	0.81	37.30	60.00	22.70	
	0.206	32.22	0.22	32.44	53.36	20.92	AV
	0.440	24.65	0.28	24.93	47.07	22.14	
	1.352	32.64	0.33	32.97	46.00	13.03	
	4.407	32.63	0.44	33.07	46.00	12.93	
	19.326	30.24	0.87	31.11	50.00	18.89	
	24.790	26.35	0.81	27.16	50.00	22.84	
Neutral	0.180	48.78	0.20	48.98	64.50	15.52	QP
	0.208	42.19	0.20	42.39	63.27	20.88	
	0.413	41.43	0.25	41.68	57.59	15.91	
	1.310	42.72	0.32	43.04	56.00	12.96	
	6.285	33.08	0.46	33.54	60.00	26.46	
	19.224	42.02	0.84	42.86	60.00	17.14	
	0.180	38.61	0.20	38.81	54.50	15.69	AV
	0.208	32.16	0.20	32.36	53.27	20.91	
	0.413	31.26	0.25	31.51	47.59	16.08	
	1.310	32.61	0.32	32.93	46.00	13.07	
	6.285	23.65	0.46	24.11	50.00	25.89	
	19.224	32.64	0.84	33.48	50.00	16.52	

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : YPbPr

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark	
Line	0.153	47.53	0.23	47.76	65.82	18.06	QP	
	0.297	43.44	0.25	43.69	60.32	16.63		
	0.614	38.81	0.28	39.09	56.00	16.91		
	1.367	44.73	0.33	45.06	56.00	10.94		
	4.952	31.33	0.44	31.77	56.00	24.23		
	19.021	41.00	0.86	41.86	60.00	18.14		
	0.153	37.15	0.23	37.38	55.82	18.44	AV	
	0.297	33.21	0.25	33.46	50.32	16.86		
	0.614	28.64	0.28	28.92	46.00	17.08		
	1.367	34.61	0.33	34.94	46.00	11.06		
	4.952	21.65	0.44	22.09	46.00	23.91		
	19.021	30.26	0.86	31.12	50.00	18.88		
	Neutral	0.208	42.23	0.20	42.43	63.27	20.84	QP
		0.289	41.44	0.23	41.67	60.54	18.87	
1.352		43.53	0.33	43.86	56.00	12.14		
2.474		34.95	0.39	35.34	56.00	20.66		
6.252		32.84	0.46	33.30	60.00	26.70		
19.532		39.71	0.85	40.56	60.00	19.44		
0.208		32.62	0.20	32.82	53.27	20.45	AV	
0.289		31.64	0.23	31.87	50.54	18.67		
1.352		33.26	0.33	33.59	46.00	12.41		
2.474		25.66	0.39	26.05	46.00	19.95		
6.252		23.48	0.46	23.94	50.00	26.06		
19.532		29.87	0.85	30.72	50.00	19.28		

TEST ENGINEER: HUGH HUANG

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 47%RH

Serial No. : E2009070602 Date of Test : Jul 07, 2009

Test Mode : S-Video

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.205	43.43	0.22	43.65	63.40	19.75	QP
	0.567	33.81	0.28	34.09	56.00	21.91	
	1.352	45.98	0.33	46.31	56.00	9.69	
	2.133	32.60	0.37	32.97	56.00	23.03	
	5.713	33.95	0.45	34.40	60.00	25.60	
	18.820	40.18	0.86	41.04	60.00	18.96	
	0.205	33.62	0.22	33.84	53.40	19.56	AV
	0.567	23.64	0.28	23.92	46.00	22.08	
	1.352	35.61	0.33	35.94	46.00	10.06	
	2.133	22.65	0.37	23.02	46.00	22.98	
	5.713	23.61	0.45	24.06	50.00	25.94	
	18.820	31.02	0.86	31.88	50.00	18.12	
Neutral	0.183	45.98	0.20	46.18	64.33	18.15	QP
	0.286	38.25	0.23	38.48	60.63	22.15	
	1.352	47.44	0.33	47.77	56.00	8.23	
	2.474	35.65	0.39	36.04	56.00	19.96	
	5.713	35.34	0.46	35.80	60.00	24.20	
	19.021	41.24	0.83	42.07	60.00	17.93	
	0.183	35.64	0.20	35.84	54.33	18.49	AV
	0.286	28.93	0.23	29.16	50.63	21.47	
	1.352	37.61	0.33	37.94	46.00	8.06	
	2.474	25.63	0.39	26.02	46.00	19.98	
	5.713	25.64	0.46	26.10	50.00	23.90	
	19.021	31.26	0.83	32.09	50.00	17.91	

TEST ENGINEER: HUGH HUANG

4 RADIATED EMISSION TEST

4.1 Test Equipment

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

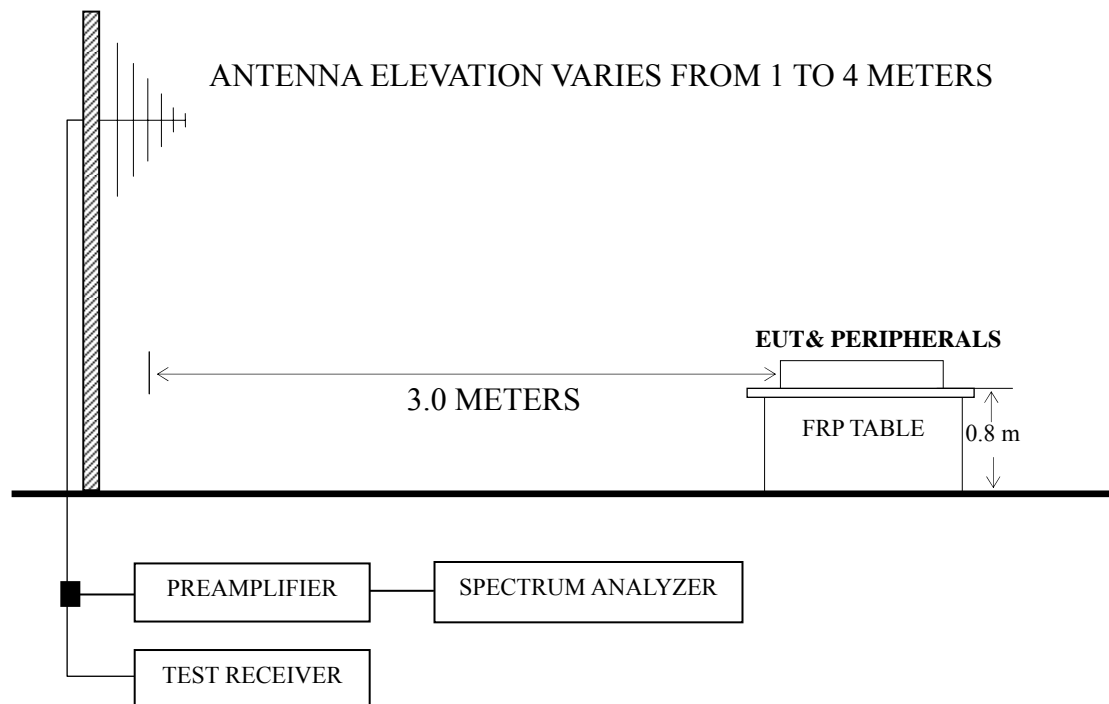
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESVS10	844594/001	Mar 07, 2009	Mar 07, 2010
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 19, 2009	Sep 19, 2009
3.	Preamplifier	HP	8449B	3008A00864	May 19, 2009	May 19, 2010
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 14, 2008	May 14, 2010
5.	Spectrum	Agilent	E7405A	MY45106600	May 19, 2009	May 19, 2010
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals

Same as Sec.3.2.1

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) 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 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/HDMI 1600*1200@60Hz and 1920*1080@60Hz mode.

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	Data Page
D-Sub 640*480@60Hz	P28
D-Sub 1024*768@60Hz	P29
D-Sub 1600*1200@60Hz	P30
D-Sub 1920*1080@60Hz	P31
HDMI 640*480@60Hz	P32
HDMI 1024*768@60Hz	P33
HDMI 1600*1200@60Hz	P34
HDMI 1920*1080@60Hz	P35
AV	P36
HDMI	P37
YPbPr	P38
S-Video	P39

- NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading. (< 1GHz)
- NOTE 2 – Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading.(> 1GHz)
- NOTE 3 – The emission levels that are 20dB below the official limit are not reported.
- NOTE 4 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
- NOTE 5 – All reading are Quasi-Peak values below or equal to 1GHz and Peak values above 1GHz. For measurements above 1 GHz, the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
- NOTE 6 – The worst case is for D-Sub 1920*1080@60Hz test mode. The worst emission at horizontal polarization was detected at 71.710 MHz with corrected signal level of 37.81 dB ($\mu\text{V}/\text{m}$) (limit is 40.00dB ($\mu\text{V}/\text{m}$)), when the antenna was 2.00 m height and the turntable was at 250°. The worst emission at vertical polarization was detected at 809.880 MHz with corrected signal level of 42.55 dB ($\mu\text{V}/\text{m}$) (limit is 46.00 dB ($\mu\text{V}/\text{m}$)), when the antenna was 2.00 m height and the turntable was at 90°.

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : D-Sub 640*480@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	81.410	26.38	8.02	0.95	35.35	40.00	4.65
	146.400	26.26	11.61	1.22	39.09	43.50	4.41
	246.310	22.51	12.75	1.69	36.95	46.00	9.05
	565.440	18.44	18.78	2.64	39.86	46.00	6.14
	639.160	19.88	19.39	2.82	42.09	46.00	3.91
	877.780	14.88	21.49	3.39	39.76	46.00	6.24
Vertical	81.410	19.70	8.02	0.95	28.67	40.00	11.33
	145.430	22.20	11.66	1.21	35.07	43.50	8.43
	223.030	21.76	11.80	1.62	35.18	46.00	10.82
	323.910	18.09	14.58	1.96	34.63	46.00	11.37
	664.380	10.75	19.54	2.87	33.16	46.00	12.84
	817.640	10.92	20.87	3.24	35.03	46.00	10.97

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : D-Sub1024*768@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	84.320	25.81	8.48	0.98	35.27	40.00	4.73
	144.460	27.53	11.76	1.21	40.50	43.50	3.00
	180.350	28.41	9.90	1.43	39.74	43.50	3.76
	252.130	22.44	12.94	1.70	37.08	46.00	8.92
	565.440	18.26	18.78	2.64	39.68	46.00	6.32
	639.160	19.34	19.39	2.82	41.55	46.00	4.45
Vertical	74.620	22.53	7.11	0.90	30.54	40.00	9.46
	144.460	26.09	11.76	1.21	39.06	43.50	4.44
	223.030	25.46	11.80	1.62	38.88	46.00	7.12
	445.160	17.80	17.14	2.31	37.25	46.00	8.75
	664.380	16.73	19.54	2.87	39.14	46.00	6.86
	817.640	17.28	20.87	3.24	41.39	46.00	4.61

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : D-Sub 1600*1200@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	82.380	26.69	8.19	0.96	--	35.84	40.00	4.16	QP
	149.310	28.13	11.35	1.22	--	40.70	43.50	2.80	
	222.060	23.99	11.75	1.61	--	37.35	46.00	8.65	
	565.440	18.88	18.78	2.64	--	40.30	46.00	5.70	
	639.160	20.05	19.39	2.82	--	42.26	46.00	3.74	
	877.780	16.35	21.49	3.39	--	41.23	46.00	4.77	PK
	1063.000	52.93	24.33	3.99	37.53	43.72	74.00	30.28	
	1167.000	53.96	24.68	4.16	37.25	45.55	74.00	28.45	
	1327.000	50.94	25.24	4.42	36.89	43.71	74.00	30.29	
	1549.000	56.37	26.15	4.81	36.44	50.89	74.00	23.11	
1714.000	46.40	26.85	5.14	36.14	42.25	74.00	31.75	PK	
1823.000	51.81	27.23	5.21	35.97	48.28	74.00	25.72		
Vertical	110.510	20.99	12.32	1.11	--	34.42	43.50	9.08	QP
	146.400	21.39	11.61	1.22	--	34.22	43.50	9.28	
	222.060	25.15	11.75	1.61	--	38.51	46.00	7.49	
	323.910	20.10	14.58	1.96	--	36.64	46.00	9.36	
	444.190	19.30	17.14	2.31	--	38.75	46.00	7.25	
	664.380	17.06	19.54	2.87	--	39.47	46.00	6.53	PK
	1023.000	53.83	24.16	3.88	37.63	44.24	74.00	29.76	
	1203.000	45.85	24.80	4.21	37.16	37.70	74.00	36.30	
	1373.000	45.57	25.44	4.51	36.78	38.74	74.00	35.26	
	1589.000	45.21	26.36	4.92	36.36	40.13	74.00	33.87	
1823.000	46.58	27.23	5.21	35.97	43.05	74.00	30.95	PK	
1954.000	44.64	27.72	5.28	35.76	41.88	74.00	32.12		

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

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	54.250	23.61	7.92	0.74	--	32.27	40.00	7.73	QP
	71.710	30.25	6.69	0.87	--	37.81	40.00	2.19	
	90.140	26.90	9.40	1.02	--	37.32	43.50	6.18	
	107.600	27.88	12.10	1.10	--	41.08	43.50	2.42	
	146.400	25.57	11.61	1.22	--	38.40	43.50	5.10	
	677.780	17.34	21.49	3.39	--	42.22	46.00	3.78	PK
	1064.000	56.86	24.33	3.99	37.52	47.66	74.00	26.34	
	1180.000	53.57	24.74	4.18	37.22	45.27	74.00	28.73	
	1384.000	55.25	25.51	4.54	36.76	48.54	74.00	25.46	
	1569.000	50.47	26.22	4.85	36.40	45.14	74.00	28.86	
	1697.000	52.18	26.78	5.11	36.17	47.90	74.00	26.10	
1823.000	54.53	27.23	5.21	35.97	51.00	74.00	23.00		
Vertical	107.600	23.56	12.10	1.10	--	36.76	43.50	6.74	QP
	223.030	23.82	11.80	1.62	--	37.24	46.00	8.76	
	323.910	20.72	14.58	1.96	--	37.26	46.00	8.74	
	438.370	18.93	17.06	2.30	--	38.29	46.00	7.71	
	664.380	17.36	19.54	2.87	--	39.77	46.00	6.23	
	809.880	18.54	20.80	3.21	--	42.55	46.00	3.45	PK
	1020.000	58.03	24.16	3.88	37.64	48.43	74.00	25.57	
	1056.000	57.91	24.27	3.96	37.54	48.60	74.00	25.40	
	1167.000	53.88	24.68	4.16	37.25	45.47	74.00	28.53	
	1359.000	48.23	25.38	4.48	36.82	41.27	74.00	32.73	
	1530.000	47.03	26.07	4.78	36.47	41.41	74.00	32.59	
1823.000	45.55	27.23	5.21	35.97	42.02	74.00	31.98		

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : HDMI 640*480@60Hz

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	138.640	17.45	12.17	1.19	30.81	43.50	12.69
	239.520	22.62	12.52	1.67	36.81	46.00	9.19
	359.800	22.55	15.61	2.07	40.23	46.00	5.77
	500.450	16.84	17.90	2.42	37.16	46.00	8.84
	600.360	16.42	19.20	2.74	38.36	46.00	7.64
	839.950	16.72	21.09	3.29	41.10	46.00	4.90
Vertical	32.910	14.83	17.95	0.64	33.42	40.00	6.58
	39.700	19.26	14.08	0.67	34.01	40.00	5.99
	48.430	21.34	9.62	0.70	31.66	40.00	8.34
	97.900	16.47	11.11	1.07	28.65	43.50	14.85
	359.800	15.42	15.61	2.07	33.10	46.00	12.90
	600.360	16.01	19.20	2.74	37.95	46.00	8.05

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : HDMI 1024*768@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	166.770	20.63	10.31	1.34	32.28	43.50	11.22
	239.520	17.71	12.52	1.67	31.90	46.00	14.10
	359.800	20.94	15.61	2.07	38.62	46.00	7.38
	480.080	14.85	17.65	2.38	34.88	46.00	11.12
	719.670	13.11	19.91	2.99	36.01	46.00	9.99
	839.950	16.40	21.09	3.29	40.78	46.00	5.22
Vertical	35.820	18.26	16.45	0.65	35.36	40.00	4.64
	44.550	21.49	11.38	0.69	33.56	40.00	6.44
	140.580	20.77	12.05	1.20	34.02	43.50	9.48
	166.770	20.36	10.31	1.34	32.01	43.50	11.49
	214.300	17.22	11.35	1.59	30.16	43.50	13.34
	239.520	16.97	12.52	1.67	31.16	46.00	14.84

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : HDMI 1600*1200@60Hz

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	166.770	18.71	10.31	1.34	--	30.36	43.50	13.14	QP
	359.800	20.69	15.61	2.07	--	38.37	46.00	7.63	
	480.080	15.52	17.65	2.38	--	35.55	46.00	10.45	
	719.670	10.86	19.91	2.99	--	33.76	46.00	12.24	
	839.950	12.24	21.09	3.29	--	36.62	46.00	9.38	
	1000.000	11.47	22.40	3.62	--	37.49	54.00	16.51	PK
	1063.000	59.25	24.33	3.99	37.53	50.04	74.00	23.96	
	1214.000	52.08	24.86	4.24	37.14	44.04	74.00	29.96	
	1386.000	55.11	25.51	4.54	36.76	48.40	74.00	25.60	
	1549.000	54.75	26.15	4.81	36.44	49.27	74.00	24.73	
	1697.000	51.65	26.78	5.11	36.17	47.37	74.00	26.63	
1823.000	54.71	27.23	5.21	35.97	51.18	74.00	22.82		
Vertical	32.910	15.81	17.95	0.64	--	34.40	40.00	5.60	QP
	40.670	19.99	13.62	0.67	--	34.28	40.00	5.72	
	43.580	21.24	11.88	0.68	--	33.80	40.00	6.20	
	48.430	20.81	9.62	0.70	--	31.13	40.00	8.87	
	138.640	21.29	12.17	1.19	--	34.65	43.50	8.85	
	166.770	19.87	10.31	1.34	--	31.52	43.50	11.98	PK
	1020.000	58.03	24.16	3.88	37.64	48.43	74.00	25.57	
	1057.000	56.44	24.27	3.96	37.54	47.13	74.00	26.87	
	1166.000	50.65	24.68	4.16	37.26	42.23	74.00	31.77	
	1328.000	47.41	25.24	4.42	36.88	40.19	74.00	33.81	
	1530.000	45.71	26.07	4.78	36.47	40.09	74.00	33.91	
1823.000	46.67	27.23	5.21	35.97	43.14	74.00	30.86		

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : HDMI 1920*1080@60Hz

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	165.800	18.95	10.33	1.32	--	30.60	43.50	12.90	QP
	239.520	19.46	12.52	1.67	--	33.65	46.00	12.35	
	359.800	22.49	15.61	2.07	--	40.17	46.00	5.83	
	749.740	11.95	20.20	3.07	--	35.22	46.00	10.78	
	839.950	11.83	21.09	3.29	--	36.21	46.00	9.79	
	874.870	11.82	21.46	3.39	--	36.67	46.00	9.33	PK
	1007.000	59.39	24.10	3.84	37.68	49.65	74.00	24.35	
	1082.000	55.51	24.38	4.02	37.47	46.44	74.00	27.56	
	1348.000	52.57	25.31	4.45	36.83	45.50	74.00	28.50	
	1549.000	54.91	26.15	4.81	36.44	49.43	74.00	24.57	
	1675.000	52.39	26.71	5.08	36.21	47.97	74.00	26.03	
1823.000	51.56	27.23	5.21	35.97	48.03	74.00	25.97	Vertical	
32.910	16.33	17.95	0.64	--	34.92	40.00	5.08		
35.820	17.87	16.45	0.65	--	34.97	40.00	5.03		
39.700	20.74	14.08	0.67	--	35.49	40.00	4.51		
44.550	21.93	11.38	0.69	--	34.00	40.00	6.00		
65.890	21.83	6.54	0.84	--	29.21	40.00	10.79		
142.520	18.89	11.91	1.20	--	32.00	43.50	11.50		
1019.000	56.00	24.16	3.88	37.65	46.39	74.00	27.61		
1057.000	57.69	24.27	3.96	37.54	48.38	74.00	25.62		
1175.000	50.37	24.68	4.16	37.23	41.98	74.00	32.02		
1358.000	47.71	25.38	4.48	36.82	40.75	74.00	33.25		
1583.000	45.01	26.29	4.88	36.38	39.80	74.00	34.20		
1823.000	49.52	27.23	5.21	35.97	45.99	74.00	28.01		

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : AV

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	239.520	18.43	12.52	1.67	32.62	46.00	13.38
	359.800	19.86	15.61	2.07	37.54	46.00	8.46
	500.450	17.09	17.90	2.42	37.41	46.00	8.59
	600.360	11.15	19.20	2.74	33.09	46.00	12.91
	749.740	13.02	20.20	3.07	36.29	46.00	9.71
	839.950	14.86	21.09	3.29	39.24	46.00	6.76
Vertical	33.880	13.55	17.44	0.64	31.63	40.00	8.37
	43.580	16.81	11.88	0.68	29.37	40.00	10.63
	125.060	19.18	12.76	1.16	33.10	43.50	10.40
	140.580	21.85	12.05	1.20	35.10	43.50	8.40
	166.770	20.57	10.31	1.34	32.22	43.50	11.28
	239.520	19.27	12.52	1.67	33.46	46.00	12.54

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : HDMI

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	165.800	18.69	10.33	1.32	30.34	43.50	13.16
	359.800	19.89	15.61	2.07	37.57	46.00	8.43
	719.670	11.93	19.91	2.99	34.83	46.00	11.17
	839.950	12.58	21.09	3.29	36.96	46.00	9.04
	960.230	8.18	22.13	3.55	33.86	54.00	20.14
	1000.000	11.70	22.40	3.62	37.72	54.00	16.28
Vertical	138.640	23.30	12.17	1.19	36.66	43.50	6.84
	165.800	22.94	10.33	1.32	34.59	43.50	8.91
	239.520	23.01	12.52	1.67	37.20	46.00	8.80
	280.260	17.16	13.55	1.81	32.52	46.00	13.48
	359.800	14.43	15.61	2.07	32.11	46.00	13.89
	600.360	14.13	19.20	2.74	36.07	46.00	9.93

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : YPbPr

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	166.770	27.68	10.31	1.34	39.33	43.50	4.17
	239.520	20.18	12.52	1.67	34.37	46.00	11.63
	359.800	23.75	15.61	2.07	41.43	46.00	4.57
	500.450	18.38	17.90	2.42	38.70	46.00	7.30
	719.670	13.93	19.91	2.99	36.83	46.00	9.17
	839.950	17.36	21.09	3.29	41.74	46.00	4.26
Vertical	33.880	12.95	17.44	0.64	31.03	40.00	8.97
	43.580	17.34	11.88	0.68	29.90	40.00	10.10
	138.640	25.30	12.17	1.19	38.66	43.50	4.84
	165.800	23.94	10.33	1.32	35.59	43.50	7.91
	239.520	24.01	12.52	1.67	38.20	46.00	7.80
	359.800	17.43	15.61	2.07	35.11	46.00	10.89

TEST ENGINEER: RAVEN JIN

EUT : LCD Monitor Temperature : 22°C

Model No. : NVU52FX5 Humidity : 60%RH

Serial No. : E2009070602 Date of Test : Jul 21, 2009

Test Mode : S-Video

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	70.740	22.31	6.58	0.87	29.76	40.00	10.24
	166.770	23.68	10.31	1.34	35.33	43.50	8.17
	239.520	17.18	12.52	1.67	31.37	46.00	14.63
	359.800	22.75	15.61	2.07	40.43	46.00	5.57
	500.450	18.38	17.90	2.42	38.70	46.00	7.30
	719.670	15.93	19.91	2.99	38.83	46.00	7.17
Vertical	165.800	23.69	10.33	1.32	35.34	43.50	8.16
	250.190	11.18	12.90	1.70	25.78	46.00	20.22
	359.800	23.89	15.61	2.07	41.57	46.00	4.43
	624.610	8.02	19.33	2.79	30.14	46.00	15.86
	719.670	13.93	19.91	2.99	36.83	46.00	9.17
	839.950	14.58	21.09	3.29	38.96	46.00	7.04

TEST ENGINEER: RAVEN JIN

5 DEVIATION TO TEST SPECIFICATIONS

None.

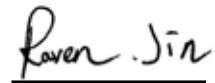
6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications (mm)	Manufacturer	Location
Ferrite Core	ZCAT1519-0830	15*19*8	ROH	See Internal Photo Figure 29
Ferrite Core	K5BRC16*28*9-M2	16*28*9	--	See Internal Photo Figure 30
Ferrite Core	K5BRC16*16*8-MB	16*16*8	--	See Internal Photo Figure 31
Aluminum foil	--	20*50	ROH	See Internal Photo Figure 30-1
Aluminum foil	--	60*80	ROH	See Internal Photo Figure 30-2, 31

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)