

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

LCD TV

Model No.	Serial No.	Brand
LTDN39V77US	E1204409-01/01	Hisense
F39V77C	--	

FCC ID : W9HLCDD0013

Prepared For : Hisense Electric Co., Ltd.  
No.218 Qianwangang Road, Economy & Technology  
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Report No. : ACI-F12072  
Date of Test : Apr 26 – 27, 2012  
Date of Report : May 02, 2012

## TABLE OF CONTENTS

	Page
<b>1 SUMMARY OF STANDARDS AND RESULTS</b> .....	<b>4</b>
1.1 Description of Standards and Results.....	4
<b>2 GENERAL INFORMATION</b> .....	<b>5</b>
2.1 Description of Equipment Under Test.....	5
2.2 Peripherals.....	6
2.3 Description of Test Facility.....	8
2.4 Measurement Uncertainty.....	8
<b>3 CONDUCTED EMISSION TEST</b> .....	<b>9</b>
3.1 Test Equipment.....	9
3.2 Block Diagram of Test Setup.....	9
3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)].....	10
3.4 Test Configuration.....	10
3.5 Operating Condition of EUT.....	11
3.6 Test Procedures.....	11
3.7 Test Results.....	12
<b>4 RADIATED EMISSION TEST</b> .....	<b>17</b>
4.1 Test Equipment.....	17
4.2 Block Diagram of Test Setup.....	17
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)].....	18
4.4 Test Configuration.....	18
4.5 Operating Condition of EUT.....	18
4.6 Test Procedures.....	19
4.7 Test Results.....	19
<b>5 DEBUG DESCRIPTION</b> .....	<b>24</b>
<b>6 DEVIATION TO TEST SPECIFICATIONS</b> .....	<b>25</b>

## TEST REPORT FOR FCC CERTIFICATE

Applicant : Hisense Electric Co., Ltd.

Manufacturer : Hisense Electric Co., Ltd.

EUT Description : LCD TV

Model No.	Serial No.	Brand	Power Supply
LTDN39V77US	E1204409-01/01	Hisense	120V/60Hz
F39V77C	--		

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) 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 Sec2.1; S/N: Refer to Sec2.1) which was tested in 3m anechoic chamber Apr 26 – 27, 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.

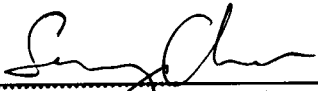
***The test results for EUT's TV functions are contained in No.F12073, a Verification report.***

Date of Test : Apr 26 – 27, 2012 Date of Report : May 02, 2012

Producer :   
KATHY WANG / Assistant

Review :   
DIO YANG / Assistant Manager

**AUDIX**<sup>®</sup> For and on behalf of  
Audix Technology (Shanghai) Co., Ltd.

Signatory :   
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:

<b>Description of Test Item</b>	<b>Standard</b>	<b>Limits</b>	<b>Results</b>
<b>EMISSION</b>			
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 TV

Type of EUT :  Production  Pre-product  Pro-type

Model No.	Serial No.	Brand
LTDN39V77US	E1204409-01/01	Hisense
F39V77C	--	

Brand : Hisense

Note : The above models are all the same except for the different model name.  
The LTDN39V77US was tested and reported in the 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 : CHIMEI INNOLUX  
M/N : V390HJ1-L02JK\ROH

Max Resolution : 1024\*768@60Hz

D-Sub Cable : Shielded, Detachable, 1.85m,  
with two cores on cable

HDMI Cable : Shielded, Detachable, 1.00m,

Power Cord : Unshielded, Detachable, 1.80m

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

Back Port:

- (1) One HDMI2 Port : Connected with DVD PLAYER #1
- (2) One HDMI3 Port : Connected with DVD PLAYER #2
- (3) One Digital Audio Out Port : Connected with DVD PLAYER #1
- (4) One PC/DVI Audio In Port : Connected with PC
- (5) One PC (D-Sub) Port : Connected with PC

Side Port:

- (6) One Service Port : Do not open to the customer
- (7) One HDMI1 Port : Connected with PC
- (8) One component of YPbPr Port : Connected with DVD PLAYER #1
- (9) One component of YPbPr Audio Port : Connected with DVD PLAYER #1
- (10) One component of AV Port : Connected with DVD PLAYER #1
- (11) One Headphone Port : Connected with Earphone
- (12) One ANT / Cable In Port : Connected with ATSC SG / TV SG

## 2.2 Peripherals

### 2.2.1 PC

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

## 2.2.2 Printer

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

## 2.2.3 Keyboard

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

## 2.2.4 Mouse

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

## 2.2.5 Modem

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

## 2.2.6 Earphone

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

## 2.2.7 TV Signal Generator

Manufacturer : FLUKE  
Model Number : 54200m01  
Serial Number : 814008  
Data Cable : Shielded, detachable, 2.0m  
Power Cord : Unshielded, detachable, 2.0m  
Certificate : CE/EMC, FCC DoC, CCC

## 2.2.8 ATSC Signal Generator

Manufacturer : SENCORE  
Model Number : ATSC997  
Serial Number : 6790071

### 2.2.9 DVD PLAYER #1

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

### 2.2.10 DVD PLAYER #2

Manufacturer : LG  
Model Number : DF9921N  
Serial Number : 3850R-M846W  
Certificate : FCC DoC, CE/EMC, CCC

## 2.3 Description of Test Facility

Site Description (No.3 3m 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)



### 3 CONDUCTED EMISSION TEST

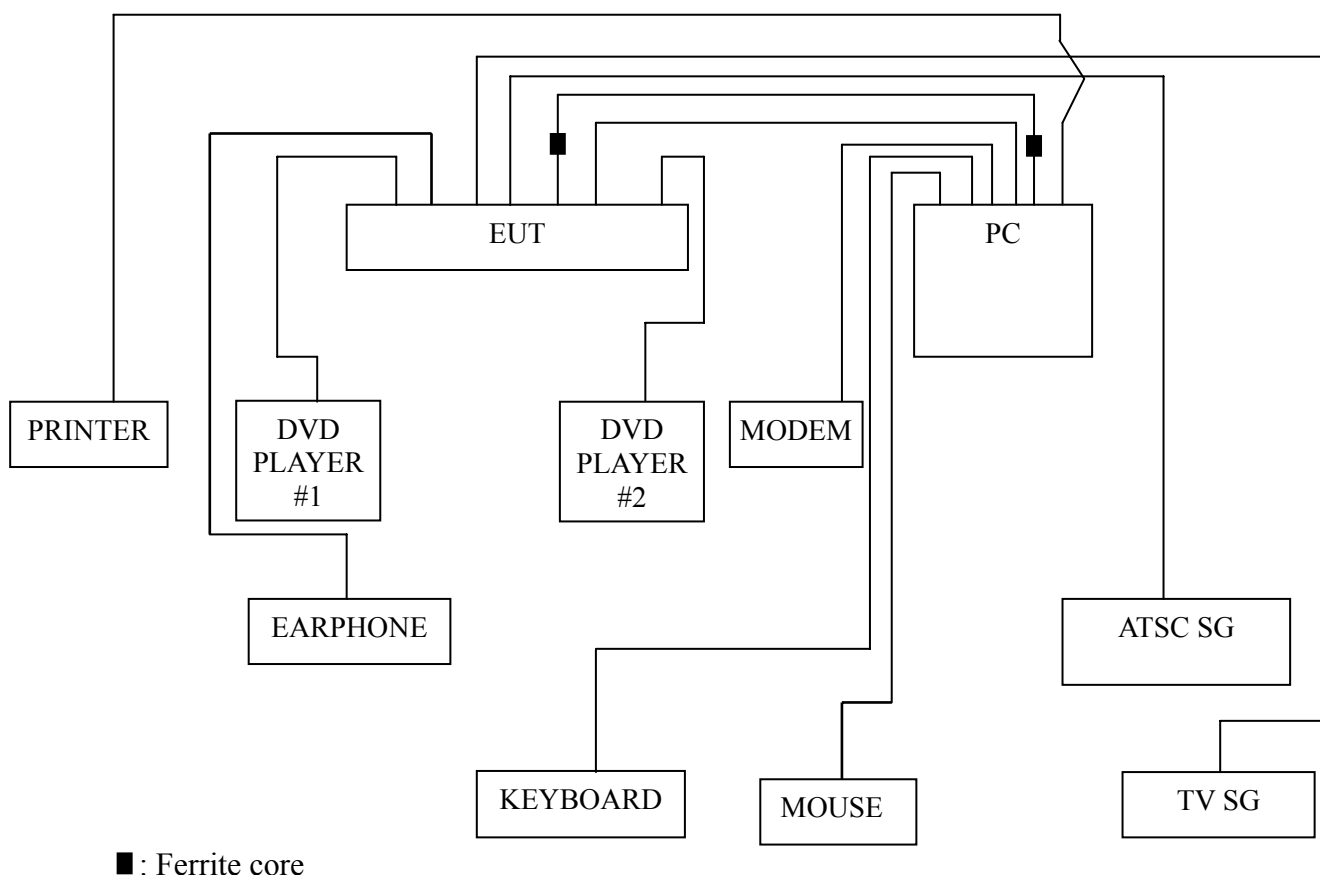
#### 3.1 Test Equipment

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

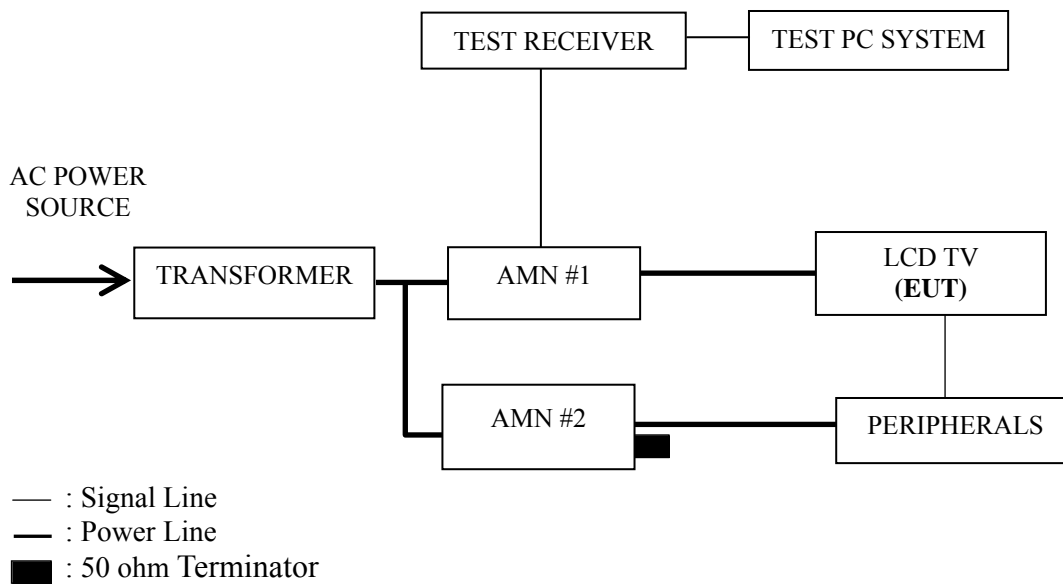
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 22, 2012	Mar 22, 2013
2.	Artificial Mains Network (AMN #1)	R&S	ESH2-Z5	843890/011	Feb 13, 2012	Feb 13, 2013
3.	Artificial Mains Network (AMN #2)	R&S	ENV4200	100125	Mar 22, 2012	Mar 22, 2013
4.	50 $\Omega$ Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2012	Sep 18, 2012
5.	50 $\Omega$ 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



### 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 ( $\mu$ 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, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via D-Sub & HDMI Input).

3.5.5 Repeat above procedure 3.5.6 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 1024*768@60Hz
HDMI 1024*768@60Hz
HDMI 800*600@60Hz
HDMI 640*480@60Hz

### 3.6 Test Procedures

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

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

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

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

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

### 3.7 Test Results

< **PASS** >

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

Test Mode	Data Page
D-Sub 1024*768@60Hz	P13
HDMI 1024*768@60Hz	P14
HDMI 800*600@60Hz	P15
HDMI 640*480@60Hz	P16

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 HDMI 1024\*768@60Hz test mode. The worst emission is detected at 21.60 MHz (Average Value) with corrected signal level of 34.58 dB (μV) (limit is 50.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT :           LCD TV                Temperature :           22°C          

Model No. :           LTDN39V77US                Humidity :           48%RH          

Serial No. :           E1204409-01/01                Date of Test :           Apr 26, 2012          

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

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.152	41.76	0.23	41.99	65.91	23.92	QP
	0.484	28.82	0.35	29.17	56.27	27.10	
	1.043	31.00	0.32	31.32	56.00	24.68	
	2.237	26.11	0.39	26.50	56.00	29.50	
	8.729	33.46	0.72	34.18	60.00	25.82	
	21.600	40.23	0.99	41.22	60.00	18.78	
	0.152	31.50	0.23	31.73	55.91	24.18	AV
	0.484	19.00	0.35	19.35	46.27	26.92	
	1.043	22.10	0.32	22.42	46.00	23.58	
	2.237	15.81	0.39	16.20	46.00	29.80	
	8.729	25.50	0.72	26.22	50.00	23.78	
	21.600	32.39	0.99	33.38	50.00	16.62	
Neutral	0.153	40.67	0.13	40.80	65.82	25.02	QP
	0.481	27.67	0.17	27.84	56.32	28.48	
	1.043	31.79	0.22	32.01	56.00	23.99	
	2.237	26.99	0.18	27.17	56.00	28.83	
	8.729	33.56	0.51	34.07	60.00	25.93	
	21.600	40.48	0.88	41.36	60.00	18.64	
	0.153	30.20	0.13	30.33	55.82	25.49	AV
	0.481	17.40	0.17	17.57	46.32	28.75	
	1.043	22.00	0.22	22.22	46.00	23.78	
	2.237	17.20	0.18	17.38	46.00	28.62	
	8.729	25.20	0.51	25.71	50.00	24.29	
	<b>21.600</b>	<b>32.60</b>	<b>0.88</b>	<b>33.48</b>	<b>50.00</b>	<b>16.52</b>	

TEST ENGINEER: LUY LV

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 48%RH

Serial No. : E1204409-01/01 Date of Test : Apr 26, 2012

Test Mode : HDMI 1024\*768@60Hz

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.151	41.05	0.23	41.28	65.96	24.68	QP
	0.484	28.67	0.35	29.02	56.27	27.25	
	1.043	32.34	0.32	32.66	56.00	23.34	
	2.622	26.49	0.40	26.89	56.00	29.11	
	9.011	35.09	0.72	35.81	60.00	24.19	
	21.600	40.19	0.99	41.18	60.00	18.82	
	0.151	31.20	0.23	31.43	55.96	24.53	AV
	0.484	18.40	0.35	18.75	46.27	27.52	
	1.043	22.50	0.32	22.82	46.00	23.18	
	2.622	16.12	0.40	16.52	46.00	29.48	
	9.011	27.50	0.72	28.22	50.00	21.78	
	<b>21.600</b>	<b>33.59</b>	<b>0.99</b>	<b>34.58</b>	<b>50.00</b>	<b>15.42</b>	
Neutral	0.151	41.00	0.13	41.13	65.96	24.83	QP
	0.484	27.89	0.17	28.06	56.27	28.21	
	1.043	30.68	0.22	30.90	56.00	25.10	
	2.213	26.80	0.18	26.98	56.00	29.02	
	9.011	35.10	0.50	35.60	60.00	24.40	
	21.600	40.22	0.88	41.10	60.00	18.90	
	0.151	22.10	0.13	22.23	55.96	33.73	AV
	0.484	18.10	0.17	18.27	46.27	28.00	
	1.043	21.10	0.22	21.32	46.00	24.68	
	2.213	16.90	0.18	17.08	46.00	28.92	
	9.011	25.90	0.50	26.40	50.00	23.60	
	21.600	32.60	0.88	33.48	50.00	16.52	

TEST ENGINEER: LUY LV

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 48%RH

Serial No. : E1204409-01/01 Date of Test : Apr 26, 2012

Test Mode : HDMI 800\*600@60Hz

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.151	42.06	0.23	42.29	65.96	23.67	QP
	0.484	28.92	0.35	29.27	56.27	27.00	
	1.054	32.37	0.32	32.69	56.00	23.31	
	2.213	26.07	0.39	26.46	56.00	29.54	
	9.011	34.34	0.72	35.06	60.00	24.94	
	21.600	40.32	0.99	41.31	60.00	18.69	
	0.151	32.25	0.23	32.48	55.96	23.48	AV
	0.484	18.60	0.35	18.95	46.27	27.32	
	1.054	22.60	0.32	22.92	46.00	23.08	
	2.213	15.70	0.39	16.09	46.00	29.91	
	9.011	26.10	0.72	26.82	50.00	23.18	
	<b>21.600</b>	<b>32.59</b>	<b>0.99</b>	<b>33.58</b>	<b>50.00</b>	<b>16.42</b>	
Neutral	0.151	41.55	0.13	41.68	65.96	24.28	QP
	0.484	27.37	0.17	27.54	56.27	28.73	
	1.043	31.61	0.22	31.83	56.00	24.17	
	2.213	26.80	0.18	26.98	56.00	29.02	
	9.011	33.43	0.50	33.93	60.00	26.07	
	21.600	39.71	0.88	40.59	60.00	19.41	
	0.151	31.60	0.13	31.73	55.96	24.23	AV
	0.484	17.50	0.17	17.67	46.27	28.60	
	1.043	22.00	0.22	22.22	46.00	23.78	
	2.213	17.00	0.18	17.18	46.00	28.82	
	9.011	26.10	0.50	26.60	50.00	23.40	
	21.600	32.40	0.88	33.28	50.00	16.72	

TEST ENGINEER: LUY LV

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 48%RH

Serial No. : E1204409-01/01 Date of Test : Apr 26, 2012

Test Mode : HDMI 640\*480@60Hz

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.152	40.22	0.23	40.45	65.91	25.46	QP
	0.481	27.95	0.35	28.30	56.32	28.02	
	1.054	31.56	0.32	31.88	56.00	24.12	
	2.237	26.85	0.39	27.24	56.00	28.76	
	9.011	34.75	0.72	35.47	60.00	24.53	
	21.600	39.77	0.99	40.76	60.00	19.24	
	0.152	30.30	0.23	30.53	55.91	25.38	AV
	0.481	18.00	0.35	18.35	46.32	27.97	
	1.054	21.50	0.32	21.82	46.00	24.18	
	2.237	17.01	0.39	17.40	46.00	28.60	
	9.011	25.20	0.72	25.92	50.00	24.08	
	<b>21.600</b>	<b>32.39</b>	<b>0.99</b>	<b>33.38</b>	<b>50.00</b>	<b>16.62</b>	
Neutral	0.151	42.16	0.13	42.29	65.96	23.67	QP
	0.481	26.86	0.17	27.03	56.32	29.29	
	1.054	31.21	0.22	31.43	56.00	24.57	
	2.237	26.42	0.18	26.60	56.00	29.40	
	9.011	33.60	0.50	34.10	60.00	25.90	
	21.600	39.88	0.88	40.76	60.00	19.24	
	0.151	32.40	0.13	32.53	55.96	23.43	AV
	0.481	17.00	0.17	17.17	46.32	29.15	
	1.054	21.50	0.22	21.72	46.00	24.28	
	2.237	16.20	0.18	16.38	46.00	29.62	
	9.011	24.20	0.50	24.70	50.00	25.30	
	21.600	32.10	0.88	32.98	50.00	17.02	

TEST ENGINEER: LUY LV



## 4 RADIATED EMISSION TEST

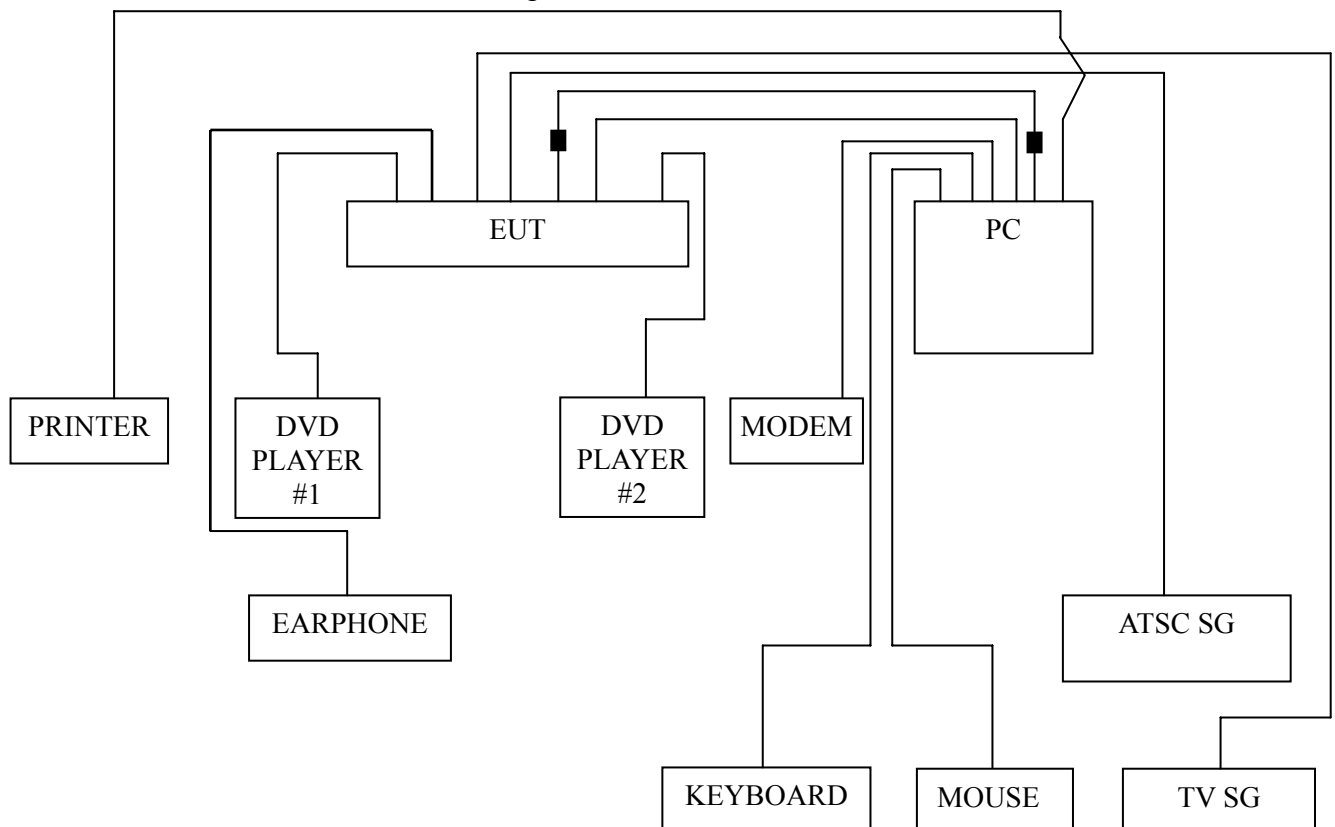
### 4.1 Test Equipment

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.	Bi-log Antenna	TESEQ	CBL6112D	23192	Dec 01, 2011	Dec 01, 2012
4.	Spectrum	Agilent	E7405A	MY45106600	Mar 22, 2012	Mar 22, 2013
5.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2012	Sep 18, 2012
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

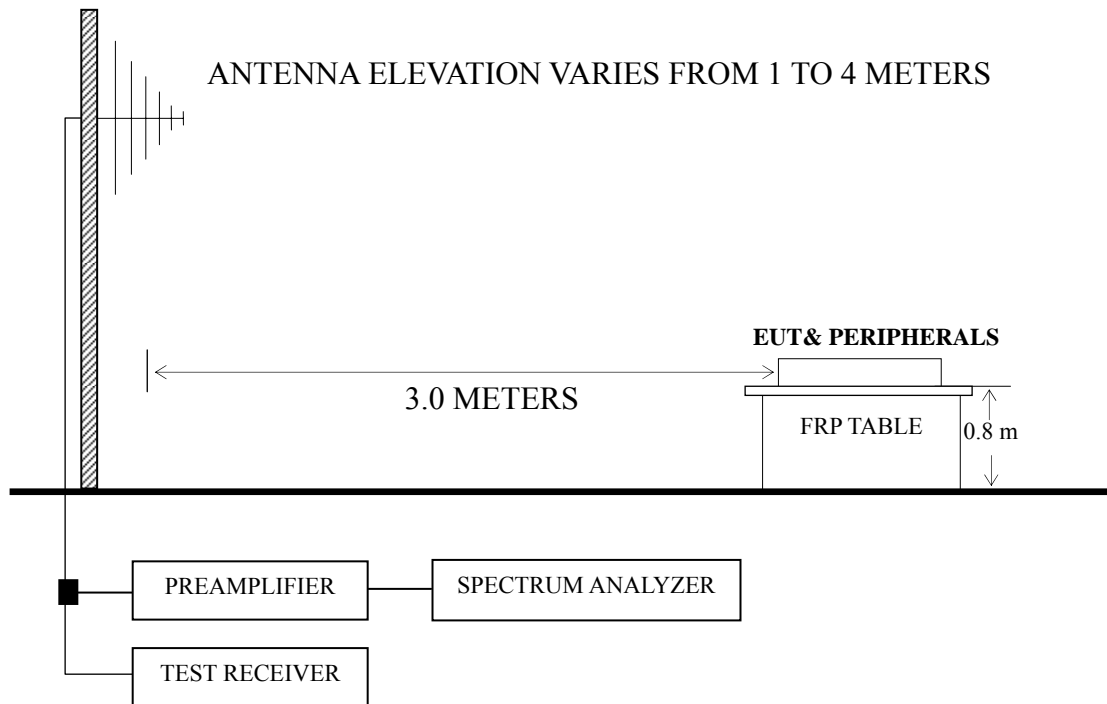
### 4.2 Block Diagram of Test Setup

#### 4.2.1 EUT and Peripherals



■: Ferrite core

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

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.

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 I.F. bandwidth of Test Receiver R&S ESVS10 was set at 120 kHz.

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

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

## 4.7 Test Results

<PASS>

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

Test Mode	Data Page
D-Sub 1024*768@60Hz	P20
HDMI 1024*768@60Hz	P21
D-Sub 800*600@60Hz	P22
D-Sub 640*480@60Hz	P23

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.

NOTE 2 – All readings are Quasi-Peak values.

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 4 – The worst case is for D-Sub 1024\*768@60Hz test mode. The worst emission at horizontal polarization was detected at 102.750 MHz with corrected signal level of 40.16 dB ( $\mu\text{V}/\text{m}$ ) (limit is 43.50 dB ( $\mu\text{V}/\text{m}$ )), when the antenna was 1.70 m height and the turntable was at 30°. The worst emission at vertical polarization was detected at 86.260 MHz with corrected signal level of 37.84 dB ( $\mu\text{V}/\text{m}$ ) (limit is 40.00 dB ( $\mu\text{V}/\text{m}$ )), when the antenna was 1.70 m height and the turntable was at 250°.

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 60%RH

Serial No. : E1204409-01/01 Date of Test : Apr 27, 2012

Test Mode : D-Sub 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	61.040	25.60	9.21	1.21	36.02	40.00	3.98
	<b>102.750</b>	<b>26.97</b>	<b>11.31</b>	<b>1.88</b>	<b>40.16</b>	<b>43.50</b>	<b>3.34</b>
	173.560	27.41	10.07	2.33	39.81	43.50	3.69
	238.000	28.51	11.41	2.57	42.49	46.00	3.51
	489.780	17.88	17.49	3.25	38.62	46.00	7.38
	875.840	13.00	20.37	4.75	38.12	46.00	7.88
Vertical	<b>86.260</b>	<b>25.33</b>	<b>10.83</b>	<b>1.68</b>	<b>37.84</b>	<b>40.00</b>	<b>2.16</b>
	138.640	26.05	10.65	2.16	38.86	43.50	4.64
	238.347	28.51	11.41	2.57	42.49	46.00	3.51
	370.470	16.74	15.68	2.92	35.34	46.00	10.66
	688.630	9.72	19.36	3.66	32.74	46.00	13.26
	819.580	11.13	20.54	4.11	35.78	46.00	10.22

TEST ENGINEER: RAVEN JIN

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 60%RH

Serial No. : E1204409-01/01 Date of Test : Apr 27, 2012

Test Mode : HDMI 1024\*768@60Hz

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	<b>36.790</b>	<b>21.97</b>	<b>14.57</b>	<b>0.85</b>	<b>37.39</b>	<b>40.00</b>	<b>2.61</b>
	90.140	26.84	11.00	1.73	39.57	43.50	3.93
	135.730	24.10	10.71	2.14	36.95	43.50	6.55
	159.980	24.07	10.25	2.27	36.59	43.50	6.91
	592.600	9.21	18.16	3.45	30.82	46.00	15.18
	881.660	13.73	20.35	4.75	38.83	46.00	7.17
Vertical	<b>36.790</b>	<b>21.96</b>	<b>14.57</b>	<b>0.85</b>	<b>37.38</b>	<b>40.00</b>	<b>2.62</b>
	65.890	26.28	9.55	1.32	37.15	40.00	2.85
	93.050	26.94	11.12	1.77	39.83	43.50	3.67
	155.130	23.86	10.33	2.25	36.44	43.50	7.06
	588.720	9.72	18.15	3.44	31.31	46.00	14.69
	881.660	12.50	20.35	4.75	37.60	46.00	8.40

TEST ENGINEER: RAVEN JIN

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 60%RH

Serial No. : E1204409-01/01 Date of Test : Apr 27, 2012

Test Mode : D-Sub 800\*600@60Hz

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	<b>62.000</b>	<b>26.01</b>	<b>9.28</b>	<b>1.23</b>	<b>36.52</b>	<b>40.00</b>	<b>3.48</b>
	106.630	25.25	11.24	1.92	38.41	43.50	5.09
	156.100	24.32	10.31	2.26	36.89	43.50	6.61
	370.470	18.32	15.68	2.92	36.92	46.00	9.08
	683.780	13.29	19.30	3.66	36.25	46.00	9.75
	828.310	13.17	20.52	4.22	37.91	46.00	8.09
Vertical	56.190	27.02	8.88	1.08	36.98	40.00	3.02
	<b>103.720</b>	<b>27.64</b>	<b>11.29</b>	<b>1.89</b>	<b>40.82</b>	<b>43.50</b>	<b>2.68</b>
	152.220	23.38	10.37	2.24	35.99	43.50	7.51
	226.910	24.90	10.93	2.53	38.36	46.00	7.64
	489.780	14.45	17.49	3.25	35.19	46.00	10.81
	875.840	9.33	20.37	4.75	34.45	46.00	11.55

TEST ENGINEER: RAVEN JIN

EUT : LCD TV Temperature : 22°C

Model No. : LTDN39V77US Humidity : 60%RH

Serial No. : E1204409-01/01 Date of Test : Apr 27, 2012

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

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	61.700	25.51	9.26	1.23	36.00	40.00	4.00
	84.320	22.13	10.75	1.64	34.52	40.00	5.48
	<b>105.660</b>	<b>27.79</b>	<b>11.26</b>	<b>1.90</b>	<b>40.95</b>	<b>43.50</b>	<b>2.55</b>
	143.490	25.01	10.54	2.19	37.74	43.50	5.76
	348.160	16.54	15.09	2.88	34.51	46.00	11.49
	875.840	11.61	20.37	4.75	36.73	46.00	9.27
Vertical	<b>60.700</b>	<b>26.00</b>	<b>9.19</b>	<b>1.21</b>	<b>36.40</b>	<b>40.00</b>	<b>3.60</b>
	91.110	24.03	11.05	1.75	36.83	43.50	6.67
	152.220	26.06	10.37	2.24	38.67	43.50	4.83
	231.760	20.90	11.14	2.55	34.59	46.00	11.41
	371.440	16.97	15.68	2.93	35.58	46.00	10.42
	683.780	13.78	19.30	3.66	36.74	46.00	9.26

TEST ENGINEER: RAVEN JIN

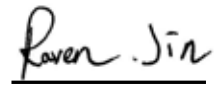
## 5 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Manufacturer	Location
Ferrite core	BNF-12\ZCAT1519-0830\ROH	Rui Feng Electronic Co., Ltd.	See Internal Photos Figure 12, 13
		FEELUX	
		Haian County Magnetic Material No. 2 Factory	

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)



## **6 DEVIATION TO TEST SPECIFICATIONS**

None.