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

LED LCD TV

Model No.	Brand
LTDN39K366MH	Hisense
39K366MH	

FCC ID : W9HLCDD0032

Prepared For : Hisense Electric Co., Ltd.
No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F13097
Date of Test : Jun 28 – Jul 04, 2013
Date of Report : Jul 11, 2013

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TEST REPORT FOR FCC CERTIFICATE

Applicant : Hisense Electric Co., Ltd.

Manufacturer : Hisense Electric Co., Ltd.

Factory #1 : Hisense Electric Co., Ltd.

Factory #2 : Tatung Mexico S.A. de C..V.

EUT Description : LED LCD TV

Model No.	Brand	Power Supply
LTDN39K366MH	Hisense	120V/60Hz
39K366MH		

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2012 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) which was tested in 3m anechoic chamber Jun 28 – Jul 04, 2013 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.F13098, a Verification report.

Date of Test : Jun 28 – Jul 04, 2013 Date of Report : Jul 11, 2013

Producer : Kathy Wang
KATHY WANG / Supervisor

Review : Wency Yang
WENCY YANG / Supervisor

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 2012 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2012 AND ANSI C63.4-2003	15.109(a) Class B	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	LED LCD TV
Type of EUT	:	☐ Production ☑ Pre-product ☐ Pro-type
Model No.	:	LTDN39K366MH, 39K366MH
Note	:	The above models are all the same except for the different model name. The LTDN39K366MH was tested and reported in the report.
Bread Name	:	Hisense
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
Factory #1	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China
Factory #2	:	Tatung Mexico S.A. de C..V. Miguel Catalán 420, Parque Industrial Rio Bravo, Cd. Juarez, Chih., CP 32557
LCD Panel	:	Manufacturer : Hisense M/N : HE390GF-E52\S8\PW1
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

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

Bottom Port:
(1) One COMPONENT IN Port
: Connected with DVD PLAYER
(2) One HDMI1 Port
: Connected with PC
(3) One ANT Port
: Connected with ATSC SG
(4) One SERVICE Port
: Connected with PC

Side Port:
(1) One HDMI2 Port
: Connected with DVD PLAYER
(2) One USB Port
: Connected with U-DISK
(3) One VGA Port
: Connected with PC
(4) One PC AUDIO Port
: Connected with PC
(5) One AUDIO OUT Port
: Connected with Earphone
(6) One DIGITAL AUDIO OUT Port
: Connected with Speaker
(7) One AV IN Port
: Connected with DVD PLAYER
(8) One RJ12 Port
: No function

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	:	1406
Serial Number	:	0200702302609
Data Cable	:	Shielded, undetachable ,1.8m
Certificate	:	CE/EMC, FCC DoC, VCCI, MIC, C-Tick, BSMI

2.2.4 Mouse

Manufacturer	:	Microsoft
Model Number	:	1405
Serial Number	:	0204603562213
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

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

2.2.10 SPEAKER

Manufacturer	:	DIBA
Model Number	:	FS-04
Serial Number	:	002
Power Cord	:	Unshielded, Undetachable, 1.5m

2.2.11 U-DISK

Manufacturer : LG
Model Number : 1GB

2.3 Description of Test Facility

Site Description (No.3 3m Chamber)	:	Sept. 17, 1998 file on Mar 16, 2012 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 = 3.42 dB
Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.14 dB (Horizontal)
U = 4.28 dB (Vertical)
Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.18 dB (Horizontal)
U = 4.26 dB (Vertical)

3 CONDUCTED EMISSION TEST

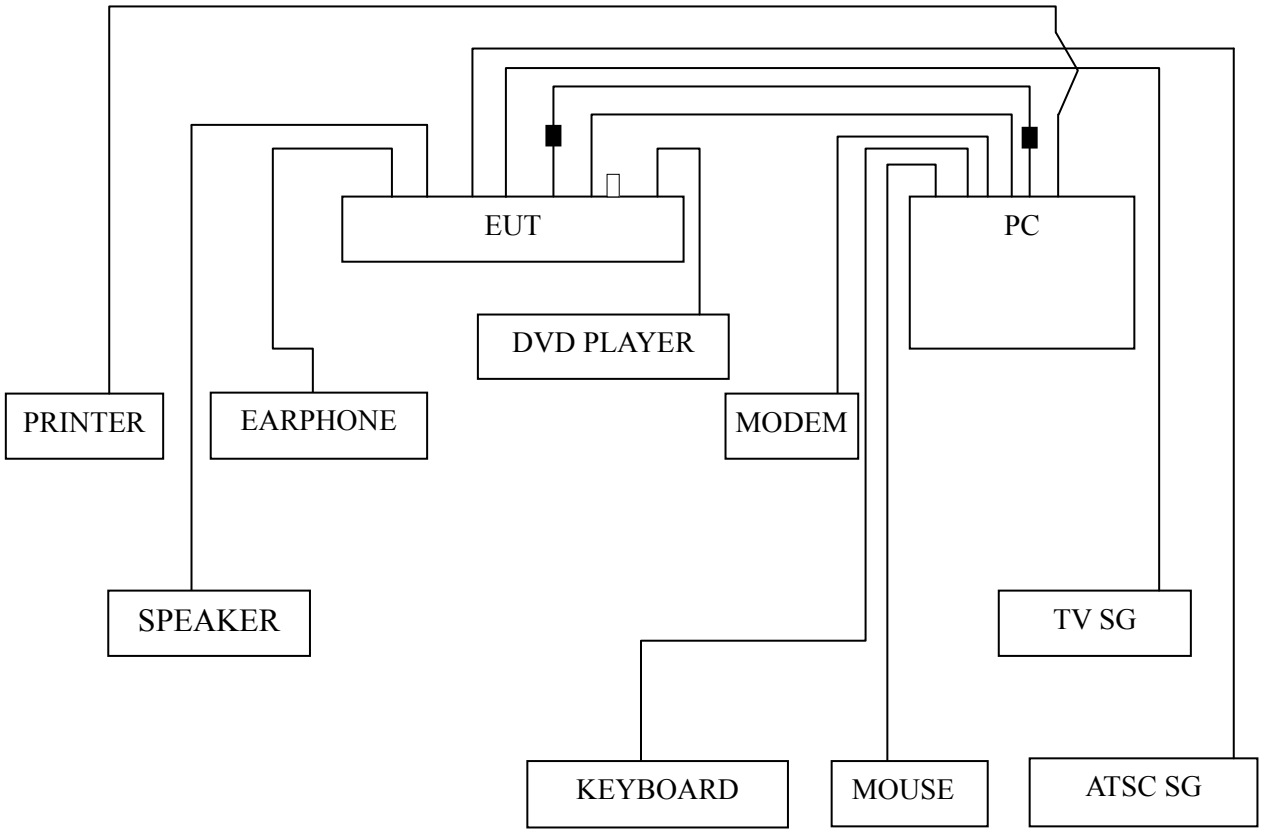
3.1 Test Equipment

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 20, 2013	Mar 20, 2014
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Feb 25, 2013	Feb 25, 2014
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 20, 2013	Mar 20, 2014
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2013	Sep 18, 2013
5.	50Ω Terminator	Anritsu	BNC	001	Mar 20, 2013	Mar 20, 2014
6.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

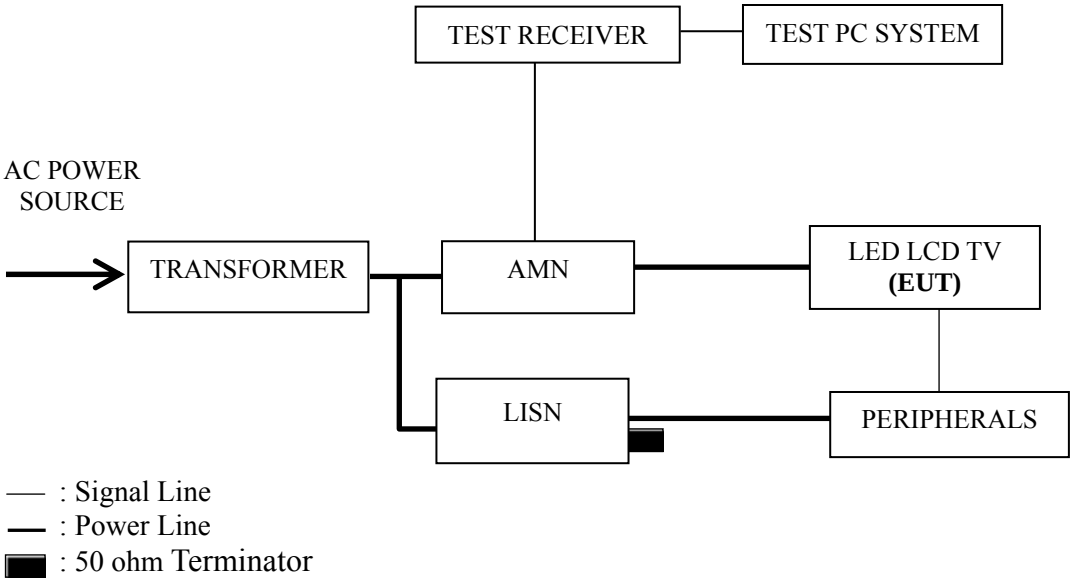
3.2.1 EUT & Peripherals



■: Ferrite core

: U-Disk

3.2.2 Conducted Disturbance Test Setup



3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)]

Frequency Range (MHz)	Limits dB (μV)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE 1 – The lower limit shall apply at the transition frequencies.
NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

3.5.4 PC system ran the self-test program "EMC Test" by windows XP and sent "H" characters to EUT through graphic card, the EUT's screen displayed and filled with "H" pattern by its resolution (Via D-Sub & HDMI Input).

3.5.5 In USB Play mode, set the EUT play digital media from U-Disk.

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
USB Play

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
USB Play	P17

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 HDMI 1080p mode was tested and recorded in a FCC Verification test report (No. F13098).
NOTE 5 – The worst case is for HDMI 800*600@60Hz test mode. The worst emission is detected at 12.384 MHz (Average Value) with corrected signal level of 46.09 dB (μV) (limit is 50.00 dB (μV)), when the Line of the EUT is connected to AMN.

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity	:	48%RH
Test Mode	:	D-Sub 1024*768@60Hz	Date of Test	:	Jul 04, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.289	40.55	0.00	40.55	60.54	19.99	QP
	0.426	45.73	-0.04	45.69	57.33	11.64	
	0.862	41.76	0.06	41.82	56.00	14.18	
	3.116	**46.96**	**0.07**	**47.03**	**56.00**	**8.97**	
	6.123	47.58	0.19	47.77	60.00	12.23	
	12.124	33.36	0.10	33.46	60.00	26.54	
	0.289	27.31	0.00	27.31	50.54	23.23	AV
	0.426	33.39	-0.04	33.35	47.33	13.98	
	0.862	27.30	0.06	27.36	46.00	18.64	
	3.116	34.20	0.07	34.27	46.00	11.73	
	6.123	40.40	0.19	40.59	50.00	9.41	
	12.124	29.30	0.10	29.40	50.00	20.60	
Neutral	0.289	41.15	0.16	41.31	60.54	19.23	QP
	0.435	45.58	0.19	45.77	57.15	11.38	
	1.082	41.77	0.15	41.92	56.00	14.08	
	2.809	**46.66**	**0.12**	**46.78**	**56.00**	**9.22**	
	6.062	47.02	0.24	47.26	60.00	12.74	
	8.637	34.54	0.35	34.89	60.00	25.11	
	0.289	27.70	0.16	27.86	50.54	22.68	AV
	0.435	32.19	0.19	32.38	47.15	14.77	
	1.082	28.60	0.15	28.75	46.00	17.25	
	2.809	34.00	0.12	34.12	46.00	11.88	
	6.062	39.80	0.24	40.04	50.00	9.96	
	8.637	28.90	0.35	29.25	50.00	20.75	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity	:	48%RH
Test Mode	:	HDMI 1024*768@60Hz	Date of Test	:	Jul 04, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.289	39.33	0.00	39.33	60.54	21.21	QP
	0.426	45.15	-0.04	45.11	57.33	12.22	
	0.862	42.18	0.06	42.24	56.00	13.76	
	3.025	48.32	0.07	48.39	56.00	7.61	
	6.121	51.32	0.19	51.51	60.00	8.49	
	12.384	36.80	0.10	36.90	60.00	23.10	
	0.289	28.66	0.00	28.66	50.54	21.88	AV
	0.426	35.26	-0.04	35.22	47.33	12.11	
	0.862	32.49	0.06	32.55	46.00	13.45	
	3.025	**38.45**	**0.07**	**38.52**	**46.00**	**7.48**	
	6.121	40.75	0.19	40.94	50.00	9.06	
	12.384	26.49	0.10	26.59	50.00	23.41	
Neutral	0.286	39.66	0.16	39.82	60.63	20.81	QP
	0.431	45.37	0.19	45.56	57.24	11.68	
	0.862	41.99	0.14	42.13	56.00	13.87	
	2.809	48.28	0.12	48.40	56.00	7.60	
	6.121	50.00	0.24	50.24	60.00	9.76	
	8.592	39.02	0.35	39.37	60.00	20.63	
	0.286	29.35	0.16	29.51	50.63	21.12	AV
	0.431	36.49	0.19	36.68	47.24	10.56	
	0.862	31.84	0.14	31.98	46.00	14.02	
	2.809	**38.49**	**0.12**	**38.61**	**46.00**	**7.39**	
	6.121	39.46	0.24	39.70	50.00	10.30	
	8.592	29.25	0.35	29.60	50.00	20.40	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity	:	48%RH
Test Mode	:	HDMI 800*600@60Hz	Date of Test	:	Jul 04, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.286	39.01	0.01	39.02	60.63	21.61	QP
	0.431	45.39	-0.04	45.35	57.24	11.89	
	0.862	42.30	0.06	42.36	56.00	13.64	
	2.869	48.01	0.07	48.08	56.00	7.92	
	6.056	52.30	0.19	52.49	60.00	7.51	
	12.384	35.33	0.10	35.43	60.00	24.57	
	0.286	29.49	0.01	29.50	50.63	21.13	AV
	0.431	34.25	-0.04	34.21	47.24	13.03	
	0.862	33.87	0.06	33.93	46.00	12.07	
	2.869	38.94	0.07	39.01	46.00	6.99	
	6.056	42.99	0.19	43.18	50.00	6.82	
	12.384	**45.99**	**0.10**	**46.09**	**50.00**	**3.91**	
Neutral	0.286	39.77	0.16	39.93	60.63	20.70	QP
	0.431	45.39	0.19	45.58	57.24	11.66	
	0.862	42.14	0.14	42.28	56.00	13.72	
	2.869	48.04	0.13	48.17	56.00	7.83	
	6.056	50.02	0.24	50.26	60.00	9.74	
	9.011	40.08	0.36	40.44	60.00	19.56	
	0.286	29.49	0.16	29.65	50.63	20.98	AV
	0.431	35.68	0.19	35.87	47.24	11.37	
	0.862	32.59	0.14	32.73	46.00	13.27	
	2.869	**38.46**	**0.13**	**38.59**	**46.00**	**7.41**	
	6.056	40.60	0.24	40.84	50.00	9.16	
	9.011	30.49	0.36	30.85	50.00	19.15	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity	:	48%RH
Test Mode	:	HDMI 640*480@60Hz	Date of Test	:	Jul 04, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.289	39.25	0.00	39.25	60.54	21.29	QP
	0.431	45.18	-0.04	45.14	57.24	12.10	
	0.862	42.12	0.06	42.18	56.00	13.82	
	3.293	46.12	0.08	46.20	56.00	9.80	
	6.056	**52.06**	**0.19**	**52.25**	**60.00**	**7.75**	
	12.253	35.95	0.09	36.04	60.00	23.96	
	0.289	26.48	0.00	26.48	50.54	24.06	AV
	0.431	33.42	-0.04	33.38	47.24	13.86	
	0.862	28.21	0.06	28.27	46.00	17.73	
	3.293	35.36	0.08	35.44	46.00	10.56	
	6.056	40.61	0.19	40.80	50.00	9.20	
	12.253	31.09	0.09	31.18	50.00	18.82	
Neutral	0.289	39.52	0.16	39.68	60.54	20.86	QP
	0.431	45.49	0.19	45.68	57.24	11.56	
	0.862	42.20	0.14	42.34	56.00	13.66	
	2.869	**48.55**	**0.13**	**48.68**	**56.00**	**7.32**	
	6.121	50.26	0.24	50.50	60.00	9.50	
	8.822	39.68	0.36	40.04	60.00	19.96	
	0.289	25.34	0.16	25.50	50.54	25.04	AV
	0.431	32.16	0.19	32.35	47.24	14.89	
	0.862	29.82	0.14	29.96	46.00	16.04	
	2.869	36.41	0.13	36.54	46.00	9.46	
	6.121	42.36	0.24	42.60	50.00	7.40	
	8.822	33.17	0.36	33.53	50.00	16.47	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity	:	48%RH
Test Mode	:	USB Play	Date of Test	:	Jul 04, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.289	39.13	0.00	39.13	60.54	21.41	QP
	0.431	45.17	-0.04	45.13	57.24	12.11	
	0.853	41.70	0.06	41.76	56.00	14.24	
	3.074	**48.20**	**0.07**	**48.27**	**56.00**	**7.73**	
	6.121	51.48	0.19	51.67	60.00	8.33	
	12.253	36.78	0.09	36.87	60.00	23.13	
	0.289	26.32	0.00	26.32	50.54	24.22	AV
	0.431	32.78	-0.04	32.74	47.24	14.50	
	0.853	27.84	0.06	27.90	46.00	18.10	
	3.074	36.14	0.07	36.21	46.00	9.79	
	6.121	40.65	0.19	40.84	50.00	9.16	
	12.253	31.68	0.09	31.77	50.00	18.23	
Neutral	0.286	39.66	0.16	39.82	60.63	20.81	QP
	0.426	45.56	0.19	45.75	57.33	11.58	
	0.862	42.20	0.14	42.34	56.00	13.66	
	2.869	**48.31**	**0.13**	**48.44**	**56.00**	**7.56**	
	6.056	51.84	0.24	52.08	60.00	7.92	
	8.592	39.58	0.35	39.93	60.00	20.07	
	0.286	25.45	0.16	25.61	50.63	25.02	AV
	0.426	33.70	0.19	33.89	47.33	13.44	
	0.862	29.68	0.14	29.82	46.00	16.18	
	2.869	36.08	0.13	36.21	46.00	9.79	
	6.056	40.68	0.24	40.92	50.00	9.08	
	8.592	33.44	0.35	33.79	50.00	16.21	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

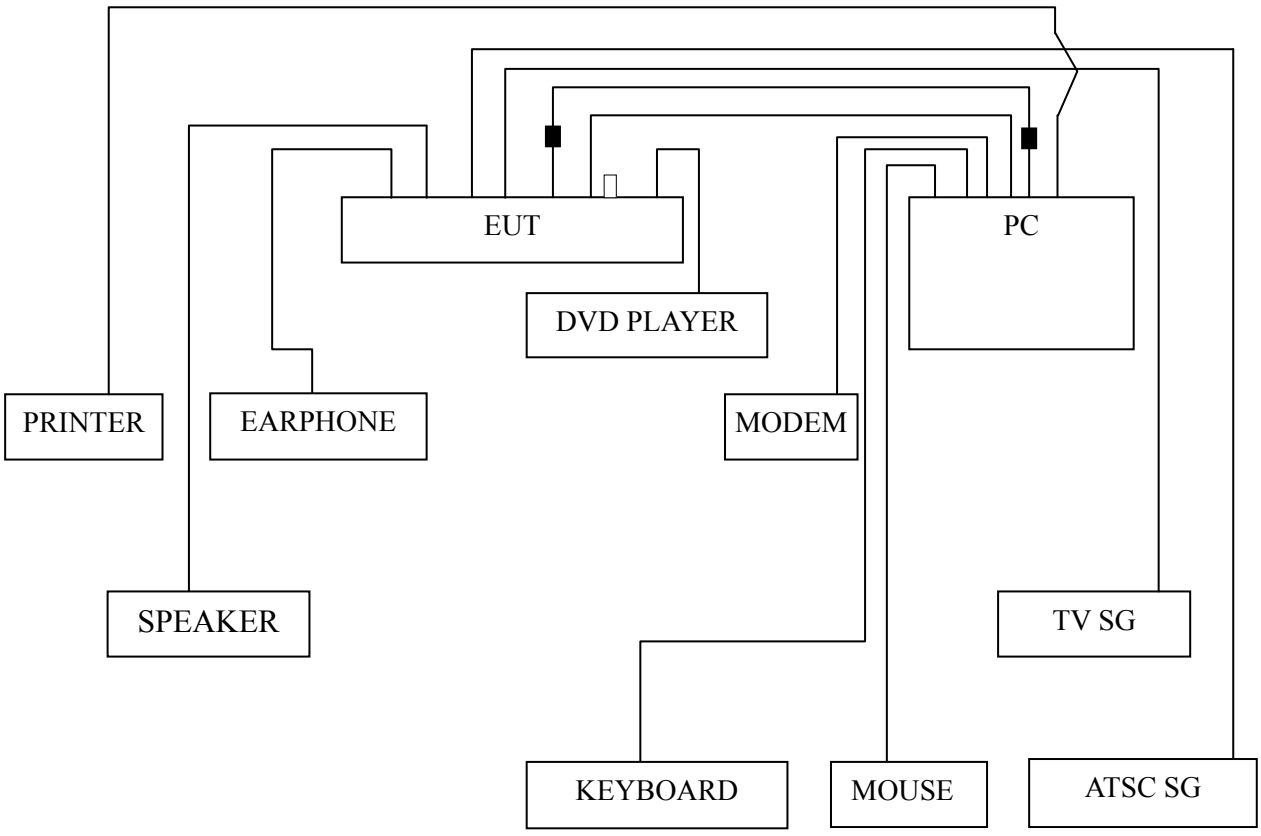
4.1 Test Equipment

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	ESCI	101302	Sep 11, 2012	Sep 11, 2013
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2013	Sep 18, 2013
3.	Bi-log Antenna	TESEQ	CBL6112D	23192	Nov 29, 2012	Nov 29, 2013
4.	Spectrum	Agilent	E7405A	MY45106600	Dec 17, 2012	Dec 17, 2013
5.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2013	Sep 18, 2013
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

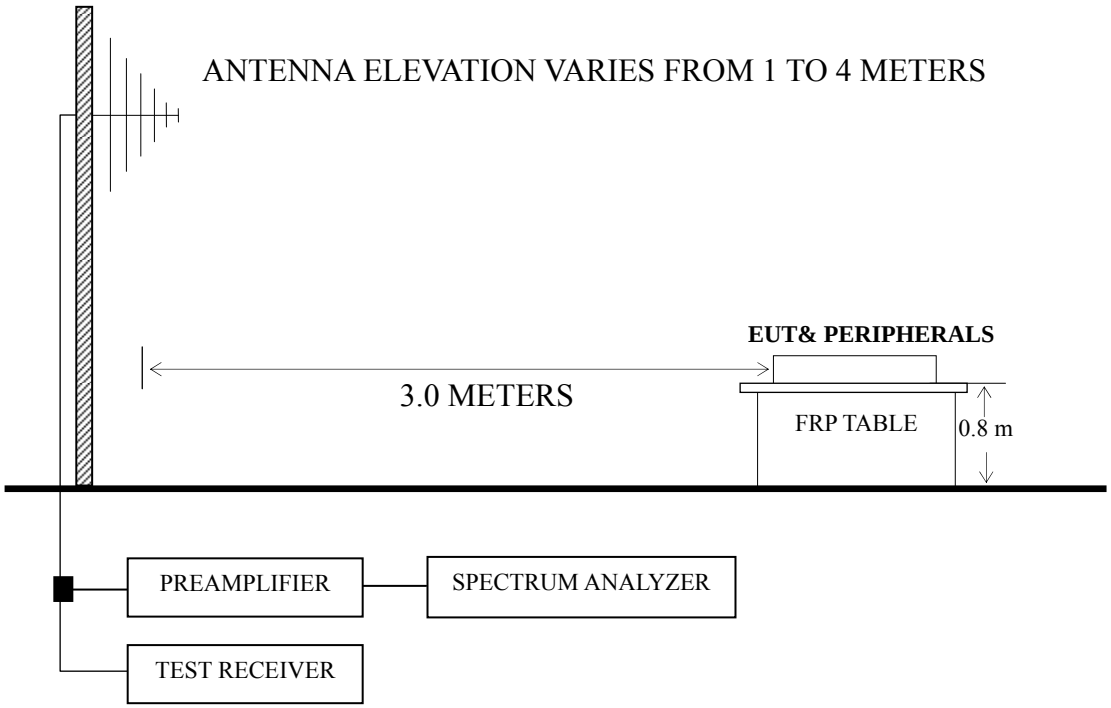
4.2.1 EUT and Peripherals



■: Ferrite core

▯: U-Disk

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	
		(μV/m)	dB (μV/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 (μV/m) = 20 log Emission Level (μV/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 ESCI 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	P21
HDMI 1024*768@60Hz	P22
D-Sub 800*600@60Hz	P23
D-Sub 640*480@60Hz	P24
USB Play	P25

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 HDMI 1080p mode was tested and recorded in a FCC Verification test report (No. F13098).

NOTE 5 – The worst case is for D-Sub 640*480@60Hz test mode. The worst emission at horizontal polarization was detected at 118.270 MHz with corrected signal level of 35.04 dB (μV/m) (limit is 43.50 dB (μV/m)), when the antenna was 1.50 m height and the turntable was at 158°. The worst emission at vertical polarization was detected at 119.240 MHz with corrected signal level of 37.99 dB (μV/m) (limit is 43.50 dB (μV/m)), when the antenna was 1.40 m height and the turntable was at 213°.

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity :	60%RH	
Test Mode	:	D-Sub 1024*768@60Hz	Date of Test :	Jun 28, 2013	

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	73.650	16.39	6.33	0.98	23.70	40.00	16.30
	119.240	**22.84**	**11.42**	**1.47**	**35.73**	**43.50**	**7.77**
	147.370	23.53	10.20	1.63	35.36	43.50	8.14
	222.060	20.26	8.40	2.06	30.72	46.00	15.28
	293.840	19.70	12.67	2.49	34.86	46.00	11.14
	442.250	11.95	17.23	2.82	32.00	46.00	14.00
Vertical	35.820	12.67	15.63	0.73	29.03	40.00	10.97
	74.620	24.27	6.46	1.00	31.73	40.00	8.27
	118.270	**23.98**	**11.46**	**1.47**	**36.91**	**43.50**	**6.59**
	300.630	19.33	12.60	2.55	34.48	46.00	11.52
	445.160	17.17	17.15	2.82	37.14	46.00	8.86
	890.390	10.55	19.80	4.43	34.78	46.00	11.22

TEST ENGINEER: NEAL WANG

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	LTDN39K366MH	Humidity :	60%RH
Test Mode	:	HDMI 1024*768@60Hz	Date of Test :	Jun 28, 2013

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	108.570	19.66	11.72	1.40	32.78	43.50	10.72
	123.120	20.60	11.46	1.49	33.55	43.50	9.95
	141.550	**22.21**	**10.30**	**1.60**	**34.11**	**43.50**	**9.39**
	224.000	21.56	8.47	2.08	32.11	46.00	13.89
	436.430	5.49	17.43	2.80	25.72	46.00	20.28
	739.070	3.71	18.90	3.57	26.18	46.00	19.82
Vertical	32.910	12.82	16.30	0.69	29.81	40.00	10.19
	74.620	23.29	6.46	1.00	30.75	40.00	9.25
	123.120	**22.53**	**11.46**	**1.49**	**35.48**	**43.50**	**8.02**
	146.400	21.57	10.25	1.62	33.44	43.50	10.06
	297.720	18.45	12.55	2.52	33.52	46.00	12.48
	446.130	16.28	17.07	2.82	36.17	46.00	9.83

TEST ENGINEER: NEAL WANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	LTDN39K366MH	Humidity :	60%RH	
Test Mode	:	D-Sub 800*600@60Hz	Date of Test :	Jun 28, 2013	

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	31.940	14.85	16.50	0.68	32.03	40.00	7.97
	49.400	14.16	7.93	0.85	22.94	40.00	17.06
	74.620	24.71	6.46	1.00	32.17	40.00	7.83
	122.150	24.06	11.44	1.49	36.99	43.50	6.51
	294.810	22.77	12.60	2.52	37.89	46.00	8.11
	443.220	**19.56**	**17.23**	**2.82**	**39.61**	**46.00**	**6.39**
Vertical	49.400	8.76	7.93	0.85	17.54	40.00	22.46
	94.020	15.42	9.12	1.27	25.81	43.50	17.69
	119.240	**22.18**	**11.42**	**1.47**	**35.07**	**43.50**	**8.43**
	149.310	23.00	10.12	1.64	34.76	43.50	8.74
	224.970	20.70	8.50	2.08	31.28	46.00	14.72
	445.160	9.98	17.15	2.82	29.95	46.00	16.05

TEST ENGINEER: NEAL WANG

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	LTDN39K366MH	Humidity :	60%RH
Test Mode	:	D-Sub 640*480@60Hz	Date of Test :	Jun 28, 2013

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	50.370	12.97	7.78	0.85	21.60	40.00	18.40
	87.230	18.08	7.74	1.18	27.00	40.00	13.00
	118.270	**22.11**	**11.46**	**1.47**	**35.04**	**43.50**	**8.46**
	148.340	21.87	10.15	1.63	33.65	43.50	9.85
	224.970	22.72	8.50	2.08	33.30	46.00	12.70
	442.250	11.47	17.23	2.82	31.52	46.00	14.48
Vertical	34.850	11.22	15.85	0.71	27.78	40.00	12.22
	74.620	23.29	6.46	1.00	30.75	40.00	9.25
	119.240	**25.10**	**11.42**	**1.47**	**37.99**	**43.50**	**5.51**
	294.810	18.93	12.60	2.52	34.05	46.00	11.95
	442.250	18.15	17.23	2.82	38.20	46.00	7.80
	616.850	5.37	18.78	3.25	27.40	46.00	18.60

TEST ENGINEER: NEAL WANG

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	LTDN39K366MH	Humidity :	60%RH
Test Mode	:	USB Play	Date of Test :	Jun 28, 2013

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	52.310	17.11	6.83	0.86	24.80	40.00	15.20
	116.330	**20.78**	**11.54**	**1.46**	**33.78**	**43.50**	**9.72**
	142.520	21.22	10.30	1.60	33.12	43.50	10.38
	222.060	20.92	8.40	2.06	31.38	46.00	14.62
	290.930	14.90	12.83	2.49	30.22	46.00	15.78
	450.010	11.84	16.90	2.84	31.58	46.00	14.42
Vertical	35.820	11.69	15.63	0.73	28.05	40.00	11.95
	70.740	17.35	5.89	0.94	24.18	40.00	15.82
	125.060	**22.84**	**11.50**	**1.50**	**35.84**	**43.50**	**7.66**
	177.440	21.23	8.26	1.83	31.32	43.50	12.18
	298.690	18.10	12.52	2.52	33.14	46.00	12.86
	445.160	17.69	17.15	2.82	37.66	46.00	8.34

TEST ENGINEER: NEAL WANG

5 DEVIATION TO TEST SPECIFICATIONS

None.