

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

LED LCD TV

Model No.	Brand
LHD32K20DHUS	Hisense

FCC ID : W9HLCDC0030

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-F14067
Date of Test : Apr 09 – 17, 2014
Date of Report : Apr 28, 2014

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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
LHD32K20DHUS	Hisense	120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2013
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 Apr 09 – 17, 2014 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.F14068, a Verification report.

Date of Test : Apr 09 – 17, 2014 Date of Report : Apr 28, 2014

Producer :

Emily Zhu
EMILY ZHU / Assistant

Review :

Dio Yang
DIO YANG / Deputy Manager



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

Signatory :

Sammy Chen
Authorized Signature EMC SAMMY CHEN / Deputy Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

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

Description of Test Item	Standard	Limits	Results
EMISSION			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2013 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2013 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.	:	LHD32K20DHUS
Brand 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 : HD315DH-E31\S2
Max Resolution	:	1920*1080@60Hz
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:

- (1) One HDMI1/ARC Port
: Connected with DVD PLAYER
- (2) One HDMI2 Port
: Connected with PC
- (3) One component of Audio/YPbPr Audio Port
: Connected with DVD PLAYER
- (4) One component of Video/YPbPr Port
: Connected with DVD PLAYER
- (5) One ANT/CABLE IN Port
: Connected with Antenna or ATSC SG / TV
SG
- (6) One DIGITAL AUDIO OUT Port
: Connected with DVD PLAYER
- (7) One USB Port
: Connected with U-Disk
- (8) One RJ12 Port
: Connected with PC
- (9) One Audio Out/Earphone Port
: Connected with Earphone

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;
BSMI; 3C; MIC

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 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

2.2.7 ATSC Signal Generator

Manufacturer : SENCORE
Model Number : ATSC997
Serial Number : 6790071

2.2.8 DVD PLAYER

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

2.2.9 Earphone

Manufacturer : Skullcandy
Model Number : FMJ

2.2.10 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 = 3.02 dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.17 dB (Horizontal)
U = 4.02 dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 3.38 dB (Horizontal)
U = 3.28 dB (Vertical)

Radiated Emission Expanded Uncertainty (Above 1GHz):
U = 4.68 dB (Horizontal)
U = 4.87 dB (Vertical)

3 CONDUCTED EMISSION TEST

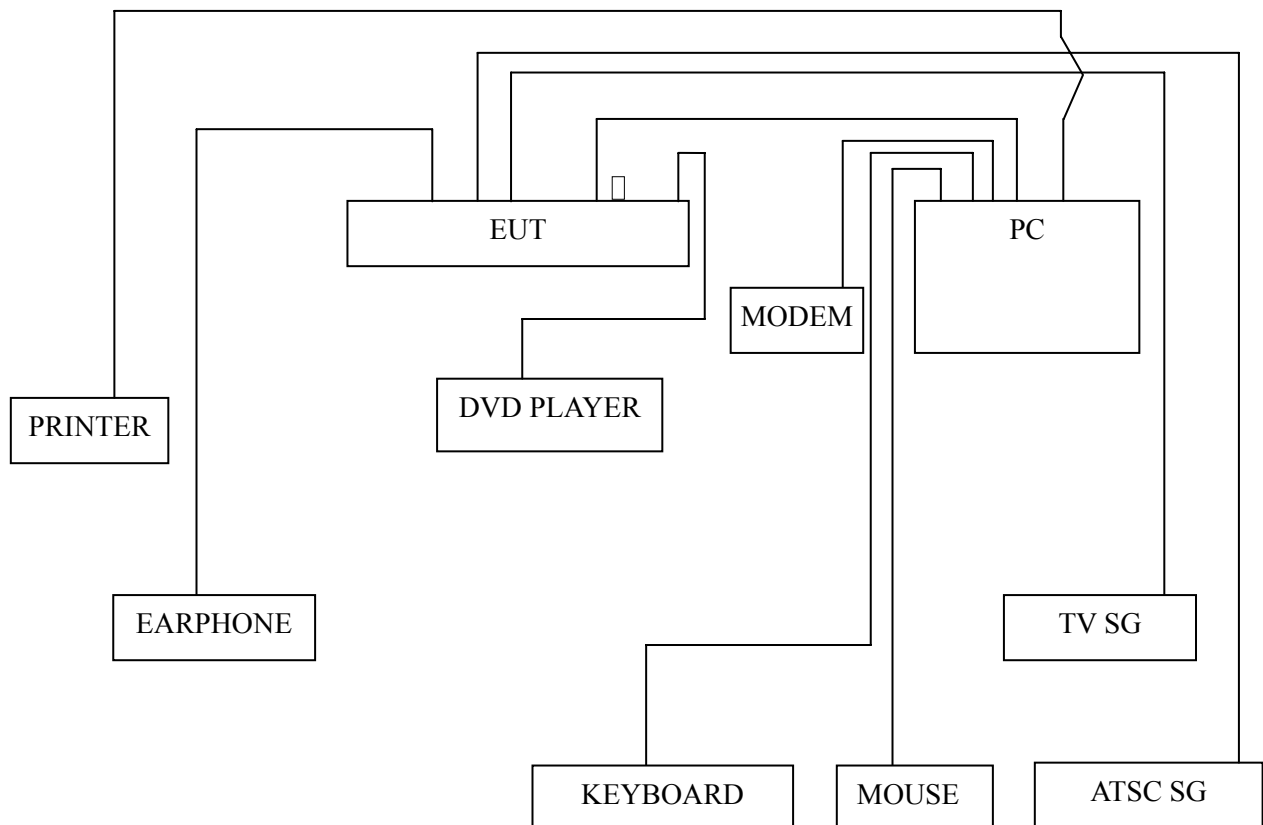
3.1 Test Equipment

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, 2014	Mar 19, 2015
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Feb 25, 2014	Feb 24, 2015
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 20, 2014	Mar 19, 2015
4.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2014	Sep 17, 2014
5.	50 Ω Terminator	Anritsu	BNC	001	Mar 20, 2014	Mar 19, 2015
6.	Software	Audix	E3	6.2009-1-15	--	--

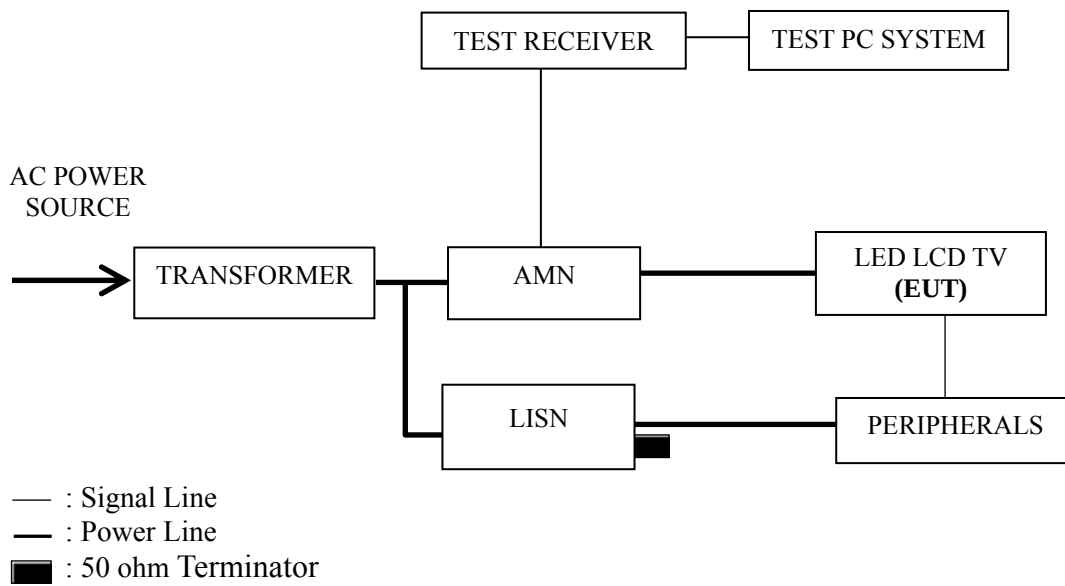
3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



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

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

3.5.4 PC system ran the self-test program “EMC Test” by windows XP and sent “H” characters to EUT through graphic card, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via 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
HDMI 1920*1080@60Hz
HDMI 1280*1024@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
HDMI 1920*1080@60Hz	P13
HDMI 1280*1024@60Hz	P14
HDMI 640*480@60Hz	P15
USB Play	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 1920*1080@60Hz test mode. The worst emission is detected at 16.110 MHz (Average Value) with corrected signal level of 41.90 dB (μV) (limit is 50.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 48%RH

Test Mode : HDMI 1920*1080@60Hz Date of Test : Apr 09, 2014

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.198	46.20	0.12	46.32	63.71	17.39	QP
	0.630	29.10	0.06	29.16	56.00	26.84	
	2.316	24.30	0.09	24.39	56.00	31.61	
	8.273	38.20	0.26	38.46	60.00	21.54	
	16.110	41.70	-0.02	41.68	60.00	18.32	
	24.220	44.30	-0.43	43.87	60.00	16.13	
	0.198	32.00	0.12	32.12	53.71	21.59	AV
	0.630	16.50	0.06	16.56	46.00	29.44	
	2.316	19.70	0.09	19.79	46.00	26.21	
	8.273	36.90	0.26	37.16	50.00	12.84	
	16.110	40.40	-0.02	40.38	50.00	9.62	
	24.220	34.80	-0.43	34.37	50.00	15.63	
Neutral	0.195	46.69	0.20	46.89	63.80	16.91	QP
	0.802	32.30	0.14	32.44	56.00	23.56	
	2.527	28.20	0.16	28.36	56.00	27.64	
	8.273	38.50	0.40	38.90	60.00	21.10	
	16.110	42.20	0.60	42.80	60.00	17.20	
	24.270	44.11	0.88	44.99	60.00	15.01	
	0.195	30.79	0.20	30.99	53.80	22.81	AV
	0.802	31.90	0.14	32.04	46.00	13.96	
	2.527	23.80	0.16	23.96	46.00	22.04	
	8.273	37.10	0.40	37.50	50.00	12.50	
	16.110	41.30	0.60	41.90	50.00	8.10	
	24.270	35.31	0.88	36.19	50.00	13.81	

TEST ENGINEER: ERIC TANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 48%RH

Test Mode : HDMI 1280*1024@60Hz Date of Test : Apr 09, 2014

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.198	45.90	0.12	46.02	63.68	17.66	QP
	0.801	32.30	0.08	32.38	56.00	23.62	
	2.525	27.30	0.09	27.39	56.00	28.61	
	8.271	37.30	0.26	37.56	60.00	22.44	
	16.110	41.80	-0.02	41.78	60.00	18.22	
	24.220	44.40	-0.43	43.97	60.00	16.03	
	0.198	31.70	0.12	31.82	53.68	21.86	AV
	0.801	31.70	0.08	31.78	46.00	14.22	
	2.525	22.70	0.09	22.79	46.00	23.21	
	8.271	35.80	0.26	36.06	50.00	13.94	
	16.110	40.10	-0.02	40.08	50.00	9.92	
	24.220	35.50	-0.43	35.07	50.00	14.93	
Neutral	0.198	45.90	0.20	46.10	63.70	17.60	QP
	0.802	32.60	0.14	32.74	56.00	23.26	
	2.631	24.40	0.17	24.57	56.00	31.43	
	8.274	38.30	0.40	38.70	60.00	21.30	
	16.110	41.40	0.60	42.00	60.00	18.00	
	24.160	47.80	0.88	48.68	60.00	11.32	
	0.198	31.20	0.20	31.40	53.70	22.30	AV
	0.802	31.90	0.14	32.04	46.00	13.96	
	2.631	18.50	0.17	18.67	46.00	27.33	
	8.274	36.50	0.40	36.90	50.00	13.10	
	16.110	40.50	0.60	41.10	50.00	8.90	
	24.160	36.60	0.88	37.48	50.00	12.52	

TEST ENGINEER: ERIC TANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 48%RH

Test Mode : HDMI 640*480@60Hz Date of Test : Apr 09, 2014

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.197	45.50	0.12	45.62	63.76	18.14	QP
	0.804	31.90	0.08	31.98	56.00	24.02	
	2.312	24.70	0.09	24.79	56.00	31.21	
	8.274	37.90	0.26	38.16	60.00	21.84	
	16.110	41.80	-0.02	41.78	60.00	18.22	
	24.110	44.30	-0.41	43.89	60.00	16.11	
	0.197	30.40	0.12	30.52	53.76	23.24	AV
	0.804	31.40	0.08	31.48	46.00	14.52	
	2.312	19.00	0.09	19.09	46.00	26.91	
	8.274	36.40	0.26	36.66	50.00	13.34	
	16.110	40.40	-0.02	40.38	50.00	9.62	
	24.110	30.80	-0.41	30.39	50.00	19.61	
Neutral	0.198	45.70	0.20	45.90	63.69	17.79	QP
	0.804	32.00	0.14	32.14	56.00	23.86	
	2.314	26.10	0.17	26.27	56.00	29.73	
	8.272	38.50	0.40	38.90	60.00	21.10	
	16.110	41.50	0.60	42.10	60.00	17.90	
	24.130	47.00	0.88	47.88	60.00	12.12	
	0.198	31.20	0.20	31.40	53.69	22.29	AV
	0.804	31.30	0.14	31.44	46.00	14.56	
	2.314	21.80	0.17	21.97	46.00	24.03	
	8.272	36.70	0.40	37.10	50.00	12.90	
	16.110	40.60	0.60	41.20	50.00	8.80	
	24.130	36.50	0.88	37.38	50.00	12.62	

TEST ENGINEER: ERIC TANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 48%RH

Test Mode : USB Play Date of Test : Apr 09, 2014

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.198	45.40	0.12	45.52	63.70	18.18	QP
	0.802	32.60	0.08	32.68	56.00	23.32	
	2.312	24.80	0.09	24.89	56.00	31.11	
	8.273	38.30	0.26	38.56	60.00	21.44	
	16.110	42.00	-0.02	41.98	60.00	18.02	
	24.110	46.80	-0.41	46.39	60.00	13.61	
	0.198	31.00	0.12	31.12	53.70	22.58	AV
	0.802	32.00	0.08	32.08	46.00	13.92	
	2.312	19.20	0.09	19.29	46.00	26.71	
	8.273	36.90	0.26	37.16	50.00	12.84	
	16.110	40.80	-0.02	40.78	50.00	9.22	
	24.110	35.60	-0.41	35.19	50.00	14.81	
Neutral	0.201	45.30	0.20	45.50	63.57	18.07	QP
	0.804	32.00	0.14	32.14	56.00	23.86	
	2.312	25.50	0.17	25.67	56.00	30.33	
	8.274	38.40	0.40	38.80	60.00	21.20	
	16.110	41.60	0.60	42.20	60.00	17.80	
	24.140	46.60	0.88	47.48	60.00	12.52	
	0.201	30.50	0.20	30.70	53.57	22.87	AV
	0.804	31.30	0.14	31.44	46.00	14.56	
	2.312	21.30	0.17	21.47	46.00	24.53	
	8.274	36.50	0.40	36.90	50.00	13.10	
	16.110	40.70	0.60	41.30	50.00	8.70	
	24.140	34.00	0.88	34.88	50.00	15.12	

TEST ENGINEER: ERIC TANG

4 RADIATED EMISSION TEST

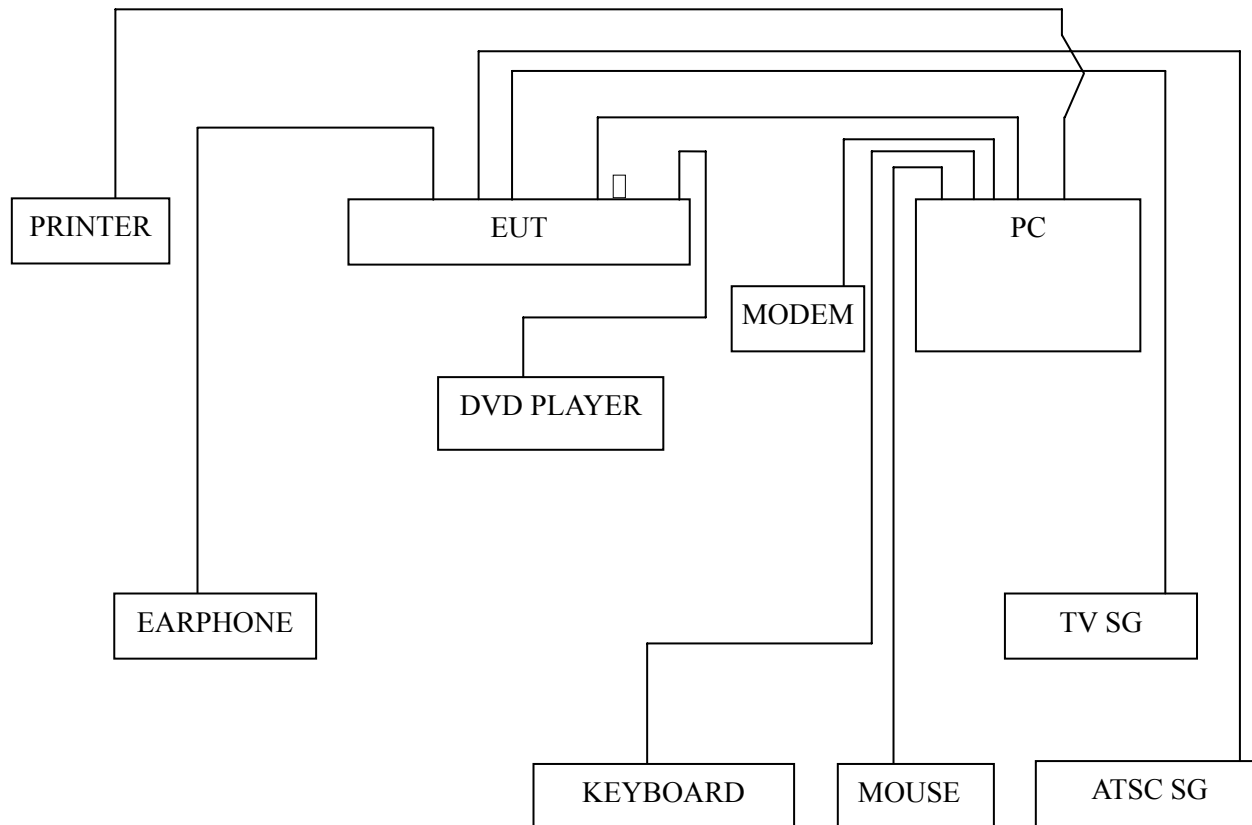
4.1 Test Equipment

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 03, 2013	Sep 02, 2014
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2014	Sep 17, 2014
3.	Preamplifier	HP	8449B	3008A00864	Mar 20, 2014	Mar 19, 2015
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 03, 2013	May 02, 2014
5.	Horn Antenna	EMCO	3115	9607-4878	May 11, 2013	May 10, 2014
6.	Spectrum	Agilent	E7405A	MY45106600	Nov 11, 2013	Nov 10, 2014
7.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2014	Sep 17, 2014
8.	Software	Audix	E3	6.2007-9-10	--	--

4.2 Block Diagram of Test Setup

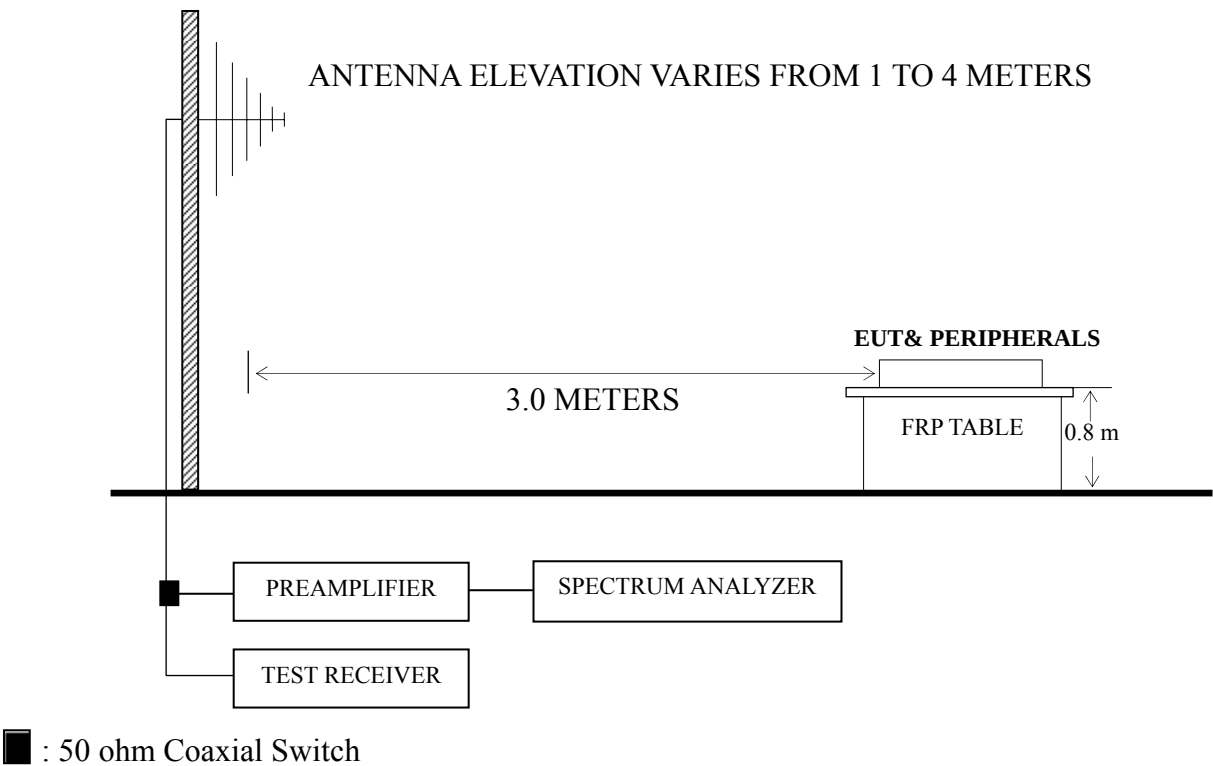
4.2.1 EUT and Peripherals



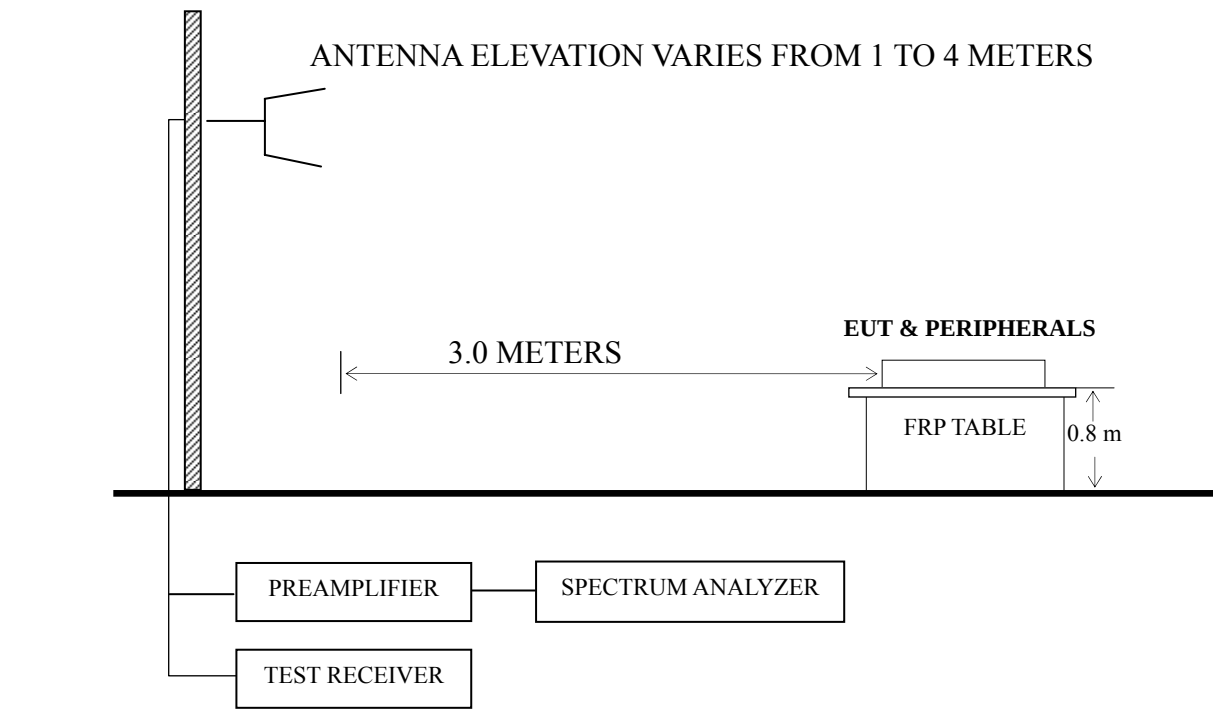
□ : U-Disk

4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



4.2.2.2 Above 1GHz



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

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

4.4 Test Configuration

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

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

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

4.6 Test Procedures

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

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

The frequency range from 30 MHz to 1GHz was checked for all test modes.

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

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

4.7 Test Results

<PASS>

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

Test Mode	Data Page
HDMI 1920*1080@60Hz	P21 – P22
HDMI 1280*1024@60Hz	P23
HDMI 640*480@60Hz	P24
USB Play	P25

- 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 – All readings are Quasi-Peak values below or equal to 1GHz, Peak values and Average values above 1GHz.
- NOTE 4 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
- NOTE 5 – The worst case is for HDMI 1920*1080@60Hz test mode. The worst emission at horizontal polarization was detected at 592.600 MHz with corrected signal level of 42.92 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.70 m height and the turntable was at 25°. The worst emission at vertical polarization was detected at 592.600 MHz with corrected signal level of 42.61 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.10 m height and the turntable was at 320°.

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 60%RH

Test Mode : HMDI 1920*1080@60Hz Date of Test : Apr 17, 2014

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	78.500	23.86	6.71	1.05	--	31.62	40.00	8.38	QP
	154.160	25.26	9.66	1.67	--	36.59	43.50	6.91	
	303.540	24.19	12.80	2.56	--	39.55	46.00	6.45	
	447.100	22.69	17.07	2.82	--	42.58	46.00	3.42	
	592.600	21.12	18.60	3.20	--	42.92	46.00	3.08	
	740.040	19.95	18.90	3.57	--	42.42	46.00	3.58	
	1032.000	48.30	23.82	4.92	38.13	38.91	74.00	35.09	PK
	1196.000	48.04	24.51	5.10	37.75	39.90	74.00	34.10	
	1351.000	46.32	25.17	5.51	37.34	39.66	74.00	34.34	
	1556.000	48.20	26.20	5.65	36.77	43.28	74.00	30.72	
	1849.000	45.71	29.68	6.16	36.28	45.27	74.00	28.73	
	1945.000	45.75	30.54	6.19	36.16	46.32	74.00	27.68	
	1032.000	35.57	23.82	4.92	38.13	26.18	54.00	27.82	AV
	1196.000	35.63	24.51	5.10	37.75	27.49	54.00	26.51	
	1351.000	33.11	25.17	5.51	37.34	26.45	54.00	27.55	
	1556.000	35.89	26.20	5.65	36.77	30.97	54.00	23.03	
	1849.000	32.11	29.68	6.16	36.28	31.67	54.00	22.33	
	1945.000	32.10	30.54	6.19	36.16	32.67	54.00	21.33	

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 60%RH

Test Mode : HDMI 1920*1080@60Hz Date of Test : Apr 17, 2014

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	34.850	15.03	15.85	0.71	--	31.59	40.00	8.41	QP
	151.250	27.10	9.98	1.65	--	38.73	43.50	4.77	
	209.450	27.19	7.60	2.00	--	36.79	43.50	6.71	
	386.960	24.17	15.33	2.67	--	42.17	46.00	3.83	
	447.100	22.15	17.07	2.82	--	42.04	46.00	3.96	
	592.600	20.81	18.60	3.20	--	42.61	46.00	3.39	
	1028.000	47.11	23.81	4.92	38.14	37.70	74.00	36.30	PK
	1180.000	45.95	24.43	5.08	37.79	37.67	74.00	36.33	
	1396.000	45.67	25.32	5.59	37.21	39.37	74.00	34.63	
	1517.000	45.18	25.78	5.64	36.86	39.74	74.00	34.26	
	1669.000	45.54	27.49	5.89	36.56	42.36	74.00	31.64	
	1924.000	44.23	30.35	6.18	36.19	44.57	74.00	29.43	
	1028.000	34.55	23.81	4.92	38.14	25.14	54.00	28.86	AV
	1180.000	32.11	24.43	5.08	37.79	23.83	54.00	30.17	
	1396.000	32.10	25.32	5.59	37.21	25.80	54.00	28.20	
	1517.000	32.77	25.78	5.64	36.86	27.33	54.00	26.67	
	1669.000	32.78	27.49	5.89	36.56	29.60	54.00	24.40	
	1924.000	31.09	30.35	6.18	36.19	31.43	54.00	22.57	

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 60%RH

Test Mode : HDMI 1280*1024@60Hz Date of Test : Apr 17, 2014

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	154.160	24.07	9.66	1.67	35.40	43.50	8.10
	219.150	27.77	8.13	2.04	37.94	46.00	8.06
	303.540	23.79	12.80	2.56	39.15	46.00	6.85
	432.550	21.04	17.55	2.78	41.37	46.00	4.63
	539.250	17.76	19.50	3.06	40.32	46.00	5.68
	645.950	19.33	18.43	3.38	41.14	46.00	4.86
Vertical	41.640	19.87	11.88	0.79	32.54	40.00	7.46
	109.540	23.27	11.84	1.40	36.51	43.50	6.99
	219.150	27.56	8.13	2.04	37.73	46.00	8.27
	432.550	21.48	17.55	2.78	41.81	46.00	4.19
	539.250	17.14	19.50	3.06	39.70	46.00	6.30
	645.950	18.85	18.43	3.38	40.66	46.00	5.34

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 60%RH

Test Mode : HDMI 640*480@60Hz Date of Test : Apr 17, 2014

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	154.160	25.74	9.66	1.67	37.07	43.50	6.43
	303.540	23.10	12.80	2.56	38.46	46.00	7.54
	403.450	19.36	16.23	2.69	38.28	46.00	7.72
	578.050	16.95	18.95	3.16	39.06	46.00	6.94
	825.400	14.44	20.63	3.89	38.96	46.00	7.04
	901.060	14.56	19.30	4.55	38.41	46.00	7.59
Vertical	31.940	16.57	16.50	0.68	33.75	40.00	6.25
	138.640	24.50	10.51	1.59	36.60	43.50	6.90
	303.540	23.83	12.80	2.56	39.19	46.00	6.81
	478.140	17.64	17.90	2.92	38.46	46.00	7.54
	602.300	17.37	18.32	3.22	38.91	46.00	7.09
	825.400	15.05	20.63	3.89	39.57	46.00	6.43

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LHD32K20DHUS Humidity : 60%RH

Test Mode : USB Play Date of Test : Apr 17, 2014

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	158.040	24.85	9.60	1.70	36.15	43.50	7.35
	313.240	22.38	13.52	2.57	38.47	46.00	7.53
	386.960	20.37	15.33	2.67	38.37	46.00	7.63
	447.100	18.30	17.07	2.82	38.19	46.00	7.81
	592.600	15.90	18.60	3.20	37.70	46.00	8.30
	740.040	14.80	18.90	3.57	37.27	46.00	8.73
Vertical	30.000	13.95	18.80	0.65	33.40	40.00	6.60
	151.250	24.10	9.98	1.65	35.73	43.50	7.77
	209.450	26.24	7.60	2.00	35.84	43.50	7.66
	447.100	19.76	17.07	2.82	39.65	46.00	6.35
	740.040	16.98	18.90	3.57	39.45	46.00	6.55
	885.540	14.60	19.65	4.32	38.57	46.00	7.43

TEST ENGINEER: NEAL WANG

5 DEVIATION TO TEST SPECIFICATIONS

None.