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

LED LCD TV

Brand	Model No.
Hisense	HU55K5500UWG
Sharp	LC-55N7000U, LC-55N7000C

FCC ID : W9HLCDF0066

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-F15244
Date of Test : Dec 03 – 12, 2015
Date of Report : Dec 17, 2015

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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.

Factory #3 : HISENSE ELECTRONICA MEXICO, S.A. DE C.V.

EUT Description : LED LCD TV

Model No.	Brand	Power Supply
HU55K5500UWG	Hisense	120V/60Hz
LC-55N7000U, LC-55N7000C	Sharp	

Test Procedure Used:

FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2014 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 Dec 03 – 12, 2015 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.F15243, a Verification report.

Date of Test : Dec 03 – 12, 2015 **Date of Report :** Dec 17, 2015

Producer : HUIMIN YAN / Assistant

Review : SAMMY CHEN / Manager

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

Signatory : BYRON KWO / Assistant General Manager

Authorized Signature EMC

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 2014 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2014 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

Brand	Model No.
Hisense	HU55K5500UWG
Sharp	LC-55N7000U, LC-55N7000C

Note : The above models are all the same except for brand and model number.HU55K5500UWG model is tested and recorded in the report.

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

Manufacturer : same as Applicant

Factory #1 : same as Applicant

Factory #2 : Tatung Mexico S.A. de C.V.
Miguel Catalán 420, Parque Industrial Rio Bravo, Cd. Juarez, Chih., CP 32557

Factory #3 : HISENSE ELECTRONICA MEXICO, S.A. DE C.V.
Blvd. Sharp #3510 Parque Industrial Rosarito, C.P. 22710 Playas de Rosarito, B.C.

LCD Panel : Manufacturer : Hisense
M/N : HE5501U-B51

Tuner : Manufacturer : XuGuang Tech. Co., Ltd.
M/N : HFT-96S3/W11FJ2H\RoH

Max Resolution : 3840*2160@60Hz

HDMI Cable*4 (Lab provide) : Shielded, Detachable, 1.50m

Power Cord : Unshielded, Detachable, 1.80m

LAN Cable : Shielded, Detachable, 1.50m

USB Cable*3 (Lab provide) : Shielded, Detachable, 1.00m, without core

MHL to HDMI Adaptor: with RCP (Lab provide)	Manufacture: CE-Link M/N: 3002

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

Side Port:
(1) One USB3 Port
: Connected with Hard-Disk #1
(2) One HDMI2/ARC Port
: Connected with DVD PLAYER #2
(3) One HDMI1/MHL Port
: Connected with Smart Mobile Phone
(4) One Audio out Port
: Connected with Earphone
(5) One Service Port
: Do not open to customer
(6) One USB1 Port
: Connected with Hard-Disk #2
(7) One USB2 Port
: Connected with Hard-Disk #3
(8) One ANT/CABLE IN Port
: Connected with Antenna or ATSC SG / TV SG

Back Port:
(9) One LAN Port
: Connected with PC
(10) One HDMI3 Port
: Connected with DVD PLAYER #1
(11) One HDMI4 Port
: Connected with PC
(12) One Digital Audio Out Port
: Connected with DVD PLAYER #1
(13) One component of YPbPr Port
: Connected with DVD PLAYER #2
(14) One AV Port
: Connected with DVD PLAYER #1

2.2 Peripherals

2.2.1 PC

Manufacturer	:	HP
Model Number	:	dx7400MT
Serial Number	:	CNG8130K89
Power Cord	:	Unshielded, Detachable, 1.8m
Certificate	:	FCC DoC; CE/EMC; VCCI; C-Tick;

2.2.2 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

2.2.3 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

2.2.4 Modem

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

2.2.5 Earphone

Manufacturer	:	audio-technica
Model Number	:	ATH-CKL200

2.2.6 TV Signal Generator

Manufacturer	:	FLUKE
Model Number	:	54200M01
Serial Number	:	814008

2.2.7 ATSC Signal Generator

Manufacturer	:	SENCORE
Model Number	:	ATSC997
Serial Number	:	6790071

2.2.8 DVD PLAYER #1

Manufacturer	:	PHILIPS
Model Number	:	DVP3986K/93
Serial Number	:	KX1A0902120108
Certificate	:	CCC

2.2.9 DVD PLAYER #2

Manufacturer	:	PHILIPS
Model Number	:	DVP3986K/93
Serial Number	:	KX1A0902120082
Certificate	:	CCC

2.2.10 Hard Disk #1

Manufacturer	:	Tetasys
Model Number	:	F12
Serial Number	:	A010022-4860010X
Data Cable	:	Shielded, Undetachable, 1.8m.
Certificate	:	CE, FCC DoC

2.2.11 Hard Disk #2

Manufacturer	:	Tetasys
Model Number	:	F12
Serial Number	:	A010022-4A60007
Data Cable	:	Shielded, Undetachable, 1.8m.
Certificate	:	CE, FCC DoC

2.2.12 Hard Disk #3

Manufacturer	:	Tetasys
Model Number	:	F12
Serial Number	:	A010022-40F0005
Data Cable	:	Shielded, Undetachable, 1.8m.
Certificate	:	CE, FCC DoC

2.2.13 Smart Mobile Phone

Manufacturer	:	SAMSUNG
Model Number	:	GT-I9100G
Serial Number	:	6935152011519
Certificate	:	CE/EMC

2.3 Description of Test Facility

Site Description (No.3 3m Chamber)	:	Sept. 17, 1998 file on Jan.15, 2015 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 = 3.4dB
Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.6dB (Horizontal)
U = 4.3dB (Vertical)
Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.5dB (Horizontal)
U = 5.4dB (Vertical)
Radiated Emission Expanded Uncertainty (1GHz-6GHz):
U = 5.1dB

3 CONDUCTED EMISSION TEST

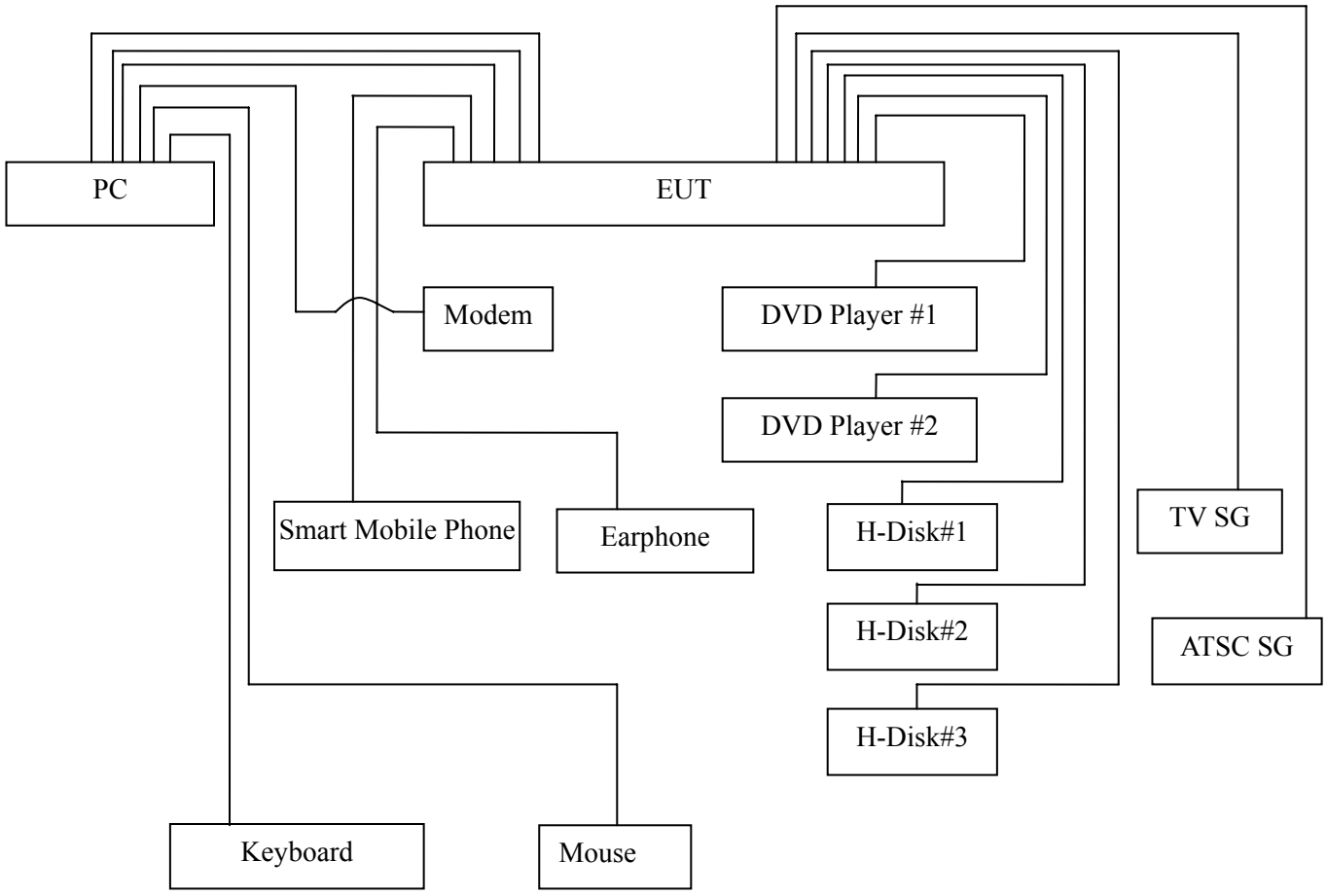
3.1 Test Equipment

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

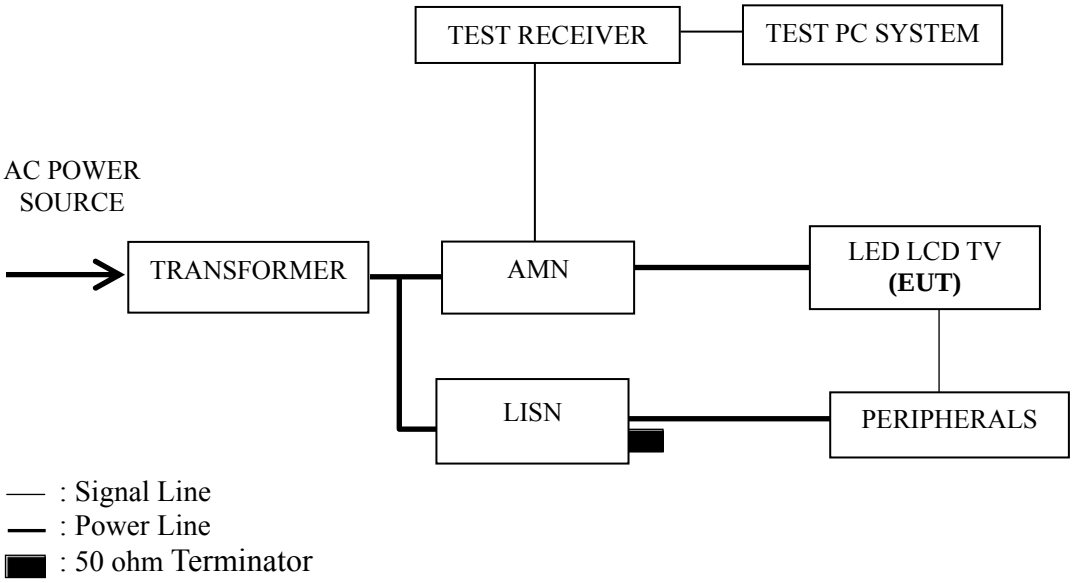
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Jul 03, 2015	Jul 02, 2016
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 27, 2015	Jun 26, 2016
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-5	Mar 20, 2015	Mar 19, 2016
4.	50Ω Terminator	Anritsu	BNC	001	Mar 20, 2015	Mar 19, 2016
5.	Software	Audix	E3	6.111206	--	--

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 (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 HDMI Input).

3.5.5 PC system sent the 1kHz audio signal to EUT through audio port, the EUT speak out 1kHz audio signal.

3.5.6 In USB Play mode, set the EUT play digital media from Hard Disk.

3.5.7 In LAN Play mode, set the EUT play digital media through LAN port.

3.5.8 In MHL mode, set the EUT play digital media from mobile phone.

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

3.5.10 The test modes are as follows:

Test Mode
HDMI 3840*2160@60Hz & 1kHz playing
HDMI 1920*1080@60Hz & 1kHz playing
HDMI 1280*1024@60Hz & 1kHz playing
HDMI 640*480@60Hz & 1kHz playing
HDMI1080P
MHL
USB Play
LAN 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 3840*2160@60Hz & 1kHz playing	P14
HDMI 1920*1080@60Hz & 1kHz playing	P15
HDMI 1280*1024@60Hz & 1kHz playing	P16
HDMI 640*480@60Hz & 1kHz playing	P17
HDMI1080P	P18
MHL	P19
USB Play	P20
LAN Play	P21

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 USB Play test mode. The worst emission is detected at 0.555MHz (Average Value) with corrected signal level of 45.17 dB (μV) (limit is 56.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity :	48%RH	
Test Mode	:	HDMI 3840*2160@60Hz & 1kHz Playing	Date of Test :	Dec 03, 2015	

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.159**	**44.09**	**10.58**	**54.67**	**65.54**	**10.87**	QP
	0.554	32.31	10.38	42.69	56.00	13.31	
	0.913	28.20	10.38	38.58	56.00	17.42	
	1.715	28.09	10.41	38.50	56.00	17.50	
	6.504	25.60	10.47	36.07	60.00	23.93	
	22.380	24.30	10.68	34.98	60.00	25.02	
	0.159	**32.89**	**10.58**	**43.47**	**55.54**	**12.07**	AV
	0.554	21.51	10.38	31.89	46.00	14.11	
	0.913	18.30	10.38	28.68	46.00	17.32	
	1.715	16.89	10.41	27.30	46.00	18.70	
	6.504	19.10	10.47	29.57	50.00	20.43	
	22.380	17.40	10.68	28.08	50.00	21.92	
Neutral	0.168	42.30	10.55	52.85	65.04	12.19	QP
	0.357	35.90	10.42	46.32	58.80	12.48	
	0.556	**34.71**	**10.36**	**45.07**	**56.00**	**10.93**	
	0.882	29.29	10.37	39.66	56.00	16.34	
	2.223	26.70	10.42	37.12	56.00	18.88	
	6.274	26.30	10.50	36.80	60.00	23.20	
	0.168	29.00	10.55	39.55	55.04	15.49	AV
	0.357	22.00	10.42	32.42	48.80	16.38	
	0.556	**23.31**	**10.36**	**33.67**	**46.00**	**12.33**	
	0.882	15.69	10.37	26.06	46.00	19.94	
	2.223	17.50	10.42	27.92	46.00	18.08	
	6.274	18.60	10.50	29.10	50.00	20.90	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity :	48%RH	
Test Mode	:	HDMI 1920*1080@60Hz & 1kHz Playing	Date of Test :	Dec 03, 2015	

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.159**	**43.69**	**10.58**	**54.27**	**65.54**	**11.27**	QP
	0.364	32.30	10.44	42.74	58.63	15.89	
	0.553	32.11	10.38	42.49	56.00	13.51	
	1.727	27.19	10.41	37.60	56.00	18.40	
	4.415	25.80	10.47	36.27	56.00	19.73	
	21.830	25.29	10.67	35.96	60.00	24.04	
	0.159	32.49	10.58	43.07	55.54	12.47	AV
	0.364	18.90	10.44	29.34	48.63	19.29	
	0.553	**21.91**	**10.38**	**32.29**	**46.00**	**13.71**	
	1.727	16.59	10.41	27.00	46.00	19.00	
	4.415	17.70	10.47	28.17	46.00	17.83	
	21.830	18.39	10.67	29.06	50.00	20.94	
Neutral	0.163	42.50	10.56	53.06	65.31	12.25	QP
	0.366	36.29	10.42	46.71	58.59	11.88	
	0.553	**34.31**	**10.36**	**44.67**	**56.00**	**11.33**	
	0.933	26.50	10.37	36.87	56.00	19.13	
	2.534	26.21	10.42	36.63	56.00	19.37	
	21.620	26.31	10.75	37.06	60.00	22.94	
	0.163	31.60	10.56	42.16	55.31	13.15	AV
	0.366	23.99	10.42	34.41	48.59	14.18	
	0.553	**23.51**	**10.36**	**33.87**	**46.00**	**12.13**	
	0.933	15.60	10.37	25.97	46.00	20.03	
	2.534	14.81	10.42	25.23	46.00	20.77	
	21.620	19.41	10.75	30.16	50.00	19.84	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity :	48%RH	
Test Mode	:	HDMI 1280*1024@60Hz & 1kHz Playing	Date of Test :	Dec 03, 2015	

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.158**	**43.89**	**10.58**	**54.47**	**65.55**	**11.08**	QP
	0.371	31.89	10.44	42.33	58.49	16.16	
	0.557	31.70	10.38	42.08	56.00	13.92	
	1.680	28.10	10.40	38.50	56.00	17.50	
	4.584	27.70	10.47	38.17	56.00	17.83	
	20.700	25.50	10.62	36.12	60.00	23.88	
	0.158	**32.39**	**10.58**	**42.97**	**55.55**	**12.58**	AV
	0.371	19.49	10.44	29.93	48.49	18.56	
	0.557	21.60	10.38	31.98	46.00	14.02	
	1.680	17.30	10.40	27.70	46.00	18.30	
	4.584	18.50	10.47	28.97	46.00	17.03	
	20.700	18.70	10.62	29.32	50.00	20.68	
Neutral	**0.168**	**42.49**	**10.56**	**53.05**	**65.08**	**12.03**	QP
	0.361	36.20	10.42	46.62	58.71	12.09	
	0.554	34.21	10.36	44.57	56.00	11.43	
	0.915	29.10	10.37	39.47	56.00	16.53	
	2.529	26.61	10.42	37.03	56.00	18.97	
	6.259	26.30	10.50	36.80	60.00	23.20	
	0.168	29.59	10.56	40.15	55.08	14.93	AV
	0.361	22.30	10.42	32.72	48.71	15.99	
	0.554	**23.51**	**10.36**	**33.87**	**46.00**	**12.13**	
	0.915	18.60	10.37	28.97	46.00	17.03	
	2.529	15.01	10.42	25.43	46.00	20.57	
	6.259	19.50	10.50	30.00	50.00	20.00	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity :	48%RH	
Test Mode	:	HDMI 640*480@60Hz & 1kHz Playing	Date of Test :	Dec 03, 2015	

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.165**	**42.29**	**10.57**	**52.86**	**65.22**	**12.36**	QP
	0.555	32.31	10.38	42.69	56.00	13.31	
	0.946	28.70	10.38	39.08	56.00	16.92	
	2.484	24.81	10.42	35.23	56.00	20.77	
	6.422	26.70	10.47	37.17	60.00	22.83	
	21.490	26.30	10.65	36.95	60.00	23.05	
	0.165	31.19	10.57	41.76	55.22	13.46	AV
	0.555	**22.51**	**10.38**	**32.89**	**46.00**	**13.11**	
	0.946	18.60	10.38	28.98	46.00	17.02	
	2.484	13.01	10.42	23.43	46.00	22.57	
	6.422	19.80	10.47	30.27	50.00	19.73	
	21.490	19.00	10.65	29.65	50.00	20.35	
Neutral	0.160	42.50	10.57	53.07	65.49	12.42	QP
	0.360	36.00	10.42	46.42	58.74	12.32	
	0.558	**34.10**	**10.36**	**44.46**	**56.00**	**11.54**	
	0.909	28.90	10.37	39.27	56.00	16.73	
	2.358	26.90	10.42	37.32	56.00	18.68	
	21.510	26.80	10.75	37.55	60.00	22.45	
	0.160	**32.30**	**10.57**	**42.87**	**65.49**	**22.62**	AV
	0.360	22.10	10.42	32.52	58.74	26.22	
	0.558	22.90	10.36	33.26	56.00	22.74	
	0.909	19.00	10.37	29.37	56.00	26.63	
	2.358	16.80	10.42	27.22	56.00	28.78	
	21.510	20.10	10.75	30.85	60.00	29.15	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity	:	48%RH
Test Mode	:	HDMI1080P	Date of Test	:	Dec 03, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.161**	**43.00**	**10.57**	**53.57**	**65.43**	**11.86**	QP
	0.352	31.80	10.44	42.24	58.91	16.67	
	0.557	32.30	10.38	42.68	56.00	13.32	
	0.963	27.60	10.38	37.98	56.00	18.02	
	1.681	28.50	10.40	38.90	56.00	17.10	
	5.831	25.90	10.47	36.37	60.00	23.63	
	0.161	**32.80**	**10.57**	**43.37**	**55.43**	**12.06**	AV
	0.352	16.90	10.44	27.34	48.91	21.57	
	0.557	22.40	10.38	32.78	46.00	13.22	
	0.963	16.10	10.38	26.48	46.00	19.52	
	1.681	17.60	10.40	28.00	46.00	18.00	
	5.831	17.20	10.47	27.67	50.00	22.33	
Neutral	0.169	42.50	10.55	53.05	65.03	11.98	QP
	0.350	35.30	10.42	45.72	58.96	13.24	
	0.554	**34.61**	**10.36**	**44.97**	**56.00**	**11.03**	
	0.914	28.70	10.37	39.07	56.00	16.93	
	1.673	28.51	10.39	38.90	56.00	17.10	
	6.596	27.50	10.51	38.01	60.00	21.99	
	0.169	29.40	10.55	39.95	55.03	15.08	AV
	0.350	18.90	10.42	29.32	48.96	19.64	
	0.554	**24.21**	**10.36**	**34.57**	**46.00**	**11.43**	
	0.914	18.10	10.37	28.47	46.00	17.53	
	1.673	17.91	10.39	28.30	46.00	17.70	
	6.596	20.10	10.51	30.61	50.00	19.39	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	48%RH
Test Mode	:	MHL	Date of Test :	Dec 03, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.158**	**43.79**	**10.58**	**54.37**	**65.57**	**11.20**	QP
	0.368	32.29	10.44	42.73	58.54	15.81	
	0.553	32.21	10.38	42.59	56.00	13.41	
	1.745	28.79	10.41	39.20	56.00	16.80	
	4.481	27.90	10.47	38.37	56.00	17.63	
	21.630	26.10	10.65	36.75	60.00	23.25	
	0.158	**32.19**	**10.58**	**42.77**	**55.57**	**12.80**	AV
	0.368	20.19	10.44	30.63	48.54	17.91	
	0.553	22.41	10.38	32.79	46.00	13.21	
	1.745	17.99	10.41	28.40	46.00	17.60	
	4.481	18.00	10.47	28.47	46.00	17.53	
	21.630	19.40	10.65	30.05	50.00	19.95	
Neutral	0.172	42.30	10.55	52.85	64.88	12.03	QP
	0.367	36.19	10.42	46.61	58.56	11.95	
	0.557	**34.60**	**10.36**	**44.96**	**56.00**	**11.04**	
	0.899	30.00	10.37	40.37	56.00	15.63	
	1.680	28.31	10.39	38.70	56.00	17.30	
	6.433	26.50	10.50	37.00	60.00	23.00	
	0.172	28.60	10.55	39.15	54.88	15.73	AV
	0.367	24.29	10.42	34.71	48.56	13.85	
	0.557	**23.40**	**10.36**	**33.76**	**46.00**	**12.24**	
	0.899	18.60	10.37	28.97	46.00	17.03	
	1.680	17.51	10.39	27.90	46.00	18.10	
	6.433	19.70	10.50	30.20	50.00	19.80	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity	:	48%RH
Test Mode	:	USB Play	Date of Test	:	Dec 03, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.164**	**42.30**	**10.57**	**52.87**	**65.25**	**12.38**	QP
	0.556	32.61	10.38	42.99	56.00	13.01	
	0.925	28.30	10.38	38.68	56.00	17.32	
	2.447	27.71	10.42	38.13	56.00	17.87	
	6.579	27.50	10.47	37.97	60.00	22.03	
	21.520	25.90	10.65	36.55	60.00	23.45	
	0.164	31.40	10.57	41.97	55.25	13.28	AV
	0.556	**22.71**	**10.38**	**33.09**	**46.00**	**12.91**	
	0.925	17.40	10.38	27.78	46.00	18.22	
	2.447	15.81	10.42	26.23	46.00	19.77	
	6.579	19.80	10.47	30.27	50.00	19.73	
	21.520	18.60	10.65	29.25	50.00	20.75	
Neutral	0.158	43.20	10.57	53.77	65.56	11.79	QP
	0.348	35.29	10.43	45.72	59.01	13.29	
	0.555	**34.81**	**10.36**	**45.17**	**56.00**	**10.83**	
	1.482	29.60	10.39	39.99	56.00	16.01	
	6.252	25.60	10.50	36.10	60.00	23.90	
	21.830	26.19	10.77	36.96	60.00	23.04	
	0.158	31.90	10.57	42.47	55.56	13.09	AV
	0.348	18.69	10.43	29.12	49.01	19.89	
	0.555	**24.51**	**10.36**	**34.87**	**46.00**	**11.13**	
	1.482	18.70	10.39	29.09	46.00	16.91	
	6.252	18.30	10.50	28.80	50.00	21.20	
	21.830	18.79	10.77	29.56	50.00	20.44	

TEST ENGINEER: WENCY YANG

EUT	:	LED LCD TV	Temperature :	22℃	
Model No.	:	HU55K5500UWG	Humidity	:	48%RH
Test Mode	:	LAN Play	Date of Test	:	Dec 03, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.156**	**43.90**	**10.58**	**54.48**	**65.65**	**11.17**	QP
	0.552	31.91	10.38	42.29	56.00	13.71	
	0.943	29.30	10.38	39.68	56.00	16.32	
	1.662	27.90	10.40	38.30	56.00	17.70	
	6.778	25.71	10.46	36.17	60.00	23.83	
	21.373	25.90	10.64	36.54	60.00	23.46	
	0.156	31.00	10.58	41.58	55.65	14.07	AV
	0.552	**22.41**	**10.38**	**32.79**	**46.00**	**13.21**	
	0.943	19.10	10.38	29.48	46.00	16.52	
	1.662	17.70	10.40	28.10	46.00	17.90	
	6.778	19.61	10.46	30.07	50.00	19.93	
	21.373	19.10	10.64	29.74	50.00	20.26	
Neutral	0.163	42.79	10.57	53.36	65.32	11.96	QP
	0.350	35.50	10.42	45.92	58.96	13.04	
	0.554	**34.71**	**10.36**	**45.07**	**56.00**	**10.93**	
	1.748	28.79	10.41	39.20	56.00	16.80	
	4.416	27.10	10.46	37.56	56.00	18.44	
	21.780	26.59	10.77	37.36	60.00	22.64	
	0.163	31.89	10.57	42.46	55.32	12.86	AV
	0.350	19.00	10.42	29.42	48.96	19.54	
	0.554	**24.31**	**10.36**	**34.67**	**46.00**	**11.33**	
	1.748	18.19	10.41	28.60	46.00	17.40	
	4.416	18.50	10.46	28.96	46.00	17.04	
	21.780	19.69	10.77	30.46	50.00	19.54	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

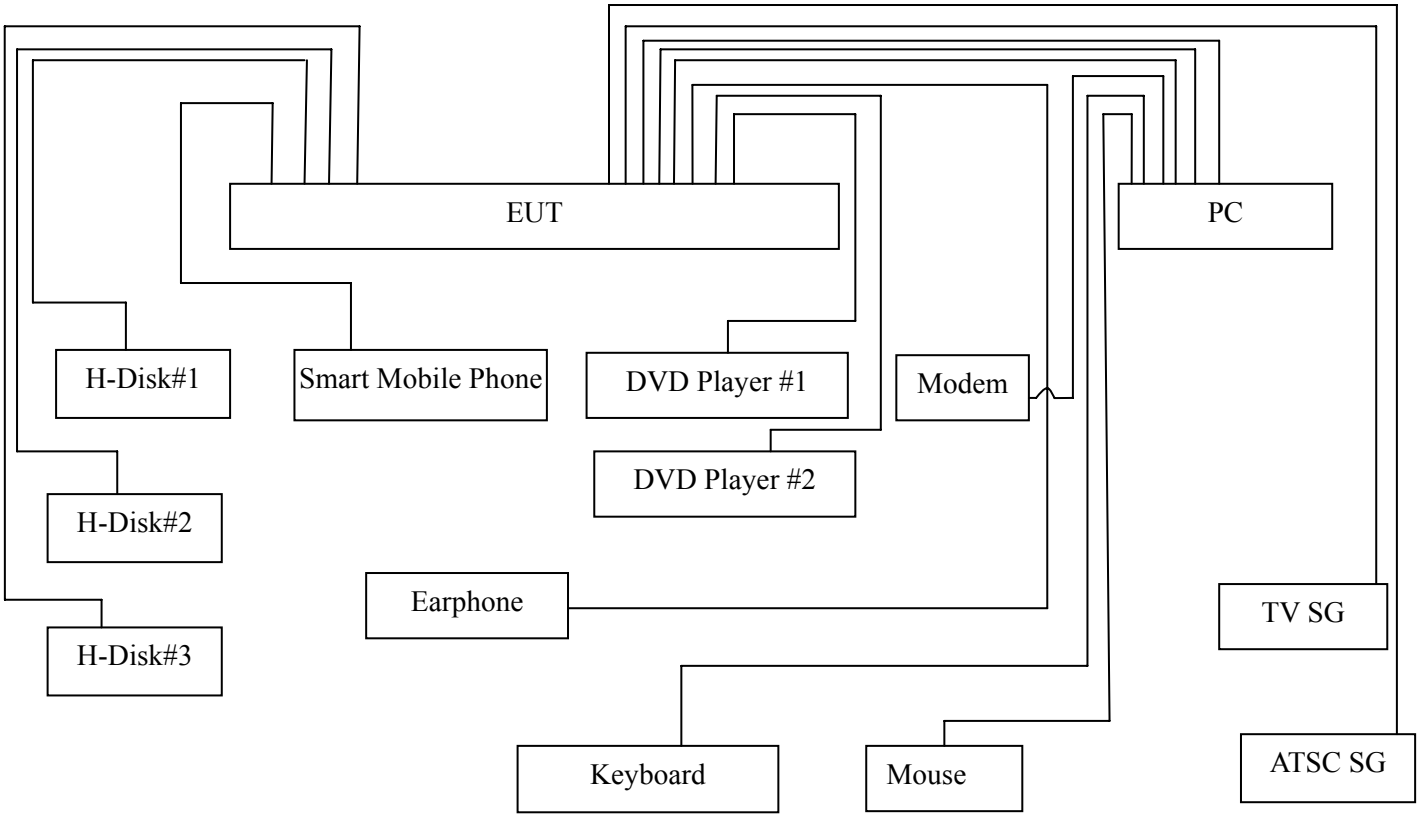
4.1 Test Equipment

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

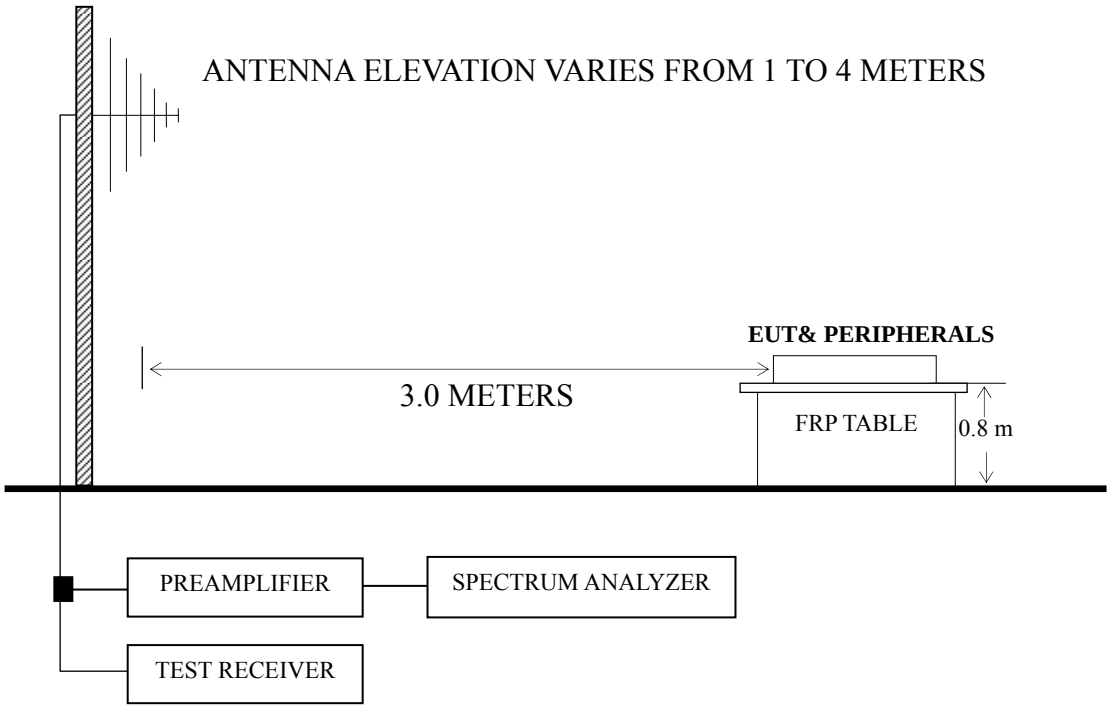
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101303	May 07, 2015	May 06, 2016
2.	Preamplifier	Agilent	8447D	2944A06664	Apr 27, 2015	Apr 26, 2016
3.	Preamplifier	HP	8449B	3008A00864	Mar 20, 2015	Sep 19, 2016
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 15, 2015	May 14, 2016
5.	Horn Antenna	EMCO	3115	9607-4878	Jun 03, 2015	Jun 02, 2016
6.	Spectrum	Agilent	N9010A	MY52221182	Jun 12, 2015	Jun 11, 2016
7.	Spectrum	HP	8591EM	3628A00908	May 07, 2015	May 06, 2016
8.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Sep 18, 2015	Mar 17, 2016
9.	Software	Audix	E3	6.2007-9-10	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals



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 frequency range from 1 GHz to 6 GHz was checked for the maximum resolution test 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
HDMI 3840*2160@60Hz & 1kHz playing	P26 - P27
HDMI 1920*1080@60Hz & 1kHz playing	P28
HDMI 1280*1024@60Hz & 1kHz playing	P29
HDMI 640*480@60Hz & 1kHz playing	P30
HDMI1080P	P31
MHL	P32
USB Play	P33
LAN Play	P34

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading. (< 1GHz);
Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading. (> 1GHz)

NOTE 2 – All readings are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.

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 HDMI 3840*2160@60Hz & 1kHz Playing test mode. The worst emission at horizontal polarization was detected at 729.260 MHz with corrected signal level of 44.79 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 2.1 m height and the turntable was at 120°. The worst emission at vertical polarization was detected at 730.120 MHz with corrected signal level of 43.89 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.0m height and the turntable was at 300°.

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI 3840*2160@60Hz & 1kHz Playing	Date of Test :	Dec 12, 2015

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	61.040	6.26	25.80	0.88	--	32.94	40.00	7.06	QP
	108.570	12.57	19.74	1.39	--	33.70	43.50	9.80	
	213.330	10.13	24.54	2.02	--	36.69	43.50	6.81	
	295.780	13.65	28.32	2.56	--	44.53	46.00	1.47	
	729.260	**20.10**	**21.10**	**3.59**	**--**	**44.79**	**46.00**	**1.21**	
	803.090	20.60	18.26	3.78	--	42.64	46.00	3.36	
	1034.630	23.68	65.86	4.66	36.43	57.77	74.00	16.23	PK
	1179.207	24.35	64.23	3.63	36.17	56.04	74.00	17.96	
	1483.178	25.54	62.58	3.86	35.71	56.27	74.00	17.73	
	2080.961	27.66	62.18	4.53	35.11	59.26	74.00	14.74	
	2964.950	**30.37**	**67.71**	**5.76**	**35.20**	**68.64**	**74.00**	**5.36**	
	3387.825	31.29	61.51	6.10	34.82	64.08	74.00	9.92	
	1034.630	23.68	48.81	4.66	36.43	40.72	54.00	13.28	AV
	1179.207	24.35	48.23	3.63	36.17	40.04	54.00	13.96	
	1483.178	25.54	48.58	3.86	35.71	42.27	54.00	11.73	
	2080.961	**27.66**	**46.18**	**4.53**	**35.11**	**43.26**	**54.00**	**10.74**	
	2964.950	30.37	41.51	5.76	35.20	42.44	54.00	11.56	
	3387.825	31.29	39.51	6.10	34.82	42.08	54.00	11.92	

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI 3840*2160@60Hz & 1kHz Playing	Date of Test :	Dec 12, 2015

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
Vertical	61.040	6.26	28.62	0.88	--	35.76	40.00	4.24	QP
	73.650	8.20	25.92	0.99	--	35.11	40.00	4.89	
	123.120	12.98	22.03	1.48	--	36.49	43.50	7.01	
	305.480	13.99	23.30	2.60	--	39.89	46.00	6.11	
	593.570	18.85	15.77	2.31	--	36.93	46.00	9.07	
	730.120	**20.10**	**20.20**	**3.59**	**--**	**43.89**	**46.00**	**2.11**	
	1123.517	24.10	63.48	3.98	36.26	55.30	74.00	18.70	PK
	1181.321	24.37	64.45	3.63	36.16	56.29	74.00	17.71	
	1799.839	26.80	60.81	4.15	35.32	56.44	74.00	17.56	
	2077.235	27.65	62.28	4.53	35.11	59.35	74.00	14.65	
	2543.413	28.60	60.55	4.96	35.16	58.95	74.00	15.05	
	2967.138	**30.37**	**63.31**	**5.76**	**35.20**	**64.24**	**74.00**	**9.76**	
	1123.517	24.10	51.48	3.98	36.26	43.30	54.00	10.70	AV
	1181.321	24.37	50.22	3.63	36.16	42.06	54.00	11.94	
	1799.839	26.80	47.81	4.15	35.32	43.44	54.00	10.56	
	2077.235	27.65	46.28	4.53	35.11	43.35	54.00	10.65	
	2543.413	**28.60**	**46.55**	**4.96**	**35.16**	**44.95**	**54.00**	**9.05**	
	2967.138	30.37	42.31	5.76	35.20	43.24	54.00	10.76	

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI 1920*1080@60Hz & 1kHz Playing	Date of Test :	Dec 12, 2015

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	143.490	12.20	20.61	1.60	34.41	43.50	9.09
	185.200	10.50	23.62	1.88	36.00	43.50	7.50
	291.560	13.60	26.80	2.52	42.92	46.00	3.08
	479.110	17.50	19.19	2.90	39.59	46.00	6.41
	736.160	19.97	20.22	3.60	43.79	46.00	2.21
	803.090	**20.60**	**19.61**	**3.78**	**43.99**	**46.00**	**2.01**
Vertical	52.310	7.06	23.06	0.83	30.95	40.00	9.05
	191.020	10.27	21.99	1.92	34.18	43.50	9.32
	294.810	13.60	23.26	2.56	39.42	46.00	6.58
	587.750	18.58	19.50	2.36	40.44	46.00	5.56
	800.180	**20.60**	**16.18**	**3.68**	**40.46**	**46.00**	**5.54**
	902.030	21.30	13.23	4.56	39.09	46.00	6.91

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI 1280*1024@60Hz & 1kHz Playing	Date of Test :	Dec 12, 2015

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	8.20	24.86	0.99	34.05	40.00	5.95
	184.230	10.50	21.04	1.87	33.41	43.50	10.09
	247.280	12.38	22.53	2.14	37.05	46.00	8.95
	291.680	13.60	25.00	2.52	41.12	46.00	4.88
	476.200	17.42	16.74	2.90	37.06	46.00	8.94
	806.000	**20.60**	**18.49**	**3.78**	**42.87**	**46.00**	**3.13**
Vertical	50.370	7.54	22.34	0.82	30.70	40.00	9.30
	120.210	12.83	19.77	1.46	34.06	43.50	9.44
	300.630	**13.84**	**24.32**	**2.59**	**40.75**	**46.00**	**5.25**
	474.260	17.38	10.84	2.88	31.10	46.00	14.90
	808.910	20.60	15.49	3.78	39.87	46.00	6.13
	895.240	21.30	12.25	4.46	38.01	46.00	7.99

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI 640*480@60Hz & 1kHz Playing	Date of Test :	Dec 12, 2015

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	9.74	21.98	1.13	32.85	40.00	7.15
	202.660	9.75	25.48	1.98	37.21	43.50	6.29
	293.070	**13.60**	**25.80**	**2.52**	**41.92**	**46.00**	**4.08**
	380.170	16.50	16.73	2.69	35.92	46.00	10.08
	479.110	17.50	17.20	2.90	37.60	46.00	8.40
	806.000	20.60	17.29	3.78	41.67	46.00	4.33
Vertical	51.340	7.27	24.98	0.82	33.07	40.00	6.93
	191.020	10.27	22.68	1.92	34.87	43.50	8.63
	300.630	**13.84**	**24.54**	**2.59**	**40.97**	**46.00**	**5.03**
	481.050	17.52	18.46	2.90	38.88	46.00	7.12
	800.180	20.60	14.65	3.68	38.93	46.00	7.07
	908.820	21.50	14.12	4.56	40.18	46.00	5.82

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	HDMI1080P	Date of Test :	Dec 12, 2015

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	68.800	7.12	25.46	0.92	33.50	40.00	6.50
	243.400	12.10	24.43	2.13	38.66	46.00	7.34
	297.000	13.70	25.80	2.56	42.06	46.00	3.94
	479.110	17.50	18.22	2.90	38.62	46.00	7.38
	725.490	**20.03**	**19.17**	**3.59**	**42.79**	**46.00**	**3.21**
	806.000	20.60	17.85	3.78	42.23	46.00	3.77
Vertical	60.070	6.20	27.98	0.88	35.06	40.00	4.94
	76.560	8.78	25.54	1.04	35.36	40.00	4.64
	124.090	13.04	19.17	1.49	33.70	43.50	9.80
	219.150	10.44	21.59	2.04	34.07	46.00	11.93
	297.000	13.70	27.00	2.56	43.26	46.00	2.74
	736.160	**19.97**	**20.41**	**3.60**	**43.98**	**46.00**	**2.02**

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	MHL	Date of Test :	Dec 12, 2015

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	**76.560**	**8.78**	**27.64**	**1.04**	**37.46**	**40.00**	**2.54**
	132.820	12.69	19.03	1.54	33.26	43.50	10.24
	223.030	10.70	25.74	2.05	38.49	46.00	7.51
	591.630	18.73	20.10	2.31	41.14	46.00	4.86
	655.900	19.65	19.20	3.03	41.88	46.00	4.12
	976.720	22.30	14.75	4.80	41.85	54.00	12.15
Vertical	51.340	7.27	24.99	0.82	33.08	40.00	6.92
	138.640	12.53	17.62	1.57	31.72	43.50	11.78
	224.970	10.80	24.02	2.07	36.89	46.00	9.11
	295.780	13.65	21.40	2.56	37.61	46.00	8.39
	591.630	18.73	20.00	2.31	41.04	46.00	4.96
	655.900	**19.65**	**18.70**	**3.03**	**41.38**	**46.00**	**4.62**

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	USB Play	Date of Test :	Dec 12, 2015

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	**54.250**	**6.66**	**26.64**	**0.84**	**34.14**	**40.00**	**5.86**
	106.630	12.54	17.90	1.38	31.82	43.50	11.68
	176.470	10.64	24.42	1.82	36.88	43.50	6.62
	292.870	13.60	19.78	2.52	35.90	46.00	10.10
	676.990	19.80	16.20	3.28	39.28	46.00	6.72
	844.800	20.73	14.79	4.07	39.59	46.00	6.41
Vertical	51.340	7.27	24.39	0.82	32.48	40.00	7.52
	124.090	13.04	20.81	1.49	35.34	43.50	8.16
	152.220	11.35	23.40	1.65	36.40	43.50	7.10
	296.750	13.70	19.28	2.56	35.54	46.00	10.46
	598.420	**19.10**	**19.66**	**2.31**	**41.07**	**46.00**	**4.93**
	669.230	19.60	16.59	3.16	39.35	46.00	6.65

TEST ENGINEER: BILL WU

EUT	:	LED LCD TV	Temperature :	22℃
Model No.	:	HU55K5500UWG	Humidity :	60%RH
Test Mode	:	LAN Play	Date of Test :	Dec 12, 2015

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	74.620	8.43	24.83	1.01	34.27	40.00	5.73
	107.600	12.55	21.24	1.38	35.17	43.50	8.33
	221.090	10.60	23.78	2.05	36.43	46.00	9.57
	295.780	13.65	24.40	2.56	40.61	46.00	5.39
	655.100	19.70	18.30	3.03	41.03	46.00	4.97
	890.100	**21.30**	**15.10**	**4.46**	**40.86**	**46.00**	**5.14**
Vertical	33.880	16.47	16.42	0.67	33.56	40.00	6.44
	75.590	8.61	24.64	1.02	34.27	40.00	5.73
	126.030	13.03	21.85	1.50	36.38	43.50	7.12
	224.970	10.80	23.15	2.07	36.02	46.00	9.98
	655.800	**19.70**	**17.80**	**3.03**	**40.53**	**46.00**	**5.47**
	888.450	21.30	14.18	4.46	39.94	46.00	6.06

TEST ENGINEER: BILL WU

5 DEVIATION TO TEST SPECIFICATIONS

None.