

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

LED LCD TV

Model No.:

Model No.	Brand
65H7D, 65H7D+, 65H7+0D 65H7+0D1, 65H7+0D2, 65H70+0D 65H70+0D1, 65H70+0D2	Hisense

FCC ID : W9HLCDF0126

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

Prepared By : Audix Technology (Shanghai) Co., Ltd.
3F and 4F, 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai 200233, China

Tel: +86-21-64955500
Fax: +86-21-64955491

Report No. : ACI-F17259
Date of Test : Jul 10-11, 2017
Date of Report : Aug 03, 2017

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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. : Refer to Sec.2.1
Brand : Hisense
Power Supply : 120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B
AND ANSI C63.4-2014*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. To determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart B (Class B) limits both radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: Refer to Sec.2.1) which was tested in 3m anechoic chamber Jul 10-11, 2017 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.

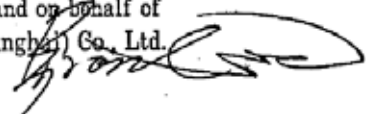
This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

The test results for EUT's TV functions are contained in No.F17260, a Verification report.

Date of Test : Jul 10-11, 2017 Date of Report : Aug 03, 2017

Producer : Tina Liang
TINA LIANG / Assistant

Review : Byron Wu
BYRON WU / Deputy Assistant Manager

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

Signatory :
Authorized Signature(s) BYRON KWO / Assistant General 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 AND ANSI C63.4-2014	15.107(a) Class B	Pass
		Minimum passing margin is 2.52dB at 0.150MHz	
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B AND ANSI C63.4-2014	15.109(a) Class B	Pass
		Minimum passing margin is 3.14dB at 839.182MHz (Vertical, 1.30m/120°)	

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	LED LCD TV
Type of EUT	:	☒ Production ☐ Pre-product ☐ Pro-type
Model No	:	65H7D, 65H7D+, 65H7+0D, 65H7+0D1, 65H7+0D2 65H70+0D, 65H70+0D1, 65H70+0D2
Note #1	:	The above models are all the same except for model number. 65H7D model is tested and recorded in the report.
Note #2	:	“+” represents any of the Arabic numeral.
Note #3	:	The tuner port comply with the 15.111 requirement.
Brand	:	Hisense
RF module FCC ID	:	PPQ-WCBN4511R
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, China, CP 32557
Factory #3	:	HISENSE ELECTRONICA MEXICO,S.A. DE C.V. Blvd. Hisense #3510 Parque Industrial Rosarito, C.P. 22710 Playas de Rosarito, B.C.
LCD Panel	:	Manufacturer : Hisense M/N : HD650K3U31
Tuner	:	Manufacturer : SILICON LABS M/N : Si2151-A10
Max Resolution	:	3840*2160@60Hz
HDMI Cable*4 (Lab provide)	:	Shielded, Detachable, 1.80m
Power Cord	:	Unshielded, Detachable, 1.80m, 2C

LAN Cable : Unshielded, Detachable, 1.50m

USB Cable*3 : Shielded, Detachable, 1.00m
(Lab provide)

Remark:

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

Side Port:

- (1) One ANT Port : Connected with ATSC SG / TV SG
- (2) One USB 1 Port : Connected with Hard-Disk
- (3) One USB 2 Port : Connected with Hard-Disk
- (4) One Service Port : Do not open to the customers
- (5) One AUDIO OUT Port : Connected with Earphone#1
- (6) One HDMI 1/MHL Port : Connected with Mobile phone
- (7) One HDMI2 Port : Connected with PC
- (8) One USB 3 Port : Connected with Hard-Disk

Back Port:

- (9) One COMPONENT IN/AV IN Port : Connected with DVD PLAYER
- (10) One LAN IN Port : Connected with PC
- (11) One Digital Audio Out Port : Connected with Audio Converter to Earphone#2
- (12) One HDMI3 Port : Connected with PC
- (13) One HDMI4 Port : Connected with DVD PLAYER

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : Pro3340
Serial Number : 6CR2512VFD
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*2

Manufacturer : EDIFIER
Model Number : H210

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

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

2.2.9 Hard Disk#1

Manufacturer : Tetasy
Model Number : F12
Serial Number : A010022-486006
Data Cable : Shielded, Undetachable, 1.8m.
Certificate : CE, FCC DoC

2.2.10 Hard Disk #2

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

2.2.11 Hard Disk #3

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

2.2.12 Mobile Phone

Manufacturer : SUMSUNG
Model Number : GT-I9100G
Serial Number : 69351520011519
Certificate : CE/EMC

2.3 Description of Test Facility

Site Description : Sept. 17, 1998 file on
(No.3 3m Chamber) 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

FCC registration Number : 91789

NVLAP Lab Code : 200371-0

2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty : U = 3.4dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.3dB(Horizontal)
U = 4.6dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.3dB (Horizontal)
U = 5.5dB (Vertical)

Radiated Emission Expanded Uncertainty (1GHz-6GHz):
U = 5.1 dB

3 CONDUCTED EMISSION TEST

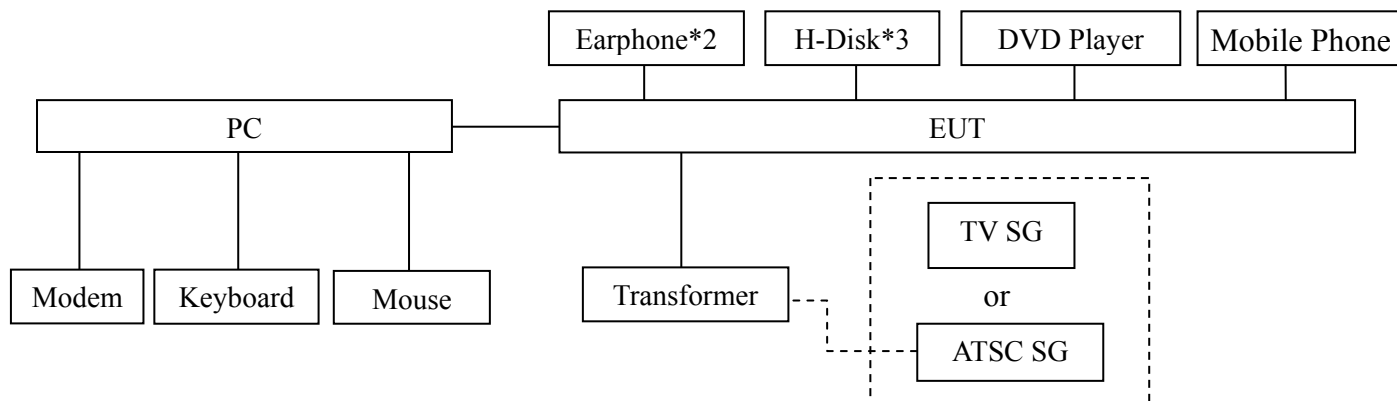
3.1 Test Equipment

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

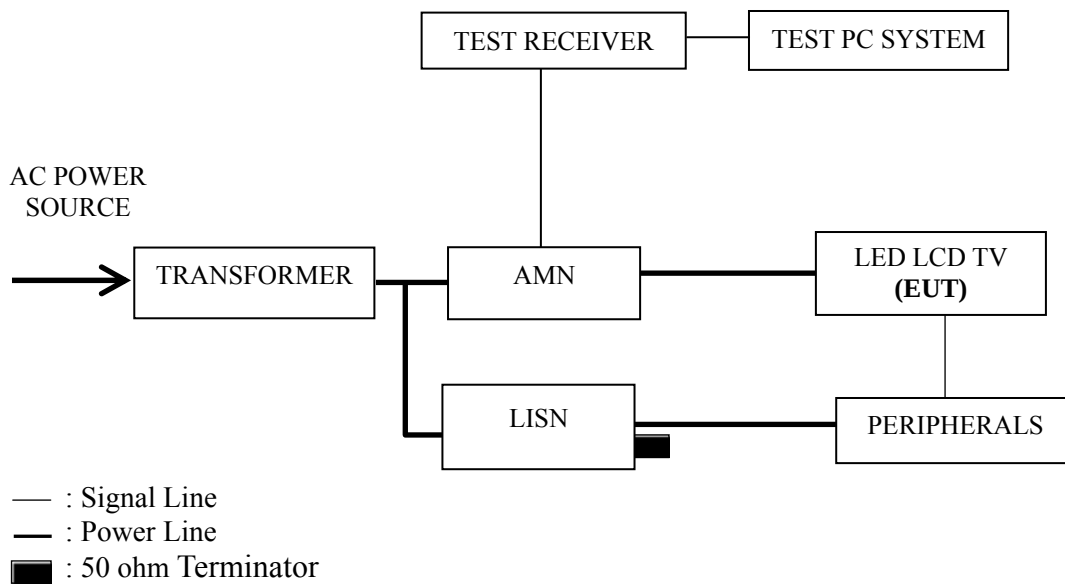
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Apr 27, 2017	Apr 26, 2018
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 25, 2017	Jun 24, 2018
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 17, 2017	Mar 16, 2018
4.	50Ω Terminator	Anritsu	BNC	001	Mar 20, 2017	Sep 19, 2017
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 (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 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 H-Disk.
- 3.5.7 In LAN Play mode, set the EUT play digital media through LAN port.
- 3.5.8 In WIFI mode, set the EUT play digital media through WIFI.
- 3.5.9 In MHL mode, set the EUT play digital media from mobile phone.
- 3.5.10 The other peripherals devices were driven and operated during the test.
- 3.5.11 The test modes are as follows:

Test Mode
HDMI1 3840*2160@60Hz & 1kHz playing
HDMI1 1920*1080@60Hz & 1kHz playing
HDMI1 1280*1024@60Hz & 1kHz playing
HDMI1 640*480@60Hz & 1kHz playing
HDMI2 3840*2160@60Hz & 1kHz playing
HDMI3 3840*2160@30Hz & 1kHz playing
HDMI4 3840*2160@30Hz & 1kHz playing
HDMI1080P
USB Play
LAN Play
WIFI
MHL

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 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
HDMI1 3840*2160@60Hz & 1kHz playing	P14
HDMI1 1920*1080@60Hz & 1kHz playing	P15
HDMI1 1280*1024@60Hz & 1kHz playing	P16
HDMI1 640*480@60Hz & 1kHz playing	P17
HDMI2 3840*2160@60Hz & 1kHz playing	P18
HDMI3 3840*2160@30Hz & 1kHz playing	P19
HDMI4 3840*2160@30Hz & 1kHz playing	P20
HDMI1080P	P21
USB Play	P22
LAN Play	P23
WIFI	P24
MHL	P25

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.

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : Jul 08, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	51.60	10.60	62.20	65.98	3.78	QP
	0.356	30.39	10.42	40.81	58.83	18.02	
	0.654	29.37	10.38	39.75	56.00	16.25	
	1.054	28.20	10.39	38.59	56.00	17.41	
	2.066	28.77	10.41	39.18	56.00	16.82	
	15.388	29.97	10.45	40.42	60.00	19.58	
	0.150	40.10	10.60	50.70	55.98	5.28	AV
	0.356	21.30	10.42	31.72	48.83	17.11	
	0.654	14.57	10.38	24.95	46.00	21.05	
	1.054	17.60	10.39	27.99	46.00	18.01	
	2.066	17.30	10.41	27.71	46.00	18.29	
	15.388	24.81	10.45	35.26	50.00	14.74	
Neutral	0.153	50.83	10.52	61.35	65.82	4.47	QP
	0.701	30.57	10.39	40.96	56.00	15.04	
	1.043	28.31	10.39	38.70	56.00	17.30	
	1.819	25.46	10.42	35.88	56.00	20.12	
	2.839	26.54	10.44	36.98	56.00	19.02	
	16.486	29.08	10.50	39.58	60.00	20.42	
	0.153	39.00	10.52	49.52	55.82	6.30	AV
	0.701	18.40	10.39	28.79	46.00	17.21	
	1.043	17.20	10.39	27.59	46.00	18.41	
	1.819	15.60	10.42	26.02	46.00	19.98	
	2.839	16.20	10.44	26.64	46.00	19.36	
	16.486	24.20	10.50	34.70	50.00	15.30	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : Jul 08, 2017
1920*1080@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.152	51.94	10.60	62.54	65.91	3.37	QP
	0.348	29.81	10.43	40.24	59.00	18.76	
	0.558	29.78	10.38	40.16	56.00	15.84	
	1.054	29.60	10.39	39.99	56.00	16.01	
	2.033	28.63	10.41	39.04	56.00	16.96	
	16.486	28.41	10.44	38.85	60.00	21.15	
	0.152	40.30	10.60	50.90	55.91	5.01	AV
	0.348	23.81	10.43	34.24	49.00	14.76	
	0.558	24.78	10.38	35.16	46.00	10.84	
	1.054	22.60	10.39	32.99	46.00	13.01	
	2.033	23.63	10.41	34.04	46.00	11.96	
	16.486	22.41	10.44	32.85	50.00	17.15	
Neutral	0.150	52.05	10.52	62.57	65.99	3.42	QP
	0.352	30.56	10.41	40.97	58.91	17.94	
	0.661	28.07	10.39	38.46	56.00	17.54	
	1.094	30.91	10.39	41.30	56.00	14.70	
	2.044	25.68	10.42	36.10	56.00	19.90	
	15.885	28.32	10.51	38.83	60.00	21.17	
	0.150	39.60	10.52	50.12	55.99	5.87	AV
	0.352	21.56	10.41	31.97	48.91	16.94	
	0.661	22.07	10.39	32.46	46.00	13.54	
	1.094	22.91	10.39	33.30	46.00	12.70	
	2.044	19.68	10.42	30.10	46.00	15.90	
	15.885	23.32	10.51	33.83	50.00	16.17	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : Jul 08, 2017
1280*1024@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	51.86	10.60	62.46	65.98	3.52	QP
	0.356	29.82	10.42	40.24	58.83	18.59	
	0.672	30.34	10.38	40.72	56.00	15.28	
	1.197	29.80	10.40	40.20	56.00	15.80	
	2.044	27.09	10.41	37.50	56.00	18.50	
	14.828	29.90	10.46	40.36	60.00	19.64	
	0.150	40.10	10.60	50.70	55.98	5.28	AV
	0.356	22.82	10.42	33.24	48.83	15.59	
	0.672	23.34	10.38	33.72	46.00	12.28	
	1.197	24.80	10.40	35.20	46.00	10.80	
	2.044	23.09	10.41	33.50	46.00	12.50	
	14.828	24.90	10.46	35.36	50.00	14.64	
Neutral	0.153	50.78	10.52	61.30	65.81	4.51	QP
	0.352	28.30	10.41	38.71	58.91	20.20	
	0.654	28.56	10.39	38.95	56.00	17.05	
	1.082	30.82	10.39	41.21	56.00	14.79	
	2.765	27.05	10.43	37.48	56.00	18.52	
	14.828	27.04	10.51	37.55	60.00	22.45	
	0.153	39.00	10.52	49.52	55.81	6.29	AV
	0.352	24.30	10.41	34.71	48.91	14.20	
	0.654	25.56	10.39	35.95	46.00	10.05	
	1.082	22.82	10.39	33.21	46.00	12.79	
	2.765	22.05	10.43	32.48	46.00	13.52	
	14.828	22.04	10.51	32.55	50.00	17.45	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI1 640*480@60Hz & 1kHz Playing Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	52.85	10.60	63.45	65.99	2.54	QP
	0.367	31.58	10.42	42.00	58.56	16.56	
	0.558	29.69	10.38	40.07	56.00	15.93	
	1.184	27.74	10.39	38.13	56.00	17.87	
	1.949	27.33	10.41	37.74	56.00	18.26	
	16.398	29.66	10.44	40.10	60.00	19.90	
	0.150	40.00	10.60	50.60	55.99	5.39	AV
	0.367	24.58	10.42	35.00	48.56	13.56	
	0.558	22.69	10.38	33.07	46.00	12.93	
	1.184	23.74	10.39	34.13	46.00	11.87	
	1.949	24.33	10.41	34.74	46.00	11.26	
	16.398	21.66	10.44	32.10	50.00	17.90	
Neutral	0.153	51.40	10.52	61.92	65.82	3.90	QP
	0.356	30.47	10.41	40.88	58.83	17.95	
	0.654	29.34	10.39	39.73	56.00	16.27	
	1.071	30.90	10.39	41.29	56.00	14.71	
	2.736	27.25	10.43	37.68	56.00	18.32	
	15.885	28.88	10.51	39.39	60.00	20.61	
	0.153	41.00	10.52	51.52	55.82	4.30	AV
	0.356	22.47	10.41	32.88	48.83	15.95	
	0.654	24.34	10.39	34.73	46.00	11.27	
	1.071	25.90	10.39	36.29	46.00	9.71	
	2.736	21.25	10.43	31.68	46.00	14.32	
	15.885	22.88	10.51	33.39	50.00	16.61	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI2 Date of Test : Jul 08, 2017
 3840*2160@60Hz &
 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	50.70	10.60	61.30	65.98	4.68	QP
	0.356	31.48	10.42	41.90	58.83	16.93	
	0.672	30.96	10.38	41.34	56.00	14.66	
	1.197	28.57	10.40	38.97	56.00	17.03	
	2.044	28.86	10.41	39.27	56.00	16.73	
	16.398	30.89	10.44	41.33	60.00	18.67	
	0.150	40.10	10.60	50.70	55.98	5.28	AV
	0.356	25.48	10.42	35.90	48.83	12.93	
	0.672	23.96	10.38	34.34	46.00	11.66	
	1.197	24.57	10.40	34.97	46.00	11.03	
	2.044	23.86	10.41	34.27	46.00	11.73	
	16.398	25.89	10.44	36.33	50.00	13.67	
Neutral	0.150	50.11	10.52	60.63	65.98	5.35	QP
	0.356	29.83	10.41	40.24	58.83	18.59	
	0.701	30.12	10.39	40.51	56.00	15.49	
	1.071	30.52	10.39	40.91	56.00	15.09	
	2.261	24.95	10.43	35.38	56.00	20.62	
	15.718	29.70	10.51	40.21	60.00	19.79	
	0.150	39.70	10.52	50.22	55.98	5.76	AV
	0.356	21.83	10.41	32.24	48.83	16.59	
	0.701	23.12	10.39	33.51	46.00	12.49	
	1.071	25.52	10.39	35.91	46.00	10.09	
	2.261	20.95	10.43	31.38	46.00	14.62	
	15.718	26.70	10.51	37.21	50.00	12.79	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI3 Date of Test : Jul 08, 2017
3840*2160@30Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.152	50.56	10.60	61.16	65.91	4.75	QP
	0.356	31.87	10.42	42.29	58.83	16.54	
	0.665	29.62	10.38	40.00	56.00	16.00	
	1.172	28.90	10.39	39.29	56.00	16.71	
	2.736	26.74	10.42	37.16	56.00	18.84	
	15.552	30.53	10.45	40.98	60.00	19.02	
	0.152	40.00	10.60	50.60	55.91	5.31	AV
	0.356	23.87	10.42	34.29	48.83	14.54	
	0.665	24.62	10.38	35.00	46.00	11.00	
	1.172	22.90	10.39	33.29	46.00	12.71	
	2.736	23.74	10.42	34.16	46.00	11.84	
	15.552	24.53	10.45	34.98	50.00	15.02	
Neutral	0.153	49.47	10.52	59.99	65.82	5.83	QP
	0.363	29.70	10.40	40.10	58.65	18.55	
	0.672	30.60	10.39	40.99	56.00	15.01	
	1.065	30.55	10.39	40.94	56.00	15.06	
	2.765	27.11	10.43	37.54	56.00	18.46	
	17.568	29.08	10.50	39.58	60.00	20.42	
	0.153	39.90	10.52	50.42	55.82	5.40	AV
	0.363	24.70	10.40	35.10	48.65	13.55	
	0.672	25.60	10.39	35.99	46.00	10.01	
	1.065	26.55	10.39	36.94	46.00	9.06	
	2.765	24.11	10.43	34.54	46.00	11.46	
	17.568	24.08	10.50	34.58	50.00	15.42	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI4 Date of Test : Jul 08, 2017
3840*2160@30Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.152	49.60	10.60	60.20	65.90	5.70	QP
	0.346	30.24	10.43	40.67	59.05	18.38	
	0.844	29.73	10.39	40.12	56.00	15.88	
	1.082	29.86	10.39	40.25	56.00	15.75	
	2.474	26.54	10.42	36.96	56.00	19.04	
	16.055	30.33	10.45	40.78	60.00	19.22	
	0.152	40.00	10.60	50.60	55.90	5.30	AV
	0.346	25.24	10.43	35.67	49.05	13.38	
	0.844	21.73	10.39	32.12	46.00	13.88	
	1.082	22.86	10.39	33.25	46.00	12.75	
	2.474	23.54	10.42	33.96	46.00	12.04	
	16.055	23.33	10.45	33.78	50.00	16.22	
Neutral	0.153	49.79	10.52	60.31	65.81	5.50	QP
	0.346	30.36	10.41	40.77	59.05	18.28	
	0.720	31.08	10.40	41.48	56.00	14.52	
	1.054	30.38	10.39	40.77	56.00	15.23	
	1.888	27.22	10.42	37.64	56.00	18.36	
	14.986	30.04	10.51	40.55	60.00	19.45	
	0.153	38.90	10.52	49.42	55.81	6.39	AV
	0.346	26.36	10.41	36.77	49.05	12.28	
	0.720	27.08	10.40	37.48	46.00	8.52	
	1.054	23.38	10.39	33.77	46.00	12.23	
	1.888	24.22	10.42	34.64	46.00	11.36	
	14.986	26.04	10.51	36.55	50.00	13.45	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : HDMI 1080P Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	52.86	10.60	63.46	65.98	2.52	QP
	0.356	29.84	10.42	40.26	58.83	18.57	
	0.564	30.25	10.39	40.64	56.00	15.36	
	1.197	29.71	10.40	40.11	56.00	15.89	
	2.707	28.25	10.42	38.67	56.00	17.33	
	17.199	29.38	10.43	39.81	60.00	20.19	
	0.150	41.00	10.60	51.60	55.98	4.38	AV
	0.356	25.84	10.42	36.26	48.83	12.57	
	0.564	27.25	10.39	37.64	46.00	8.36	
	1.197	24.71	10.40	35.11	46.00	10.89	
	2.707	25.25	10.42	35.67	46.00	10.33	
	17.199	24.38	10.43	34.81	50.00	15.19	
Neutral	0.156	50.15	10.51	60.66	65.65	4.99	QP
	0.346	29.63	10.41	40.04	59.05	19.01	
	0.661	30.43	10.39	40.82	56.00	15.18	
	1.065	29.85	10.39	40.24	56.00	15.76	
	2.201	25.47	10.42	35.89	56.00	20.11	
	16.398	28.67	10.50	39.17	60.00	20.83	
	0.156	39.21	10.51	49.72	55.65	5.93	AV
	0.346	23.63	10.41	34.04	49.05	15.01	
	0.661	24.43	10.39	34.82	46.00	11.18	
	1.065	25.85	10.39	36.24	46.00	9.76	
	2.201	20.47	10.42	30.89	46.00	15.11	
	16.398	21.67	10.50	32.17	50.00	17.83	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : USB Play Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	52.46	10.60	63.06	65.99	2.93	QP
	0.352	30.71	10.42	41.13	58.91	17.78	
	0.654	29.05	10.38	39.43	56.00	16.57	
	1.094	30.18	10.39	40.57	56.00	15.43	
	2.044	28.24	10.41	38.65	56.00	17.35	
	16.226	29.35	10.45	39.80	60.00	20.20	
	0.150	39.90	10.60	50.50	55.99	5.49	AV
	0.352	24.71	10.42	35.13	48.91	13.78	
	0.654	26.05	10.38	36.43	46.00	9.57	
	1.094	24.18	10.39	34.57	46.00	11.43	
	2.044	22.24	10.41	32.65	46.00	13.35	
	16.226	24.35	10.45	34.80	50.00	15.20	
Neutral	0.150	51.92	10.52	62.44	65.98	3.54	QP
	0.352	28.86	10.41	39.27	58.91	19.64	
	0.541	28.14	10.38	38.52	56.00	17.48	
	1.065	29.92	10.39	40.31	56.00	15.69	
	1.970	27.23	10.42	37.65	56.00	18.35	
	15.388	28.76	10.50	39.26	60.00	20.74	
	0.150	41.50	10.52	52.02	55.98	3.96	AV
	0.352	23.86	10.41	34.27	48.91	14.64	
	0.541	25.14	10.38	35.52	46.00	10.48	
	1.065	25.92	10.39	36.31	46.00	9.69	
	1.970	23.23	10.42	33.65	46.00	12.35	
	15.388	22.76	10.50	33.26	50.00	16.74	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : LAN Play Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.156	50.57	10.59	61.16	65.65	4.49	QP
	0.348	30.15	10.43	40.58	59.00	18.42	
	0.634	30.14	10.39	40.53	56.00	15.47	
	1.071	28.93	10.39	39.32	56.00	16.68	
	2.261	27.52	10.42	37.94	56.00	18.06	
	15.388	28.32	10.45	38.77	60.00	21.23	
	0.156	39.50	10.59	50.09	55.65	5.56	AV
	0.348	23.15	10.43	33.58	49.00	15.42	
	0.634	25.14	10.39	35.53	46.00	10.47	
	1.071	25.93	10.39	36.32	46.00	9.68	
	2.261	21.52	10.42	31.94	46.00	14.06	
	15.388	20.32	10.45	30.77	50.00	19.23	
Neutral	0.152	52.06	10.52	62.58	65.90	3.32	QP
	0.367	29.65	10.40	40.05	58.56	18.51	
	0.708	29.50	10.39	39.89	56.00	16.11	
	1.065	31.44	10.39	41.83	56.00	14.17	
	2.012	27.58	10.42	38.00	56.00	18.00	
	15.388	28.35	10.50	38.85	60.00	21.15	
	0.152	40.90	10.52	51.42	55.90	4.48	AV
	0.367	24.65	10.40	35.05	48.56	13.51	
	0.708	25.50	10.39	35.89	46.00	10.11	
	1.065	22.44	10.39	32.83	46.00	13.17	
	2.012	16.58	10.42	27.00	46.00	19.00	
	15.388	21.35	10.50	31.85	50.00	18.15	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : WIFI Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	52.66	10.60	63.26	65.98	2.72	QP
	0.363	30.30	10.42	40.72	58.65	17.93	
	0.661	30.20	10.38	40.58	56.00	15.42	
	1.184	29.12	10.39	39.51	56.00	16.49	
	1.949	27.84	10.41	38.25	56.00	17.75	
	15.226	30.14	10.46	40.60	60.00	19.40	
	0.150	40.10	10.60	50.70	55.98	5.28	AV
	0.363	25.30	10.42	35.72	48.65	12.93	
	0.661	23.20	10.38	33.58	46.00	12.42	
	1.184	24.12	10.39	34.51	46.00	11.49	
	1.949	22.84	10.41	33.25	46.00	12.75	
	15.226	21.14	10.46	31.60	50.00	18.40	
Neutral	0.150	51.86	10.52	62.38	65.98	3.60	QP
	0.346	30.67	10.41	41.08	59.05	17.97	
	0.647	27.66	10.39	38.05	56.00	17.95	
	1.082	31.95	10.39	42.34	56.00	13.66	
	2.765	26.32	10.43	36.75	56.00	19.25	
	16.055	28.31	10.51	38.82	60.00	21.18	
	0.150	41.20	10.52	51.72	55.98	4.26	AV
	0.346	23.67	10.41	34.08	49.05	14.97	
	0.647	21.66	10.39	32.05	46.00	13.95	
	1.082	21.95	10.39	32.34	46.00	13.66	
	2.765	22.32	10.43	32.75	46.00	13.25	
	16.055	19.31	10.51	29.82	50.00	20.18	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 48%RH

Test Mode : MHL Date of Test : Jul 08, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	52.49	10.60	63.09	65.98	2.89	QP
	0.352	30.22	10.42	40.64	58.91	18.27	
	0.558	30.10	10.38	40.48	56.00	15.52	
	1.071	29.23	10.39	39.62	56.00	16.38	
	1.819	29.67	10.41	40.08	56.00	15.92	
	16.486	28.79	10.44	39.23	60.00	20.77	
	0.150	41.60	10.60	52.20	55.98	3.78	AV
	0.352	23.22	10.42	33.64	48.91	15.27	
	0.558	24.10	10.38	34.48	46.00	11.52	
	1.071	25.23	10.39	35.62	46.00	10.38	
	1.819	22.67	10.41	33.08	46.00	12.92	
	16.486	21.79	10.44	32.23	50.00	17.77	
Neutral	0.150	52.02	10.52	62.54	65.98	3.44	QP
	0.352	27.93	10.41	38.34	58.91	20.57	
	0.535	28.66	10.38	39.04	56.00	16.96	
	1.094	30.88	10.39	41.27	56.00	14.73	
	2.033	26.44	10.42	36.86	56.00	19.14	
	16.055	27.83	10.51	38.34	60.00	21.66	
	0.150	39.80	10.52	50.32	55.98	5.66	AV
	0.352	19.93	10.41	30.34	48.91	18.57	
	0.535	21.66	10.38	32.04	46.00	13.96	
	1.094	21.88	10.39	32.27	46.00	13.73	
	2.033	19.44	10.42	29.86	46.00	16.14	
	16.055	20.83	10.51	31.34	50.00	18.66	

TEST ENGINEER: BYRON WU

4 RADIATED EMISSION TEST

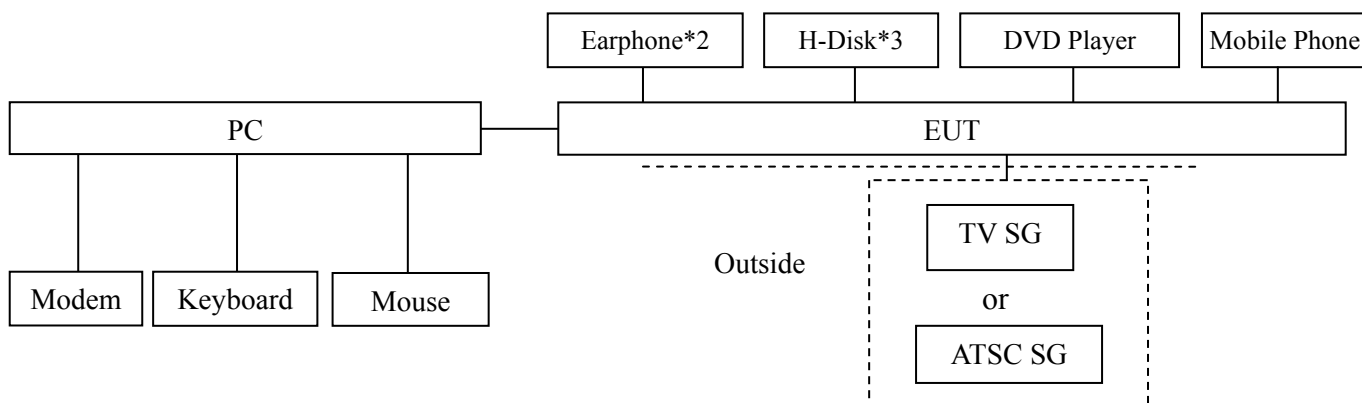
4.1 Test Equipment

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, 2017	May 06, 2018
2.	Preamplifier	Agilent	8447D	2944A06664	Apr 27, 2017	Apr 26, 2018
3.	Preamplifier	HP	8449B	3008A00864	Mar 20, 2017	Mar 19, 2018
4.	Bi-log Antenna	TESEQ	CBL6112D	23192	Mar 25, 2017	Mar 24, 2018
5.	Horn Antenna	EMCO	3115	9607-4878	May 31, 2017	May 30, 2018
6.	Spectrum	Agilent	E7405A	MY45106600	Apr 26, 2017	Apr 25, 2018
7.	Software	Audix	e3	6.2007-9-10	--	--

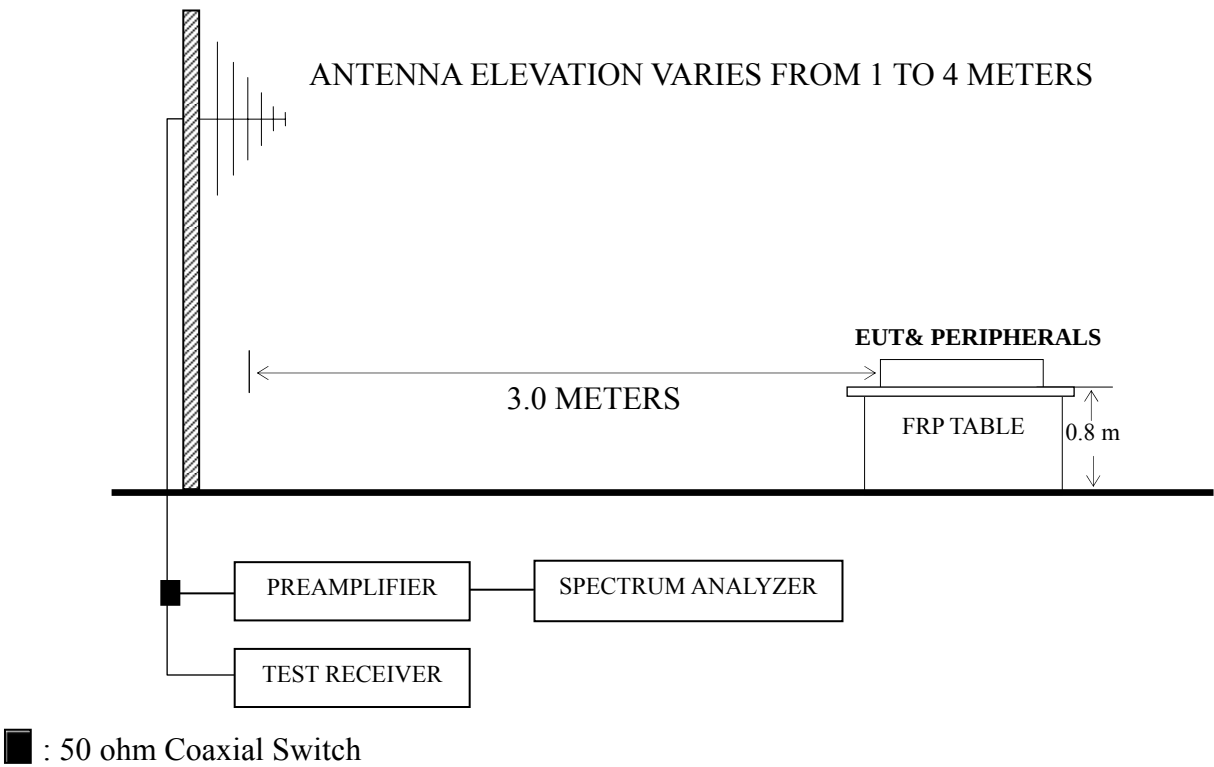
4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals

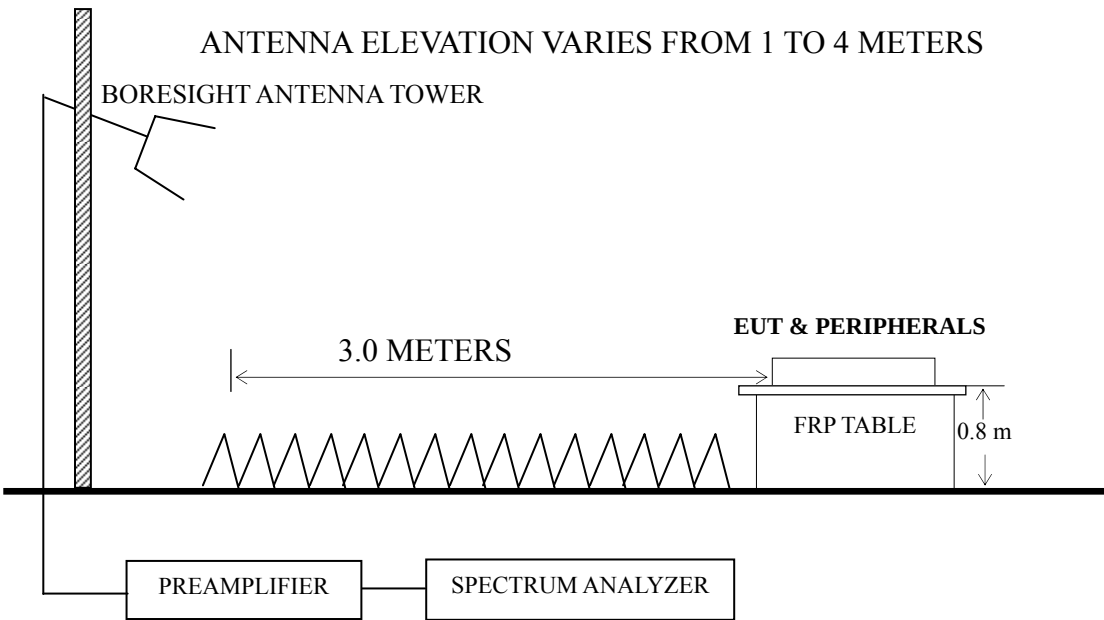


4.2.2 Radiated emission test setup

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) 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 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 5 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
HDMI1 3840*2160@60Hz & 1kHz playing	P30-P31
HDMI1 1920*1080@60Hz & 1kHz playing	P32
HDMI1 1280*1024@60Hz & 1kHz playing	P33
HDMI1 640*480@60Hz & 1kHz playing	P34
HDMI2 3840*2160@60Hz & 1kHz playing	P35
HDMI3 3840*2160@30Hz & 1kHz playing	P36
HDMI4 3840*2160@30Hz & 1kHz playing	P37
HDMI1080P	P38
USB Play	P39
LAN Play	P40
WIFI	P41
MHL	P42

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.

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1 3840*2160@60Hz & 1kHz Playing Date of Test : Jul 11, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	72.084	26.97	0.83	8.01	--	35.81	40.00	4.19	QP
	130.837	19.23	1.19	12.39	--	32.81	43.50	10.69	
	178.133	21.49	1.41	10.04	--	32.94	43.50	10.56	
	245.951	21.10	1.63	12.66	--	35.39	46.00	10.61	
	562.662	18.24	2.43	18.75	--	39.42	46.00	6.58	
	716.682	19.07	2.73	20.48	--	42.28	46.00	3.72	
	1403.042	25.26	46.07	3.76	35.87	39.22	74.00	34.78	PK
	1799.839	26.80	46.62	4.15	35.40	42.17	74.00	31.83	
	2659.932	29.10	57.85	5.18	35.20	56.93	74.00	17.07	
	1403.042	25.26	30.18	3.76	35.87	23.33	54.00	30.67	AV
	1799.839	26.80	32.62	4.15	35.40	28.17	54.00	25.83	
	2659.932	29.10	41.41	5.18	35.20	40.49	54.00	13.51	

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1 3840*2160@60Hz & 1kHz Playing Date of Test : Jul 11, 2017

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	34.156	16.82	0.59	16.78	--	34.19	40.00	5.81	QP
	67.913	27.24	0.81	7.35	--	35.40	40.00	4.60	
	154.279	21.20	1.30	11.42	--	33.92	43.50	9.58	
	560.693	18.19	2.43	18.70	--	39.32	46.00	6.68	
	719.200	18.88	2.73	20.48	--	42.09	46.00	3.91	
	839.182	19.02	2.94	20.90	--	42.86	46.00	3.14	
	1025.402	23.64	49.66	4.66	36.45	41.51	74.00	32.49	PK
	1672.359	26.32	46.49	4.06	35.54	41.33	74.00	32.67	
	2732.391	29.43	43.41	5.32	35.20	42.96	74.00	31.04	
	1025.402	23.64	33.35	4.66	36.45	25.20	54.00	28.80	AV
	1672.359	26.32	32.79	4.06	35.54	27.63	54.00	26.37	
	2732.391	29.43	29.84	5.32	35.20	29.39	54.00	24.61	

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1 1920*1080@60Hz Date of Test : Jul 11, 2017
& 1kHz playing

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	73.103	26.06	0.83	8.14	35.03	40.00	4.97
	176.888	21.65	1.40	10.07	33.12	43.50	10.38
	241.676	20.11	1.62	12.24	33.97	46.00	12.03
	449.556	15.17	2.19	17.60	34.96	46.00	11.04
	719.200	18.54	2.73	20.48	41.75	46.00	4.25
	875.247	16.52	3.01	21.03	40.56	46.00	5.44
Vertical	34.037	16.60	0.59	16.90	34.09	40.00	5.91
	71.080	27.07	0.83	7.83	35.73	40.00	4.27
	152.130	20.38	1.29	11.50	33.17	43.50	10.33
	420.580	15.91	2.11	17.13	35.15	46.00	10.85
	719.200	18.84	2.73	20.48	42.05	46.00	3.95
	839.182	18.39	2.94	20.90	42.23	46.00	3.77

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1 1280*1024@60Hz Date of Test : Jul 11, 2017
& 1kHz playing

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	87.112	23.19	0.92	10.51	34.62	40.00	5.38
	129.015	20.14	1.18	12.59	33.91	43.50	9.59
	245.090	20.31	1.63	12.60	34.54	46.00	11.46
	562.662	15.83	2.43	18.75	37.01	46.00	8.99
	719.200	17.86	2.73	20.48	41.07	46.00	4.93
	842.130	16.89	2.94	20.90	40.73	46.00	5.27
Vertical	35.005	17.85	0.60	16.04	34.49	40.00	5.51
	87.112	23.94	0.92	10.51	35.37	40.00	4.63
	178.133	20.66	1.41	10.04	32.11	43.50	11.39
	560.693	19.00	2.43	18.70	40.13	46.00	5.87
	719.200	18.33	2.73	20.48	41.54	46.00	4.46
	842.130	17.54	2.94	20.90	41.38	46.00	4.62

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1 640*480@60Hz & 1kHz playing Date of Test : Jul 11, 2017

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	87.112	22.95	0.92	10.51	34.38	40.00	5.62
	129.923	18.70	1.18	12.50	32.38	43.50	11.12
	245.951	19.98	1.63	12.66	34.27	46.00	11.73
	420.580	15.60	2.11	17.13	34.84	46.00	11.16
	719.200	18.58	2.73	20.48	41.79	46.00	4.21
	842.130	17.78	2.94	20.90	41.62	46.00	4.38
Vertical	30.962	15.24	0.56	18.21	34.01	40.00	5.99
	85.898	23.77	0.91	10.37	35.05	40.00	4.95
	152.130	19.26	1.29	11.50	32.05	43.50	11.45
	419.108	15.53	2.11	17.10	34.74	46.00	11.26
	721.726	18.05	2.73	20.50	41.28	46.00	4.72
	842.130	17.79	2.94	20.90	41.63	46.00	4.37

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI2 3840*2160@60Hz Date of Test : Jul 11, 2017
& 1kHz playing

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	84.999	23.43	10.30	0.90	34.63	40.00	5.37
	128.113	18.67	12.63	1.17	32.47	43.50	11.03
	245.951	20.80	12.66	1.63	35.09	46.00	10.91
	297.224	23.42	13.90	1.76	39.08	46.00	6.92
	562.662	15.69	18.75	2.43	36.87	46.00	9.13
	719.200	19.11	20.48	2.73	42.32	46.00	3.68
Vertical	34.037	15.61	16.90	0.59	33.10	40.00	6.90
	87.112	23.17	10.51	0.92	34.60	40.00	5.40
	150.011	18.73	11.60	1.28	31.61	43.50	11.89
	560.693	18.75	18.70	2.43	39.88	46.00	6.12
	719.200	19.20	20.48	2.73	42.41	46.00	3.59
	842.130	18.65	20.90	2.94	42.49	46.00	3.51

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI3 3840*2160@30Hz Date of Test : Jul 11, 2017
& 1kHz playing

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	87.112	23.72	10.51	0.92	35.15	40.00	4.85
	127.218	19.79	12.72	1.17	33.68	43.50	9.82
	297.224	19.25	13.90	1.76	34.91	46.00	11.09
	560.693	16.18	18.70	2.43	37.31	46.00	8.69
	719.200	18.75	20.48	2.73	41.96	46.00	4.04
	896.997	16.24	20.93	3.03	40.20	46.00	5.80
Vertical	34.037	15.67	16.90	0.59	33.16	40.00	6.84
	87.112	23.27	10.51	0.92	34.70	40.00	5.30
	151.067	20.93	11.55	1.29	33.77	43.50	9.73
	560.693	18.42	18.70	2.43	39.55	46.00	6.45
	716.682	18.76	20.48	2.73	41.97	46.00	4.03
	845.088	18.44	20.90	2.94	42.28	46.00	3.72

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI4 3840*2160@30Hz Date of Test : Jul 11, 2017
& 1kHz playing

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	73.103	26.92	8.14	0.83	35.89	40.00	4.11
	122.834	19.49	13.02	1.14	33.65	43.50	9.85
	178.133	22.75	10.04	1.41	34.20	43.50	9.30
	297.224	23.47	13.90	1.76	39.13	46.00	6.87
	721.726	19.07	20.50	2.73	42.30	46.00	3.70
	896.997	17.38	20.93	3.03	41.34	46.00	4.66
Vertical	30.962	15.59	18.21	0.56	34.36	40.00	5.64
	74.919	25.90	8.40	0.84	35.14	40.00	4.86
	152.130	20.83	11.50	1.29	33.62	43.50	9.88
	297.224	22.17	13.90	1.76	37.83	46.00	8.17
	716.682	19.64	20.48	2.73	42.85	46.00	3.15
	845.088	18.53	20.90	2.94	42.37	46.00	3.63

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Jul 11, 2017

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	87.112	22.02	0.92	10.51	33.45	40.00	6.55
	180.017	21.41	1.42	10.00	32.83	43.50	10.67
	270.375	22.33	1.70	13.60	37.63	46.00	8.37
	420.580	17.63	2.11	17.13	36.87	46.00	9.13
	716.682	18.15	2.73	20.48	41.36	46.00	4.64
	878.322	17.21	3.01	21.07	41.29	46.00	4.71
Vertical	34.037	16.17	0.59	16.90	33.66	40.00	6.34
	47.994	23.74	0.71	9.30	33.75	40.00	6.25
	88.964	24.21	0.93	10.69	35.83	43.50	7.67
	270.375	24.68	1.70	13.60	39.98	46.00	6.02
	719.200	18.60	2.73	20.48	41.81	46.00	4.19
	896.997	17.08	3.03	20.93	41.04	46.00	4.96

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : USB Play Date of Test : Jul 11, 2017

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	74.919	24.95	0.84	8.40	34.19	40.00	5.81
	125.886	21.30	1.16	12.86	35.32	43.50	8.18
	236.645	22.28	1.60	11.82	35.70	46.00	10.30
	334.859	17.83	1.87	14.93	34.63	46.00	11.37
	631.688	13.77	2.57	19.73	36.07	46.00	9.93
	821.710	12.31	2.89	20.90	36.10	46.00	9.90
Vertical	32.179	15.75	0.57	17.59	33.91	40.00	6.09
	76.512	24.90	0.85	8.71	34.46	40.00	5.54
	159.784	22.26	1.32	10.61	34.19	43.50	9.31
	338.400	18.86	1.89	15.06	35.81	46.00	10.19
	618.537	14.21	2.55	19.70	36.46	46.00	9.54
	787.851	14.34	2.83	20.77	37.94	46.00	8.06

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : LAN Play Date of Test : Jul 11, 2017

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	85.298	23.69	0.90	10.34	34.93	40.00	5.07
	128.113	19.54	1.17	12.63	33.34	43.50	10.16
	238.310	20.13	1.61	11.88	33.62	46.00	12.38
	383.932	15.59	2.02	16.13	33.74	46.00	12.26
	689.565	13.59	2.67	20.27	36.53	46.00	9.47
	848.056	14.28	2.94	20.90	38.12	46.00	7.88
Vertical	33.562	15.39	0.59	17.06	33.04	40.00	6.96
	74.919	25.44	0.84	8.40	34.68	40.00	5.32
	118.186	20.76	1.12	13.12	35.00	43.50	8.50
	294.114	20.21	1.75	13.80	35.76	46.00	10.24
	447.982	15.96	2.17	17.57	35.70	46.00	10.30
	742.259	12.00	2.76	20.57	35.33	46.00	10.67

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : WIFI Date of Test : Jul 11, 2017

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	83.522	23.16	0.89	10.04	34.09	40.00	5.91
	178.758	23.06	1.41	10.03	34.50	43.50	9.00
	251.180	20.15	1.65	12.96	34.76	46.00	11.24
	324.456	19.34	1.84	14.57	35.75	46.00	10.25
	549.020	13.79	2.39	18.68	34.86	46.00	11.14
	672.845	14.77	2.64	20.13	37.54	46.00	8.46
Vertical	33.328	15.29	0.58	17.17	33.04	40.00	6.96
	80.362	24.54	0.86	9.46	34.86	40.00	5.14
	108.267	19.82	1.06	12.83	33.71	43.50	9.79
	236.645	22.88	1.60	11.82	36.30	46.00	9.70
	379.914	17.43	2.01	16.10	35.54	46.00	10.46
	543.274	15.89	2.39	18.64	36.92	46.00	9.08

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 65H7D Humidity : 60%RH

Test Mode : MHL Date of Test : Jul 11, 2017

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	85.598	23.48	0.90	10.37	34.75	40.00	5.25
	198.588	23.52	1.48	9.67	34.67	43.50	8.83
	357.929	17.52	1.95	15.59	35.06	46.00	10.94
	499.425	14.56	2.29	18.40	35.25	46.00	10.75
	607.787	13.48	2.52	19.58	35.58	46.00	10.42
	758.041	11.52	2.80	20.70	35.02	46.00	10.98
Vertical	33.799	16.47	0.59	17.01	34.07	40.00	5.93
	73.617	25.77	0.83	8.22	34.82	40.00	5.18
	141.826	19.78	1.24	12.27	33.29	43.50	10.21
	253.837	20.13	1.65	13.08	34.86	46.00	11.14
	420.580	16.46	2.11	17.13	35.70	46.00	10.30
	665.804	14.26	2.64	20.00	36.90	46.00	9.10

TEST ENGINEER: LEON YUN

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Manufacturer	Location
SM Contact	SMR-TSL-4-3.5-5R	Qingdao Joinset	See Internal Photos Figure 20

Note: We had required the applicant and manufacturer that all electrical and mechanical devices employed for spurious radiation suppression, including any modifications made during testing, must be incorporated in each unit marked

TEST ENGINEER:



(BYRON WU)