

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

LED LCD TV

Model No.:

Model No.	Brand
LC-65P7000U, LC65P7000U+ LC-65P7050U, LC-65P7050U+ LC-65P7020U, LC-65P7020U+ LC-65Q7020U+, LC-65P620U LC-65P620U+, LC-65P6200U LC-65P6200U+	Sharp

FCC ID : W9HLCDF0124

Prepared For : Hisense Electric Co., Ltd.
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Development Zone, Qingdao, China

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Report No. : ACI-F17209
Date of Test : May 24-Jun 01, 2017
Date of Report : Jun 20, 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 : Sharp
 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 Sec2.1) which was tested in 3m anechoic chamber May 24-Jun 01, 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.F17208, a Verification report.

Date of Test : May 24-Jun 01, 2017 Date of Report : Jun 20, 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 : [Signature]
 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 3.05dB at 0.152MHz	
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 2.84dB at 893.857MHz (Horizontal, 1.8m/100°)	

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	LED LCD TV
Type of EUT	:	<input checked="" type="checkbox"/> Production <input type="checkbox"/> Pre-product <input type="checkbox"/> Pro-type
Model No	:	LC-65P7000U, LC-65P7000U+, LC-65P7050U LC-65P7050U+, LC-65P7020U, LC-65P7020U+ LC-65Q7020U+, LC-65P620U, LC-65P620U+ LC-65P6200U, LC-65P6200U+
Note #1	:	The above models are all the same except for model number. LC-65P7000U 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	:	Sharp
RF module FCC ID	:	2AJVQ-ZDGFMT7612U
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. Hisense #3510 Parque Industrial Rosarito, C.P. 22710 Playas de Rosarito, B.C.
LCD Panel	:	Manufacturer : Hisense M/N : HD650K3U51
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 (Lab provide)	:	Shielded, Detachable, 1.00m

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

2.2.10 Hard Disk #2

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

2.2.11 Hard Disk #3

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

2.2.12 Earphone*2

Manufacturer : Edifier
Model Number : H210

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

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

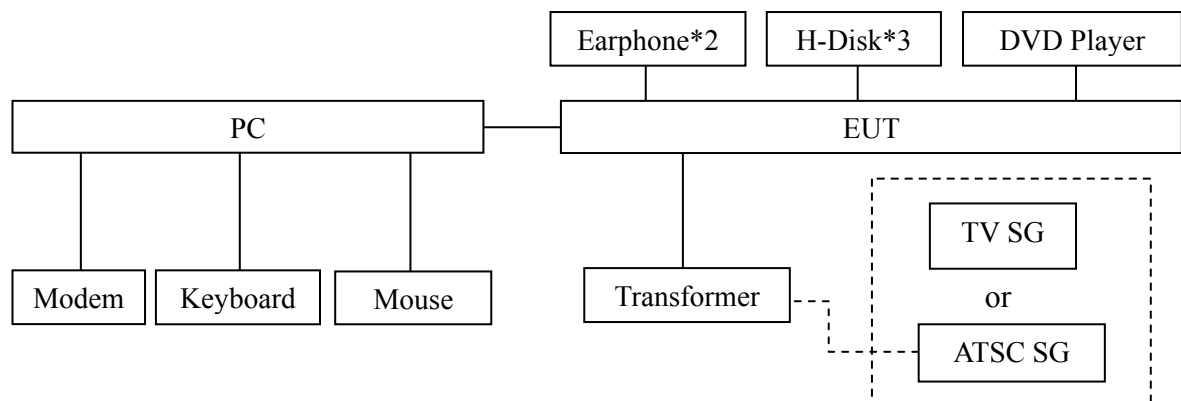
3.1 Test Equipment

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

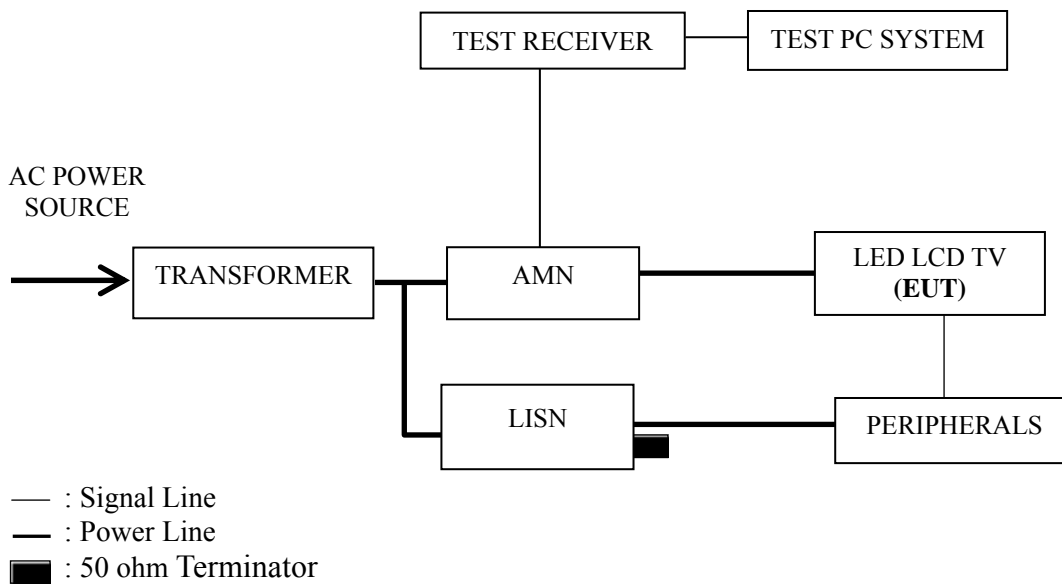
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Apr 27, 2017	Apr 26, 2018
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 25, 2016	Jun 24, 2017
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 17, 2017	Mar 16, 2018
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

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 17, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.153	51.53	10.58	62.11	65.82	3.71	QP
	0.297	26.09	10.48	36.57	60.32	23.75	
	0.621	29.05	10.40	39.45	56.00	16.55	
	1.000	26.53	10.41	36.94	56.00	19.06	
	3.436	22.54	10.43	32.97	56.00	23.03	
	18.039	28.21	10.59	38.80	60.00	21.20	
	0.153	39.53	10.58	50.11	55.82	5.71	AV
	0.297	15.09	10.48	25.57	50.32	24.75	
	0.621	18.05	10.40	28.45	46.00	17.55	
	1.000	14.53	10.41	24.94	46.00	21.06	
	3.436	11.54	10.43	21.97	46.00	24.03	
	18.039	22.21	10.59	32.80	50.00	17.20	
Neutral	0.151	51.80	10.58	62.38	65.97	3.59	QP
	0.481	28.23	10.40	38.63	56.32	17.69	
	1.197	30.98	10.42	41.40	56.00	14.60	
	1.388	23.39	10.42	33.81	56.00	22.19	
	2.012	24.21	10.44	34.65	56.00	21.35	
	15.885	26.70	10.68	37.38	60.00	22.62	
	0.151	40.80	10.58	51.38	55.97	4.59	AV
	0.481	19.23	10.40	29.63	46.32	16.69	
	1.197	15.98	10.42	26.40	46.00	19.60	
	1.388	11.39	10.42	21.81	46.00	24.19	
	2.012	13.21	10.44	23.65	46.00	22.35	
	15.885	21.70	10.68	32.38	50.00	17.62	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 17, 2017
1920*1080@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.151	50.20	10.59	60.79	65.97	5.18	QP
	0.393	26.14	10.44	36.58	57.99	21.41	
	0.661	28.66	10.40	39.06	56.00	16.94	
	0.943	30.48	10.41	40.89	56.00	15.11	
	2.012	25.92	10.42	36.34	56.00	19.66	
	16.398	26.79	10.58	37.37	60.00	22.63	
	0.151	35.30	10.59	45.89	55.97	10.08	AV
	0.393	12.14	10.44	22.58	47.99	25.41	
	0.661	15.66	10.40	26.06	46.00	19.94	
	0.943	16.48	10.41	26.89	46.00	19.11	
	2.012	13.92	10.42	24.34	46.00	21.66	
	16.398	21.79	10.58	32.37	50.00	17.63	
Neutral	0.151	49.53	10.58	60.11	65.96	5.85	QP
	0.489	24.65	10.39	35.04	56.19	21.15	
	0.647	27.47	10.39	37.86	56.00	18.14	
	1.184	24.97	10.41	35.38	56.00	20.62	
	2.594	24.27	10.46	34.73	56.00	21.27	
	18.039	27.45	10.70	38.15	60.00	21.85	
	0.151	35.60	10.58	46.18	55.96	9.78	AV
	0.489	12.65	10.39	23.04	46.19	23.15	
	0.647	14.47	10.39	24.86	46.00	21.14	
	1.184	13.97	10.41	24.38	46.00	21.62	
	2.594	15.27	10.46	25.73	46.00	20.27	
	18.039	21.45	10.70	32.15	50.00	17.85	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 17, 2017
1280*1024@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.152	52.15	10.59	62.74	65.91	3.17	QP
	0.292	23.56	10.48	34.04	60.46	26.42	
	0.665	30.12	10.40	40.52	56.00	15.48	
	0.923	26.25	10.41	36.66	56.00	19.34	
	1.716	25.59	10.42	36.01	56.00	19.99	
	17.568	28.21	10.59	38.80	60.00	21.20	
	AV	0.152	41.30	10.59	51.89	55.91	4.02
		0.292	12.56	10.48	23.04	50.46	27.42
		0.665	19.12	10.40	29.52	46.00	16.48
		0.923	15.25	10.41	25.66	46.00	20.34
		1.716	14.59	10.42	25.01	46.00	20.99
		17.568	22.21	10.59	32.80	50.00	17.20
Neutral	0.152	51.79	10.58	62.37	65.91	3.54	QP
	0.348	30.09	10.45	40.54	59.00	18.46	
	0.627	28.09	10.39	38.48	56.00	17.52	
	1.223	32.12	10.42	42.54	56.00	13.46	
	2.500	23.67	10.45	34.12	56.00	21.88	
	16.661	26.40	10.68	37.08	60.00	22.92	
	AV	0.152	41.30	10.58	51.88	55.91	4.03
		0.348	17.09	10.45	27.54	49.00	21.46
		0.627	14.09	10.39	24.48	46.00	21.52
		1.223	19.12	10.42	29.54	46.00	16.46
		2.500	14.67	10.45	25.12	46.00	20.88
		16.661	21.40	10.68	32.08	50.00	17.92

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI1 640*480@60Hz Date of Test : May 17, 2017
& 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark	
Line	0.152	52.26	10.59	62.85	65.90	3.05	QP	
	0.408	33.60	10.43	44.03	57.68	13.65		
	0.661	28.08	10.40	38.48	56.00	17.52		
	0.923	26.96	10.41	37.37	56.00	18.63		
	2.012	25.67	10.42	36.09	56.00	19.91		
	17.018	26.98	10.58	37.56	60.00	22.44		
	0.152	41.50	10.59	52.09	55.90	3.81	AV	
	0.408	22.60	10.43	33.03	47.68	14.65		
	0.661	15.08	10.40	25.48	46.00	20.52		
	0.923	15.96	10.41	26.37	46.00	19.63		
	2.012	14.67	10.42	25.09	46.00	20.91		
	17.018	21.98	10.58	32.56	50.00	17.44		
	Neutral	0.151	52.03	10.58	62.61	65.97	3.36	QP
		0.367	30.81	10.44	41.25	58.56	17.31	
0.621		28.79	10.39	39.18	56.00	16.82		
1.197		27.53	10.42	37.95	56.00	18.05		
2.581		23.76	10.46	34.22	56.00	21.78		
17.018		26.91	10.68	37.59	60.00	22.41		
0.151		40.90	10.58	51.48	55.97	4.49	AV	
0.367		19.81	10.44	30.25	48.56	18.31		
0.621		18.79	10.39	29.18	46.00	16.82		
1.197		16.53	10.42	26.95	46.00	19.05		
2.581		14.76	10.46	25.22	46.00	20.78		
17.018		20.91	10.68	31.59	50.00	18.41		

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI2 Date of Test : May 17, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.159	48.72	10.58	59.30	65.52	6.22	QP
	0.352	30.39	10.45	40.84	58.91	18.07	
	0.614	29.27	10.40	39.67	56.00	16.33	
	0.923	26.94	10.41	37.35	56.00	18.65	
	2.012	25.82	10.42	36.24	56.00	19.76	
	17.755	27.05	10.59	37.64	60.00	22.36	
	0.159	37.72	10.58	48.30	55.52	7.22	AV
	0.352	16.39	10.45	26.84	48.91	22.07	
	0.614	17.27	10.40	27.67	46.00	18.33	
	0.923	14.94	10.41	25.35	46.00	20.65	
	2.012	14.82	10.42	25.24	46.00	20.76	
	17.755	22.05	10.59	32.64	50.00	17.36	
Neutral	0.152	48.94	10.58	59.52	65.91	6.39	QP
	0.152	39.94	10.58	50.52	55.91	5.39	
	0.215	24.59	10.52	35.11	63.01	27.90	
	0.215	15.59	10.52	26.11	53.01	26.90	
	0.627	27.38	10.39	37.77	56.00	18.23	
	0.627	14.38	10.39	24.77	46.00	21.23	
	1.184	25.11	10.41	35.52	56.00	20.48	AV
	1.184	14.11	10.41	24.52	46.00	21.48	
	2.500	23.54	10.45	33.99	56.00	22.01	
	2.500	15.54	10.45	25.99	46.00	20.01	
	17.568	27.38	10.70	38.08	60.00	21.92	
	17.568	21.38	10.70	32.08	50.00	17.92	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI3 Date of Test : May 17, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.151	50.85	10.59	61.44	65.96	4.52	QP
	0.289	23.67	10.48	34.15	60.54	26.39	
	0.552	31.20	10.40	41.60	56.00	14.40	
	0.788	23.08	10.41	33.49	56.00	22.51	
	1.367	23.82	10.42	34.24	56.00	21.76	
	17.018	27.73	10.58	38.31	60.00	21.69	
	0.151	38.70	10.59	49.29	55.96	6.67	AV
	0.289	12.67	10.48	23.15	50.54	27.39	
	0.552	19.20	10.40	29.60	46.00	16.40	
	0.788	12.08	10.41	22.49	46.00	23.51	
	1.367	11.82	10.42	22.24	46.00	23.76	
	17.018	21.73	10.58	32.31	50.00	17.69	
Neutral	0.166	49.12	10.57	59.69	65.16	5.47	QP
	0.270	25.46	10.48	35.94	61.12	25.18	
	0.447	27.10	10.41	37.51	56.93	19.42	
	0.943	32.75	10.41	43.16	56.00	12.84	
	1.210	35.94	10.42	46.36	56.00	9.64	
	17.199	26.30	10.68	36.98	60.00	23.02	
	0.166	38.12	10.57	48.69	55.16	6.47	AV
	0.270	18.46	10.48	28.94	51.12	22.18	
	0.447	15.10	10.41	25.51	46.93	21.42	
	0.943	19.75	10.41	30.16	46.00	15.84	
	1.210	21.94	10.42	32.36	46.00	13.64	
	17.199	21.30	10.68	31.98	50.00	18.02	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI4 Date of Test : May 17, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.151	49.94	10.59	60.53	65.97	5.44	QP
	0.206	28.91	10.54	39.45	63.36	23.91	
	0.614	29.74	10.40	40.14	56.00	15.86	
	0.914	26.30	10.41	36.71	56.00	19.29	
	1.744	26.21	10.42	36.63	56.00	19.37	
	16.486	27.88	10.58	38.46	60.00	21.54	
	0.151	37.20	10.59	47.79	55.97	8.18	AV
	0.206	19.91	10.54	30.45	53.36	22.91	
	0.614	17.74	10.40	28.14	46.00	17.86	
	0.914	17.30	10.41	27.71	46.00	18.29	
	1.744	16.21	10.42	26.63	46.00	19.37	
	16.486	21.88	10.58	32.46	50.00	17.54	
Neutral	0.152	50.43	10.58	61.01	65.91	4.90	QP
	0.417	26.03	10.42	36.45	57.51	21.06	
	0.621	28.43	10.39	38.82	56.00	17.18	
	1.184	26.40	10.41	36.81	56.00	19.19	
	2.554	24.83	10.46	35.29	56.00	20.71	
	18.232	27.64	10.70	38.34	60.00	21.66	
	0.152	39.20	10.58	49.78	55.91	6.13	AV
	0.417	14.03	10.42	24.45	47.51	23.06	
	0.621	17.43	10.39	27.82	46.00	18.18	
	1.184	15.40	10.41	25.81	46.00	20.19	
	2.554	15.83	10.46	26.29	46.00	19.71	
	18.232	21.64	10.70	32.34	50.00	17.66	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : HDMI 1080P Date of Test : May 17, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.152	51.53	10.59	62.12	65.90	3.78	QP
	0.413	32.94	10.43	43.37	57.59	14.22	
	0.598	28.92	10.40	39.32	56.00	16.68	
	0.953	29.63	10.41	40.04	56.00	15.96	
	1.734	26.01	10.42	36.43	56.00	19.57	
	16.055	27.56	10.57	38.13	60.00	21.87	
	0.152	39.78	10.59	50.37	55.90	5.53	AV
	0.413	21.94	10.43	32.37	47.59	15.22	
	0.598	17.92	10.40	28.32	46.00	17.68	
	0.953	17.63	10.41	28.04	46.00	17.96	
	1.734	17.01	10.42	27.43	46.00	18.57	
	16.055	21.56	10.57	32.13	50.00	17.87	
Neutral	0.150	52.25	10.58	62.83	65.98	3.15	QP
	0.336	29.94	10.45	40.39	59.31	18.92	
	0.598	29.11	10.39	39.50	56.00	16.50	
	0.953	30.41	10.41	40.82	56.00	15.18	
	1.210	33.81	10.42	44.23	56.00	11.77	
	16.055	27.66	10.68	38.34	60.00	21.66	
	0.150	40.80	10.58	51.38	55.98	4.60	AV
	0.336	16.94	10.45	27.39	49.31	21.92	
	0.598	16.11	10.39	26.50	46.00	19.50	
	0.953	17.41	10.41	27.82	46.00	18.18	
	1.210	18.81	10.42	29.23	46.00	16.77	
	16.055	20.66	10.68	31.34	50.00	18.66	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : USB Play Date of Test : May 17, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark	
Line	0.152	51.65	10.59	62.24	65.91	3.67	QP	
	0.406	33.91	10.43	44.34	57.73	13.39		
	0.592	27.68	10.41	38.09	56.00	17.91		
	1.094	29.80	10.41	40.21	56.00	15.79		
	1.744	25.92	10.42	36.34	56.00	19.66		
	15.885	27.55	10.57	38.12	60.00	21.88		
	0.152	39.70	10.59	50.29	55.91	5.62	AV	
	0.406	22.91	10.43	33.34	47.73	14.39		
	0.592	15.68	10.41	26.09	46.00	19.91		
	1.094	18.80	10.41	29.21	46.00	16.79		
	1.744	14.92	10.42	25.34	46.00	20.66		
	15.885	21.55	10.57	32.12	50.00	17.88		
	Neutral	0.150	52.28	10.58	62.86	65.98	3.12	QP
		0.348	30.04	10.45	40.49	59.00	18.51	
0.621		28.01	10.39	38.40	56.00	17.60		
1.197		33.35	10.42	43.77	56.00	12.23		
2.794		21.69	10.46	32.15	56.00	23.85		
18.232		27.21	10.70	37.91	60.00	22.09		
0.150		40.80	10.58	51.38	55.98	4.60	AV	
0.348		17.04	10.45	27.49	49.00	21.51		
0.621		18.01	10.39	28.40	46.00	17.60		
1.197		18.35	10.42	28.77	46.00	17.23		
2.794		9.69	10.46	20.15	46.00	25.85		
18.232		21.21	10.70	31.91	50.00	18.09		

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : LAN Play Date of Test : May 17, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.150	52.29	10.59	62.88	65.98	3.10	QP
	0.406	33.68	10.43	44.11	57.73	13.62	
	0.665	28.33	10.40	38.73	56.00	17.27	
	0.943	30.74	10.41	41.15	56.00	14.85	
	1.878	24.41	10.42	34.83	56.00	21.17	
	17.568	27.75	10.59	38.34	60.00	21.66	
	AV	0.150	40.70	10.59	51.29	55.98	4.69
		0.406	21.68	10.43	32.11	47.73	15.62
		0.665	15.33	10.40	25.73	46.00	20.27
		0.943	16.74	10.41	27.15	46.00	18.85
		1.878	13.41	10.42	23.83	46.00	22.17
		17.568	22.75	10.59	33.34	50.00	16.66
Neutral	0.151	51.41	10.58	61.99	65.97	3.98	QP
	0.348	30.03	10.45	40.48	59.00	18.52	
	0.923	26.21	10.41	36.62	56.00	19.38	
	1.197	32.63	10.42	43.05	56.00	12.95	
	2.594	24.67	10.46	35.13	56.00	20.87	
	17.568	27.56	10.70	38.26	60.00	21.74	
	AV	0.151	40.40	10.58	50.98	55.97	4.99
		0.348	17.03	10.45	27.48	49.00	21.52
		0.923	15.21	10.41	25.62	46.00	20.38
		1.197	17.63	10.42	28.05	46.00	17.95
		2.594	14.67	10.46	25.13	46.00	20.87
		17.568	21.56	10.70	32.26	50.00	17.74

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : WIFI Date of Test : May 17, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.150	46.04	10.59	56.63	65.98	9.35	QP
	0.280	23.71	10.49	34.20	60.81	26.61	
	0.402	32.37	10.43	42.80	57.81	15.01	
	0.686	31.66	10.40	42.06	56.00	13.94	
	1.781	26.57	10.42	36.99	56.00	19.01	
	17.755	27.24	10.59	37.83	60.00	22.17	
	0.150	34.20	10.59	44.79	55.98	11.19	AV
	0.280	14.71	10.49	25.20	50.81	25.61	
	0.402	18.37	10.43	28.80	47.81	19.01	
	0.686	19.66	10.40	30.06	46.00	15.94	
	1.781	16.57	10.42	26.99	46.00	19.01	
	17.755	22.24	10.59	32.83	50.00	17.17	
Neutral	0.153	48.33	10.57	58.90	65.82	6.92	QP
	0.343	30.19	10.45	40.64	59.13	18.49	
	0.621	28.54	10.39	38.93	56.00	17.07	
	1.210	33.12	10.42	43.54	56.00	12.46	
	2.594	24.27	10.46	34.73	56.00	21.27	
	18.232	27.25	10.70	37.95	60.00	22.05	
	0.153	34.81	10.57	45.38	55.82	10.44	AV
	0.343	18.19	10.45	28.64	49.13	20.49	
	0.621	18.54	10.39	28.93	46.00	17.07	
	1.210	16.12	10.42	26.54	46.00	19.46	
	2.594	14.27	10.46	24.73	46.00	21.27	
	18.232	21.25	10.70	31.95	50.00	18.05	

TEST ENGINEER: BYRON WU

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 48%RH

Test Mode : MHL Date of Test : May 17, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.153	43.38	10.58	53.96	65.81	11.85	QP
	0.413	33.86	10.43	44.29	57.59	13.30	
	0.672	31.15	10.40	41.55	56.00	14.45	
	0.963	30.66	10.41	41.07	56.00	14.93	
	1.781	26.44	10.42	36.86	56.00	19.14	
	18.039	28.32	10.59	38.91	60.00	21.09	
	0.153	29.61	10.58	40.19	55.81	15.62	AV
	0.413	22.86	10.43	33.29	47.59	14.30	
	0.672	17.15	10.40	27.55	46.00	18.45	
	0.963	17.66	10.41	28.07	46.00	17.93	
	1.781	16.44	10.42	26.86	46.00	19.14	
	18.039	22.32	10.59	32.91	50.00	17.09	
Neutral	0.151	50.34	10.58	60.92	65.97	5.05	QP
	0.484	28.84	10.39	39.23	56.27	17.04	
	0.953	32.65	10.41	43.06	56.00	12.94	
	1.249	30.69	10.42	41.11	56.00	14.89	
	2.622	24.93	10.46	35.39	56.00	20.61	
	16.226	26.70	10.68	37.38	60.00	22.62	
	0.151	35.40	10.58	45.98	55.97	9.99	AV
	0.484	17.84	10.39	28.23	46.27	18.04	
	0.953	19.65	10.41	30.06	46.00	15.94	
	1.249	16.69	10.42	27.11	46.00	18.89	
	2.622	16.93	10.46	27.39	46.00	18.61	
	16.226	20.70	10.68	31.38	50.00	18.62	

4 RADIATED EMISSION TEST

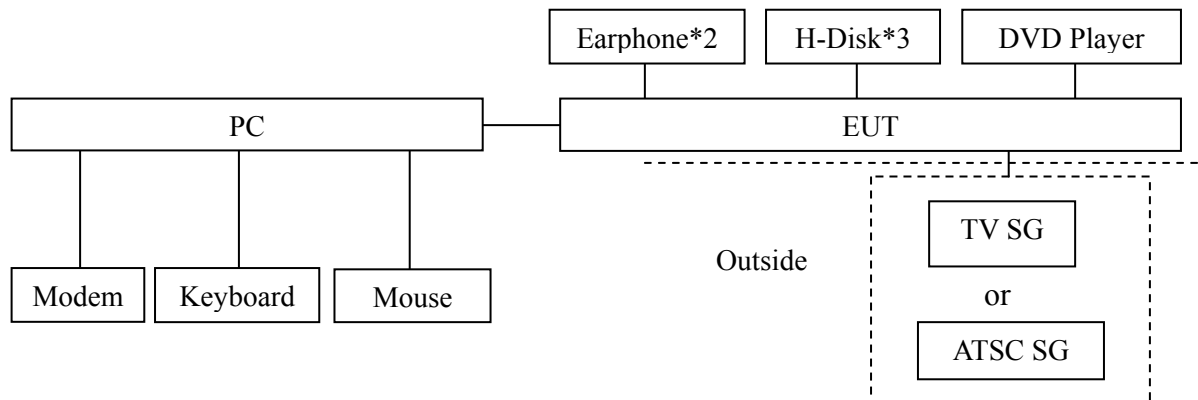
4.1 Test Equipment

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	23193	May 15, 2017	May 14, 2018
5.	Horn Antenna	EMCO	3115	9607-4878	Jun 03, 2016	Jun 02, 2017
6.	Spectrum	Agilent	E7405A	MY45106600	Apr 26, 2017	Apr 25, 2018
7.	Software	Audix	e3	6.2007-9-10	--	--

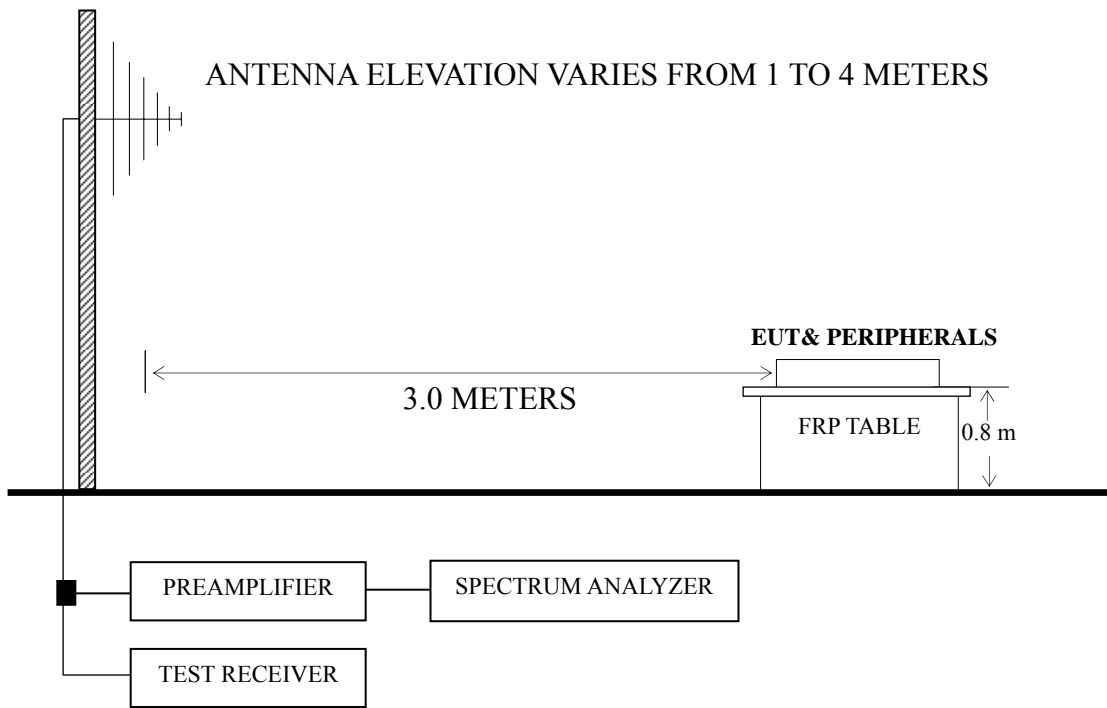
4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals



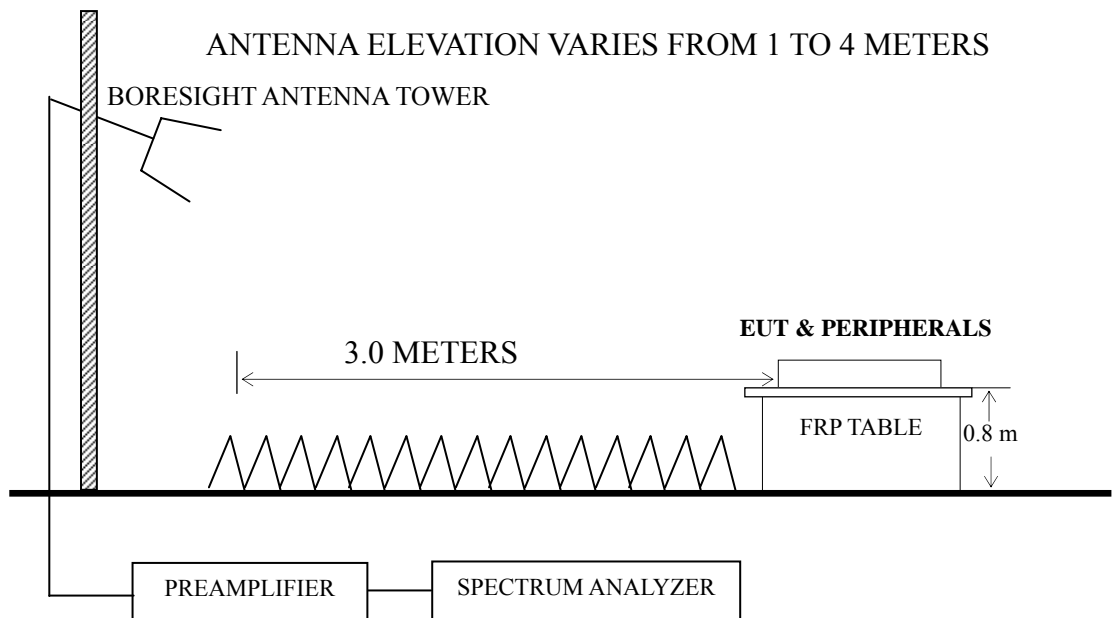
4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



■ : 50 ohm Coaxial Switch

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
HDMI2 3840*2160@60Hz & 1kHz playing	P31
HDMI3 3840*2160@30Hz & 1kHz playing	P32
HDMI4 3840*2160@30Hz & 1kHz playing	P33-P34
HDMI4 1920*1080@60Hz & 1kHz playing	P35
HDMI4 1280*1024@60Hz & 1kHz playing	P36
HDMI4 640*480@60Hz & 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

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI1 3840*2160@60Hz Date of Test : Jun 01, 2017
& 1kHz Playing

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.103	23.81	8.14	0.83	32.78	40.00	7.22
	88.033	22.69	10.59	0.92	34.20	43.50	9.30
	125.007	18.71	12.90	1.15	32.76	43.50	10.74
	449.556	16.64	17.60	2.19	36.43	46.00	9.57
	595.133	15.71	19.50	2.50	37.71	46.00	8.29
	893.857	17.01	20.97	3.03	41.01	46.00	4.99
Vertical	32.979	16.13	17.27	0.58	33.98	40.00	6.02
	73.103	25.70	8.14	0.83	34.67	40.00	5.33
	88.033	24.18	10.59	0.92	35.69	43.50	7.81
	138.874	19.22	12.39	1.23	32.84	43.50	10.66
	449.556	16.77	17.60	2.19	36.56	46.00	9.44
	890.728	16.22	21.00	3.03	40.25	46.00	5.75

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI2 3840*2160@60Hz & 1kHz playing Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.876	24.46	8.27	0.83	33.56	40.00	6.44
	155.910	20.98	11.29	1.31	33.58	43.50	9.92
	216.783	20.51	10.92	1.54	32.97	46.00	13.03
	399.030	19.44	16.28	2.05	37.77	46.00	8.23
	586.844	13.22	19.45	2.48	35.15	46.00	10.85
	890.728	17.24	21.00	3.03	41.27	46.00	4.73
Vertical	32.979	15.62	17.27	0.58	33.47	40.00	6.53
	73.876	24.89	8.27	0.83	33.99	40.00	6.01
	88.033	23.98	10.59	0.92	35.49	43.50	8.01
	139.851	19.81	12.50	1.23	33.54	43.50	9.96
	399.030	18.85	16.28	2.05	37.18	46.00	8.82
	890.728	14.02	21.00	3.03	38.05	46.00	7.95

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI3 3840*2160@60Hz Date of Test : Jun 01, 2017
& 1kHz playing

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.103	24.14	8.14	0.83	33.11	40.00	6.89
	87.112	22.63	10.51	0.92	34.06	40.00	5.94
	125.886	20.51	12.86	1.16	34.53	43.50	8.97
	487.315	16.07	18.16	2.26	36.49	46.00	9.51
	590.974	15.83	19.50	2.50	37.83	46.00	8.17
	893.857	17.77	20.97	3.03	41.77	46.00	4.23
Vertical	32.979	15.86	17.27	0.58	33.71	40.00	6.29
	73.103	25.35	8.14	0.83	34.32	40.00	5.68
	88.033	24.55	10.59	0.92	36.06	43.50	7.44
	104.170	20.89	12.88	1.03	34.80	43.50	8.70
	462.346	16.37	17.72	2.22	36.31	46.00	9.69
	813.112	13.49	20.83	2.89	37.21	46.00	8.79

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI4 3840*2160@60Hz & 1kHz playing Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)	Remark
Horizontal	87.112	21.67	10.51	0.92	--	33.10	40.00	6.90	QP
	127.218	19.05	12.72	1.17	--	32.94	43.50	10.56	
	216.783	19.86	10.92	1.54	--	32.32	46.00	13.68	
	487.315	16.05	18.16	2.26	--	36.47	46.00	9.53	
	590.974	14.62	19.50	2.50	--	36.62	46.00	9.38	
	893.857	19.16	20.97	3.03	--	43.16	46.00	2.84	
	1360.949	62.12	25.10	3.72	35.88	55.06	74.00	18.94	PK
	1777.406	61.62	26.72	4.13	35.34	57.13	74.00	16.87	
	2603.351	59.30	28.87	5.11	35.17	58.11	74.00	15.89	AV
	1360.949	43.50	25.10	3.72	35.88	36.44	54.00	17.56	
	1777.406	40.60	26.72	4.13	35.34	36.11	54.00	17.89	
2603.351	42.12	28.87	5.11	35.17	40.93	54.00	13.07		

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI4 3840*2160@60Hz & 1kHz playing Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)	Remark
Vertical	33.211	15.68	17.22	0.58	--	33.48	40.00	6.52	QP
	73.103	24.92	8.14	0.83	--	33.89	40.00	6.11	
	88.033	24.25	10.59	0.92	--	35.76	43.50	7.74	
	449.556	17.54	17.60	2.19	--	37.33	46.00	8.67	
	586.844	15.43	19.45	2.48	--	37.36	46.00	8.64	
	890.728	16.54	21.00	3.03	--	40.57	46.00	5.43	
	1488.503	61.85	25.57	3.86	35.70	55.58	74.00	18.42	PK
	2219.613	58.03	27.92	4.67	35.13	55.49	74.00	18.51	
	3868.158	51.47	32.47	5.91	34.40	55.45	74.00	18.55	
	1488.503	47.47	25.57	3.86	35.70	41.20	54.00	12.80	AV
	2219.613	39.04	27.92	4.67	35.13	36.50	54.00	17.50	
3868.158	34.28	32.47	5.91	34.40	38.26	54.00	15.74		

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI4 1920*1080@60Hz Date of Test : Jun 01, 2017
& 1kHz Playing

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.103	24.29	8.14	0.83	33.26	40.00	6.74
	87.112	21.60	10.51	0.92	33.03	40.00	6.97
	125.007	18.91	12.90	1.15	32.96	43.50	10.54
	449.556	16.60	17.60	2.19	36.39	46.00	9.61
	742.259	18.39	20.57	2.76	41.72	46.00	4.28
	890.728	17.95	21.00	3.03	41.98	46.00	4.02
Vertical	32.979	15.59	17.27	0.58	33.44	40.00	6.56
	73.876	24.43	8.27	0.83	33.53	40.00	6.47
	88.033	25.46	10.59	0.92	36.97	43.50	6.53
	157.007	18.93	11.06	1.31	31.30	43.50	12.20
	449.556	14.64	17.60	2.19	34.43	46.00	11.57
	801.786	11.43	20.80	2.87	35.10	46.00	10.90

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI4 1280*1024@60Hz & 1kHz Playing Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.103	24.50	8.14	0.83	33.47	40.00	6.53
	102.001	18.05	12.84	1.01	31.90	43.50	11.60
	158.112	21.24	10.84	1.32	33.40	43.50	10.10
	216.024	20.97	10.96	1.54	33.47	46.00	12.53
	487.315	15.69	18.16	2.26	36.11	46.00	9.89
	893.857	17.66	20.97	3.03	41.66	46.00	4.34
Vertical	32.979	15.18	17.27	0.58	33.03	40.00	6.97
	73.876	24.11	8.27	0.83	33.21	40.00	6.79
	88.964	24.11	10.69	0.93	35.73	43.50	7.77
	159.784	20.28	10.61	1.32	32.21	43.50	11.29
	459.114	14.53	17.70	2.20	34.43	46.00	11.57
	804.603	12.00	20.80	2.87	35.67	46.00	10.33

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI4 640*480@60Hz & 1kHz Playing Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.103	23.73	8.14	0.83	32.70	40.00	7.30
	87.112	22.48	10.51	0.92	33.91	40.00	6.09
	127.218	18.60	12.72	1.17	32.49	43.50	11.01
	215.268	18.82	11.00	1.54	31.36	43.50	12.14
	487.315	14.85	18.16	2.26	35.27	46.00	10.73
	896.997	17.13	20.93	3.03	41.09	46.00	4.91
Vertical	32.067	15.18	17.65	0.57	33.40	40.00	6.60
	73.103	24.17	8.14	0.83	33.14	40.00	6.86
	87.112	22.38	10.51	0.92	33.81	40.00	6.19
	104.903	20.99	12.90	1.03	34.92	43.50	8.58
	372.005	17.42	15.84	1.99	35.25	46.00	10.75
	813.112	12.43	20.83	2.89	36.15	46.00	9.85

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	72.084	24.16	8.01	0.83	33.00	40.00	7.00
	122.834	19.30	13.02	1.14	33.46	43.50	10.04
	225.308	21.62	11.10	1.57	34.29	46.00	11.71
	454.310	17.67	17.64	2.19	37.50	46.00	8.50
	578.670	15.76	19.30	2.46	37.52	46.00	8.48
	878.322	17.02	21.07	3.01	41.10	46.00	4.90
Vertical	31.731	15.23	17.85	0.57	33.65	40.00	6.35
	75.977	23.52	8.59	0.84	32.95	40.00	7.05
	131.297	20.09	12.33	1.19	33.61	43.50	9.89
	454.310	15.80	17.64	2.19	35.63	46.00	10.37
	796.183	12.00	20.80	2.85	35.65	46.00	10.35
	890.728	17.02	21.00	3.03	41.05	46.00	4.95

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : USB Play Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	85.298	20.91	10.34	0.90	32.15	40.00	7.85
	143.830	18.78	12.05	1.25	32.08	43.50	11.42
	208.580	21.32	10.38	1.52	33.22	43.50	10.28
	443.294	16.23	17.47	2.17	35.87	46.00	10.13
	586.844	13.99	19.45	2.48	35.92	46.00	10.08
	884.503	14.04	21.05	3.01	38.10	46.00	7.90
Vertical	31.955	15.48	17.70	0.57	33.75	40.00	6.25
	87.418	22.47	10.55	0.92	33.94	40.00	6.06
	102.719	19.63	12.85	1.02	33.50	43.50	10.00
	449.556	16.66	17.60	2.19	36.45	46.00	9.55
	790.619	11.30	20.80	2.85	34.95	46.00	11.05
	938.833	10.97	21.30	3.10	35.37	46.00	10.63

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : LAN Play Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	86.200	22.04	10.41	0.91	33.36	40.00	6.64
	127.665	18.60	12.68	1.17	32.45	43.50	11.05
	216.024	19.41	10.96	1.54	31.91	46.00	14.09
	460.727	13.72	17.70	2.20	33.62	46.00	12.38
	582.743	13.12	19.35	2.48	34.95	46.00	11.05
	875.247	12.43	21.03	3.01	36.47	46.00	9.53
Vertical	31.843	14.20	17.77	0.57	32.54	40.00	7.46
	74.135	24.00	8.27	0.83	33.10	40.00	6.90
	87.112	21.40	10.51	0.92	32.83	40.00	7.17
	105.272	19.76	12.89	1.04	33.69	43.50	9.81
	457.507	15.66	17.68	2.20	35.54	46.00	10.46
	807.429	12.76	20.80	2.87	36.43	46.00	9.57

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : WIFI Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	85.898	22.29	10.37	0.91	33.57	40.00	6.43
	129.015	19.78	12.59	1.18	33.55	43.50	9.95
	420.580	16.03	17.13	2.11	35.27	46.00	10.73
	497.677	14.78	18.36	2.29	35.43	46.00	10.57
	694.417	11.03	20.37	2.69	34.09	46.00	11.91
Vertical	875.247	11.86	21.03	3.01	35.90	46.00	10.10
	30.638	14.25	18.43	0.56	33.24	40.00	6.76
	76.244	22.97	8.65	0.84	32.46	40.00	7.54
	98.833	20.81	12.59	0.99	34.39	43.50	9.11
	406.088	14.92	16.60	2.08	33.60	46.00	12.40
	588.905	12.34	19.50	2.48	34.32	46.00	11.68
	785.093	10.48	20.73	2.83	34.04	46.00	11.96

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22

Model No. : LC-65P7000U Humidity : 60%RH

Test Mode : MHL Date of Test : Jun 01, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	75.977	23.93	8.59	0.84	33.36	40.00	6.64
	137.903	19.82	12.28	1.22	33.32	43.50	10.18
	215.268	20.35	11.00	1.54	32.89	43.50	10.61
	487.315	13.69	18.16	2.26	34.11	46.00	11.89
	588.905	12.53	19.50	2.48	34.51	46.00	11.49
	881.407	10.45	21.10	3.01	34.56	46.00	11.44
Vertical	32.634	15.68	17.43	0.58	33.69	40.00	6.31
	68.872	25.26	7.50	0.81	33.57	40.00	6.43
	91.175	21.54	11.07	0.94	33.55	43.50	9.95
	135.032	20.33	12.00	1.21	33.54	43.50	9.96
	449.556	15.02	17.60	2.19	34.81	46.00	11.19
	810.265	12.58	20.80	2.87	36.25	46.00	9.75

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 Appendix 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)

