

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

LED LCD TV

Model No.	Brand
LC-50N7000U, LC-50N7000C	Sharp

FCC ID : W9HLCDF0065

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-F16006A1  
Date of Test : May 17 – 25, 2016  
Date of Report : Jun 02, 2016

## TABLE OF CONTENTS

	Page
<b>1 SUMMARY OF STANDARDS AND RESULTS</b> .....	<b>4</b>
1.1 Description of Standards and Results.....	4
<b>2 GENERAL INFORMATION</b> .....	<b>5</b>
2.1 Description of Equipment Under Test.....	5
2.2 Peripherals.....	6
2.3 Description of Test Facility.....	8
2.4 Measurement Uncertainty.....	9
<b>3 CONDUCTED EMISSION TEST</b> .....	<b>10</b>
3.1 Test Equipment.....	10
3.2 Block Diagram of Test Setup.....	10
3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)].....	11
3.4 Test Configuration.....	11
3.5 Operating Condition of EUT.....	12
3.6 Test Procedures.....	12
3.7 Test Results.....	13
<b>4 RADIATED EMISSION TEST</b> .....	<b>22</b>
4.1 Test Equipment.....	22
4.2 Block Diagram of Test Setup.....	22
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)].....	24
4.4 Test Configuration.....	24
4.5 Operating Condition of EUT.....	24
4.6 Test Procedures.....	24
4.7 Test Results.....	25
<b>5 DEVIATION TO TEST SPECIFICATIONS</b> .....	<b>36</b>

## 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
LC-50N7000U LC-50N7000C	Sharp	120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2015  
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 17 – 25, 2016 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.F16007A1, a Verification report.***

Date of Test : May 17 – 25, 2016 Date of Report : Jun 02, 2016

Producer : HUI MIN YAN  
HUI MIN YAN / Assistant

Review : Byron Wu  
BYRON WU / Deputy Assistant Manager

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

Signatory : [Signature]  
Authorized Signature EMC 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:

<b>Description of Test Item</b>	<b>Standard</b>	<b>Limits</b>	<b>Results</b>
<b>EMISSION</b>			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2015 AND ANSI C63.4-2014	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2015 AND ANSI C63.4-2014	15.109(a) Class B	Pass

## 2 GENERAL INFORMATION

### 2.1 Description of Equipment Under Test

Description : LED LCD TV

Type of EUT :  Production  Pre-product  Pro-type

Model No : LC-50N7000U, LC-50N7000C

Note#1 : The above models are all the same except for model number.LC-50N7000U model is tested and recorded in the report.

Note#2 : The modified histories of report are as follows:

Report No.	Model No.	Rev. Summary	Edition No.	Data of Rev.
ACI-F16006	LC-50N7000U, LC-50N7000C	Original Report	0	Jan 08, 2016
ACI-F16006A1	LC-50N7000U, LC-50N7000C	1. To add Panel	Rev. A1	Jun 02, 2016

Brand : Sharp

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 : HE500IU-B51 (110)

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

Max Resolution : 3840\*2160@60Hz

HDMI Cable\*4 (Lab provide) : Shielded, Detachable, 1.50m, with two cores

Power Cord	:	Unshielded, Detachable, 1.80m, 2C
LAN Cable	:	Shielded, Detachable, 1.50m
USB Cable*3 (Lab provide)	:	Shielded, Detachable, 1.00m, with one 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 PC
- (3) One HDMI1/MHL Port : Connected with Smart Mobile Phone
- (4) One Audio out Port : Connected with Earphone#1
- (5) One USB1 Port : Connected with Hard-Disk #2
- (6) One USB2 Port : Connected with Hard-Disk #3
- (7) One ANT/CABLE IN Port : Connected with Antenna or ATSC SG / TV SG

## Back Port:

- (8) One LAN Port : Connected with PC
- (9) One HDMI3 Port : Connected with DVD PLAYER #1
- (10) One HDMI4 Port : Connected with DVD PLAYER #2
- (11) One Digital Audio Out Port : Connected with Earphone#2
- (12) One AV Port : Connected with DVD PLAYER #1

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

## 2.2.11 Hard Disk #2

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

## 2.2.12 Hard Disk #3

Manufacturer : Tetasy  
Model Number : F12  
Serial Number : A010022-486006  
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

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 = 4.6db (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

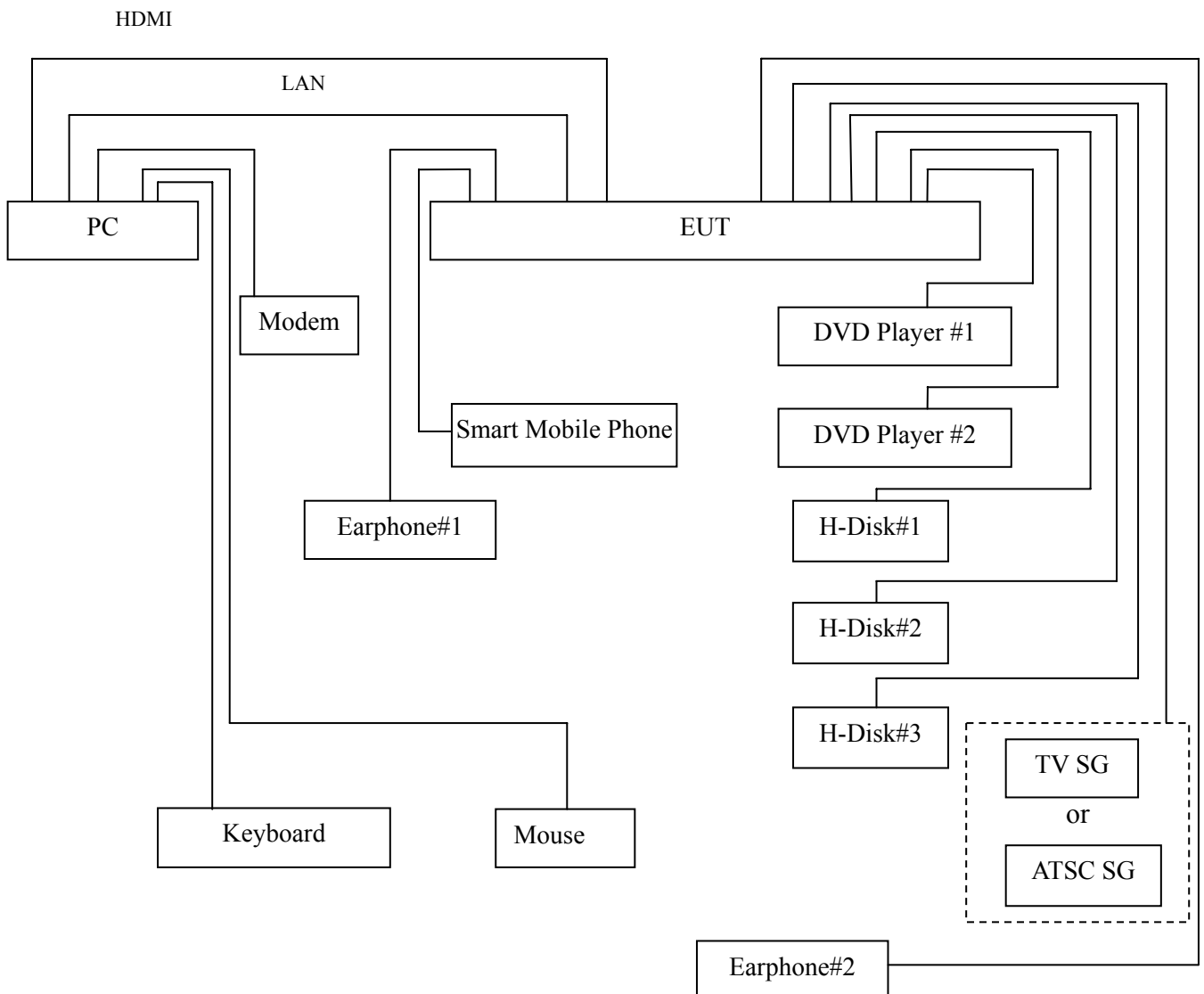
#### 3.1 Test Equipment

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

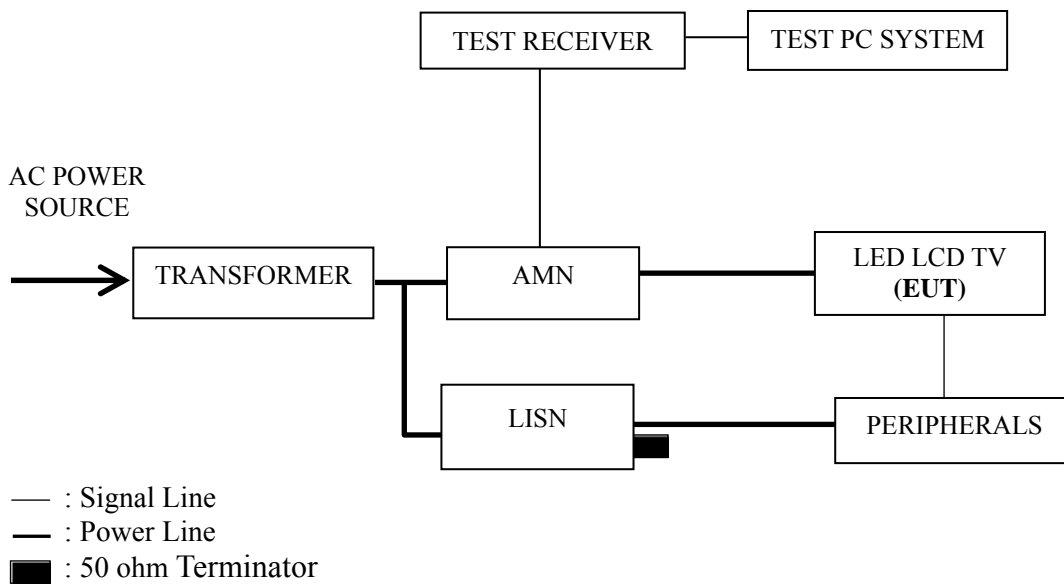
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Jul 03, 2015	Jul 02, 2016
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 27, 2015	Jun 26, 2016
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 19, 2016	Mar 18, 2017
4.	50Ω Terminator	Anritsu	BNC	001	Mar 18, 2016	Sep 17, 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 ( $\mu$ 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 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
USB Play
LAN Play
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 C63.4:2014 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
USB Play	P19
LAN Play	P20
MHL	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 HDMI 3840\*2160@60Hz & 1kHz playing test mode. The worst emission is detected at 0.180 MHz (QP Value) with corrected signal level of 57.14dB (μV) (limit is 64.50 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : HDMI 3840\*2160@60Hz & 1kHz Playing Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.178	46.39	10.56	56.95	64.59	7.64	QP
	0.413	29.50	10.43	39.93	57.58	17.65	
	0.615	28.50	10.39	38.89	56.00	17.11	
	1.243	26.60	10.40	37.00	56.00	19.00	
	2.485	25.01	10.43	35.44	56.00	20.56	
	6.901	26.20	10.47	36.67	60.00	23.33	
	0.178	34.99	10.56	45.55	54.59	9.04	AV
	0.413	19.60	10.43	30.03	47.58	17.55	
	0.615	18.30	10.39	28.69	46.00	17.31	
	1.243	15.80	10.40	26.20	46.00	19.80	
	2.485	16.61	10.43	27.04	46.00	18.96	
	6.901	20.30	10.47	30.77	50.00	19.23	
Neutral	<b>0.180</b>	<b>46.60</b>	<b>10.54</b>	<b>57.14</b>	<b>64.50</b>	<b>7.36</b>	QP
	0.412	30.50	10.41	40.91	57.61	16.70	
	0.608	28.70	10.37	39.07	56.00	16.93	
	0.993	25.90	10.38	36.28	56.00	19.72	
	1.784	26.59	10.42	37.01	56.00	18.99	
	6.907	25.90	10.52	36.42	60.00	23.58	
	0.180	34.70	10.54	45.24	54.50	9.26	AV
	0.412	20.60	10.41	31.01	47.61	16.60	
	0.608	17.60	10.37	27.97	46.00	18.03	
	0.993	14.50	10.38	24.88	46.00	21.12	
	1.784	16.69	10.42	27.11	46.00	18.89	
	6.907	19.60	10.52	30.12	50.00	19.88	

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : HDMI 1920\*1080@60Hz Date of Test : May 17, 2016  
& 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.182	45.50	10.55	56.05	64.38	8.33	QP
	0.428	29.40	10.42	39.82	57.30	17.48	
	0.613	29.50	10.39	39.89	56.00	16.11	
	1.113	27.10	10.39	37.49	56.00	18.51	
	2.597	25.00	10.44	35.44	56.00	20.56	
	6.754	26.70	10.47	37.17	60.00	22.83	
	AV	0.182	33.40	10.55	43.95	54.38	10.43
		0.428	18.10	10.42	28.52	47.30	18.78
		0.613	18.90	10.39	29.29	46.00	16.71
		1.113	15.80	10.39	26.19	46.00	19.81
		2.597	16.30	10.44	26.74	46.00	19.26
		6.754	21.50	10.47	31.97	50.00	18.03
Neutral	<b>0.182</b>	<b>45.60</b>	<b>10.54</b>	<b>56.14</b>	<b>64.39</b>	<b>8.25</b>	QP
	0.428	31.00	10.40	41.40	57.29	15.89	
	0.615	29.70	10.37	40.07	56.00	15.93	
	1.921	26.70	10.42	37.12	56.00	18.88	
	4.375	24.10	10.47	34.57	56.00	21.43	
	6.857	27.80	10.52	38.32	60.00	21.68	
	AV	0.182	33.20	10.54	43.74	54.39	10.65
		0.428	19.20	10.40	29.60	47.29	17.69
		0.615	19.10	10.37	29.47	46.00	16.53
		1.921	16.40	10.42	26.82	46.00	19.18
		4.375	15.30	10.47	25.77	46.00	20.23
		6.857	22.70	10.52	33.22	50.00	16.78

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : HDMI 1280\*1024@60Hz & 1kHz Playing Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.182	45.50	10.55	56.05	64.40	8.35	QP
	0.419	28.99	10.43	39.42	57.47	18.05	
	0.615	29.50	10.39	39.89	56.00	16.11	
	1.130	26.41	10.39	36.80	56.00	19.20	
	1.904	27.30	10.42	37.72	56.00	18.28	
	6.718	27.10	10.47	37.57	60.00	22.43	
	AV	0.182	33.20	10.55	43.75	54.40	10.65
		0.419	17.09	10.43	27.52	47.47	19.95
		0.615	18.30	10.39	28.69	46.00	17.31
		1.130	14.61	10.39	25.00	46.00	21.00
		1.904	16.80	10.42	27.22	46.00	18.78
		6.718	20.00	10.47	30.47	50.00	19.53
Neutral	<b>0.183</b>	<b>45.49</b>	<b>10.54</b>	<b>56.03</b>	<b>64.34</b>	<b>8.31</b>	QP
	0.428	31.10	10.40	41.50	57.29	15.79	
	0.639	30.19	10.38	40.57	56.00	15.43	
	1.911	27.80	10.42	38.22	56.00	17.78	
	4.852	24.20	10.48	34.68	56.00	21.32	
	6.701	26.50	10.52	37.02	60.00	22.98	
	AV	0.183	33.59	10.54	44.13	54.34	10.21
		0.428	19.40	10.40	29.80	47.29	17.49
		0.639	17.99	10.38	28.37	46.00	17.63
		1.911	17.00	10.42	27.42	46.00	18.58
		4.852	17.40	10.48	27.88	46.00	18.12
		6.701	19.40	10.52	29.92	50.00	20.08

TEST ENGINEER: SEVEN LU



EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : HDMI 640\*480@60Hz & 1kHz Playing Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	<b>0.182</b>	<b>45.50</b>	<b>10.55</b>	<b>56.05</b>	<b>64.41</b>	<b>8.36</b>	QP
	0.423	29.39	10.43	39.82	57.38	17.56	
	0.631	28.20	10.39	38.59	56.00	17.41	
	1.115	27.10	10.39	37.49	56.00	18.51	
	4.435	23.70	10.48	34.18	56.00	21.82	
	7.017	27.00	10.47	37.47	60.00	22.53	
	0.182	33.90	10.55	44.45	54.41	9.96	AV
	0.423	18.59	10.43	29.02	47.38	18.36	
	0.631	15.90	10.39	26.29	46.00	19.71	
	1.115	14.40	10.39	24.79	46.00	21.21	
	4.435	15.50	10.48	25.98	46.00	20.02	
	7.017	21.30	10.47	31.77	50.00	18.23	
Neutral	0.184	45.19	10.54	55.73	64.33	8.60	QP
	0.420	30.29	10.41	40.70	57.45	16.75	
	0.640	30.29	10.38	40.67	56.00	15.33	
	1.102	26.61	10.38	36.99	56.00	19.01	
	2.792	24.70	10.44	35.14	56.00	20.86	
	6.524	26.09	10.52	36.61	60.00	23.39	
	0.184	33.79	10.54	44.33	54.33	10.00	AV
	0.420	18.59	10.41	29.00	47.45	18.45	
	0.640	18.09	10.38	28.47	46.00	17.53	
	1.102	14.31	10.38	24.69	46.00	21.31	
	2.792	13.60	10.44	24.04	46.00	21.96	
	6.524	18.59	10.52	29.11	50.00	20.89	

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C  
 Model No. : LC-50N7000U Humidity : 48%RH  
 Test Mode : HDMI 1080P Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.184	45.40	10.55	55.95	64.31	8.36	QP
	0.419	29.09	10.43	39.52	57.47	17.95	
	0.609	29.00	10.39	39.39	56.00	16.61	
	1.142	27.11	10.39	37.50	56.00	18.50	
	4.227	25.20	10.48	35.68	56.00	20.32	
	7.274	26.40	10.47	36.87	60.00	23.13	
	0.184	34.00	10.55	44.55	54.31	9.76	AV
	0.419	17.39	10.43	27.82	47.47	19.65	
	0.609	18.10	10.39	28.49	46.00	17.51	
	1.142	15.21	10.39	25.60	46.00	20.40	
	4.227	15.60	10.48	26.08	46.00	19.92	
	7.274	20.50	10.47	30.97	50.00	19.03	
Neutral	<b>0.182</b>	<b>45.50</b>	<b>10.54</b>	<b>56.04</b>	<b>64.38</b>	<b>8.34</b>	QP
	0.428	31.00	10.40	41.40	57.29	15.89	
	0.636	29.29	10.38	39.67	56.00	16.33	
	1.148	27.51	10.38	37.89	56.00	18.11	
	4.282	26.40	10.47	36.87	56.00	19.13	
	6.521	26.29	10.52	36.81	60.00	23.19	
	0.182	33.40	10.54	43.94	54.38	10.44	AV
	0.428	19.80	10.40	30.20	47.29	17.09	
	0.636	17.79	10.38	28.17	46.00	17.83	
	1.148	16.31	10.38	26.69	46.00	19.31	
	4.282	15.80	10.47	26.27	46.00	19.73	
	6.521	18.99	10.52	29.51	50.00	20.49	

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : USB Play Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark
Line	0.183	45.30	10.55	55.85	64.34	8.49	QP
	0.425	29.60	10.42	40.02	57.34	17.32	
	0.639	29.59	10.40	39.99	56.00	16.01	
	1.119	27.00	10.39	37.39	56.00	18.61	
	2.718	26.99	10.45	37.44	56.00	18.56	
	6.867	27.10	10.47	37.57	60.00	22.43	
	0.183	34.20	10.55	44.75	54.34	9.59	AV
	0.425	19.00	10.42	29.42	47.34	17.92	
	0.639	17.79	10.40	28.19	46.00	17.81	
	1.119	14.50	10.39	24.89	46.00	21.11	
	2.718	15.39	10.45	25.84	46.00	20.16	
	6.867	21.80	10.47	32.27	50.00	17.73	
Neutral	<b>0.183</b>	<b>45.20</b>	<b>10.54</b>	<b>55.74</b>	<b>64.35</b>	<b>8.61</b>	QP
	0.428	30.90	10.40	41.30	57.29	15.99	
	0.642	30.29	10.38	40.67	56.00	15.33	
	1.033	26.80	10.38	37.18	56.00	18.82	
	2.575	25.41	10.43	35.84	56.00	20.16	
	6.639	25.29	10.52	35.81	60.00	24.19	
	0.183	33.80	10.54	44.34	54.35	10.01	AV
	0.428	19.70	10.40	30.10	47.29	17.19	
	0.642	17.69	10.38	28.07	46.00	17.93	
	1.033	15.10	10.38	25.48	46.00	20.52	
	2.575	16.51	10.43	26.94	46.00	19.06	
	6.639	19.49	10.52	30.01	50.00	19.99	

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : LAN Play Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.184	45.00	10.55	55.55	64.30	8.75	QP
	0.419	29.09	10.43	39.52	57.47	17.95	
	0.641	29.89	10.40	40.29	56.00	15.71	
	1.105	27.20	10.39	37.59	56.00	18.41	
	4.413	24.70	10.48	35.18	56.00	20.82	
	6.732	26.00	10.47	36.47	60.00	23.53	
	AV	0.184	34.20	10.55	44.75	54.30	9.55
		0.419	17.59	10.43	28.02	47.47	19.45
		0.641	17.19	10.40	27.59	46.00	18.41
		1.105	14.70	10.39	25.09	46.00	20.91
		4.413	16.50	10.48	26.98	46.00	19.02
		6.732	20.50	10.47	30.97	50.00	19.03
Neutral	<b>0.183</b>	<b>45.09</b>	<b>10.54</b>	<b>55.63</b>	<b>64.34</b>	<b>8.71</b>	QP
	0.423	30.39	10.41	40.80	57.39	16.59	
	0.631	29.20	10.37	39.57	56.00	16.43	
	1.156	27.31	10.38	37.69	56.00	18.31	
	2.545	24.81	10.43	35.24	56.00	20.76	
	6.897	29.10	10.52	39.62	60.00	20.38	
	AV	0.183	33.89	10.54	44.43	54.34	9.91
		0.423	19.99	10.41	30.40	47.39	16.99
		0.631	16.30	10.37	26.67	46.00	19.33
		1.156	15.51	10.38	25.89	46.00	20.11
		2.545	16.51	10.43	26.94	46.00	19.06
		6.897	23.80	10.52	34.32	50.00	15.68

TEST ENGINEER: SEVEN LU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 48%RH

Test Mode : MHL Date of Test : May 17, 2016

Test Line	Frequency (MHz)	Meter Reading dB( $\mu$ V)	Factor (dB)	Emission Level dB( $\mu$ V)	Limits dB( $\mu$ V)	Margin (dB)	Remark	
Line	<b>0.182</b>	<b>45.60</b>	<b>10.55</b>	<b>56.15</b>	<b>64.38</b>	<b>8.23</b>	QP	
	0.418	28.99	10.43	39.42	57.48	18.06		
	0.613	27.00	10.39	37.39	56.00	18.61		
	1.094	27.70	10.39	38.09	56.00	17.91		
	2.641	25.79	10.45	36.24	56.00	19.76		
	7.243	26.10	10.47	36.57	60.00	23.43		
	0.182	34.20	10.55	44.75	54.38	9.63	AV	
	0.418	17.49	10.43	27.92	47.48	19.56		
	0.613	15.20	10.39	25.59	46.00	20.41		
	1.094	15.80	10.39	26.19	46.00	19.81		
	2.641	15.69	10.45	26.14	46.00	19.86		
	7.243	19.40	10.47	29.87	50.00	20.13		
	Neutral	0.183	45.30	10.54	55.84	64.37	8.53	QP
		0.428	30.90	10.40	41.30	57.30	16.00	
0.553		27.01	10.37	37.38	56.00	18.62		
1.090		27.20	10.38	37.58	56.00	18.42		
4.342		24.90	10.47	35.37	56.00	20.63		
7.182		25.80	10.52	36.32	60.00	23.68		
0.183		33.80	10.54	44.34	54.37	10.03	AV	
0.428		19.10	10.40	29.50	47.30	17.80		
0.553		15.51	10.37	25.88	46.00	20.12		
1.090		16.30	10.38	26.68	46.00	19.32		
4.342		16.00	10.47	26.47	46.00	19.53		
7.182		19.40	10.52	29.92	50.00	20.08		

TEST ENGINEER: SEVEN LU

## 4 RADIATED EMISSION TEST

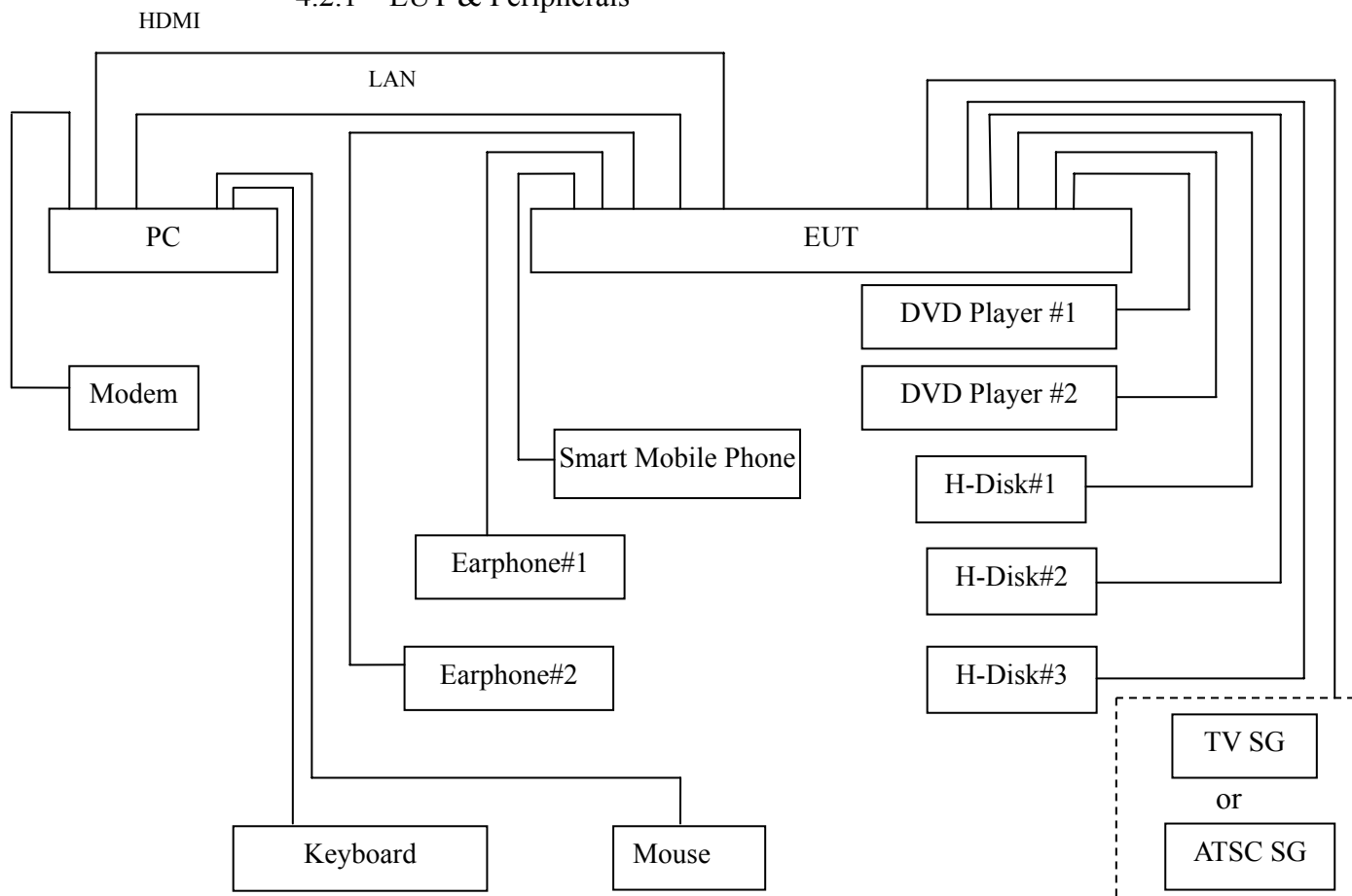
### 4.1 Test Equipment

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, 2016	May 06, 2017
2.	Preamplifier	Agilent	8447D	2944A06664	Apr 27, 2016	Apr 26, 2017
3.	Preamplifier	HP	8449B	3008A00864	Mar 20, 2016	Sep 19, 2017
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 15, 2016	May 14, 2017
5.	Horn Antenna	EMCO	3115	9607-4878	Jun 03, 2015	Jun 02, 2016
6.	Spectrum	Agilent	E7405A	MY45106600	Feb 26, 2016	Feb 25, 2017
7.	Spectrum	HP	8591EM	3628A00908	May 07, 2016	May 06, 2017
8.	50Ω Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2016	Sep 17, 2016
9.	Software	Audix	e3	6.2007-9-10	--	--

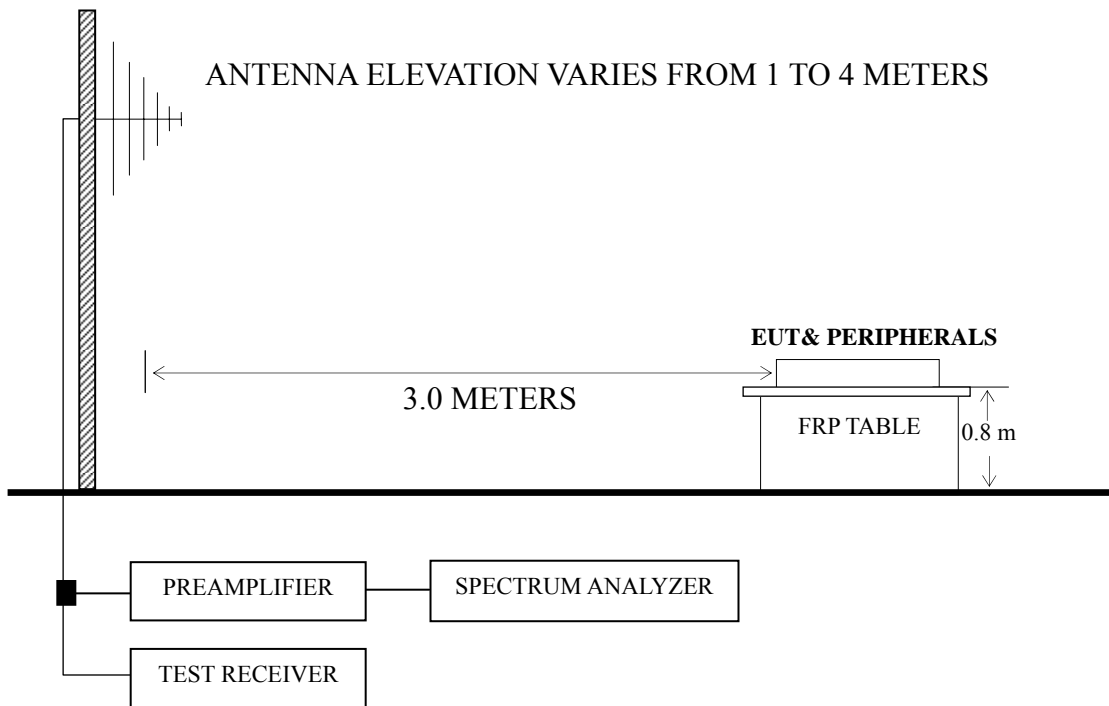
### 4.2 Block Diagram of Test Setup

#### 4.2.1 EUT & Peripherals



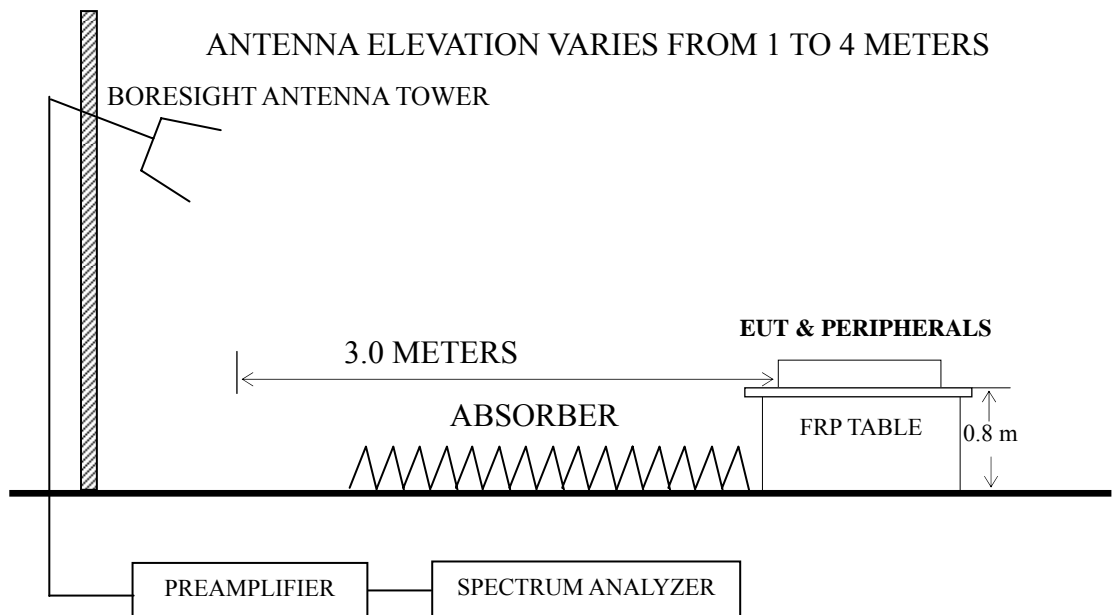
### 4.2.2 Radiated emission test setup

#### 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 C63.4:2014 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
USB Play	P32
LAN Play	P33
MHL	P34

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.  
( $< 1\text{GHz}$ );

Emission Level = Antenna Factor + Cable Loss – Preamp Factor  
+ Meter Reading. ( $> 1\text{GHz}$ )

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

NOTE 3 –  $0^\circ$  was the table front facing the antenna. Degree is calculated from  $0^\circ$  clockwise facing the antenna.

NOTE 4 – The worst case is for HDMI 3840\*2160@60Hz & 1 kHz playing test mode. The worst emission at horizontal polarization was detected at 845.088 MHz with corrected signal level of 42.98 dB ( $\mu\text{V/m}$ ) (limit is 46.00 dB ( $\mu\text{V/m}$ )), when the antenna was 1.80 m height and the turntable was at  $70^\circ$ . The worst emission at vertical polarization was detected at 663.880 MHz with corrected signal level of 42.41 dB ( $\mu\text{V/m}$ ) (limit is 46.00 dB ( $\mu\text{V/m}$ )), when the antenna was 1.30m height and the turntable was at  $240^\circ$ .

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI 3840\*2160@60Hz & 1kHz Playing Date of Test : May 25, 2016

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	74.657	8.43	23.90	1.01	0.00	33.34	40.00	6.66	QP	
	134.088	12.62	23.00	1.54	0.00	37.16	43.50	6.34		
	220.617	10.55	26.43	2.05	0.00	39.03	46.00	6.97		
	425.028	16.80	17.62	2.78	0.00	37.20	46.00	8.80		
	665.804	19.60	15.42	3.16	0.00	38.18	46.00	7.82		
	<b>845.088</b>	<b>20.73</b>	<b>18.18</b>	<b>4.07</b>	<b>0.00</b>	<b>42.98</b>	<b>46.00</b>	<b>3.02</b>	PK	
	1485.838	55.66	25.56	3.86	35.70	49.38	74.00	24.62		
	2674.269	52.52	29.17	5.25	35.17	51.77	74.00	22.23		
	4253.498	49.81	33.22	6.43	34.19	55.27	74.00	18.73		
	1485.838	41.28	25.56	3.86	35.70	35.00	54.00	19.00		AV
	2674.269	38.66	29.17	5.25	35.17	37.91	54.00	16.09		
4253.498	33.44	33.22	6.43	34.19	38.90	54.00	15.10			

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI 3840\*2160@60Hz & 1kHz Playing Date of Test : May 25, 2016

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	30.853	18.25	16.44	0.64	0.00	35.33	40.00	4.67	QP
	40.276	12.85	22.29	0.73	0.00	35.87	40.00	4.13	
	132.221	12.71	25.52	1.53	0.00	39.76	43.50	3.74	
	222.170	10.65	25.66	2.05	0.00	38.36	46.00	7.64	
	<b>663.880</b>	<b>19.60</b>	<b>19.65</b>	<b>3.16</b>	<b>0.00</b>	<b>42.41</b>	<b>46.00</b>	<b>3.59</b>	
	851.035	20.73	14.05	4.17	0.00	38.95	46.00	7.05	PK
	1714.840	49.43	26.49	4.09	35.41	44.60	74.00	29.40	
	2243.604	48.22	27.97	4.67	35.13	45.73	74.00	28.27	
	3765.580	46.50	32.22	5.98	34.48	50.22	74.00	23.78	
	AV	1714.840	35.30	26.49	4.09	35.41	30.47	54.00	23.53
		2243.604	34.28	27.97	4.67	35.13	31.79	54.00	22.21
	3765.580	32.82	32.22	5.98	34.48	36.54	54.00	17.46	

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI 1920\*1080@60Hz Date of Test : May 25, 2016  
& 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	73.617	8.20	23.64	0.99	32.83	40.00	7.17
	132.221	12.71	23.91	1.53	38.15	43.50	5.35
	214.514	10.17	25.53	2.03	37.73	43.50	5.77
	670.489	19.60	16.83	3.16	39.59	46.00	6.41
	742.259	19.97	15.96	3.60	39.53	46.00	6.47
	845.088	20.73	16.98	4.07	41.78	46.00	4.22
Vertical	40.702	12.68	21.48	0.74	34.90	40.00	5.10
	131.758	12.73	24.59	1.53	38.85	43.50	4.65
	204.238	9.78	24.44	1.98	36.20	43.50	7.30
	422.058	16.80	18.96	2.76	38.52	46.00	7.48
	502.940	17.90	16.47	2.94	37.31	46.00	8.69
	<b>665.804</b>	<b>19.60</b>	<b>19.12</b>	<b>3.16</b>	<b>41.88</b>	<b>46.00</b>	<b>4.12</b>

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI 1280\*1024@60Hz Date of Test : May 25, 2016  
& 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	73.650	8.20	23.24	0.99	32.43	40.00	7.57
	111.480	12.64	21.73	1.41	35.78	43.50	7.72
	274.440	13.22	22.77	2.39	38.38	46.00	7.62
	431.580	16.82	21.50	2.79	41.11	46.00	4.89
	582.900	18.52	14.76	2.36	35.64	46.00	10.36
	<b>788.540</b>	<b>20.50</b>	<b>17.73</b>	<b>3.66</b>	<b>41.89</b>	<b>46.00</b>	<b>4.11</b>
Vertical	32.910	16.99	15.32	0.66	32.97	40.00	7.03
	76.560	8.78	24.83	1.04	34.65	40.00	5.35
	133.790	12.64	20.53	1.54	34.71	43.50	8.79
	324.880	14.63	19.98	2.62	37.23	46.00	8.77
	426.730	16.80	21.14	2.78	40.72	46.00	5.28
	620.730	19.30	18.77	2.52	40.59	46.00	5.41

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI 640\*480@60Hz & 1kHz Playing Date of Test : May 25, 2016

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	86.260	9.95	21.87	1.16	32.98	40.00	7.02
	130.880	12.76	23.70	1.53	37.99	43.50	5.51
	191.990	10.23	23.37	1.92	35.52	43.50	7.98
	259.890	13.10	22.36	2.25	37.71	46.00	8.29
	426.730	16.80	18.13	2.78	37.71	46.00	8.29
	689.600	19.75	16.58	3.41	39.74	46.00	6.26
Vertical	<b>33.880</b>	<b>16.47</b>	<b>17.98</b>	<b>0.67</b>	<b>35.12</b>	<b>40.00</b>	<b>4.88</b>
	73.650	8.20	25.10	0.99	34.29	40.00	5.71
	127.970	12.93	20.66	1.51	35.10	43.50	8.40
	201.690	9.73	24.11	1.97	35.81	43.50	7.69
	395.690	16.55	21.28	2.71	40.54	46.00	5.46
	573.200	18.35	17.80	2.47	38.62	46.00	7.38

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : May 25, 2016

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	87.230	10.10	23.44	1.18	34.72	40.00	5.28
	136.700	12.57	23.56	1.56	37.69	43.50	5.81
	244.370	12.20	22.49	2.14	36.83	46.00	9.17
	352.040	15.64	20.34	2.66	38.64	46.00	7.36
	540.220	18.50	15.50	2.68	36.68	46.00	9.32
	<b>743.920</b>	<b>20.03</b>	<b>18.25</b>	<b>3.60</b>	<b>41.88</b>	<b>46.00</b>	<b>4.12</b>
Vertical	53.280	6.83	26.76	0.84	34.43	40.00	5.57
	87.230	10.10	22.42	1.18	33.70	40.00	6.30
	156.100	11.18	23.46	1.68	36.32	43.50	7.18
	266.680	13.23	18.60	2.32	34.15	46.00	11.85
	401.510	16.60	20.14	2.72	39.46	46.00	6.54
	546.040	18.68	19.31	2.63	40.62	46.00	5.38

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : USB Play Date of Test : May 25, 2016

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	78.500	9.12	22.75	1.05	32.92	40.00	7.08
	103.720	12.45	19.94	1.35	33.74	43.50	9.76
	157.070	11.16	23.10	1.68	35.94	43.50	7.56
	287.050	13.55	17.62	2.49	33.66	46.00	12.34
	479.110	17.50	17.67	2.90	38.07	46.00	7.93
	741.010	19.97	13.05	3.60	36.62	46.00	9.38
Vertical	64.920	6.50	24.99	0.90	32.39	40.00	7.61
	<b>152.220</b>	<b>11.35</b>	<b>24.98</b>	<b>1.65</b>	<b>37.98</b>	<b>43.50</b>	<b>5.52</b>
	208.480	9.96	23.71	2.01	35.68	43.50	7.82
	328.760	14.76	21.44	2.63	38.83	46.00	7.17
	514.030	17.95	15.70	2.84	36.49	46.00	9.51
	725.490	20.03	14.83	3.59	38.45	46.00	7.55

TEST ENGINEER: HEMRY CHENG



EUT : LED LCD TV Temperature : 22°C

Model No. : LC-50N7000U Humidity : 60%RH

Test Mode : LAN Play Date of Test : May 25, 2016

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	81.410	9.51	21.96	1.10	32.57	40.00	7.43
	165.800	11.24	23.42	1.75	36.41	43.50	7.09
	237.580	11.64	23.20	2.11	36.95	46.00	9.05
	327.790	14.71	22.76	2.63	40.10	46.00	5.90
	579.020	18.50	15.72	2.42	36.64	46.00	9.36
	709.970	19.80	15.28	3.56	38.64	46.00	7.36
Vertical	<b>32.910</b>	<b>16.99</b>	<b>16.92</b>	<b>0.66</b>	<b>34.57</b>	<b>40.00</b>	<b>5.43</b>
	97.900	12.07	21.44	1.30	34.81	43.50	8.69
	149.310	11.57	23.87	1.63	37.07	43.50	6.43
	309.360	14.10	22.03	2.60	38.73	46.00	7.27
	519.850	18.10	17.37	2.78	38.25	46.00	7.75
	817.640	20.67	14.35	3.88	38.90	46.00	7.10

TEST ENGINEER: HEMRY CHENG

EUT : LED LCD TV Temperature : 22°C  
 Model No. : LC-50N7000U Humidity : 60%RH  
 Test Mode : MHL Date of Test : May 25, 2016

Polarization	Frequency (MHz)	Meter Reading dB ( $\mu$ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB ( $\mu$ V/m)	Limits dB ( $\mu$ V/m)	Margin (dB)
Horizontal	90.140	10.50	21.82	1.21	33.53	43.50	9.97
	145.430	12.03	21.43	1.61	35.07	43.50	8.43
	216.240	10.26	22.27	2.03	34.56	46.00	11.44
	356.890	15.81	20.38	2.67	38.86	46.00	7.14
	481.050	17.52	17.50	2.90	37.92	46.00	8.08
	659.530	19.60	16.20	3.03	38.83	46.00	7.17
Vertical	32.910	16.99	14.47	0.66	32.12	40.00	7.88
	<b>75.590</b>	<b>8.61</b>	<b>24.53</b>	<b>1.02</b>	<b>34.16</b>	<b>40.00</b>	<b>5.84</b>
	131.850	12.71	22.25	1.53	36.49	43.50	7.01
	174.530	10.73	22.08	1.80	34.61	43.50	8.89
	367.560	16.23	19.51	2.68	38.42	46.00	7.58
	524.700	18.18	14.71	2.78	35.67	46.00	10.33

TEST ENGINEER: HEMRY CHENG

## 5 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Manufacturer	Location
SMcontact	SMR-TSL-4-3.5-5R	JOINSET	See Appendix Figure 23

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

TEST ENGINEER:



**(BYRON WU)**

## **6 DEVIATION TO TEST SPECIFICATIONS**

None.

