

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

LED LCD TV

Brand	Model No.
Sharp	LC-43N7000U, LC-43N7000C

FCC ID : W9HLCDD0049

Prepared For : Hisense Electric Co., Ltd.  
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Report No. : ACI-F15250  
Date of Test : Dec 11 – 17, 2015  
Date of Report : Dec 23, 2015

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## TEST REPORT FOR FCC CERTIFICATE

Applicant : Hisense Electric Co., Ltd.  
Manufacturer : Hisense Electric Co., Ltd.  
Factory #1 : Hisense Electric Co., Ltd.  
Factory #2 : Tatung Mexico S.A. de C.V.  
Factory #3 : HISENSE ELECTRONICA MEXICO, S.A. DE C.V.  
EUT Description : LED LCD TV

Model No.	Brand	Power Supply
LC-43N7000U, LC-43N7000C	Sharp	120V/60Hz

## Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2014  
AND ANSI C63.4-2003*

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

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: Refer to Sec2.1) which was tested in 3m anechoic chamber Dec 11 – 17, 2015 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report contains data that are not covered by the NVLAP accreditation.


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

***The test results for EUT's TV functions are contained in No.F15249, a Verification report.***

Date of Test : Dec 11 – 17, 2015 Date of Report : Dec 23, 2015

Producer : Huimin Yan  
HUIMIN YAN / Assistant

Review : Sammy Chen  
SAMMY CHEN / Manager

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

Signatory : Sammy Chen for  
Authorized Signature EMC BYRON KWONG / 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
<b>EMISSION</b>			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2014 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2014 AND ANSI C63.4-2003	15.109(a) Class B	Pass

## 2 GENERAL INFORMATION

### 2.1 Description of Equipment Under Test

Description : LED LCD TV

Type of EUT : ☒ Production ☐ Pre-product ☐ Pro-type

Brand	Model No.
Sharp	LC-43N7000U, LC-43N7000C

Note : The above models are all the same except for model number. LC-43N7000U model is tested and recorded in the report.

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

Manufacturer : same as Applicant

Factory #1 : same as Applicant

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

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

LCD Panel : Manufacturer : Hisense  
M/N : HE426HU-B51

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

Max Resolution : 3840\*2160@60Hz

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

Power Cord : Unshielded, Detachable, 1.80m

LAN Cable : Shielded, Detachable, 1.50m

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

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

**Remark:**

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

## Side Port:

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

## Back Port:

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

## 2.2 Peripherals

### 2.2.1 PC

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

### 2.2.2 Keyboard

Manufacturer : Microsoft  
Model Number : RT2300  
Serial Number : 7668200662248  
Data Cable : Shielded, undetachable, 1.8m  
Certificate : CE/EMC, FCC DoC, VCCI, MIC,  
C-Tick, BSMI

### 2.2.3 Mouse

Manufacturer : Microsoft  
Model Number : RT2300  
Serial Number : 6965712071551  
Data Cable : Shielded, Undetachable, 1.8m.  
Certificate : CE/EMC, FCC DoC, VCCI, MIC,  
C-Tick, BSMI

### 2.2.4 Modem

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

### 2.2.5 Earphone

Manufacturer : audio-technica  
Model Number : ATH-CKL200

### 2.2.6 TV Signal Generator

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

### 2.2.7 ATSC Signal Generator

Manufacturer : SENCORE  
Model Number : ATSC997  
Serial Number : 6790071

### 2.2.8 DVD PLAYER #1

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

### 2.2.9 DVD PLAYER #2

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

## 2.2.10 Hard Disk #1

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

## 2.2.11 Hard Disk #2

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

## 2.2.12 Hard Disk #3

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

## 2.2.13 Smart Mobile Phone

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

## 2.3 Description of Test Facility

Site Description (No.3 3m Chamber)	:	Sept. 17, 1998 file on Jan.15, 2015 Renewed Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, USA
Name of Firm	:	Audix Technology (Shanghai) Co., Ltd.
Site Location	:	3F 34Bldg 680 Guiping Rd, Caohejing Hi-Tech Park, Shanghai 200233, China
NVLAP Lab Code	:	200371-0



## 2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty : U = 3.4dB

Radiated Emission Expanded Uncertainty (30-200MHz):

U = 4.6dB (Horizontal)

U = 4.3dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):

U = 4.5dB (Horizontal)

U = 5.4dB (Vertical)

Radiated Emission Expanded Uncertainty (1GHz-6GHz):

U = 5.1dB

### 3 CONDUCTED EMISSION TEST

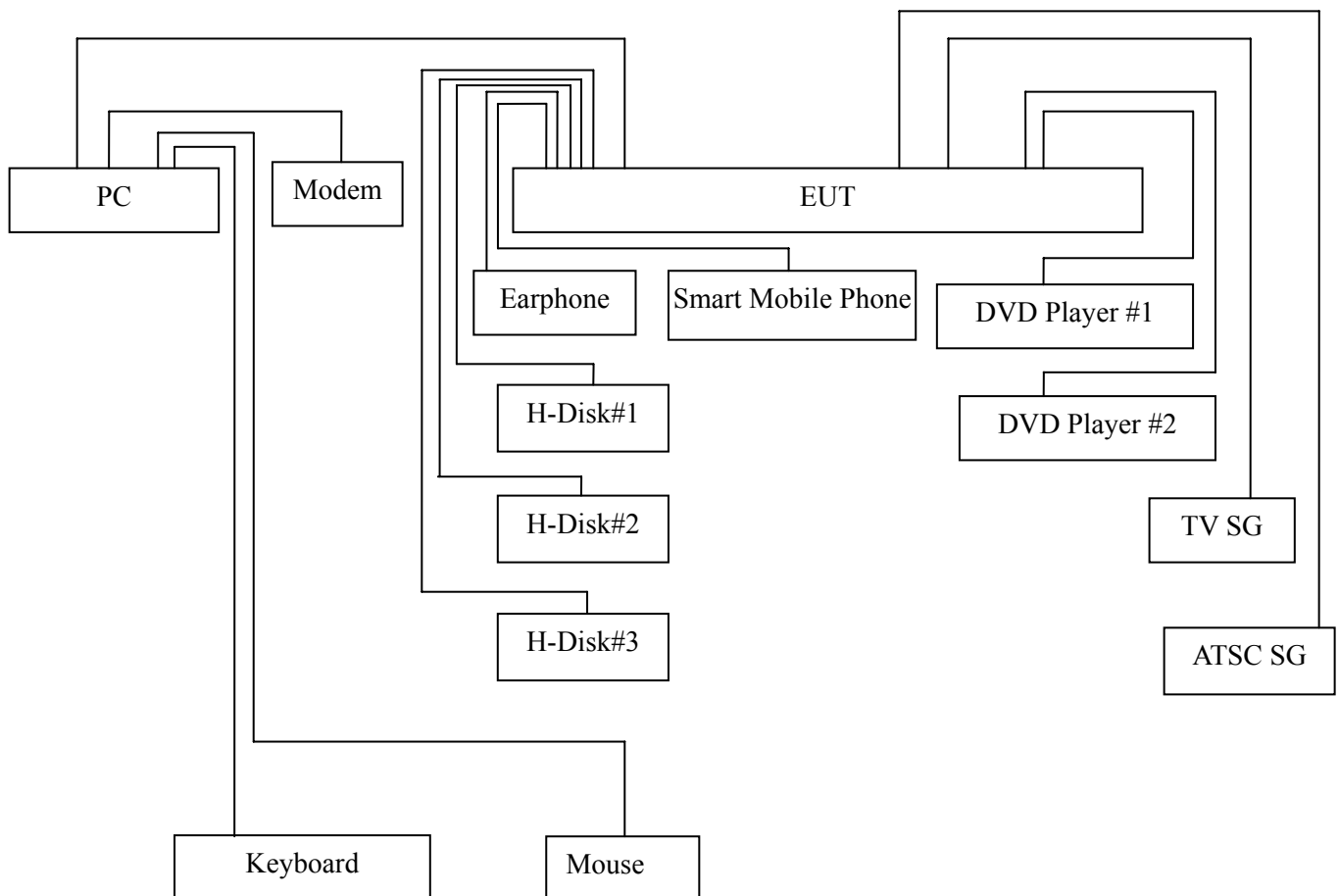
#### 3.1 Test Equipment

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

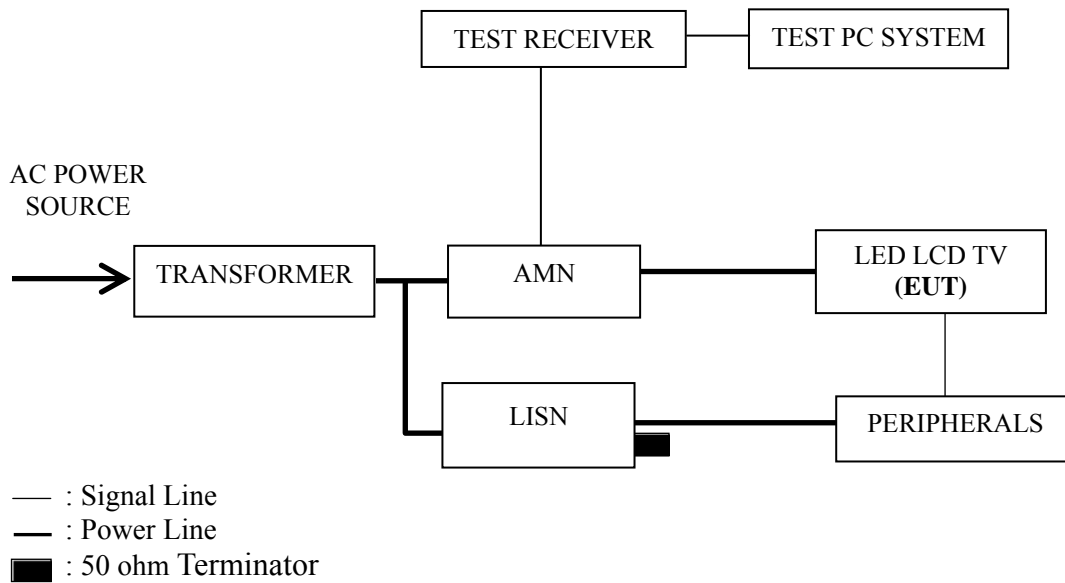
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Jul 03, 2015	Jul 02, 2016
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 27, 2015	Jun 26, 2016
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-5	Mar 20, 2015	Mar 19, 2016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

#### 3.2 Block Diagram of Test Setup

##### 3.2.1 EUT & Peripherals



### 3.2.2 Conducted Disturbance Test Setup



### 3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)]

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

### 3.4 Test Configuration

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

### 3.5 Operating Condition of EUT

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

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

3.5.3 Set the contrast & brightness of EUT to maximum.

3.5.4 PC system ran the self-test program “EMC Test” by windows XP and sent “H” characters to EUT through graphic card, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via HDMI Input).

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

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

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

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

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

3.5.10 The test modes are as follows:

Test Mode
HDMI 3840*2160@60Hz & 1kHz playing
HDMI 1920*1080@60Hz & 1kHz playing
HDMI 1280*1024@60Hz & 1kHz playing
HDMI 640*480@60Hz & 1kHz playing
HDMI1080P
MHL
USB Play
LAN Play

### 3.6 Test Procedures

The EUT and peripherals were connected to the power mains through an Artificial Mains Network (AMN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line (Line & Neutral) were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to ANSI C63.4:2003 during conducted emission test.

The bandwidth of R&S Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.7.

### 3.7 Test Results

#### < PASS >

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

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

NOTE 1 – Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

NOTE 3 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

NOTE 4 – The worst case is for USB Play test mode. The worst emission is detected at 0.153MHz (Average Value) with corrected signal level of 50.08 dB (μV) (limit is 55.85 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : HDMI 3840\*2160@60Hz Date of Test : Dec 11, 2015  
& 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	<b>0.152</b>	<b>42.19</b>	<b>10.59</b>	<b>52.78</b>	<b>65.91</b>	<b>13.13</b>	QP
	0.495	27.50	10.39	37.89	56.08	18.19	
	0.766	27.20	10.38	37.58	56.00	18.42	
	1.074	28.50	10.38	38.88	56.00	17.12	
	1.990	26.10	10.41	36.51	56.00	19.49	
	6.480	28.60	10.47	39.07	60.00	20.93	
	<b>0.152</b>	<b>37.09</b>	<b>10.59</b>	<b>47.68</b>	<b>55.91</b>	<b>8.23</b>	AV
	0.495	17.60	10.39	27.99	46.08	18.09	
	0.766	23.60	10.38	33.98	46.00	12.02	
	1.074	22.40	10.38	32.78	46.00	13.22	
	1.990	18.70	10.41	29.11	46.00	16.89	
	6.480	19.20	10.47	29.67	50.00	20.33	
Neutral	<b>0.151</b>	<b>41.49</b>	<b>10.59</b>	<b>52.08</b>	<b>65.95</b>	<b>13.87</b>	QP
	0.323	30.09	10.44	40.53	59.64	19.11	
	0.587	27.90	10.36	38.26	56.00	17.74	
	1.079	29.40	10.37	39.77	56.00	16.23	
	2.593	27.21	10.42	37.63	56.00	18.37	
	6.309	35.20	10.50	45.70	60.00	14.30	
	<b>0.151</b>	<b>36.79</b>	<b>10.59</b>	<b>47.38</b>	<b>55.95</b>	<b>8.57</b>	AV
	0.323	16.29	10.44	26.73	49.64	22.91	
	0.587	16.40	10.36	26.76	46.00	19.24	
	1.079	22.50	10.37	32.87	46.00	13.13	
	2.593	19.81	10.42	30.23	46.00	15.77	
	6.309	25.30	10.50	35.80	50.00	14.20	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : HDMI 1920\*1080@60Hz Date of Test : Dec 11, 2015  
& 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	41.89	10.59	52.48	65.87	13.39	QP
	0.319	25.89	10.46	36.35	59.73	23.38	
	0.573	27.50	10.38	37.88	56.00	18.12	
	1.075	29.80	10.38	40.18	56.00	15.82	
	2.320	27.70	10.42	38.12	56.00	17.88	
	<b>6.422</b>	<b>36.30</b>	<b>10.47</b>	<b>46.77</b>	<b>60.00</b>	<b>13.23</b>	
	<b>0.152</b>	<b>37.29</b>	<b>10.59</b>	<b>47.88</b>	<b>55.87</b>	<b>7.99</b>	AV
	0.319	10.79	10.46	21.25	49.73	28.48	
	0.573	16.80	10.38	27.18	46.00	18.82	
	1.075	22.90	10.38	33.28	46.00	12.72	
	2.320	20.10	10.42	30.52	46.00	15.48	
	6.422	24.40	10.47	34.87	50.00	15.13	
Neutral	<b>0.153</b>	<b>42.19</b>	<b>10.59</b>	<b>52.78</b>	<b>65.85</b>	<b>13.07</b>	QP
	0.332	30.40	10.43	40.83	59.41	18.58	
	0.597	28.70	10.36	39.06	56.00	16.94	
	1.078	29.40	10.37	39.77	56.00	16.23	
	1.997	27.20	10.41	37.61	56.00	18.39	
	6.729	35.40	10.51	45.91	60.00	14.09	
	<b>0.153</b>	<b>39.29</b>	<b>10.59</b>	<b>49.88</b>	<b>55.85</b>	<b>5.97</b>	AV
	0.332	20.30	10.43	30.73	49.41	18.68	
	0.597	18.80	10.36	29.16	46.00	16.84	
	1.078	22.90	10.37	33.27	46.00	12.73	
	1.997	19.90	10.41	30.31	46.00	15.69	
	6.729	24.30	10.51	34.81	50.00	15.19	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : HDMI 1280\*1024@60Hz Date of Test : Dec 11, 2015  
& 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.151	41.49	10.59	52.08	65.96	13.88	QP
	0.603	28.70	10.38	39.08	56.00	16.92	
	0.774	29.10	10.38	39.48	56.00	16.52	
	1.153	27.21	10.38	37.59	56.00	18.41	
	2.614	27.40	10.43	37.83	56.00	18.17	
	<b>6.424</b>	<b>36.50</b>	<b>10.47</b>	<b>46.97</b>	<b>60.00</b>	<b>13.03</b>	
	<b>0.151</b>	<b>36.59</b>	<b>10.59</b>	<b>47.18</b>	<b>55.96</b>	<b>8.78</b>	AV
	0.603	18.80	10.38	29.18	46.00	16.82	
	0.774	22.60	10.38	32.98	46.00	13.02	
	1.153	17.01	10.38	27.39	46.00	18.61	
	2.614	18.90	10.43	29.33	46.00	16.67	
	6.424	24.90	10.47	35.37	50.00	14.63	
Neutral	<b>0.152</b>	<b>42.39</b>	<b>10.59</b>	<b>52.98</b>	<b>65.90</b>	<b>12.92</b>	QP
	0.323	30.09	10.44	40.53	59.63	19.10	
	0.587	28.40	10.36	38.76	56.00	17.24	
	1.163	27.11	10.37	37.48	56.00	18.52	
	2.004	28.50	10.41	38.91	56.00	17.09	
	6.442	36.49	10.51	47.00	60.00	13.00	
	<b>0.152</b>	<b>38.79</b>	<b>10.59</b>	<b>49.38</b>	<b>55.90</b>	<b>6.52</b>	AV
	0.323	15.29	10.44	25.73	49.63	23.90	
	0.587	17.20	10.36	27.56	46.00	18.44	
	1.163	16.51	10.37	26.88	46.00	19.12	
	2.004	21.00	10.41	31.41	46.00	14.59	
	6.442	23.79	10.51	34.30	50.00	15.70	

TEST ENGINEER: WENCY YANG



EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : HDMI 640\*480@60Hz & 1kHz Playing Date of Test : Dec 11, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.153	41.90	10.58	52.48	65.84	13.36	QP
	0.333	26.30	10.45	36.75	59.38	22.63	
	0.586	28.50	10.38	38.88	56.00	17.12	
	1.071	29.60	10.38	39.98	56.00	16.02	
	2.004	28.60	10.41	39.01	56.00	16.99	
	<b>6.496</b>	<b>36.30</b>	<b>10.47</b>	<b>46.77</b>	<b>60.00</b>	<b>13.23</b>	
	<b>0.153</b>	<b>37.70</b>	<b>10.58</b>	<b>48.28</b>	<b>55.84</b>	<b>7.56</b>	AV
	0.333	16.50	10.45	26.95	49.38	22.43	
	0.586	17.30	10.38	27.68	46.00	18.32	
	1.071	23.40	10.38	33.78	46.00	12.22	
	2.004	21.00	10.41	31.41	46.00	14.59	
	6.496	23.80	10.47	34.27	50.00	15.73	
Neutral	<b>0.151</b>	<b>41.79</b>	<b>10.59</b>	<b>52.38</b>	<b>65.94</b>	<b>13.56</b>	QP
	0.320	29.69	10.44	40.13	59.71	19.58	
	0.599	28.90	10.36	39.26	56.00	16.74	
	1.071	29.90	10.37	40.27	56.00	15.73	
	2.611	27.61	10.42	38.03	56.00	17.97	
	6.454	35.89	10.51	46.40	60.00	13.60	
	<b>0.151</b>	<b>37.59</b>	<b>10.59</b>	<b>48.18</b>	<b>55.94</b>	<b>7.76</b>	AV
	0.320	13.59	10.44	24.03	49.71	25.68	
	0.599	19.10	10.36	29.46	46.00	16.54	
	1.071	23.50	10.37	33.87	46.00	12.13	
	2.611	19.81	10.42	30.23	46.00	15.77	
	6.454	22.29	10.51	32.80	50.00	17.20	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : HDMI1080P Date of Test : Dec 11, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.151	41.39	10.59	51.98	65.95	13.97	QP
	0.574	27.90	10.38	38.28	56.00	17.72	
	0.775	28.80	10.38	39.18	56.00	16.82	
	1.080	29.50	10.38	39.88	56.00	16.12	
	2.611	27.60	10.43	38.03	56.00	17.97	
	<b>6.482</b>	<b>36.30</b>	<b>10.47</b>	<b>46.77</b>	<b>60.00</b>	<b>13.23</b>	
	<b>0.151</b>	<b>36.49</b>	<b>10.59</b>	<b>47.08</b>	<b>55.95</b>	<b>8.87</b>	AV
	0.574	16.80	10.38	27.18	46.00	18.82	
	0.775	24.20	10.38	34.58	46.00	11.42	
	1.080	23.40	10.38	33.78	46.00	12.22	
	2.611	20.20	10.43	30.63	46.00	15.37	
	6.482	25.50	10.47	35.97	50.00	14.03	
Neutral	<b>0.152</b>	<b>42.49</b>	<b>10.59</b>	<b>53.08</b>	<b>65.88</b>	<b>12.80</b>	QP
	0.333	30.40	10.43	40.83	59.38	18.55	
	0.612	28.80	10.36	39.16	56.00	16.84	
	1.076	29.60	10.37	39.97	56.00	16.03	
	2.000	28.50	10.41	38.91	56.00	17.09	
	6.482	35.79	10.51	46.30	60.00	13.70	
	<b>0.152</b>	<b>38.69</b>	<b>10.59</b>	<b>49.28</b>	<b>55.88</b>	<b>6.60</b>	AV
	0.333	20.20	10.43	30.63	49.38	18.75	
	0.612	19.30	10.36	29.66	46.00	16.34	
	1.076	23.50	10.37	33.87	46.00	12.13	
	2.000	20.70	10.41	31.11	46.00	14.89	
	6.482	25.39	10.51	35.90	50.00	14.10	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : MHL Date of Test : Dec 11, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.152	41.89	10.59	52.48	65.87	13.39	QP
	0.604	29.10	10.38	39.48	56.00	16.52	
	0.768	28.90	10.38	39.28	56.00	16.72	
	1.087	30.40	10.38	40.78	56.00	15.22	
	2.008	28.60	10.41	39.01	56.00	16.99	
	<b>6.476</b>	<b>35.90</b>	<b>10.47</b>	<b>46.37</b>	<b>60.00</b>	<b>13.63</b>	
	<b>0.152</b>	<b>37.99</b>	<b>10.59</b>	<b>48.58</b>	<b>55.87</b>	<b>7.29</b>	AV
	0.604	19.40	10.38	29.78	46.00	16.22	
	0.768	23.80	10.38	34.18	46.00	11.82	
	1.087	23.80	10.38	34.18	46.00	11.82	
	2.008	20.90	10.41	31.31	46.00	14.69	
	6.476	24.20	10.47	34.67	50.00	15.33	
Neutral	<b>0.153</b>	<b>42.39</b>	<b>10.59</b>	<b>52.98</b>	<b>65.85</b>	<b>12.87</b>	QP
	0.326	30.30	10.43	40.73	59.55	18.82	
	0.610	28.90	10.36	39.26	56.00	16.74	
	1.088	30.51	10.37	40.88	56.00	15.12	
	2.010	28.50	10.41	38.91	56.00	17.09	
	6.480	35.89	10.51	46.40	60.00	13.60	
	<b>0.153</b>	<b>39.49</b>	<b>10.59</b>	<b>50.08</b>	<b>55.85</b>	<b>5.77</b>	AV
	0.326	16.80	10.43	27.23	49.55	22.32	
	0.610	19.40	10.36	29.76	46.00	16.24	
	1.088	23.71	10.37	34.08	46.00	11.92	
	2.010	21.00	10.41	31.41	46.00	14.59	
	6.480	26.09	10.51	36.60	50.00	13.40	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : USB Play Date of Test : Dec 11, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.151	41.29	10.59	51.88	65.94	14.06	QP
	0.331	26.40	10.45	36.85	59.43	22.58	
	0.586	28.50	10.38	38.88	56.00	17.12	
	1.078	29.50	10.38	39.88	56.00	16.12	
	2.609	28.50	10.43	38.93	56.00	17.07	
	<b>6.437</b>	<b>36.40</b>	<b>10.47</b>	<b>46.87</b>	<b>60.00</b>	<b>13.13</b>	
	<b>0.151</b>	<b>36.19</b>	<b>10.59</b>	<b>46.78</b>	<b>55.94</b>	<b>9.16</b>	AV
	0.331	16.50	10.45	26.95	49.43	22.48	
	0.586	17.60	10.38	27.98	46.00	18.02	
	1.078	23.60	10.38	33.98	46.00	12.02	
	2.609	20.90	10.43	31.33	46.00	14.67	
	6.437	24.50	10.47	34.97	50.00	15.03	
Neutral	<b>0.153</b>	<b>42.49</b>	<b>10.59</b>	<b>53.08</b>	<b>65.85</b>	<b>12.77</b>	QP
	0.326	30.19	10.44	40.63	59.56	18.93	
	0.604	28.90	10.36	39.26	56.00	16.74	
	1.080	29.40	10.37	39.77	56.00	16.23	
	2.611	28.21	10.42	38.63	56.00	17.37	
	6.482	36.09	10.51	46.60	60.00	13.40	
	<b>0.153</b>	<b>39.29</b>	<b>10.59</b>	<b>49.88</b>	<b>55.85</b>	<b>5.97</b>	AV
	0.326	17.49	10.44	27.93	49.56	21.63	
	0.604	19.40	10.36	29.76	46.00	16.24	
	1.080	23.60	10.37	33.97	46.00	12.03	
	2.611	20.31	10.42	30.73	46.00	15.27	
	6.482	25.29	10.51	35.80	50.00	14.20	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 48%RH

Test Mode : LAN Play Date of Test : Dec 11, 2015

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.151	41.39	10.59	51.98	65.93	13.95	QP
	0.324	26.19	10.46	36.65	59.61	22.96	
	0.580	28.30	10.38	38.68	56.00	17.32	
	1.093	29.60	10.38	39.98	56.00	16.02	
	2.012	28.50	10.41	38.91	56.00	17.09	
	<b>6.478</b>	<b>36.20</b>	<b>10.47</b>	<b>46.67</b>	<b>60.00</b>	<b>13.33</b>	
	<b>0.151</b>	<b>35.89</b>	<b>10.59</b>	<b>46.48</b>	<b>55.93</b>	<b>9.45</b>	AV
	0.324	12.09	10.46	22.55	49.61	27.06	
	0.580	16.80	10.38	27.18	46.00	18.82	
	1.093	23.50	10.38	33.88	46.00	12.12	
	2.012	20.80	10.41	31.21	46.00	14.79	
	6.478	25.80	10.47	36.27	50.00	13.73	
Neutral	<b>0.152</b>	<b>42.29</b>	<b>10.59</b>	<b>52.88</b>	<b>65.88</b>	<b>13.00</b>	QP
	0.331	30.50	10.43	40.93	59.42	18.49	
	0.501	29.90	10.37	40.27	56.00	15.73	
	0.768	28.90	10.36	39.26	56.00	16.74	
	2.615	28.11	10.42	38.53	56.00	17.47	
	6.475	35.69	10.51	46.20	60.00	13.80	
	<b>0.152</b>	<b>38.69</b>	<b>10.59</b>	<b>49.28</b>	<b>55.88</b>	<b>6.60</b>	AV
	0.331	20.40	10.43	30.83	49.42	18.59	
	0.501	19.10	10.37	29.47	46.00	16.53	
	0.768	23.80	10.36	34.16	46.00	11.84	
	2.615	20.21	10.42	30.63	46.00	15.37	
	6.475	23.19	10.51	33.70	50.00	16.30	

TEST ENGINEER: WENCY YANG

## 4 RADIATED EMISSION TEST

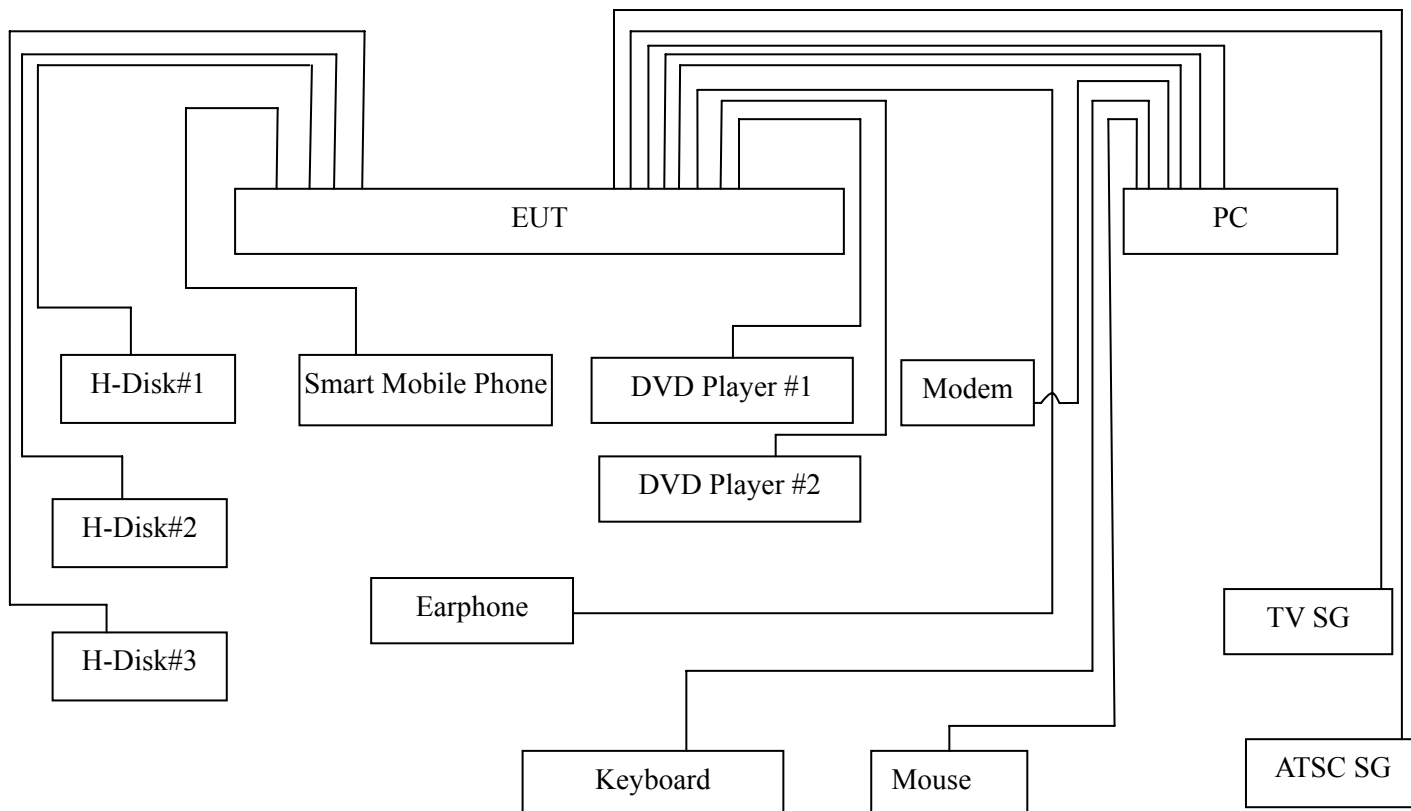
### 4.1 Test Equipment

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

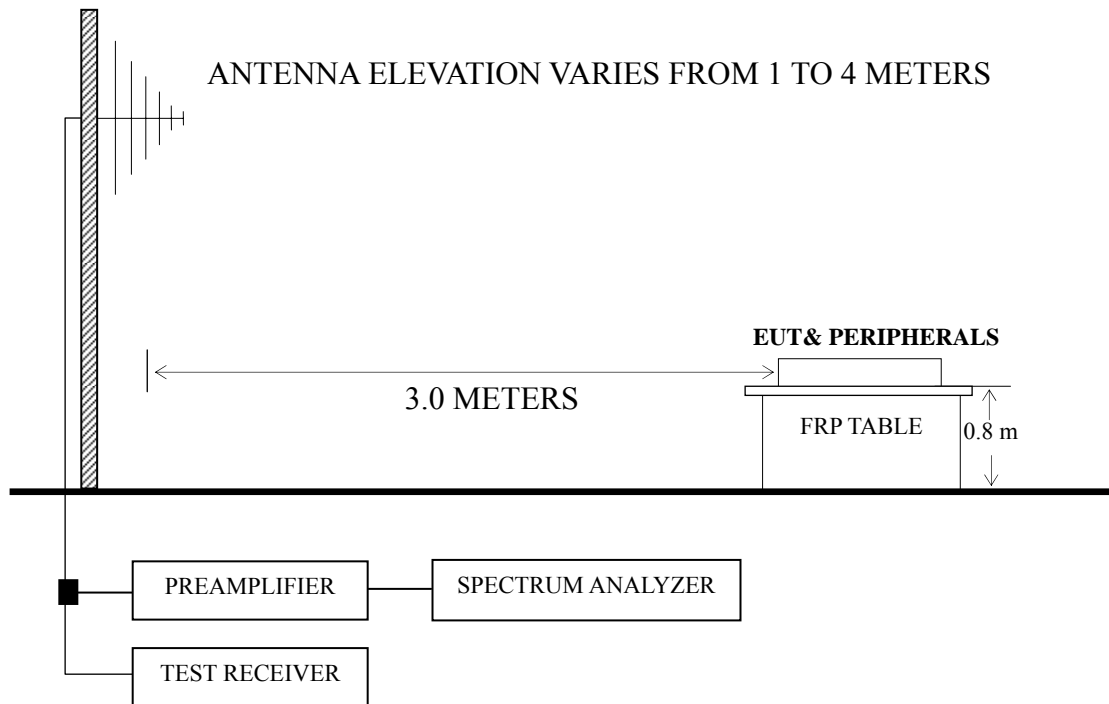
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101303	May 07, 2015	May 06, 2016
2.	Preamplifier	Agilent	8447D	2944A06664	Apr 27, 2015	Apr 26, 2016
3.	Preamplifier	HP	8449B	3008A00864	Mar 20, 2015	Sep 19, 2016
4.	Bi-log Antenna	TESEQ	CBL6112D	23193	May 15, 2015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

### 4.2 Block Diagram of Test Setup

#### 4.2.1 EUT & Peripherals



#### 4.2.2 Radiated emission test setup



■ : 50 ohm Coaxial Switch

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

Frequency (MHz)	Distance (m)	Field strength limits	
		( $\mu\text{V/m}$ )	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 C63.4:2003 requirements during radiated emission test.

The I.F. bandwidth of Test Receiver R&S ESCI was set at 120 kHz.

The frequency range from 30 MHz to 1000MHz was checked for all test modes.

The frequency range from 1 GHz to 6 GHz was checked for HDMI 3840\*2160@60Hz & 1kHz playing, HDMI 1920\*1080@60Hz & 1kHz playing and HDMI1080P 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- P29
HDMI 1280*1024@60Hz & 1kHz playing	P30
HDMI 640*480@60Hz & 1kHz playing	P31
HDMI1080P	P32- P33
MHL	P34
USB Play	P35
LAN Play	P36

- NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading. (< 1GHz);  
Emission Level = Antenna Factor + Cable Loss – Preamp Factor + Meter Reading. (> 1GHz)
- NOTE 2 – All readings are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.
- NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.
- NOTE 4 – The worst case is for HDMI1080P test mode. The worst emission at horizontal polarization was detected at 891.000 MHz with corrected signal level of 44.06 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 2.1 m height and the turntable was at 300°. The worst emission at vertical polarization was detected at 891.000 MHz with corrected signal level of 44.76 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.3m height and the turntable was at 60°.

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 3840\*2160@60Hz & 1kHz Playing Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	75.590	8.61	23.43	1.02	--	33.06	40.00	6.94	QP
	<b>132.820</b>	<b>12.69</b>	<b>22.65</b>	<b>1.54</b>	--	<b>36.88</b>	<b>43.50</b>	<b>6.62</b>	
	224.970	10.80	19.99	2.07	--	32.86	46.00	13.14	
	421.880	16.80	14.40	2.76	--	33.96	46.00	12.04	
	478.140	17.46	17.67	2.90	--	38.03	46.00	7.97	
	722.580	19.97	14.96	3.57	--	38.50	46.00	7.50	
	1187.688	24.40	66.15	3.52	36.16	57.91	74.00	16.09	PK
	1687.408	26.38	60.76	4.07	35.44	55.77	74.00	18.23	
	2543.413	28.60	60.13	4.96	35.16	58.53	74.00	15.47	
	<b>2951.232</b>	<b>30.30</b>	<b>66.32</b>	<b>5.69</b>	<b>35.20</b>	<b>67.11</b>	<b>74.00</b>	<b>6.89</b>	
	3387.825	31.29	61.14	6.10	34.82	63.71	74.00	10.29	
	4627.211	33.74	51.80	6.61	34.04	58.11	74.00	15.89	
	1187.688	24.40	46.30	3.52	36.16	38.06	54.00	15.94	AV
	1687.408	26.38	43.29	4.07	35.44	38.30	54.00	15.70	
	<b>2543.413</b>	<b>28.60</b>	<b>40.23</b>	<b>4.96</b>	<b>35.16</b>	<b>38.63</b>	<b>54.00</b>	<b>15.37</b>	
	2951.232	30.30	37.29	5.69	35.20	38.08	54.00	15.92	
	3387.825	31.29	35.30	6.10	34.82	37.87	54.00	16.13	
	4627.211	33.74	30.27	6.61	34.04	36.58	54.00	17.42	

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 3840\*2160@60Hz & 1kHz Playing Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	31.940	17.50	12.23	0.65	--	30.38	40.00	9.62	QP
	138.640	12.53	23.85	1.57	--	37.95	43.50	5.55	
	203.630	9.77	26.88	1.98	--	38.63	43.50	4.87	
	428.670	16.80	16.43	2.78	--	36.01	46.00	9.99	
	589.690	18.60	14.11	2.36	--	35.07	46.00	10.93	
	<b>893.300</b>	<b>21.30</b>	<b>18.70</b>	<b>4.46</b>	--	<b>44.46</b>	<b>46.00</b>	<b>1.54</b>	
	1206.996	24.48	66.54	3.54	36.12	58.44	74.00	15.56	PK
	1696.503	26.42	58.06	4.07	35.44	53.11	74.00	20.89	
	2107.225	27.71	61.74	4.55	35.11	58.89	74.00	15.11	
	2538.859	28.57	63.78	4.96	35.16	62.15	74.00	11.85	
	<b>2972.520</b>	<b>30.40</b>	<b>66.56</b>	<b>5.76</b>	<b>35.20</b>	<b>67.52</b>	<b>74.00</b>	<b>6.48</b>	
	4238.283	33.20	54.37	6.31	34.19	59.69	74.00	14.31	AV
	1206.996	24.48	45.28	3.54	36.12	37.18	54.00	16.82	
	1696.503	26.42	41.20	4.07	35.44	36.25	54.00	17.75	
	2107.225	27.71	40.99	4.55	35.11	38.14	54.00	15.86	
	2538.859	28.57	38.88	4.96	35.16	37.25	54.00	16.75	
	<b>2972.520</b>	<b>30.40</b>	<b>39.40</b>	<b>5.76</b>	<b>35.20</b>	<b>40.36</b>	<b>54.00</b>	<b>13.64</b>	
	4238.283	33.20	30.92	6.31	34.19	36.24	54.00	17.76	

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 1920\*1080@60Hz & 1kHz Playing Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	75.590	24.09	8.61	1.02	--	33.72	40.00	6.28	QP
	93.050	20.12	11.30	1.24	--	32.66	43.50	10.84	
	<b>127.000</b>	<b>24.10</b>	<b>12.97</b>	<b>1.51</b>	--	<b>38.58</b>	<b>43.50</b>	<b>4.92</b>	
	200.720	22.27	9.72	1.97	--	33.96	43.50	9.54	
	476.200	13.66	17.42	2.90	--	33.98	46.00	12.02	
	717.730	14.40	19.88	3.57	--	37.85	46.00	8.15	
	1269.095	24.73	53.80	3.61	36.02	46.12	74.00	27.88	PK
	1699.545	26.42	54.19	4.07	35.43	49.25	74.00	24.75	
	2103.453	27.70	56.22	4.55	35.11	53.36	74.00	20.64	
	<b>2961.827</b>	<b>30.37</b>	<b>65.72</b>	<b>5.76</b>	<b>35.20</b>	<b>66.65</b>	<b>74.00</b>	<b>7.35</b>	
	3387.825	31.29	58.94	6.10	34.82	61.51	74.00	12.49	
	4223.122	33.16	52.09	6.31	34.20	57.36	74.00	16.64	
	1269.095	24.73	46.36	3.61	36.02	38.68	54.00	15.32	AV
	1699.545	26.42	36.29	4.07	35.43	31.35	54.00	22.65	
	2103.453	27.70	38.28	4.55	35.11	35.42	54.00	18.58	
	2961.827	30.37	38.63	5.76	35.20	39.56	54.00	14.44	
	<b>3387.825</b>	<b>31.29</b>	<b>38.34</b>	<b>6.10</b>	<b>34.82</b>	<b>40.91</b>	<b>54.00</b>	<b>13.09</b>	
	4223.122	33.16	30.09	6.31	34.20	35.36	54.00	18.64	

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 1920\*1080@60Hz Date of Test : Dec 17, 2015  
& 1kHz Playing

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	31.940	12.30	17.50	0.65	--	30.45	40.00	9.55	QP
	77.530	22.27	8.95	1.05	--	32.27	40.00	7.73	
	136.700	22.65	12.57	1.56	--	36.78	43.50	6.72	
	<b>208.480</b>	<b>27.75</b>	<b>9.96</b>	<b>2.01</b>	--	<b>39.72</b>	<b>43.50</b>	<b>3.78</b>	
	598.420	15.31	19.10	2.31	--	36.72	46.00	9.28	
	847.710	13.22	20.70	4.07	--	37.99	46.00	8.01	
	1211.329	24.49	67.48	3.54	36.11	59.40	74.00	14.60	PK
	2122.382	27.73	58.74	4.58	35.11	55.94	74.00	18.06	
	2547.974	28.63	64.72	4.96	35.16	63.15	74.00	10.85	
	<b>2972.460</b>	<b>30.40</b>	<b>66.16</b>	<b>5.76</b>	<b>35.20</b>	<b>67.12</b>	<b>74.00</b>	<b>6.88</b>	
	3375.707	31.27	55.85	6.10	34.83	58.39	74.00	15.61	
	4245.883	33.20	54.19	6.31	34.19	59.51	74.00	14.49	
	1211.329	24.49	46.33	3.54	36.11	38.25	54.00	15.75	AV
	2122.382	27.73	42.39	4.58	35.11	39.59	54.00	14.41	
	<b>2547.974</b>	<b>28.63</b>	<b>41.19</b>	<b>4.96</b>	<b>35.16</b>	<b>39.62</b>	<b>54.00</b>	<b>14.38</b>	
	2972.460	30.40	37.23	5.76	35.20	38.19	54.00	15.81	
	3375.707	31.27	34.13	6.10	34.83	36.67	54.00	17.33	
	4245.883	33.20	33.36	6.31	34.19	38.68	54.00	15.32	

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 1280\*1024@60Hz Date of Test : Dec 17, 2015  
& 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	88.200	21.00	10.25	1.18	32.43	43.50	11.07
	132.820	22.64	12.69	1.54	36.87	43.50	6.63
	208.480	24.08	9.96	2.01	36.05	43.50	7.45
	472.320	15.76	17.34	2.88	35.98	46.00	10.02
	585.810	15.00	18.58	2.36	35.94	46.00	10.06
	<b>882.630</b>	<b>14.00</b>	<b>21.10</b>	<b>4.36</b>	<b>39.46</b>	<b>46.00</b>	<b>6.54</b>
Vertical	30.970	15.95	18.15	0.64	34.74	40.00	5.26
	75.590	23.15	8.61	1.02	32.78	40.00	7.22
	130.880	24.59	12.76	1.53	38.88	43.50	4.62
	<b>210.420</b>	<b>27.54</b>	<b>10.03</b>	<b>2.01</b>	<b>39.58</b>	<b>43.50</b>	<b>3.92</b>
	426.730	15.70	16.80	2.78	35.28	46.00	10.72
	844.800	13.34	20.73	4.07	38.14	46.00	7.86

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI 640\*480@60Hz & 1kHz Playing Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	77.530	21.61	8.95	1.05	31.61	40.00	8.39
	126.030	22.62	13.03	1.50	37.15	43.50	6.35
	215.270	23.28	10.20	2.03	35.51	43.50	7.99
	471.350	12.16	17.34	2.88	32.38	46.00	13.62
	596.480	12.52	18.98	2.31	33.81	46.00	12.19
	<b>853.530</b>	<b>17.01</b>	<b>20.73</b>	<b>4.17</b>	<b>41.91</b>	<b>46.00</b>	<b>4.09</b>
Vertical	32.910	13.21	16.99	0.66	30.86	40.00	9.14
	77.530	20.71	8.95	1.05	30.71	40.00	9.29
	127.000	24.17	12.97	1.51	38.65	43.50	4.85
	<b>205.570</b>	<b>27.99</b>	<b>9.80</b>	<b>1.99</b>	<b>39.78</b>	<b>43.50</b>	<b>3.72</b>
	591.630	14.49	18.73	2.31	35.53	46.00	10.47
	847.710	13.94	20.70	4.07	38.71	46.00	7.29

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Dec 17, 2015

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	132.820	21.36	12.69	1.54	--	35.59	43.50	7.91	QP
	220.120	22.85	10.55	2.04	--	35.44	46.00	10.56	
	469.410	11.48	17.30	2.88	--	31.66	46.00	14.34	
	562.530	15.26	18.75	2.52	--	36.53	46.00	9.47	
	850.000	18.20	20.70	4.17	--	43.07	46.00	2.93	
	<b>891.000</b>	<b>18.30</b>	<b>21.30</b>	<b>4.46</b>	--	<b>44.06</b>	<b>46.00</b>	<b>1.94</b>	
	2122.382	27.73	55.92	4.58	35.11	53.12	74.00	20.88	PK
	2525.249	28.50	57.60	4.96	35.16	55.90	74.00	18.10	
	<b>2977.790</b>	<b>30.43</b>	<b>64.76</b>	<b>5.76</b>	<b>35.20</b>	<b>65.75</b>	<b>74.00</b>	<b>8.25</b>	
	3387.825	31.29	60.18	6.10	34.82	62.75	74.00	11.25	
	4261.126	33.24	51.43	6.43	34.19	56.91	74.00	17.09	
	4353.737	33.38	45.67	6.55	34.15	51.45	74.00	22.55	
	2122.382	27.73	36.38	4.58	35.11	33.58	54.00	20.42	AV
	2525.249	28.50	38.29	4.96	35.16	36.59	54.00	17.41	
	2977.790	30.43	38.29	5.76	35.20	39.28	54.00	14.72	
	<b>3387.825</b>	<b>31.29</b>	<b>38.24</b>	<b>6.10</b>	<b>34.82</b>	<b>40.81</b>	<b>54.00</b>	<b>13.19</b>	
	4261.126	33.24	33.90	6.43	34.19	39.38	54.00	14.62	
	4353.737	33.38	31.23	6.55	34.15	37.01	54.00	16.99	

TEST ENGINEER: BILL WU



EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	34.850	15.69	15.80	0.68	--	32.17	40.00	7.83	QP
	72.680	24.91	7.97	0.98	--	33.86	40.00	6.14	
	137.670	24.62	12.54	1.56	--	38.72	43.50	4.78	
	214.300	26.33	10.17	2.03	--	38.53	43.50	4.97	
	423.820	19.69	16.80	2.78	--	39.27	46.00	6.73	
	<b>891.000</b>	<b>19.00</b>	<b>21.30</b>	<b>4.46</b>	--	<b>44.76</b>	<b>46.00</b>	<b>1.24</b>	
	1217.858	24.52	62.43	3.54	36.10	54.39	74.00	19.61	PK
	1687.408	26.38	56.96	4.07	35.44	51.97	74.00	22.03	
	2114.790	27.72	58.38	4.55	35.11	55.54	74.00	18.46	
	2538.859	28.57	63.63	4.96	35.16	62.00	74.00	12.00	
	<b>2951.232</b>	<b>30.30</b>	<b>64.79</b>	<b>5.69</b>	<b>35.20</b>	<b>65.58</b>	<b>74.00</b>	<b>8.42</b>	
	4223.122	33.16	51.37	6.31	34.20	56.64	74.00	17.36	
	1217.858	24.52	46.29	3.54	36.10	38.25	54.00	15.75	AV
	1687.408	26.38	37.29	4.07	35.44	32.30	54.00	21.70	
	2114.790	27.72	40.75	4.55	35.11	37.91	54.00	16.09	
	<b>2538.859</b>	<b>28.57</b>	<b>41.29</b>	<b>4.96</b>	<b>35.16</b>	<b>39.66</b>	<b>54.00</b>	<b>14.34</b>	
	2951.232	30.30	37.23	5.69	35.20	38.02	54.00	15.98	
	4223.122	33.16	33.28	6.31	34.20	38.55	54.00	15.45	

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : MHL Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	134.760	21.67	12.60	1.55	35.82	43.50	7.68
	234.670	20.28	11.40	2.10	33.78	46.00	12.22
	478.140	13.53	17.46	2.90	33.89	46.00	12.11
	719.670	17.72	19.90	3.57	41.19	46.00	4.81
	841.890	16.07	20.77	4.07	40.91	46.00	5.09
	<b>891.000</b>	<b>18.80</b>	<b>21.30</b>	<b>4.46</b>	<b>44.56</b>	<b>46.00</b>	<b>1.44</b>
Vertical	31.940	16.35	17.50	0.65	34.50	40.00	5.50
	72.680	23.36	7.97	0.98	32.31	40.00	7.69
	<b>123.120</b>	<b>24.03</b>	<b>12.98</b>	<b>1.48</b>	<b>38.49</b>	<b>43.50</b>	<b>5.01</b>
	216.240	25.68	10.26	2.03	37.97	46.00	8.03
	591.630	15.44	18.73	2.31	36.48	46.00	9.52
	847.710	15.13	20.70	4.07	39.90	46.00	6.10

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : USB Play Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	74.620	25.00	8.43	1.01	34.44	40.00	5.56
	127.970	23.68	12.93	1.51	38.12	43.50	5.38
	214.300	23.30	10.17	2.03	35.50	43.50	8.00
	457.770	19.92	17.04	2.85	39.81	46.00	6.19
	717.730	18.54	19.88	3.57	41.99	46.00	4.01
	<b>850.620</b>	<b>18.20</b>	<b>20.70</b>	<b>4.17</b>	<b>43.07</b>	<b>46.00</b>	<b>2.93</b>
Vertical	30.000	14.02	18.90	0.63	33.55	40.00	6.45
	<b>129.910</b>	<b>24.12</b>	<b>12.80</b>	<b>1.52</b>	<b>38.44</b>	<b>43.50</b>	<b>5.06</b>
	202.660	25.93	9.75	1.98	37.66	43.50	5.84
	453.890	14.61	16.92	2.84	34.37	46.00	11.63
	598.420	16.10	19.10	2.31	37.51	46.00	8.49
	853.530	14.87	20.73	4.17	39.77	46.00	6.23

TEST ENGINEER: BILL WU

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-43N7000U Humidity : 60%RH

Test Mode : LAN Play Date of Test : Dec 17, 2015

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	<b>74.620</b>	<b>26.05</b>	<b>8.43</b>	<b>1.01</b>	<b>35.49</b>	<b>40.00</b>	<b>4.51</b>
	92.080	25.19	11.00	1.23	37.42	43.50	6.08
	149.310	23.79	11.57	1.63	36.99	43.50	6.51
	230.790	23.89	11.24	2.09	37.22	46.00	8.78
	484.930	15.66	17.56	2.91	36.13	46.00	9.87
	738.100	11.95	19.90	3.60	35.45	46.00	10.55
Vertical	<b>34.850</b>	<b>18.53</b>	<b>15.80</b>	<b>0.68</b>	<b>35.01</b>	<b>40.00</b>	<b>4.99</b>
	71.710	24.55	7.68	0.96	33.19	40.00	6.81
	94.990	24.68	11.70	1.27	37.65	43.50	5.85
	154.160	20.73	11.24	1.66	33.63	43.50	9.87
	210.420	23.74	10.03	2.01	35.78	43.50	7.72
	534.400	12.59	18.40	2.68	33.67	46.00	12.33

TEST ENGINEER: BILL WU

## **5 DEVIATION TO TEST SPECIFICATIONS**

None.