

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

LED LCD TV

Model No.:

| Model No.                                                                                                         | Brand |
|-------------------------------------------------------------------------------------------------------------------|-------|
| LC-32P3000U, LC-32P3000U+,<br>LC-32P30+0U, LC-32P30+0U1,<br>LC-32P30+0U2, LC-32P3+0U,<br>LC-32P3+0U1, LC-32P3+0U2 | Sharp |

FCC ID : W9HLCDC0043

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Report No. : ACI-F17242  
Date of Test : Jun 30-Jul 03, 2017  
Date of Report : Jul 07, 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 Jun 30-Jul 03, 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.F17241, a Verification report.***

Date of Test : Jun 30-Jul 03, 2017 Date of Report : Jul 07, 2017

Producer : HUI MIN YAN  
HUI MIN YAN / Assistant

Review : BYRON WU  
BYRON WU / Deputy Assistant Manager

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

Signatory : BYRON KWO  
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:

| Description of Test Item                       | Standard                                                              | Limits                                                                       | Results |
|------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------|---------|
| <b>EMISSION</b>                                |                                                                       |                                                                              |         |
| Conducted Disturbance<br>at the Mains Terminal | FCC RULES AND REGULATIONS PART<br>15 SUBPART B<br>AND ANSI C63.4-2014 | 15.107(a)<br>Class B                                                         | Pass    |
|                                                |                                                                       | Minimum passing margin is<br>16.33dB at 0.151MHz                             |         |
| Radiated Disturbance                           | FCC RULES AND REGULATIONS PART<br>15 SUBPART B<br>AND ANSI C63.4-2014 | 15.109(a)<br>Class B                                                         | Pass    |
|                                                |                                                                       | Minimum passing margin is<br>4.92dB at 906.482MHz<br>(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-32P3000U, LC-32P3000U+,<br>LC-32P30+0U, LC-32P30+0U1,<br>LC-32P30+0U2, LC-32P3+0U,<br>LC-32P3+0U1,LC-32P3+0U2                  |
| Note #1                       | : | The above models are all the same except for model number. LC-32P3000U 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                                                                                                                             |
| Applicant                     | : | Hisense Electric Co., Ltd.<br>No.218 Qianwangang Road, Economy &<br>Technology Development Zone, Qingdao, China                   |
| Manufacturer                  | : | Same as Applicant                                                                                                                 |
| Factory #1                    | : | Same as Applicant                                                                                                                 |
| Factory #2                    | : | Tatung Mexico S.A. de C.V.<br>Miguel Catalán 420, Parque Industrial Rio Bravo,<br>Cd. Juarez, Chih., CP 32557                     |
| Factory #3                    | : | HISENSE ELECTRONICA MEXICO,S.A. DE C.V.<br>Blvd. Hisense #3510 Parque Industrial<br>Rosarito, C.P. 22710 Playas de Rosarito, B.C. |
| LCD Panel                     | : | Manufacturer : Hisense<br>M/N : HD315K2H81-B1QL                                                                                   |
| Tuner                         | : | Manufacturer : SILICON LABS<br>M/N : Si2159-A10                                                                                   |
| Max Resolution                | : | 1920*1080@60Hz                                                                                                                    |
| HDMI Cable*3<br>(Lab provide) | : | Shielded, Detachable, 1.80m                                                                                                       |
| Power Cord                    | : | Unshielded, Detachable, 1.80m, 2C                                                                                                 |

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

**Remark:**

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

Side View:

- (1) One DIGITALAUDIO OUT Port : Connected with Audio Converter to Earphone
- (2) One USB1 Ports : Connected with Hard-Disk

Back View:

- (3) One AV IN Port : Connected with DVD Player
- (4) One ANT Port : Connected with Antenna or ATSC SG/TV SG
- (5) One HDMI3 Port : Connected with PC
- (6) One HDMI1 Port : Connected with PC
- (7) One HDMI2 Port : Connected with DVD Player
- (8) One AUDIO OUT Port : Connected with Earphone

## 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**

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

## 2.3 Description of Test Facility

Site Description : Sept. 17, 1998 file on  
(No.3 3m Chamber) Jan.15, 2015 Renewed  
Federal Communications Commission  
FCC Engineering Laboratory  
7435 Oakland Mills Road  
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,  
Caohejing Hi-Tech Park,  
Shanghai 200233, China

FCC registration Number : 91789

NVLAP Lab Code : 200371-0

## 2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty : U = 3.4dB

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

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

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

### 3 CONDUCTED EMISSION TEST

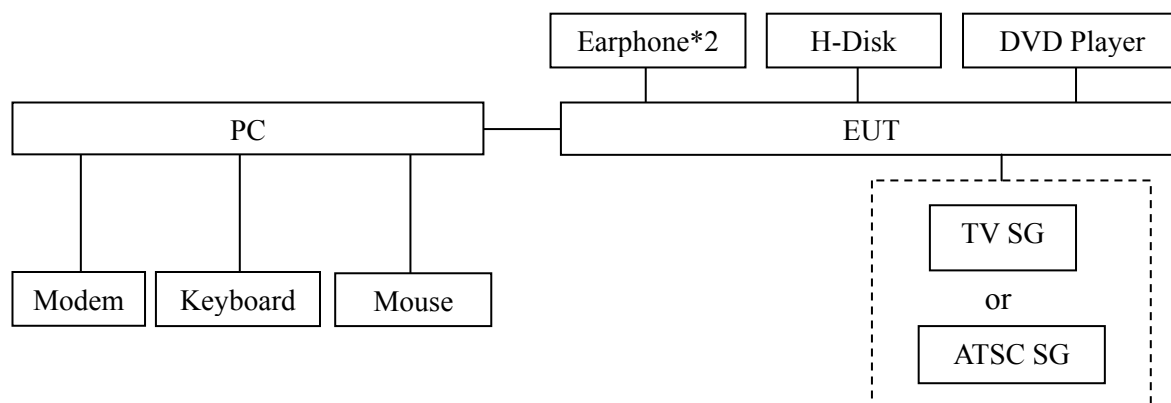
#### 3.1 Test Equipment

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

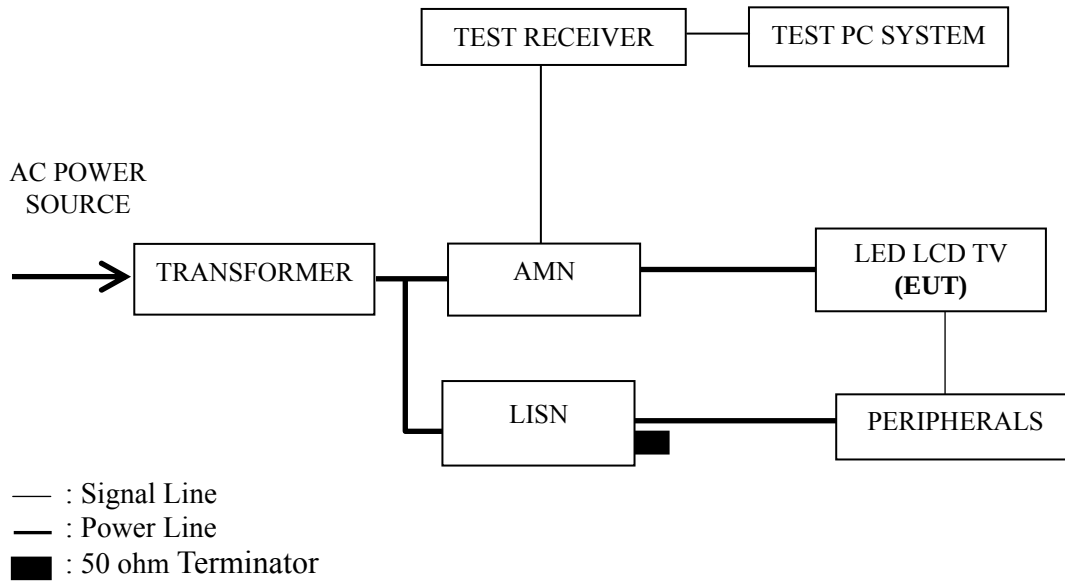
| Item | Type                                        | Manufacturer | Model No. | Serial No. | Last Cal.    | Next Cal.    |
|------|---------------------------------------------|--------------|-----------|------------|--------------|--------------|
| 1.   | Test Receiver                               | R&S          | ESCI      | 101302     | Apr 27, 2017 | Apr 26, 2018 |
| 2.   | Artificial Mains Network (AMN)              | R&S          | ENV4200   | 100125     | Jun 25, 2017 | Jun 24, 2018 |
| 3.   | Line Impedance Stabilization Network (LISN) | Kyoritsu     | KNW-407   | 8-1280-4   | Mar 17, 2017 | Mar 16, 2018 |
| 4.   | 50Ω Terminator                              | Anritsu      | BNC       | 001        | Mar 20, 2017 | Sep 19, 2017 |
| 5.   | Software                                    | Audix        | E3        | 6.111206   | --           | --           |

#### 3.2 Block Diagram of Test Setup

##### 3.2.1 EUT & Peripherals



### 3.2.2 Conducted Disturbance Test Setup



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

| Frequency Range<br>(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.<br>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 The other peripherals devices were driven and operated during the test.
- 3.5.8 The test modes are as follows:

| Test Mode                           |
|-------------------------------------|
| HDMI1 1920*1080@60Hz & 1kHz playing |
| HDMI1 1280*1024@60Hz & 1kHz playing |
| HDMI1 640*480@60Hz & 1kHz playing   |
| HDMI2 1920*1080@60Hz & 1kHz playing |
| HDMI3 1920*1080@60Hz & 1kHz playing |
| HDMI1080P                           |
| USB 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 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 1920*1080@60Hz & 1kHz playing          | P13        |
| HDMI1 1280*1024@60Hz & 1kHz playing          | P14        |
| <b>HDMI1 640*480@60Hz &amp; 1kHz playing</b> | <b>P15</b> |
| HDMI2 1920*1080@60Hz & 1kHz playing          | P16        |
| HDMI3 1920*1080@60Hz & 1kHz playing          | P17        |
| HDMI1080P                                    | P18        |
| USB Play                                     | P19        |

NOTE 1 – Factor = Cable Loss + AMN Factor.

NOTE 2 – Emission Level = Meter Reading + Factor.

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

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI1 Date of Test : Jun 30, 2017  
 1920\*1080@60Hz &  
 1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | <b>0.150</b>    | <b>38.30</b>         | <b>10.60</b> | <b>48.90</b>          | <b>65.98</b>  | <b>17.08</b> | QP     |
|           | 0.180           | 36.35                | 10.56        | 46.91                 | 64.50         | 17.59        |        |
|           | 0.431           | 22.61                | 10.40        | 33.01                 | 57.24         | 24.23        |        |
|           | 0.672           | 15.24                | 10.38        | 25.62                 | 56.00         | 30.38        |        |
|           | 3.140           | 11.73                | 10.43        | 22.16                 | 56.00         | 33.84        |        |
|           | 7.977           | 14.99                | 10.49        | 25.48                 | 60.00         | 34.52        |        |
|           | 0.150           | 14.40                | 10.60        | 25.00                 | 55.98         | 30.98        | AV     |
|           | 0.180           | 22.20                | 10.56        | 32.76                 | 54.50         | 21.74        |        |
|           | 0.431           | 11.70                | 10.40        | 22.10                 | 47.24         | 25.14        |        |
|           | 0.672           | 4.31                 | 10.38        | 14.69                 | 46.00         | 31.31        |        |
|           | 3.140           | 4.30                 | 10.43        | 14.73                 | 46.00         | 31.27        |        |
|           | 7.977           | 10.30                | 10.49        | 20.79                 | 50.00         | 29.21        |        |
| Neutral   | 0.183           | 36.11                | 10.49        | 46.60                 | 64.33         | 17.73        | QP     |
|           | 0.239           | 26.91                | 10.46        | 37.37                 | 62.13         | 24.76        |        |
|           | 0.484           | 16.61                | 10.38        | 26.99                 | 56.27         | 29.28        |        |
|           | 3.399           | 11.70                | 10.45        | 22.15                 | 56.00         | 33.85        |        |
|           | 7.175           | 6.81                 | 10.50        | 17.31                 | 60.00         | 42.69        |        |
|           | 12.124          | 11.41                | 10.50        | 21.91                 | 60.00         | 38.09        |        |
|           | 0.183           | 24.61                | 10.49        | 35.10                 | 54.33         | 19.23        | AV     |
|           | 0.239           | 12.70                | 10.46        | 23.16                 | 52.13         | 28.97        |        |
|           | 0.484           | 6.70                 | 10.38        | 17.08                 | 46.27         | 29.19        |        |
|           | 3.399           | 4.20                 | 10.45        | 14.65                 | 46.00         | 31.35        |        |
|           | 7.175           | 1.80                 | 10.50        | 12.30                 | 50.00         | 37.70        |        |
|           | 12.124          | 5.80                 | 10.50        | 16.30                 | 50.00         | 33.70        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI1 Date of Test : Jun 30, 2017  
1280\*1024@60Hz &  
1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | 0.150           | 36.22                | 10.60        | 46.82                 | 65.98         | 19.16        | QP     |
|           | <b>0.199</b>    | <b>36.56</b>         | <b>10.54</b> | <b>47.10</b>          | <b>63.67</b>  | <b>16.57</b> |        |
|           | 0.242           | 24.23                | 10.49        | 34.72                 | 62.04         | 27.32        |        |
|           | 0.421           | 16.67                | 10.41        | 27.08                 | 57.42         | 30.34        |        |
|           | 3.107           | 11.82                | 10.43        | 22.25                 | 56.00         | 33.75        |        |
|           | 7.175           | 14.79                | 10.49        | 25.28                 | 60.00         | 34.72        |        |
|           | 0.150           | 14.60                | 10.60        | 25.20                 | 55.98         | 30.78        | AV     |
|           | 0.199           | 23.56                | 10.54        | 34.10                 | 53.67         | 19.57        |        |
|           | 0.242           | 14.23                | 10.49        | 24.72                 | 52.04         | 27.32        |        |
|           | 0.421           | 6.67                 | 10.41        | 17.08                 | 47.42         | 30.34        |        |
|           | 3.107           | 4.82                 | 10.43        | 15.25                 | 46.00         | 30.75        |        |
|           | 7.175           | 11.79                | 10.49        | 22.28                 | 50.00         | 27.72        |        |
| Neutral   | 0.178           | 36.33                | 10.50        | 46.83                 | 64.59         | 17.76        | QP     |
|           | 0.244           | 27.15                | 10.46        | 37.61                 | 61.95         | 24.34        |        |
|           | 0.489           | 16.40                | 10.38        | 26.78                 | 56.19         | 29.41        |        |
|           | 3.399           | 10.89                | 10.45        | 21.34                 | 56.00         | 34.66        |        |
|           | 7.175           | 8.80                 | 10.50        | 19.30                 | 60.00         | 40.70        |        |
|           | 12.253          | 10.98                | 10.51        | 21.49                 | 60.00         | 38.51        |        |
|           | 0.178           | 25.33                | 10.50        | 35.83                 | 54.59         | 18.76        | AV     |
|           | 0.244           | 13.15                | 10.46        | 23.61                 | 51.95         | 28.34        |        |
|           | 0.489           | 5.40                 | 10.38        | 15.78                 | 46.19         | 30.41        |        |
|           | 3.399           | 4.89                 | 10.45        | 15.34                 | 46.00         | 30.66        |        |
|           | 7.175           | 3.80                 | 10.50        | 14.30                 | 50.00         | 35.70        |        |
|           | 12.253          | 5.98                 | 10.51        | 16.49                 | 50.00         | 33.51        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI1 640\*480@60Hz Date of Test : Jun 30, 2017  
& 1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | <b>0.151</b>    | <b>39.03</b>         | <b>10.60</b> | <b>49.63</b>          | <b>65.96</b>  | <b>16.33</b> | QP     |
|           | 0.183           | 35.20                | 10.55        | 45.75                 | 64.33         | 18.58        |        |
|           | 0.239           | 23.34                | 10.50        | 33.84                 | 62.13         | 28.29        |        |
|           | 0.421           | 16.95                | 10.41        | 27.36                 | 57.42         | 30.06        |        |
|           | 3.276           | 10.34                | 10.44        | 20.78                 | 56.00         | 35.22        |        |
|           | 9.757           | 14.92                | 10.49        | 25.41                 | 60.00         | 34.59        |        |
|           | 0.151           | 16.03                | 10.60        | 26.63                 | 55.96         | 29.33        | AV     |
|           | 0.183           | 19.20                | 10.55        | 29.75                 | 54.33         | 24.58        |        |
|           | 0.239           | 13.34                | 10.50        | 23.84                 | 52.13         | 28.29        |        |
|           | 0.421           | 5.95                 | 10.41        | 16.36                 | 47.42         | 31.06        |        |
|           | 3.276           | 3.34                 | 10.44        | 13.78                 | 46.00         | 32.22        |        |
|           | 9.757           | 9.92                 | 10.49        | 20.41                 | 50.00         | 29.59        |        |
| Neutral   | 0.178           | 36.92                | 10.50        | 47.42                 | 64.59         | 17.17        | QP     |
|           | 0.244           | 27.27                | 10.46        | 37.73                 | 61.95         | 24.22        |        |
|           | 0.307           | 17.60                | 10.42        | 28.02                 | 60.06         | 32.04        |        |
|           | 0.484           | 12.90                | 10.38        | 23.28                 | 56.27         | 32.99        |        |
|           | 3.472           | 10.78                | 10.45        | 21.23                 | 56.00         | 34.77        |        |
|           | 7.175           | 12.52                | 10.50        | 23.02                 | 60.00         | 36.98        |        |
|           | 0.178           | 23.92                | 10.50        | 34.42                 | 54.59         | 20.17        | AV     |
|           | 0.244           | 13.27                | 10.46        | 23.73                 | 51.95         | 28.22        |        |
|           | 0.307           | 7.60                 | 10.42        | 18.02                 | 50.06         | 32.04        |        |
|           | 0.484           | 4.90                 | 10.38        | 15.28                 | 46.27         | 30.99        |        |
|           | 3.472           | 6.78                 | 10.45        | 17.23                 | 46.00         | 28.77        |        |
|           | 7.175           | 7.52                 | 10.50        | 18.02                 | 50.00         | 31.98        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI2 Date of Test : Jun 30, 2017  
 1920\*1080@60Hz &  
 1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | <b>0.182</b>    | <b>35.39</b>         | <b>10.56</b> | <b>45.95</b>          | <b>64.42</b>  | <b>18.47</b> | QP     |
|           | 0.244           | 27.24                | 10.49        | 37.73                 | 61.95         | 24.22        |        |
|           | 0.426           | 20.96                | 10.41        | 31.37                 | 57.33         | 25.96        |        |
|           | 0.521           | 16.18                | 10.39        | 26.57                 | 56.00         | 29.43        |        |
|           | 3.547           | 12.08                | 10.44        | 22.52                 | 56.00         | 33.48        |        |
|           | 9.757           | 15.20                | 10.49        | 25.69                 | 60.00         | 34.31        |        |
|           | 0.182           | 16.39                | 10.56        | 26.95                 | 54.42         | 27.47        | AV     |
|           | 0.244           | 18.24                | 10.49        | 28.73                 | 51.95         | 23.22        |        |
|           | 0.426           | 10.96                | 10.41        | 21.37                 | 47.33         | 25.96        |        |
|           | 0.521           | 5.18                 | 10.39        | 15.57                 | 46.00         | 30.43        |        |
|           | 3.547           | 6.08                 | 10.44        | 16.52                 | 46.00         | 29.48        |        |
|           | 9.757           | 11.20                | 10.49        | 21.69                 | 50.00         | 28.31        |        |
| Neutral   | 0.150           | 33.08                | 10.52        | 43.60                 | 65.99         | 22.39        | QP     |
|           | 0.184           | 29.70                | 10.49        | 40.19                 | 64.28         | 24.09        |        |
|           | 0.440           | 17.01                | 10.39        | 27.40                 | 57.07         | 29.67        |        |
|           | 3.509           | 12.72                | 10.45        | 23.17                 | 56.00         | 32.83        |        |
|           | 7.175           | 8.75                 | 10.50        | 19.25                 | 60.00         | 40.75        |        |
|           | 12.384          | 10.80                | 10.51        | 21.31                 | 60.00         | 38.69        |        |
|           | 0.150           | 13.10                | 10.52        | 23.62                 | 55.99         | 32.37        | AV     |
|           | 0.184           | 14.70                | 10.49        | 25.19                 | 54.28         | 29.09        |        |
|           | 0.440           | 7.01                 | 10.39        | 17.40                 | 47.07         | 29.67        |        |
|           | 3.509           | 4.72                 | 10.45        | 15.17                 | 46.00         | 30.83        |        |
|           | 7.175           | 3.75                 | 10.50        | 14.25                 | 50.00         | 35.75        |        |
|           | 12.384          | 5.80                 | 10.51        | 16.31                 | 50.00         | 33.69        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI3 Date of Test : Jun 30, 2017  
1920\*1080@60Hz &  
1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | 0.150           | 36.36                | 10.60        | 46.96                 | 65.98         | 19.02        | QP     |
|           | <b>0.180</b>    | <b>36.02</b>         | <b>10.56</b> | <b>46.58</b>          | <b>64.50</b>  | <b>17.92</b> |        |
|           | 0.249           | 22.06                | 10.49        | 32.55                 | 61.78         | 29.23        |        |
|           | 0.417           | 15.67                | 10.41        | 26.08                 | 57.51         | 31.43        |        |
|           | 2.931           | 11.91                | 10.43        | 22.34                 | 56.00         | 33.66        |        |
|           | 8.148           | 15.02                | 10.49        | 25.51                 | 60.00         | 34.49        |        |
|           | 0.150           | 14.20                | 10.60        | 24.80                 | 55.98         | 31.18        | AV     |
|           | 0.180           | 22.02                | 10.56        | 32.58                 | 54.50         | 21.92        |        |
|           | 0.249           | 12.06                | 10.49        | 22.55                 | 51.78         | 29.23        |        |
|           | 0.417           | 5.67                 | 10.41        | 16.08                 | 47.51         | 31.43        |        |
|           | 2.931           | 4.91                 | 10.43        | 15.34                 | 46.00         | 30.66        |        |
|           | 8.148           | 9.02                 | 10.49        | 19.51                 | 50.00         | 30.49        |        |
| Neutral   | 0.152           | 36.45                | 10.52        | 46.97                 | 65.91         | 18.94        | QP     |
|           | 0.183           | 27.82                | 10.49        | 38.31                 | 64.33         | 26.02        |        |
|           | 0.444           | 16.57                | 10.39        | 26.96                 | 56.98         | 30.02        |        |
|           | 3.472           | 12.39                | 10.45        | 22.84                 | 56.00         | 33.16        |        |
|           | 7.175           | 7.35                 | 10.50        | 17.85                 | 60.00         | 42.15        |        |
|           | 11.933          | 12.89                | 10.50        | 23.39                 | 60.00         | 36.61        |        |
|           | 0.152           | 25.45                | 10.52        | 35.97                 | 55.91         | 19.94        | AV     |
|           | 0.183           | 14.82                | 10.49        | 25.31                 | 54.33         | 29.02        |        |
|           | 0.444           | 7.57                 | 10.39        | 17.96                 | 46.98         | 29.02        |        |
|           | 3.472           | 5.39                 | 10.45        | 15.84                 | 46.00         | 30.16        |        |
|           | 7.175           | 2.35                 | 10.50        | 12.85                 | 50.00         | 37.15        |        |
|           | 11.933          | 6.89                 | 10.50        | 17.39                 | 50.00         | 32.61        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : HDMI 1080P Date of Test : Jun 30, 2017

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | <b>0.150</b>    | <b>38.78</b>         | <b>10.60</b> | <b>49.38</b>          | <b>66.00</b>  | <b>16.62</b> | QP     |
|           | 0.178           | 37.25                | 10.56        | 47.81                 | 64.59         | 16.78        |        |
|           | 0.244           | 25.99                | 10.49        | 36.48                 | 61.95         | 25.47        |        |
|           | 0.421           | 20.94                | 10.41        | 31.35                 | 57.42         | 26.07        |        |
|           | 3.207           | 12.20                | 10.44        | 22.64                 | 56.00         | 33.36        |        |
|           | 7.175           | 15.06                | 10.49        | 25.55                 | 60.00         | 34.45        |        |
|           | 0.150           | 15.10                | 10.60        | 25.70                 | 56.00         | 30.30        | AV     |
|           | 0.178           | 22.25                | 10.56        | 32.81                 | 54.59         | 21.78        |        |
|           | 0.244           | 14.99                | 10.49        | 25.48                 | 51.95         | 26.47        |        |
|           | 0.421           | 10.94                | 10.41        | 21.35                 | 47.42         | 26.07        |        |
|           | 3.207           | 3.20                 | 10.44        | 13.64                 | 46.00         | 32.36        |        |
|           | 7.175           | 11.06                | 10.49        | 21.55                 | 50.00         | 28.45        |        |
| Neutral   | 0.152           | 37.47                | 10.52        | 47.99                 | 65.91         | 17.92        | QP     |
|           | 0.180           | 28.27                | 10.50        | 38.77                 | 64.50         | 25.73        |        |
|           | 0.489           | 17.79                | 10.38        | 28.17                 | 56.19         | 28.02        |        |
|           | 3.436           | 11.78                | 10.45        | 22.23                 | 56.00         | 33.77        |        |
|           | 7.175           | 7.79                 | 10.50        | 18.29                 | 60.00         | 41.71        |        |
|           | 12.124          | 10.79                | 10.50        | 21.29                 | 60.00         | 38.71        |        |
|           | 0.152           | 25.47                | 10.52        | 35.99                 | 55.91         | 19.92        | AV     |
|           | 0.180           | 15.27                | 10.50        | 25.77                 | 54.50         | 28.73        |        |
|           | 0.489           | 7.79                 | 10.38        | 18.17                 | 46.19         | 28.02        |        |
|           | 3.436           | 4.78                 | 10.45        | 15.23                 | 46.00         | 30.77        |        |
|           | 7.175           | 3.79                 | 10.50        | 14.29                 | 50.00         | 35.71        |        |
|           | 12.124          | 4.79                 | 10.50        | 15.29                 | 50.00         | 34.71        |        |

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 48%RH

Test Mode : USB Play Date of Test : Jun 30, 2017

| Test Line | Frequency (MHz) | Meter Reading dB(μV) | Factor (dB)  | Emission Level dB(μV) | Limits dB(μV) | Margin (dB)  | Remark |
|-----------|-----------------|----------------------|--------------|-----------------------|---------------|--------------|--------|
| Line      | 0.152           | 37.25                | 10.60        | 47.85                 | 65.91         | 18.06        | QP     |
|           | <b>0.183</b>    | <b>36.24</b>         | <b>10.55</b> | <b>46.79</b>          | <b>64.33</b>  | <b>17.54</b> |        |
|           | 0.242           | 21.07                | 10.49        | 31.56                 | 62.04         | 30.48        |        |
|           | 0.417           | 17.84                | 10.41        | 28.25                 | 57.51         | 29.26        |        |
|           | 3.140           | 12.55                | 10.43        | 22.98                 | 56.00         | 33.02        |        |
|           | 7.175           | 15.87                | 10.49        | 26.36                 | 60.00         | 33.64        |        |
|           | 0.152           | 14.25                | 10.60        | 24.85                 | 55.91         | 31.06        | AV     |
|           | 0.183           | 23.24                | 10.55        | 33.79                 | 54.33         | 20.54        |        |
|           | 0.242           | 13.07                | 10.49        | 23.56                 | 52.04         | 28.48        |        |
|           | 0.417           | 5.84                 | 10.41        | 16.25                 | 47.51         | 31.26        |        |
|           | 3.140           | 6.55                 | 10.43        | 16.98                 | 46.00         | 29.02        |        |
|           | 7.175           | 11.87                | 10.49        | 22.36                 | 50.00         | 27.64        |        |
| Neutral   | 0.152           | 37.39                | 10.52        | 47.91                 | 65.91         | 18.00        | QP     |
|           | 0.194           | 28.39                | 10.49        | 38.88                 | 63.84         | 24.96        |        |
|           | 0.440           | 17.52                | 10.39        | 27.91                 | 57.07         | 29.16        |        |
|           | 3.436           | 12.81                | 10.45        | 23.26                 | 56.00         | 32.74        |        |
|           | 8.148           | 10.93                | 10.50        | 21.43                 | 60.00         | 38.57        |        |
|           | 12.124          | 12.92                | 10.50        | 23.42                 | 60.00         | 36.58        |        |
|           | 0.152           | 25.39                | 10.52        | 35.91                 | 55.91         | 20.00        | AV     |
|           | 0.194           | 13.39                | 10.49        | 23.88                 | 53.84         | 29.96        |        |
|           | 0.440           | 7.52                 | 10.39        | 17.91                 | 47.07         | 29.16        |        |
|           | 3.436           | 5.81                 | 10.45        | 16.26                 | 46.00         | 29.74        |        |
|           | 8.148           | 4.93                 | 10.50        | 15.43                 | 50.00         | 34.57        |        |
|           | 12.124          | 7.92                 | 10.50        | 18.42                 | 50.00         | 31.58        |        |

TEST ENGINEER: KALSI CHEN

## 4 RADIATED EMISSION TEST

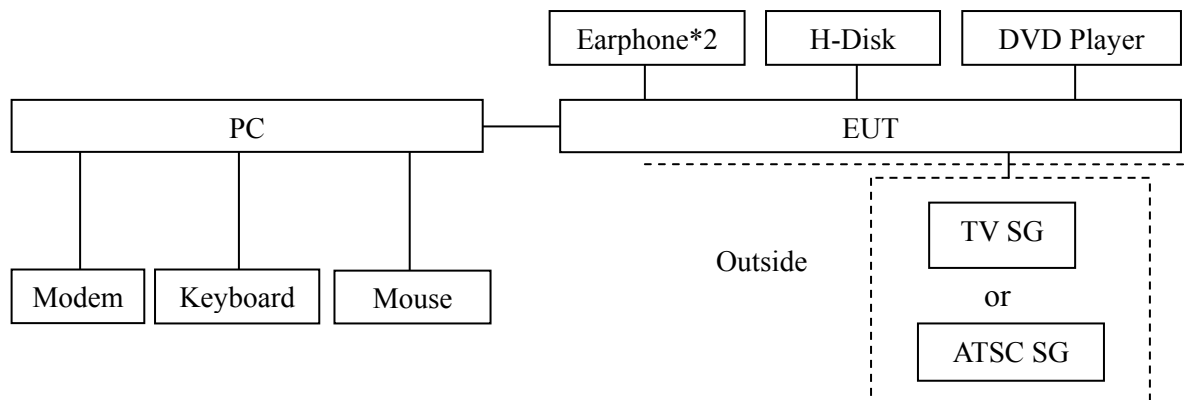
### 4.1 Test Equipment

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, 2017 | Jun 02, 2018 |
| 6.   | Spectrum       | Agilent      | E7405A    | MY45106600  | Apr 26, 2017 | Apr 25, 2018 |
| 7.   | Software       | Audix        | e3        | 6.2007-9-10 | --           | --           |

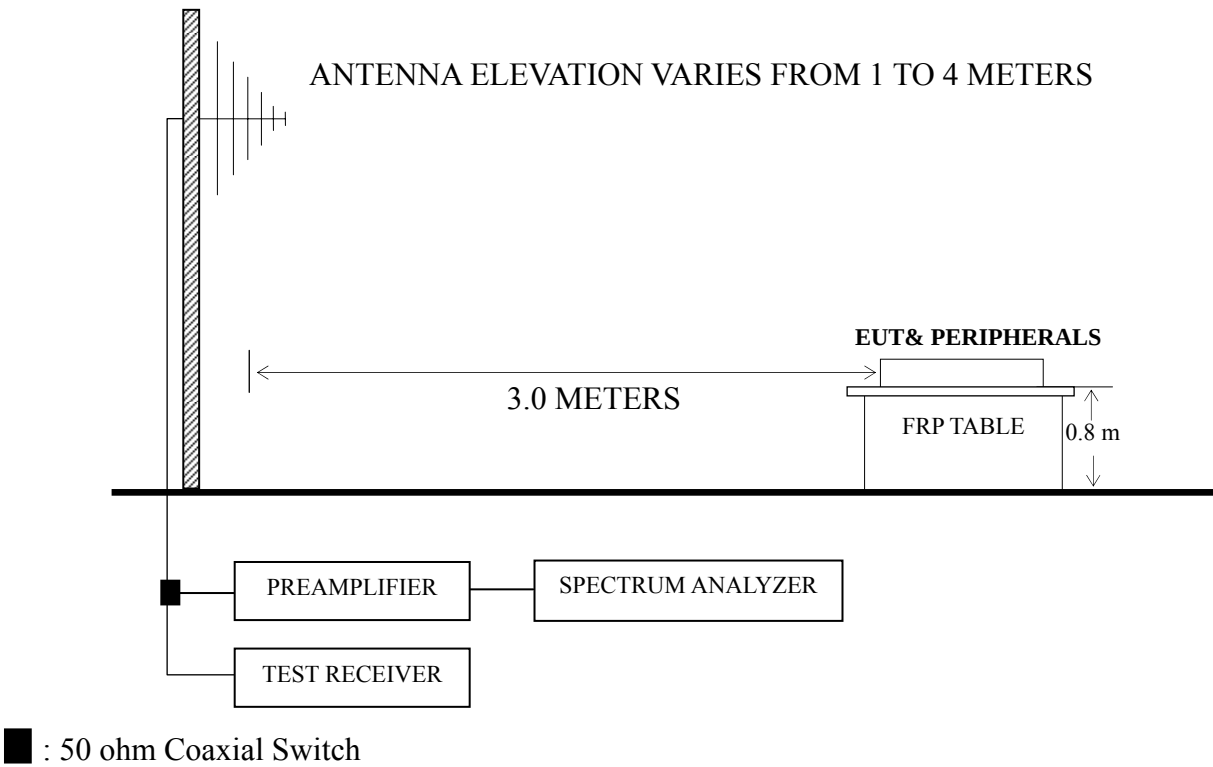
### 4.2 Block Diagram of Test Setup

#### 4.2.1 EUT & Peripherals

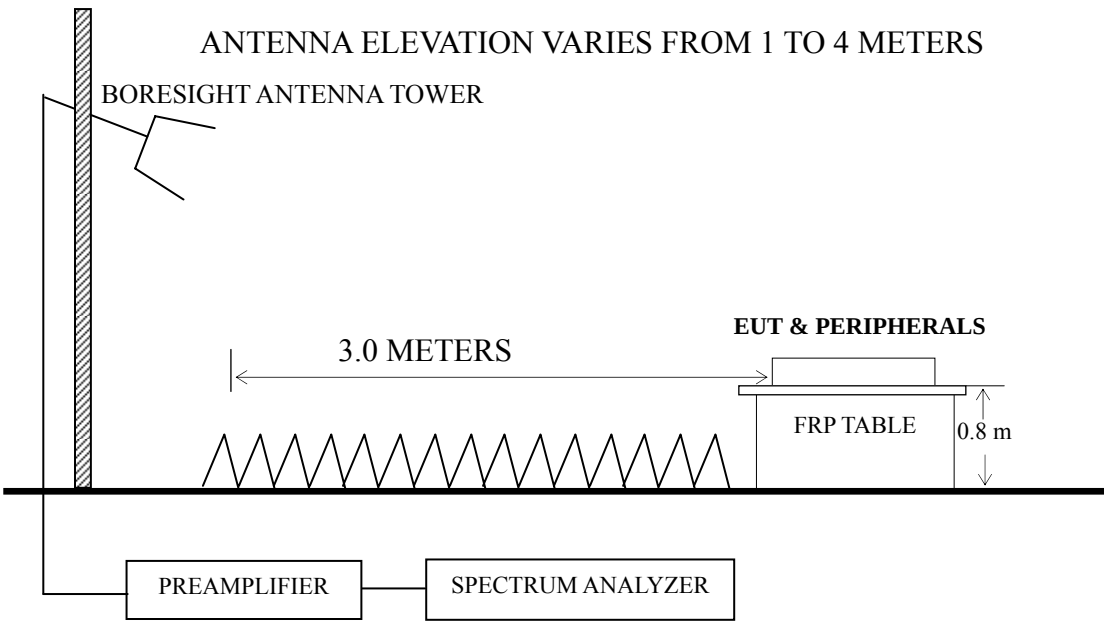


4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



4.2.2.2 Above 1GHz



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

| Frequency<br>(MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Distance<br>(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 ( $\mu\text{V/m}$ )<br>NOTE 2 - The tighter limit applies at the band edges.<br>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.<br>NOTE 4 - The limits shown are based on Quasi-peak value detector.<br>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 1920*1080@60Hz & 1kHz playing            | P24            |
| <b>HDMI2 1920*1080@60Hz &amp; 1kHz playing</b> | <b>P25-P26</b> |
| HDMI2 1280*1024@60Hz & 1kHz playing            | P27            |
| HDMI2 640*480@60Hz & 1kHz playing              | P28            |
| HDMI3 1920*1080@60Hz & 1kHz playing            | P29            |
| HDMI1080P                                      | P30            |
| USB Play                                       | P31            |

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

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

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

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI1 1920\*1080@60Hz & 1kHz Playing Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 104.903         | 13.39                 | 12.90                 | 1.03            | 27.32                    | 43.50            | 16.18       |
|              | 159.784         | 21.51                 | 10.61                 | 1.32            | 33.44                    | 43.50            | 10.06       |
|              | 302.481         | 21.67                 | 14.05                 | 1.77            | 37.49                    | 46.00            | 8.51        |
|              | 597.223         | 14.19                 | 19.50                 | 2.50            | 36.19                    | 46.00            | 9.81        |
|              | 742.259         | 15.48                 | 20.57                 | 2.76            | 38.81                    | 46.00            | 7.19        |
|              | 890.728         | 11.29                 | 21.00                 | 3.03            | 35.32                    | 46.00            | 10.68       |
| Vertical     | <b>31.399</b>   | <b>14.28</b>          | <b>17.99</b>          | <b>0.56</b>     | <b>32.83</b>             | <b>40.00</b>     | <b>7.17</b> |
|              | 150.011         | 19.16                 | 11.60                 | 1.28            | 32.04                    | 43.50            | 11.46       |
|              | 229.293         | 21.29                 | 11.26                 | 1.58            | 34.13                    | 46.00            | 11.87       |
|              | 597.223         | 13.32                 | 19.50                 | 2.50            | 35.32                    | 46.00            | 10.68       |
|              | 742.259         | 12.80                 | 20.57                 | 2.76            | 36.13                    | 46.00            | 9.87        |
|              | 890.728         | 13.68                 | 21.00                 | 3.03            | 37.71                    | 46.00            | 8.29        |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI2 1920\*1080@60Hz & 1kHz playing Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|--------------------------|------------------|-------------|--------|
| Horizontal   | 82.071          | 14.04                 | 9.79                  | 0.87            | 0.00                     | 24.70                    | 40.00            | 15.30       | QP     |
|              | 104.170         | 13.85                 | 12.88                 | 1.03            | 0.00                     | 27.76                    | 43.50            | 15.74       |        |
|              | 158.112         | 20.77                 | 10.84                 | 1.32            | 0.00                     | 32.93                    | 43.50            | 10.57       |        |
|              | <b>303.544</b>  | <b>21.19</b>          | <b>14.07</b>          | <b>1.78</b>     | <b>0.00</b>              | <b>37.04</b>             | <b>46.00</b>     | <b>8.96</b> |        |
|              | 513.633         | 14.44                 | 18.50                 | 2.33            | 0.00                     | 35.27                    | 46.00            | 10.73       |        |
|              | 603.539         | 14.14                 | 19.55                 | 2.52            | 0.00                     | 36.21                    | 46.00            | 9.79        | PK     |
|              | 1317.757        | 56.37                 | 3.67                  | 24.92           | 35.98                    | 48.98                    | 74.00            | 25.02       |        |
|              | 1441.262        | 48.27                 | 3.81                  | 25.39           | 35.81                    | 41.66                    | 74.00            | 32.34       |        |
|              | 1764.712        | 54.94                 | 4.13                  | 26.68           | 35.44                    | 50.31                    | 74.00            | 23.69       | AV     |
|              | 1317.757        | 40.34                 | 3.67                  | 24.92           | 35.98                    | 32.95                    | 54.00            | 21.05       |        |
|              | 1441.262        | 33.88                 | 3.81                  | 25.39           | 35.81                    | 27.27                    | 54.00            | 26.73       |        |
|              | 1764.712        | 40.74                 | 4.13                  | 26.68           | 35.44                    | 36.11                    | 54.00            | 17.89       |        |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI2 1920\*1080@60Hz & 1kHz playing Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamplifier Factor (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) | Remark |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|--------------------------|------------------|-------------|--------|
| Vertical     | 31.955          | 16.65                 | 17.70                 | 0.57            | 0.00                     | 34.92                    | 40.00            | 5.08        | QP     |
|              | 150.011         | 20.62                 | 11.60                 | 1.28            | 0.00                     | 33.50                    | 43.50            | 10.00       |        |
|              | 225.308         | 22.29                 | 11.10                 | 1.57            | 0.00                     | 34.96                    | 46.00            | 11.04       |        |
|              | 411.824         | 14.29                 | 16.94                 | 2.10            | 0.00                     | 33.33                    | 46.00            | 12.67       |        |
|              | 595.133         | 14.18                 | 19.50                 | 2.50            | 0.00                     | 36.18                    | 46.00            | 9.82        |        |
|              | <b>906.482</b>  | <b>16.93</b>          | <b>21.10</b>          | <b>3.05</b>     | <b>0.00</b>              | <b>41.08</b>             | <b>46.00</b>     | <b>4.92</b> |        |
|              | 1181.321        | 51.30                 | 3.63                  | 24.37           | 36.19                    | 43.11                    | 74.00            | 30.89       | PK     |
|              | 1472.586        | 49.39                 | 3.84                  | 25.51           | 35.78                    | 42.96                    | 74.00            | 31.04       |        |
|              | 1742.717        | 52.56                 | 4.11                  | 26.59           | 35.46                    | 47.80                    | 74.00            | 26.20       |        |
|              | 1181.321        | 35.67                 | 3.63                  | 24.37           | 36.19                    | 27.48                    | 54.00            | 26.52       | AV     |
|              | 1472.586        | 34.83                 | 3.84                  | 25.51           | 35.78                    | 28.40                    | 54.00            | 25.60       |        |
|              | 1742.717        | 38.92                 | 4.11                  | 26.59           | 35.46                    | 34.16                    | 54.00            | 19.84       |        |

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI2 1280\*1024@60Hz & 1kHz Playing Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 148.963         | 21.42                 | 11.64                 | 1.28            | 34.34                    | 43.50            | 9.16        |
|              | 303.544         | 22.32                 | 14.07                 | 1.78            | 38.17                    | 46.00            | 7.83        |
|              | 446.414         | 13.41                 | 17.53                 | 2.17            | 33.11                    | 46.00            | 12.89       |
|              | 607.787         | 14.50                 | 19.58                 | 2.52            | 36.60                    | 46.00            | 9.40        |
|              | 742.259         | 12.39                 | 20.57                 | 2.76            | 35.72                    | 46.00            | 10.28       |
|              | 906.482         | 16.11                 | 21.10                 | 3.05            | 40.26                    | 46.00            | 5.74        |
| Vertical     | 31.510          | 14.92                 | 17.92                 | 0.56            | 33.40                    | 40.00            | 6.60        |
|              | <b>148.963</b>  | <b>24.97</b>          | <b>11.64</b>          | <b>1.28</b>     | <b>37.89</b>             | <b>43.50</b>     | <b>5.61</b> |
|              | 229.293         | 21.92                 | 11.26                 | 1.58            | 34.76                    | 46.00            | 11.24       |
|              | 286.982         | 16.69                 | 13.75                 | 1.74            | 32.18                    | 46.00            | 13.82       |
|              | 599.321         | 14.31                 | 19.50                 | 2.50            | 36.31                    | 46.00            | 9.69        |
|              | 742.259         | 10.12                 | 20.57                 | 2.76            | 33.45                    | 46.00            | 12.55       |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI2 640\*480@60Hz & 1kHz Playing Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 160.909         | 21.98                 | 10.47                 | 1.33            | 33.78                    | 43.50            | 9.72        |
|              | 308.913         | 22.64                 | 14.18                 | 1.80            | 38.62                    | 46.00            | 7.38        |
|              | 497.677         | 11.31                 | 18.36                 | 2.29            | 31.96                    | 46.00            | 14.04       |
|              | 522.718         | 12.96                 | 18.50                 | 2.34            | 33.80                    | 46.00            | 12.20       |
|              | 607.787         | 13.79                 | 19.58                 | 2.52            | 35.89                    | 46.00            | 10.11       |
|              | 972.337         | 4.51                  | 21.70                 | 3.16            | 29.37                    | 54.00            | 24.63       |
| Vertical     | <b>31.180</b>   | <b>14.92</b>          | <b>18.14</b>          | <b>0.56</b>     | <b>33.62</b>             | <b>40.00</b>     | <b>6.38</b> |
|              | 143.830         | 17.20                 | 12.05                 | 1.25            | 30.50                    | 43.50            | 13.00       |
|              | 216.783         | 18.92                 | 10.92                 | 1.54            | 31.38                    | 46.00            | 14.62       |
|              | 286.982         | 16.28                 | 13.75                 | 1.74            | 31.77                    | 46.00            | 14.23       |
|              | 413.271         | 13.17                 | 16.98                 | 2.10            | 32.25                    | 46.00            | 13.75       |
|              | 603.539         | 12.83                 | 19.55                 | 2.52            | 34.90                    | 46.00            | 11.10       |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI3 1920\*1080@60Hz Date of Test : Jul 03, 2017  
& 1kHz Playing

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 104.903         | 13.71                 | 12.90                 | 1.03            | 27.64                    | 43.50            | 15.86       |
|              | 159.225         | 21.08                 | 10.73                 | 1.32            | 33.13                    | 43.50            | 10.37       |
|              | 305.680         | 22.22                 | 14.12                 | 1.78            | 38.12                    | 46.00            | 7.88        |
|              | 504.706         | 12.83                 | 18.44                 | 2.31            | 33.58                    | 46.00            | 12.42       |
|              | 601.427         | 13.84                 | 19.52                 | 2.52            | 35.88                    | 46.00            | 10.12       |
|              | 909.667         | 7.83                  | 21.10                 | 3.05            | 31.98                    | 46.00            | 14.02       |
| Vertical     | <b>31.071</b>   | <b>15.18</b>          | <b>18.21</b>          | <b>0.56</b>     | <b>33.95</b>             | <b>40.00</b>     | <b>6.05</b> |
|              | 67.913          | 23.13                 | 7.35                  | 0.81            | 31.29                    | 40.00            | 8.71        |
|              | 151.067         | 21.47                 | 11.55                 | 1.29            | 34.31                    | 43.50            | 9.19        |
|              | 229.293         | 19.78                 | 11.26                 | 1.58            | 32.62                    | 46.00            | 13.38       |
|              | 407.515         | 15.66                 | 16.70                 | 2.08            | 34.44                    | 46.00            | 11.56       |
|              | 593.050         | 13.82                 | 19.50                 | 2.50            | 35.82                    | 46.00            | 10.18       |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 95.093          | 21.46                 | 11.97                 | 0.97            | 34.40                    | 43.50            | 9.10        |
|              | 157.007         | 23.78                 | 11.06                 | 1.31            | 36.15                    | 43.50            | 7.35        |
|              | 301.422         | 21.26                 | 14.02                 | 1.77            | 37.05                    | 46.00            | 8.95        |
|              | 520.888         | 11.84                 | 18.50                 | 2.34            | 32.68                    | 46.00            | 13.32       |
|              | 603.539         | 14.62                 | 19.55                 | 2.52            | 36.69                    | 46.00            | 9.31        |
|              | 906.482         | 14.31                 | 21.10                 | 3.05            | 38.46                    | 46.00            | 7.54        |
| Vertical     | <b>31.289</b>   | <b>16.27</b>          | <b>18.07</b>          | <b>0.56</b>     | <b>34.90</b>             | <b>40.00</b>     | <b>5.10</b> |
|              | 64.433          | 20.96                 | 6.78                  | 0.80            | 28.54                    | 40.00            | 11.46       |
|              | 148.441         | 18.33                 | 11.68                 | 1.27            | 31.28                    | 43.50            | 12.22       |
|              | 416.179         | 11.79                 | 17.02                 | 2.10            | 30.91                    | 46.00            | 15.09       |
|              | 570.610         | 10.74                 | 18.90                 | 2.45            | 32.09                    | 46.00            | 13.91       |
|              | 742.259         | 8.38                  | 20.57                 | 2.76            | 31.71                    | 46.00            | 14.29       |

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : LC-32P3000U Humidity : 60%RH

Test Mode : USB Play Date of Test : Jul 03, 2017

| Polarization | Frequency (MHz) | Meter Reading dB (μV) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μV/m) | Limits dB (μV/m) | Margin (dB) |
|--------------|-----------------|-----------------------|-----------------------|-----------------|--------------------------|------------------|-------------|
| Horizontal   | 101.644         | 17.60                 | 12.84                 | 1.01            | 31.45                    | 43.50            | 12.05       |
|              | 164.330         | 22.56                 | 10.33                 | 1.34            | 34.23                    | 43.50            | 9.27        |
|              | 282.985         | 15.87                 | 13.65                 | 1.73            | 31.25                    | 46.00            | 14.75       |
|              | 444.851         | 12.28                 | 17.50                 | 2.17            | 31.95                    | 46.00            | 14.05       |
|              | 568.613         | 10.76                 | 18.90                 | 2.45            | 32.11                    | 46.00            | 13.89       |
|              | 798.980         | 9.15                  | 20.80                 | 2.85            | 32.80                    | 46.00            | 13.20       |
| Vertical     | <b>31.843</b>   | <b>15.15</b>          | <b>17.77</b>          | <b>0.57</b>     | <b>33.49</b>             | <b>40.00</b>     | <b>6.51</b> |
|              | 79.521          | 18.57                 | 9.27                  | 0.86            | 28.70                    | 40.00            | 11.30       |
|              | 162.041         | 18.43                 | 10.41                 | 1.33            | 30.17                    | 43.50            | 13.33       |
|              | 216.024         | 19.65                 | 10.96                 | 1.54            | 32.15                    | 46.00            | 13.85       |
|              | 554.825         | 11.84                 | 18.70                 | 2.41            | 32.95                    | 46.00            | 13.05       |
|              | 755.387         | 9.80                  | 20.70                 | 2.78            | 33.28                    | 46.00            | 12.72       |

TEST ENGINEER: LEON YUN

## **5 DEVIATION TO TEST SPECIFICATIONS**

None.