

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

LED LCD TV

| Model No. | Brand |
|-----------------|---------|
| LTDN32K220WUS | Hisense |
| 32H5FC, 32H5FC+ | |

FCC ID : W9HLCDC0034

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Report No. : ACI-F15259
Date of Test : Dec07-23, 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 |
|-----------------|---------|--------------|
| LTDN32K220WUS | Hisense | 120V/60Hz |
| 32H5FC, 32H5FC+ | | |

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 07-23, 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.F15258, a Verification report.

Date of Test : Dec 07-23, 2015 Date of Report : Dec 31, 2015

Producer : Huimin Yan
 HUIMIN YAN / Assistant

Review : Sammy Chen
 SAMMY CHEN / 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 |
|---|--|----------------------|---------|
| EMISSION | | | |
| 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 | : | <input checked="" type="checkbox"/> Production <input type="checkbox"/> Pre-product <input type="checkbox"/> Pro-type |
| Model No | : | LTDN32K220WUS, 32H5FC, 32H5FC+ |
| Note#1 | : | The above models are all the same except for model number.LTDN32K220WUS model is tested and recorded in the report. |
| Note#2 | : | “+ ” represents any numerals, for different sales area. |
| Brand | : | Hisense |
| 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 : HD315DF-B71 |
| Tuner | : | Manufacturer : Riteng Electronic Co. Ltd. M/N : RF-LW-07Z\Reflow\ROH |
| Max Resolution | : | 1920*1080@60Hz |
| HDMI Cable*2 (Lab provide) | : | Shielded, Detachable, 1.50m, with two cores |
| Power Cord | : | Unshielded, Detachable, 1.80m |
| LAN Cable | : | Shielded, Detachable, 1.50m |
| USB Cable (Lab provide) | : | Shielded, Detachable, 1.00m, without core |

Remark:

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

Side Port:

- (1) One ANT/CABLE IN Port
: Connected with Antenna or ATSC SG / TV
SG
- (2) One HDMI2/ARC Port
: Connected with DVD PLAYER
- (3) One HDMI1/DVI Port
: Connected with PC
- (4) One DVI Audio in Port
: Connected with PC
- (5) One LAN Port
: Connected with PC
- (6) One Digital Audio Out Port
: Connected with DVD PLAYER

Back Port:

- (7)One USB Port
: Connected with Hard-Disk
- (8)One Audio Out Port
: Connected with Earphone
- (9)One component in\AV in Port
: Connected with DVD PLAYER

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
 Model Number : dx7400MT
 Serial Number : CNG8130K89
 Power Cord : Shielded, 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, Detachable, 1.5m
 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, Detachable, 1.5m.
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, 1.5m
Certificate : CCC

2.2.5 Earphone

Manufacturer : audio-technica
Model Number : ATH-CKL200

2.2.6 DVD PLAYER

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

2.2.7 Hard Disk

Manufacturer : Tetasys
Model Number : F12
Serial Number : A010022-4860010X
Data Cable : Shielded, Undetachable, 1.5m.
Certificate : CE, FCC DoC

2.2.8 ATSC Signal Generator

Manufacturer : SENCORE
Model Number : ATSC997
Serial Number : 6790071

2.2.9 TV Signal Generator

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

2.3 Description of Test Facility

| | | |
|---------------------------------------|---|---|
| Site Description (No.3 3m Chamber) | : | Sept. 17, 1998 file on Jan.15, 2015 Renewed Federal Communications Commission FCC Engineering Laboratory 7435 Oakland Mills Road Columbia, MD 21046, USA |
| Name of Firm | : | Audix Technology (Shanghai) Co., Ltd. |
| Site Location | : | 3F 34Bldg 680 Guiping Rd, Caohejing Hi-Tech Park, Shanghai 200233, China |
| FCC registration Number | : | 91789 |
| NVLAP Lab Code | : | 200371-0 |

2.4 Measurement Uncertainty

| | |
|---|--|
| Conducted Emission Expanded Uncertainty : | U = 3.4dB |
| Radiated Emission Expanded Uncertainty (30-200MHz): | U = 4.6dB (Horizontal) U = 4.3dB (Vertical) |
| Radiated Emission Expanded Uncertainty (200M-1GHz): | U = 4.5dB (Horizontal) U = 5.4dB (Vertical) |
| Radiated Emission Expanded Uncertainty (1GHz-6GHz): | U = 5.1dB |

3 CONDUCTED EMISSION TEST

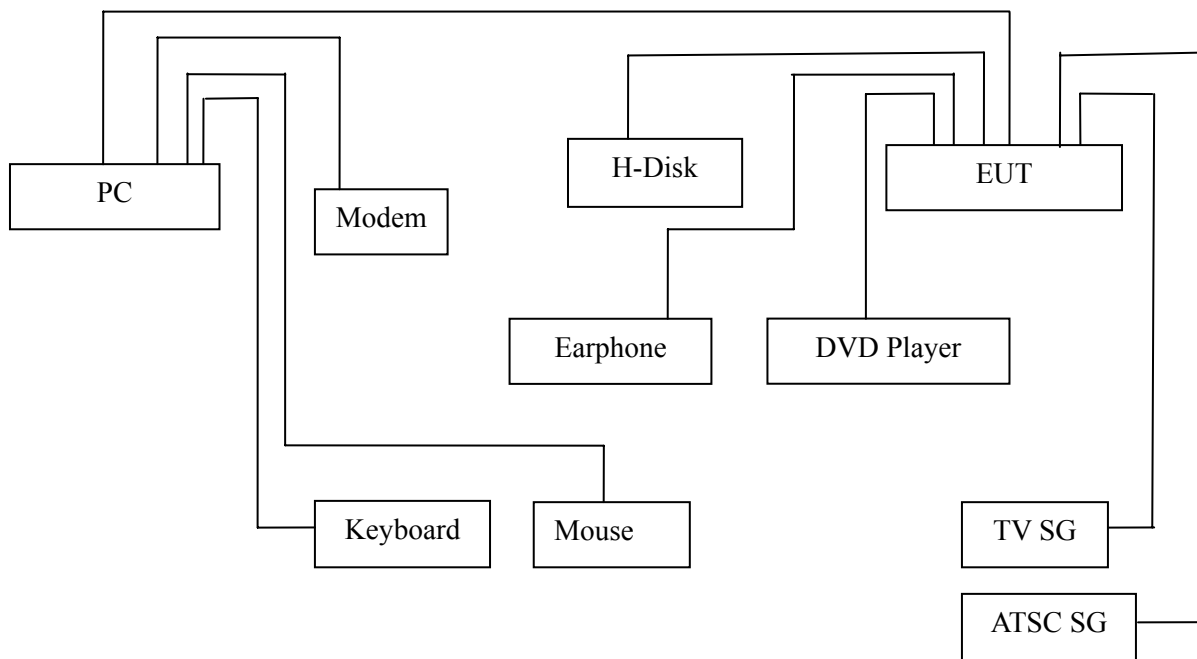
3.1 Test Equipment

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

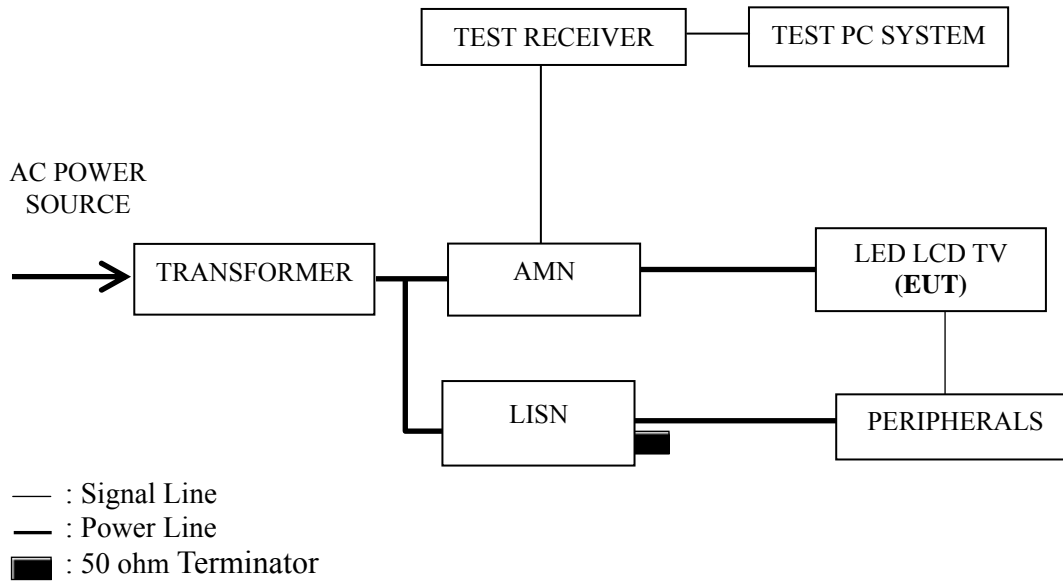
| Item | Type | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------|---|--------------|-----------|------------|--------------|--------------|
| 1. | Test Receiver | R&S | ESCI | 101302 | Jul 03, 2015 | Jul 02, 2016 |
| 2. | Artificial Mains Network (AMN) | R&S | ENV4200 | 100125 | Jun 27, 2015 | Jun 26, 2016 |
| 3. | Line Impedance Stabilization Network (LISN) | Kyoritsu | KNW-407 | 8-1280-5 | 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 (μ V) | |
|-----------------------|----------------------|---------|
| | Quasi-peak | Average |
| 0.15 ~ 0.5 | 66~56 | 56~46 |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

NOTE 1 – The lower limit shall apply at the transition frequencies.
 NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz

3.4 Test Configuration

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

3.5 Operating Condition of EUT

- 3.5.1 Setup the EUT and peripherals as shown in Sec. 3.2.
- 3.5.2 Turn on the power of all equipments and the EUT.
- 3.5.3 Set the contrast & brightness of EUT to maximum.
- 3.5.4 PC system ran the self-test program “EMC Test” by windows XP and sent “H” characters to EUT through graphic card, the EUT’s screen displayed and filled with “H” pattern by its resolution (Via HDMI Input).
- 3.5.5 PC system sent the 1kHz audio signal to EUT through audio port, the EUT speak out 1kHz audio signal.
- 3.5.6 In USB Play mode, set the EUT play digital media from H-Disk.
- 3.5.7 In LAN Play mode, set the EUT play digital media through LAN port.
- 3.5.8 The other peripherals devices were driven and operated during the test.
- 3.5.9 The test modes are as follows:

| Test Mode |
|------------------------------------|
| HDMI 1920*1080@60Hz & 1kHz playing |
| HDMI 1280*1024@60Hz & 1kHz playing |
| HDMI 640*480@60Hz & 1kHz playing |
| HDMI1080P |
| 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 1920*1080@60Hz & 1kHz playing | P13 |
| HDMI 1280*1024@60Hz & 1kHz playing | P14 |
| HDMI 640*480@60Hz & 1kHz playing | P15 |
| HDMI1080P | P16 |
| USB Play | P17 |
| LAN Play | P18 |

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 0.316 MHz (QP Value) with corrected signal level of 45.73dB (μV) (limit is 49.81 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : HDMI 1920*1080@60Hz & 1kHz Playing Date of Test : Dec 07, 2015

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|-------------|
| Line | 0.150 | 34.20 | 10.59 | 44.79 | 65.98 | 21.19 | QP |
| | 0.316 | 35.60 | 10.45 | 46.05 | 59.81 | 13.76 | |
| | 0.765 | 27.50 | 10.38 | 37.88 | 56.00 | 18.12 | |
| | 0.946 | 25.00 | 10.38 | 35.38 | 56.00 | 20.62 | |
| | 3.922 | 21.80 | 10.46 | 32.26 | 56.00 | 23.74 | |
| | 6.458 | 33.90 | 10.47 | 44.37 | 60.00 | 15.63 | |
| | AV | 0.150 | 18.10 | 10.59 | 28.69 | 55.98 | 27.29 |
| | | 0.316 | 34.70 | 10.45 | 45.15 | 49.81 | 4.66 |
| | | 0.765 | 27.30 | 10.38 | 37.68 | 46.00 | 8.32 |
| | | 0.946 | 24.80 | 10.38 | 35.18 | 46.00 | 10.82 |
| | | 3.922 | 14.20 | 10.46 | 24.66 | 46.00 | 21.34 |
| | | 6.458 | 27.10 | 10.47 | 37.57 | 50.00 | 12.43 |
| Neutral | 0.154 | 28.60 | 10.58 | 39.18 | 65.80 | 26.62 | QP |
| | 0.316 | 35.50 | 10.43 | 45.93 | 59.80 | 13.87 | |
| | 0.765 | 25.80 | 10.36 | 36.16 | 56.00 | 19.84 | |
| | 0.948 | 26.60 | 10.37 | 36.97 | 56.00 | 19.03 | |
| | 4.683 | 27.20 | 10.47 | 37.67 | 56.00 | 18.33 | |
| | 6.452 | 33.49 | 10.51 | 44.00 | 60.00 | 16.00 | |
| | AV | 0.154 | 10.30 | 10.58 | 20.88 | 55.80 | 34.92 |
| | | 0.316 | 35.00 | 10.43 | 45.43 | 49.80 | 4.37 |
| | | 0.765 | 24.50 | 10.36 | 34.86 | 46.00 | 11.14 |
| | | 0.948 | 25.80 | 10.37 | 36.17 | 46.00 | 9.83 |
| | | 4.683 | 18.40 | 10.47 | 28.87 | 46.00 | 17.13 |
| | | 6.452 | 24.79 | 10.51 | 35.30 | 50.00 | 14.70 |

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : HDMI 1280*1024@60Hz Date of Test : Dec 07, 2015
& 1kHz Playing

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|-------------|
| Line | 0.152 | 30.69 | 10.59 | 41.28 | 65.91 | 24.63 | QP |
| | 0.316 | 34.50 | 10.45 | 44.95 | 59.81 | 14.86 | |
| | 0.764 | 26.60 | 10.38 | 36.98 | 56.00 | 19.02 | |
| | 0.946 | 24.80 | 10.38 | 35.18 | 56.00 | 20.82 | |
| | 4.724 | 24.40 | 10.48 | 34.88 | 56.00 | 21.12 | |
| | 6.597 | 33.50 | 10.47 | 43.97 | 60.00 | 16.03 | |
| | AV | 0.152 | 13.89 | 10.59 | 24.48 | 55.91 | 31.43 |
| | | 0.316 | 34.40 | 10.45 | 44.85 | 49.81 | 4.96 |
| | | 0.764 | 26.20 | 10.38 | 36.58 | 46.00 | 9.42 |
| | | 0.946 | 24.60 | 10.38 | 34.98 | 46.00 | 11.02 |
| 4.724 | | 15.90 | 10.48 | 26.38 | 46.00 | 19.62 | |
| 6.597 | | 26.60 | 10.47 | 37.07 | 50.00 | 12.93 | |
| Neutral | 0.151 | 33.19 | 10.59 | 43.78 | 65.97 | 22.19 | QP |
| | 0.316 | 35.51 | 10.43 | 45.94 | 59.82 | 13.88 | |
| | 0.764 | 25.00 | 10.36 | 35.36 | 56.00 | 20.64 | |
| | 0.947 | 27.20 | 10.37 | 37.57 | 56.00 | 18.43 | |
| | 4.672 | 26.10 | 10.47 | 36.57 | 56.00 | 19.43 | |
| | 6.571 | 31.60 | 10.51 | 42.11 | 60.00 | 17.89 | |
| | AV | 0.151 | 16.89 | 10.59 | 27.48 | 55.97 | 28.49 |
| | | 0.316 | 35.01 | 10.43 | 45.44 | 49.82 | 4.38 |
| | | 0.764 | 24.30 | 10.36 | 34.66 | 46.00 | 11.34 |
| | | 0.947 | 26.40 | 10.37 | 36.77 | 46.00 | 9.23 |
| 4.672 | | 17.90 | 10.47 | 28.37 | 46.00 | 17.63 | |
| | 6.571 | 21.00 | 10.51 | 31.51 | 50.00 | 18.49 | |

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : HDMI 640*480@60Hz & 1kHz Playing Date of Test : Dec 07, 2015

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|--------|
| Line | 0.152 | 30.79 | 10.59 | 41.38 | 65.91 | 24.53 | QP |
| | 0.315 | 34.51 | 10.45 | 44.96 | 59.85 | 14.89 | |
| | 0.764 | 26.90 | 10.38 | 37.28 | 56.00 | 18.72 | |
| | 0.948 | 25.10 | 10.38 | 35.48 | 56.00 | 20.52 | |
| | 3.925 | 20.50 | 10.46 | 30.96 | 56.00 | 25.04 | |
| | 6.868 | 34.10 | 10.46 | 44.56 | 60.00 | 15.44 | |
| | 0.152 | 13.89 | 10.59 | 24.48 | 55.91 | 31.43 | AV |
| | 0.315 | 34.31 | 10.45 | 44.76 | 49.85 | 5.09 | |
| | 0.764 | 26.50 | 10.38 | 36.88 | 46.00 | 9.12 | |
| | 0.948 | 24.80 | 10.38 | 35.18 | 46.00 | 10.82 | |
| | 3.925 | 12.40 | 10.46 | 22.86 | 46.00 | 23.14 | |
| | 6.868 | 26.80 | 10.46 | 37.26 | 50.00 | 12.74 | |
| Neutral | 0.151 | 34.09 | 10.59 | 44.68 | 65.96 | 21.28 | QP |
| | 0.315 | 36.01 | 10.43 | 46.44 | 59.83 | 13.39 | |
| | 0.764 | 25.00 | 10.36 | 35.36 | 56.00 | 20.64 | |
| | 0.947 | 27.00 | 10.37 | 37.37 | 56.00 | 18.63 | |
| | 4.688 | 26.50 | 10.47 | 36.97 | 56.00 | 19.03 | |
| | 6.830 | 30.80 | 10.51 | 41.31 | 60.00 | 18.69 | |
| | 0.151 | 17.69 | 10.59 | 28.28 | 55.96 | 27.68 | AV |
| | 0.315 | 35.01 | 10.43 | 45.44 | 49.83 | 4.39 | |
| | 0.764 | 24.00 | 10.36 | 34.36 | 46.00 | 11.64 | |
| | 0.947 | 26.00 | 10.37 | 36.37 | 46.00 | 9.63 | |
| | 4.688 | 17.70 | 10.47 | 28.17 | 46.00 | 17.83 | |
| | 6.830 | 22.10 | 10.51 | 32.61 | 50.00 | 17.39 | |

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : HDMI1080P Date of Test : Dec 07, 2015

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|--------|
| Line | 0.152 | 30.49 | 10.59 | 41.08 | 65.87 | 24.79 | QP |
| | 0.317 | 35.00 | 10.45 | 45.45 | 59.80 | 14.35 | |
| | 0.764 | 27.00 | 10.38 | 37.38 | 56.00 | 18.62 | |
| | 0.948 | 25.00 | 10.38 | 35.38 | 56.00 | 20.62 | |
| | 3.927 | 19.30 | 10.46 | 29.76 | 56.00 | 26.24 | |
| | 6.559 | 31.80 | 10.47 | 42.27 | 60.00 | 17.73 | |
| | 0.152 | 13.59 | 10.59 | 24.18 | 55.87 | 31.69 | AV |
| | 0.317 | 34.50 | 10.45 | 44.95 | 49.80 | 4.85 | |
| | 0.764 | 26.80 | 10.38 | 37.18 | 46.00 | 8.82 | |
| | 0.948 | 24.90 | 10.38 | 35.28 | 46.00 | 10.72 | |
| 3.927 | 11.40 | 10.46 | 21.86 | 46.00 | 24.14 | | |
| 6.559 | 21.10 | 10.47 | 31.57 | 50.00 | 18.43 | | |
| Neutral | 0.151 | 34.09 | 10.59 | 44.68 | 65.96 | 21.28 | QP |
| | 0.316 | 35.51 | 10.43 | 45.94 | 59.82 | 13.88 | |
| | 0.946 | 26.00 | 10.37 | 36.37 | 56.00 | 19.63 | |
| | 3.472 | 20.90 | 10.45 | 31.35 | 56.00 | 24.65 | |
| | 4.645 | 26.80 | 10.47 | 37.27 | 56.00 | 18.73 | |
| | 6.558 | 31.50 | 10.51 | 42.01 | 60.00 | 17.99 | |
| | 0.151 | 17.69 | 10.59 | 28.28 | 55.96 | 27.68 | AV |
| | 0.316 | 35.01 | 10.43 | 45.44 | 49.82 | 4.38 | |
| | 0.946 | 25.80 | 10.37 | 36.17 | 46.00 | 9.83 | |
| | 3.472 | 14.80 | 10.45 | 25.25 | 46.00 | 20.75 | |
| 4.645 | 18.00 | 10.47 | 28.47 | 46.00 | 17.53 | | |
| 6.558 | 21.20 | 10.51 | 31.71 | 50.00 | 18.29 | | |

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : USB Play Date of Test : Dec 07, 2015

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|-------------|
| Line | 0.151 | 33.49 | 10.59 | 44.08 | 65.94 | 21.86 | QP |
| | 0.317 | 34.60 | 10.45 | 45.05 | 59.80 | 14.75 | |
| | 0.764 | 26.80 | 10.38 | 37.18 | 56.00 | 18.82 | |
| | 0.947 | 25.50 | 10.38 | 35.88 | 56.00 | 20.12 | |
| | 4.739 | 25.20 | 10.48 | 35.68 | 56.00 | 20.32 | |
| | 6.910 | 31.50 | 10.46 | 41.96 | 60.00 | 18.04 | |
| | AV | 0.151 | 17.39 | 10.59 | 27.98 | 55.94 | 27.96 |
| | | 0.317 | 34.40 | 10.45 | 44.85 | 49.80 | 4.95 |
| | | 0.764 | 26.50 | 10.38 | 36.88 | 46.00 | 9.12 |
| | | 0.947 | 25.00 | 10.38 | 35.38 | 46.00 | 10.62 |
| 4.739 | | 16.30 | 10.48 | 26.78 | 46.00 | 19.22 | |
| 6.910 | | 22.80 | 10.46 | 33.26 | 50.00 | 16.74 | |
| Neutral | 0.151 | 33.89 | 10.59 | 44.48 | 65.93 | 21.45 | QP |
| | 0.316 | 35.50 | 10.43 | 45.93 | 59.81 | 13.88 | |
| | 0.764 | 25.80 | 10.36 | 36.16 | 56.00 | 19.84 | |
| | 0.946 | 26.90 | 10.37 | 37.27 | 56.00 | 18.73 | |
| | 3.922 | 24.29 | 10.46 | 34.75 | 56.00 | 21.25 | |
| | 6.533 | 32.80 | 10.51 | 43.31 | 60.00 | 16.69 | |
| | AV | 0.151 | 17.69 | 10.59 | 28.28 | 55.93 | 27.65 |
| | | 0.316 | 35.30 | 10.43 | 45.73 | 49.81 | 4.08 |
| | | 0.764 | 24.30 | 10.36 | 34.66 | 46.00 | 11.34 |
| | | 0.946 | 26.00 | 10.37 | 36.37 | 46.00 | 9.63 |
| | 3.922 | 16.19 | 10.46 | 26.65 | 46.00 | 19.35 | |
| | 6.533 | 25.50 | 10.51 | 36.01 | 50.00 | 13.99 | |

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 48%RH

Test Mode : LAN Play Date of Test : Dec 07, 2015

| Test Line | Frequency (MHz) | Meter Reading dB(μ V) | Factor (dB) | Emission Level dB(μ V) | Limits dB(μ V) | Margin (dB) | Remark |
|-----------|-----------------|----------------------------|--------------|-----------------------------|---------------------|--------------|--------------|
| Line | 0.151 | 33.49 | 10.59 | 44.08 | 65.95 | 21.87 | QP |
| | 0.151 | 17.39 | 10.59 | 27.98 | 55.95 | 27.97 | |
| | 0.315 | 34.61 | 10.45 | 45.06 | 59.84 | 14.78 | |
| | 0.315 | 34.51 | 10.45 | 44.96 | 49.84 | 4.88 | |
| | 0.763 | 27.50 | 10.38 | 37.88 | 56.00 | 18.12 | |
| | 0.763 | 27.00 | 10.38 | 37.38 | 46.00 | 8.62 | |
| | AV | 0.947 | 25.20 | 10.38 | 35.58 | 56.00 | 20.42 |
| | | 0.947 | 25.00 | 10.38 | 35.38 | 46.00 | 10.62 |
| | | 4.729 | 24.50 | 10.48 | 34.98 | 56.00 | 21.02 |
| | | 4.729 | 15.60 | 10.48 | 26.08 | 46.00 | 19.92 |
| | | 6.402 | 31.20 | 10.47 | 41.67 | 60.00 | 18.33 |
| | | 6.402 | 23.50 | 10.47 | 33.97 | 50.00 | 16.03 |
| Neutral | 0.151 | 34.09 | 10.59 | 44.68 | 65.97 | 21.29 | QP |
| | 0.151 | 17.89 | 10.59 | 28.48 | 55.97 | 27.49 | |
| | 0.317 | 35.40 | 10.43 | 45.83 | 59.80 | 13.97 | |
| | 0.317 | 35.20 | 10.43 | 45.63 | 49.80 | 4.17 | |
| | 0.763 | 25.00 | 10.36 | 35.36 | 56.00 | 20.64 | |
| | 0.763 | 23.80 | 10.36 | 34.16 | 46.00 | 11.84 | |
| | AV | 0.948 | 26.90 | 10.37 | 37.27 | 56.00 | 18.73 |
| | | 0.948 | 26.20 | 10.37 | 36.57 | 46.00 | 9.43 |
| | | 4.427 | 24.80 | 10.46 | 35.26 | 56.00 | 20.74 |
| | | 4.427 | 16.20 | 10.46 | 26.66 | 46.00 | 19.34 |
| | | 6.599 | 33.00 | 10.51 | 43.51 | 60.00 | 16.49 |
| | | 6.599 | 25.80 | 10.51 | 36.31 | 50.00 | 13.69 |

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

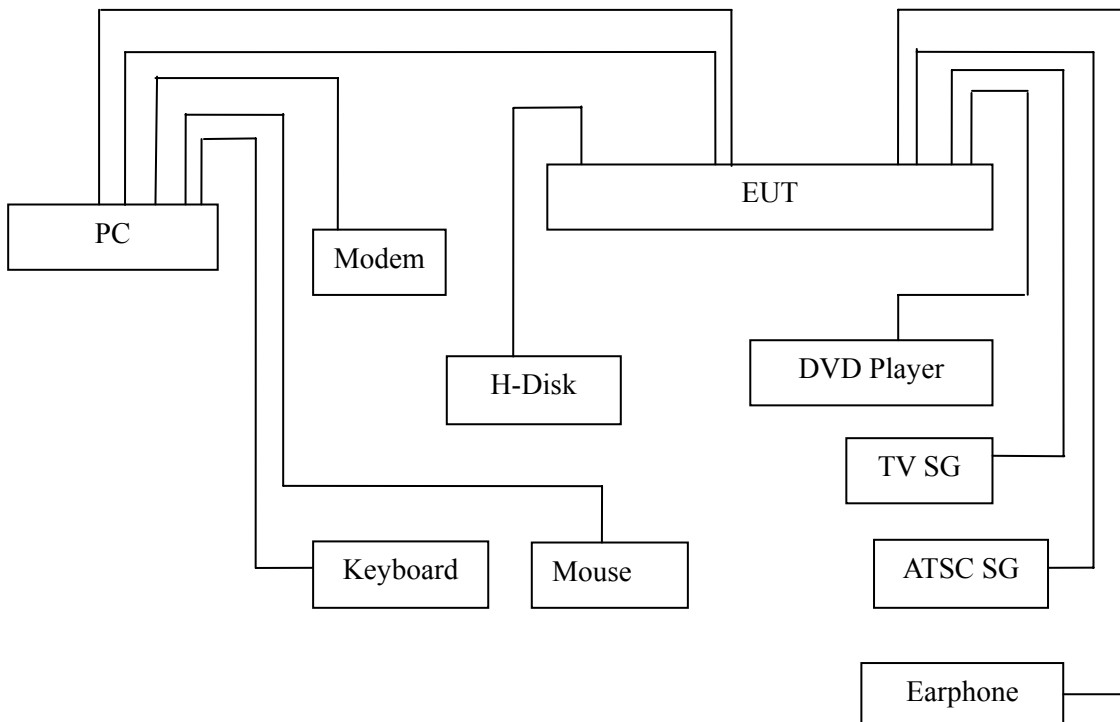
4.1 Test Equipment

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. | Software | Audix | E3 | 6.2007-9-10 | -- | -- |

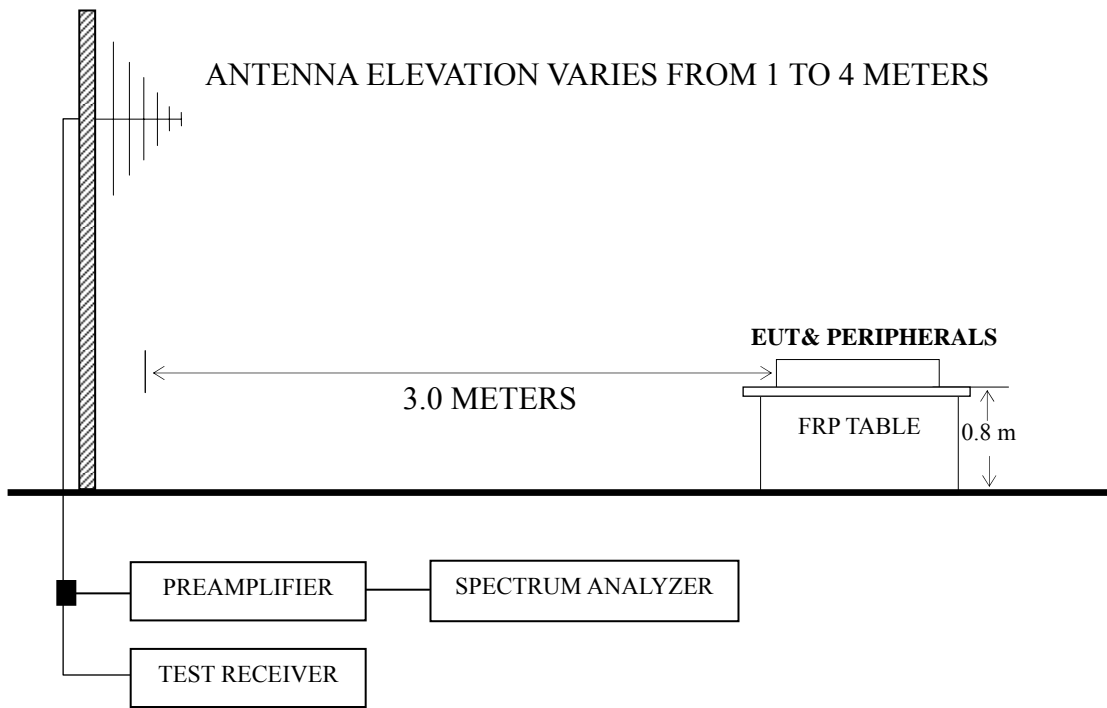
4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals



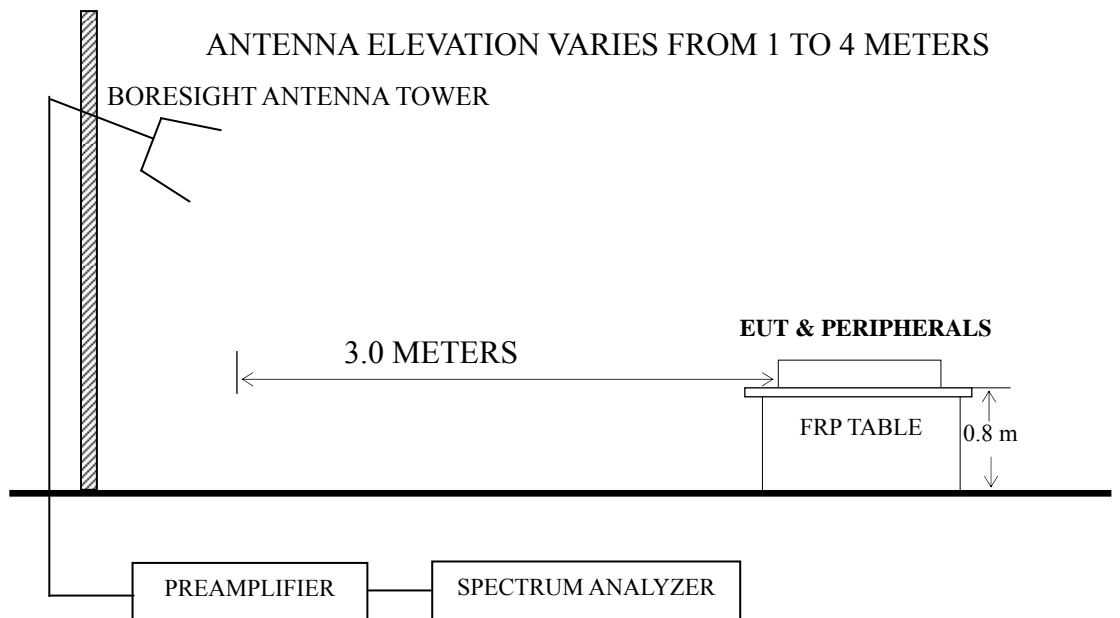
4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



■ : 50 ohm Coaxial Switch

4.2.2.2 Above 1GHz



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

| Frequency (MHz) | Distance (m) | Field strength limits | |
|-----------------|--------------|-----------------------|------------------------|
| | | ($\mu\text{V/m}$) | dB ($\mu\text{V/m}$) |
| 30 ~ 88 | 3 | 100 | 40.0 |
| 88 ~ 216 | 3 | 150 | 43.5 |
| 216 ~ 960 | 3 | 200 | 46.0 |
| Above 960 | 3 | 500 | 54.0 |

NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 log Emission Level ($\mu\text{V/m}$)
 NOTE 2 - The tighter limit applies at the band edges.
 NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 NOTE 4 - The limits shown are based on Quasi-peak value detector.
 NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT.

4.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.4.2.

4.6 Test Procedures

The EUT and peripherals were placed on a FRP turntable that is 0.8 meter above ground. The FRP turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated Bilog Antenna) was used as receiving antenna. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.4:2003 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 the maximum resolution test mode.

The test modes were done on radiated disturbance test and all the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

| Test Mode | Data Page |
|------------------------------------|-----------|
| HDMI 1920*1080@60Hz & 1kHz playing | P23-P24 |
| HDMI 1280*1024@60Hz & 1kHz playing | P25 |
| HDMI 640*480@60Hz & 1kHz playing | P26 |
| HDMI1080P | P27 |
| USB Play | P28 |
| LAN Play | P29 |

- 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 HDMI 1920*1080@60Hz & 1 kHz playing test mode. The worst emission at horizontal polarization was detected at 742.440 MHz with corrected signal level of 44.07 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 2.00 m height and the turntable was at 100°. The worst emission at vertical polarization was detected at 31.120 MHz with corrected signal level of 36.91 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.00m height and the turntable was at 300°.

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : HDMI 1920*1080@60Hz & 1kHz Playing Date of Test : Dec 23, 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 | 151.250 | 23.89 | 11.43 | 1.65 | -- | 36.97 | 43.50 | 6.53 | QP |
| | 189.080 | 23.40 | 10.36 | 1.90 | -- | 35.66 | 43.50 | 7.84 | |
| | 248.250 | 27.42 | 12.42 | 2.15 | -- | 41.99 | 46.00 | 4.01 | |
| | 295.780 | 27.28 | 13.65 | 2.56 | -- | 43.49 | 46.00 | 2.51 | |
| | 704.640 | 19.90 | 19.80 | 3.56 | -- | 43.26 | 46.00 | 2.74 | |
| | 742.440 | 20.50 | 19.97 | 3.60 | -- | 44.07 | 46.00 | 1.93 | |
| | 1576.342 | 58.91 | 25.92 | 3.98 | 35.58 | 53.23 | 74.00 | 20.77 | PK |
| | 1752.110 | 63.60 | 26.63 | 4.11 | 35.37 | 58.97 | 74.00 | 15.03 | |
| | 2111.004 | 69.24 | 27.72 | 4.55 | 35.11 | 66.40 | 74.00 | 7.60 | |
| | 3153.515 | 64.33 | 30.82 | 5.93 | 35.05 | 66.03 | 74.00 | 7.97 | |
| | 3511.430 | 62.60 | 31.56 | 6.17 | 34.71 | 65.62 | 74.00 | 8.38 | |
| | 4553.192 | 54.19 | 33.65 | 6.70 | 34.06 | 60.48 | 74.00 | 13.52 | |
| | 1576.342 | 41.00 | 25.92 | 3.98 | 35.58 | 35.32 | 54.00 | 18.68 | AV |
| | 1752.110 | 45.49 | 26.63 | 4.11 | 35.37 | 40.86 | 54.00 | 13.14 | |
| | 2111.004 | 46.40 | 27.72 | 4.55 | 35.11 | 43.56 | 54.00 | 10.44 | |
| | 3153.515 | 43.21 | 30.82 | 5.93 | 35.05 | 44.91 | 54.00 | 9.09 | |
| | 3511.430 | 41.34 | 31.56 | 6.17 | 34.71 | 44.36 | 54.00 | 9.64 | |
| | 4553.192 | 36.38 | 33.65 | 6.7 | 34.06 | 42.67 | 54 | 11.33 | |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : HDMI 1920*1080@60Hz Date of Test : Dec 23, 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 | 31.120 | 18.20 | 18.06 | 0.65 | -- | 36.91 | 40.00 | 3.09 | QP |
| | 93.050 | 26.26 | 11.30 | 1.24 | -- | 38.80 | 43.50 | 4.70 | |
| | 141.550 | 25.97 | 12.40 | 1.59 | -- | 39.96 | 43.50 | 3.54 | |
| | 250.190 | 26.84 | 12.50 | 2.15 | -- | 41.49 | 46.00 | 4.51 | |
| | 297.720 | 24.35 | 13.70 | 2.56 | -- | 40.61 | 46.00 | 5.39 | |
| | 707.060 | 18.02 | 19.80 | 3.56 | -- | 41.38 | 46.00 | 4.62 | |
| | 1057.116 | 66.45 | 23.78 | 4.43 | 36.39 | 58.27 | 74.00 | 15.73 | PK |
| | 1748.973 | 69.54 | 26.61 | 4.11 | 35.37 | 64.89 | 74.00 | 9.11 | |
| | 2111.004 | 62.24 | 27.72 | 4.55 | 35.11 | 59.40 | 74.00 | 14.60 | |
| | 2458.283 | 63.94 | 28.33 | 4.86 | 35.15 | 61.98 | 74.00 | 12.02 | |
| | 3158.200 | 64.61 | 30.84 | 5.93 | 35.04 | 66.34 | 74.00 | 7.66 | |
| | 3505.144 | 60.01 | 31.53 | 6.17 | 34.71 | 63.00 | 74.00 | 11.00 | |
| | 1057.116 | 48.24 | 23.78 | 4.43 | 36.39 | 40.06 | 54.00 | 13.94 | AV |
| | 1748.973 | 47.30 | 26.61 | 4.11 | 35.37 | 42.65 | 54.00 | 11.35 | |
| | 2111.004 | 43.11 | 27.72 | 4.55 | 35.11 | 40.27 | 54.00 | 13.73 | |
| | 2458.283 | 44.20 | 28.33 | 4.86 | 35.15 | 42.24 | 54.00 | 11.76 | |
| | 3158.200 | 41.40 | 30.84 | 5.93 | 35.04 | 43.13 | 54.00 | 10.87 | |
| | 3505.144 | 41.22 | 31.53 | 6.17 | 34.71 | 44.21 | 54.00 | 9.79 | |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : HDMI 1280*1024@60Hz Date of Test : Dec 23, 2015
& 1kHz Playing

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------------------|------------------------|-------------|
| Horizontal | 144.460 | 23.69 | 12.15 | 1.60 | 37.44 | 43.50 | 6.06 |
| | 174.530 | 23.29 | 10.73 | 1.80 | 35.82 | 43.50 | 7.68 |
| | 245.340 | 26.79 | 12.30 | 2.14 | 41.23 | 46.00 | 4.77 |
| | 296.750 | 24.99 | 13.70 | 2.56 | 41.25 | 46.00 | 4.75 |
| | 380.170 | 18.49 | 16.50 | 2.69 | 37.68 | 46.00 | 8.32 |
| | 704.150 | 18.33 | 19.80 | 3.56 | 41.69 | 46.00 | 4.31 |
| Vertical | 31.940 | 16.90 | 17.50 | 0.65 | 35.05 | 40.00 | 4.95 |
| | 94.020 | 23.66 | 11.50 | 1.26 | 36.42 | 43.50 | 7.08 |
| | 138.640 | 24.18 | 12.53 | 1.57 | 38.28 | 43.50 | 5.22 |
| | 249.220 | 26.01 | 12.46 | 2.15 | 40.62 | 46.00 | 5.38 |
| | 704.150 | 16.78 | 19.80 | 3.56 | 40.14 | 46.00 | 5.86 |
| | 878.750 | 12.90 | 21.03 | 4.36 | 38.29 | 46.00 | 7.71 |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : HDMI 640*480@60Hz & 1kHz Playing Date of Test : Dec 23, 2015

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------------------|------------------------|-------------|
| Horizontal | 145.430 | 21.36 | 12.03 | 1.61 | 35.00 | 43.50 | 8.50 |
| | 248.250 | 26.42 | 12.42 | 2.15 | 40.99 | 46.00 | 5.01 |
| | 297.720 | 24.80 | 13.70 | 2.56 | 41.06 | 46.00 | 4.94 |
| | 374.350 | 21.38 | 16.39 | 2.69 | 40.46 | 46.00 | 5.54 |
| | 704.640 | 17.90 | 19.80 | 3.56 | 41.26 | 46.00 | 4.74 |
| | 742.440 | 16.50 | 19.97 | 3.60 | 40.07 | 46.00 | 5.93 |
| Vertical | 93.050 | 23.58 | 11.30 | 1.24 | 36.12 | 43.50 | 7.38 |
| | 138.640 | 24.18 | 12.53 | 1.57 | 38.28 | 43.50 | 5.22 |
| | 246.310 | 25.04 | 12.34 | 2.14 | 39.52 | 46.00 | 6.48 |
| | 302.570 | 21.99 | 13.88 | 2.59 | 38.46 | 46.00 | 7.54 |
| | 702.210 | 17.97 | 19.80 | 3.54 | 41.31 | 46.00 | 4.69 |
| | 882.630 | 12.58 | 21.10 | 4.36 | 38.04 | 46.00 | 7.96 |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : HDMI1080P Date of Test : Dec 23, 2015

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------------------|------------------------|-------------|
| Horizontal | 80.000 | 23.00 | 9.40 | 1.09 | 33.49 | 40.00 | 6.51 |
| | 142.520 | 24.82 | 12.30 | 1.59 | 38.71 | 43.50 | 4.79 |
| | 193.930 | 26.50 | 10.17 | 1.94 | 38.61 | 43.50 | 4.89 |
| | 297.720 | 20.78 | 13.70 | 2.56 | 37.04 | 46.00 | 8.96 |
| | 587.750 | 17.91 | 18.58 | 2.36 | 38.85 | 46.00 | 7.15 |
| | 797.270 | 16.99 | 20.57 | 3.68 | 41.24 | 46.00 | 4.76 |
| Vertical | 30.970 | 15.83 | 18.15 | 0.64 | 34.62 | 40.00 | 5.38 |
| | 82.380 | 23.05 | 9.60 | 1.12 | 33.77 | 40.00 | 6.23 |
| | 140.580 | 24.67 | 12.45 | 1.59 | 38.71 | 43.50 | 4.79 |
| | 191.990 | 26.01 | 10.23 | 1.92 | 38.16 | 43.50 | 5.34 |
| | 445.000 | 21.40 | 16.85 | 2.82 | 41.07 | 46.00 | 4.93 |
| | 613.940 | 19.56 | 19.20 | 2.39 | 41.15 | 46.00 | 4.85 |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : USB Play Date of Test : Dec 23, 2015

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------------------|------------------------|-------------|
| Horizontal | 245.340 | 24.58 | 12.30 | 2.14 | 39.02 | 46.00 | 6.98 |
| | 286.080 | 23.85 | 13.52 | 2.49 | 39.86 | 46.00 | 6.14 |
| | 301.600 | 23.23 | 13.88 | 2.59 | 39.70 | 46.00 | 6.30 |
| | 702.210 | 16.28 | 19.80 | 3.54 | 39.62 | 46.00 | 6.38 |
| | 820.550 | 14.99 | 20.70 | 3.88 | 39.57 | 46.00 | 6.43 |
| Vertical | 914.640 | 12.56 | 21.50 | 4.61 | 38.67 | 46.00 | 7.33 |
| | 89.170 | 25.60 | 10.35 | 1.20 | 37.15 | 43.50 | 6.35 |
| | 147.370 | 21.47 | 11.80 | 1.62 | 34.89 | 43.50 | 8.61 |
| | 251.160 | 24.62 | 12.54 | 2.18 | 39.34 | 46.00 | 6.66 |
| | 449.040 | 20.55 | 16.82 | 2.84 | 40.21 | 46.00 | 5.79 |
| | 702.210 | 16.51 | 19.80 | 3.54 | 39.85 | 46.00 | 6.15 |
| | 878.750 | 13.56 | 21.03 | 4.36 | 38.95 | 46.00 | 7.05 |

TEST ENGINEER: MARK LI

EUT : LED LCD TV Temperature : 22

Model No. : LTDN32K220WUS Humidity : 60%RH

Test Mode : LAN Play Date of Test : Dec 23, 2015

| Polarization | Frequency (MHz) | Meter Reading dB (μ V) | Antenna Factor (dB/m) | Cable Loss (dB) | Emission Level dB (μ V/m) | Limits dB (μ V/m) | Margin (dB) |
|--------------|-----------------|-----------------------------|-----------------------|-----------------|--------------------------------|------------------------|-------------|
| Horizontal | 90.140 | 23.65 | 10.50 | 1.21 | 35.36 | 43.50 | 8.14 |
| | 148.340 | 20.87 | 11.65 | 1.62 | 34.14 | 43.50 | 9.36 |
| | 241.500 | 27.00 | 12.00 | 2.13 | 41.13 | 46.00 | 4.87 |
| | 449.040 | 20.30 | 16.82 | 2.84 | 39.96 | 46.00 | 6.04 |
| | 705.100 | 16.60 | 19.80 | 3.56 | 39.96 | 46.00 | 6.04 |
| | 836.070 | 15.24 | 20.75 | 3.97 | 39.96 | 46.00 | 6.04 |
| Vertical | 88.200 | 25.35 | 10.25 | 1.18 | 36.78 | 43.50 | 6.72 |
| | 163.860 | 23.42 | 11.24 | 1.73 | 36.39 | 43.50 | 7.11 |
| | 241.500 | 26.00 | 12.00 | 2.13 | 40.13 | 46.00 | 5.87 |
| | 447.100 | 19.64 | 16.83 | 2.82 | 39.29 | 46.00 | 6.71 |
| | 702.210 | 16.74 | 19.80 | 3.54 | 40.08 | 46.00 | 5.92 |
| | 836.070 | 15.53 | 20.75 | 3.97 | 40.25 | 46.00 | 5.75 |

TEST ENGINEER: MARK LI

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

| Name | M/N | Manufacturer | Location |
|-----------------|-----------|-------------------------------|-------------------------------|
| Conductive Tape | DCF40\ROH | Qingdao Joinset S&T Co., Ltd. | See Internal Photos Figure 19 |

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

TEST ENGINEER:

Wency Yang
(WENCY YANG)