

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

LED LCD TV

Model No.:

Model No.	Brand
50H8D,50H8D+,50H8+0D,50H8+0D1, 50H80+0D,50H80+0D1,50H8C,50H8C+, 50DU80+0,50DU8+00,50H8107	Hisense

FCC ID : W9HLCDF0128

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

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Report No. : ACI-F17220
Date of Test : May 27-Jun 04, 2017
Date of Report : Jun 26, 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 : Hisense
 Power Supply : 120V/60Hz

Test Procedure Used:

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

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

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT (M/N: Refer to Sec2.1) which was tested in 3m anechoic chamber May 27-Jun 04, 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.F17219, a Verification report.

Date of Test : May 27-Jul 04, 2017 Date of Report : Jul 04, 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 : [Signature]
 Authorized Signature EMC BYRON KWO / Assistant General Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description of Test Item	Standard	Limits	Results
EMISSION			
Conducted Disturbance at the Mains Terminal	FCC RULES AND REGULATIONS PART 15 SUBPART B AND ANSI C63.4-2014	15.107(a) Class B	Pass
		Minimum passing margin is 12.00Db at 0.190MHz	
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B AND ANSI C63.4-2014	15.109(a) Class B	Pass
		Minimum passing margin is 3.10Db at 480.528MHz (Horizontal, 2.0m/250°)	

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	:	50H8D,50H8D+,50H8+0D,50H8+0D1, 50H80+0D,50H80+0D1,50H8C,50H8C+, 50DU80+0,50DU8+00,50H8107
Note #1	:	The above models are all the same except for model number. 50H8D 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	:	Hisense
RF module FCC ID	:	PPQ-WCBN4511R
Applicant	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China
Manufacturer	:	Same as Applicant
Factory #1	:	Same as Applicant
Factory #2	:	Tatung Mexico S.A. de C.V. Miguel Catalán 420, Parque Industrial Rio Bravo, Cd. Juarez, Chih., CP 32557
Factory #3	:	HISENSE ELECTRONICA MEXICO,S.A. DE C.V. Blvd. Hisense #3510 Parque Industrial Rosarito, C.P. 22710 Playas de Rosarito, B.C.
LCD Panel	:	Manufacturer : Hisense M/N : HD500M3U51-TA
Tuner	:	Manufacturer : SILICON LABS M/N : Si2151-A10
Max Resolution	:	3840*2160@60Hz
HDMI Cable*4 (Lab provide)	:	Shielded, Detachable, 1.80m
Power Cord	:	Unshielded, Detachable, 1.80m, 2C

LAN Cable : Unshielded, Detachable, 1.50m

USB Cable*3 : Shielded, Detachable, 1.00m
(Lab provide)

Remark:

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

Side Port:

- (1) One ANT Port : Connected with ATSC SG / TV SG
- (2) One USB 1 Port : Connected with Hard-Disk
- (3) One USB 2 Port : Connected with Hard-Disk
- (4) One Service Port : Do not open to the customers
- (5) One AUDIO OUT Port : Connected with Earphone#1
- (6) One HDMI 1/MHL Port : Connected with Mobile phone
- (7) One HDMI2 Port : Connected with PC
- (8) One USB 3 Port : Connected with Hard-Disk

Back Port:

- (9) One COMPONENT IN/AV IN Port : Connected with DVD PLAYER
- (10) One LAN IN Port : Connected with PC
- (11) One Digital Audio Out Port : Connected with Audio Converter to Earphone#2
- (12) One HDMI3 Port : Connected with PC
- (13) One HDMI4 Port : Connected with DVD PLAYER

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : Pro3340
Serial Number : 6CR2512VFD
Power Cord : Unshielded, Detachable, 1.8m
Certificate : FCC DoC; CE/EMC; VCCI; C-Tick;

2.2.2 Keyboard

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

2.2.3 Mouse

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

2.2.4 Modem

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

2.2.5 Earphone*2

Manufacturer : EDIFIER
Model Number : H210

2.2.6 TV Signal Generator

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

2.2.7 ATSC Signal Generator

Manufacturer : SENCORE
Model Number : ATSC997
Serial Number : 6790071

2.2.8 DVD PLAYER

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

2.2.9 Hard Disk#1

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

2.2.10 Hard Disk #2

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

2.2.11 Hard Disk #3

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

2.2.12 Mobile Phone

Manufacturer : SAMSUNG
Model Number : GT-I9100G
Serial Number : 6935152011519

2.3 Description of Test Facility

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

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

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

FCC registration Number : 91789

NVLAP Lab Code : 200371-0

2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty : U = 3.4Db

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

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

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

3 CONDUCTED EMISSION TEST

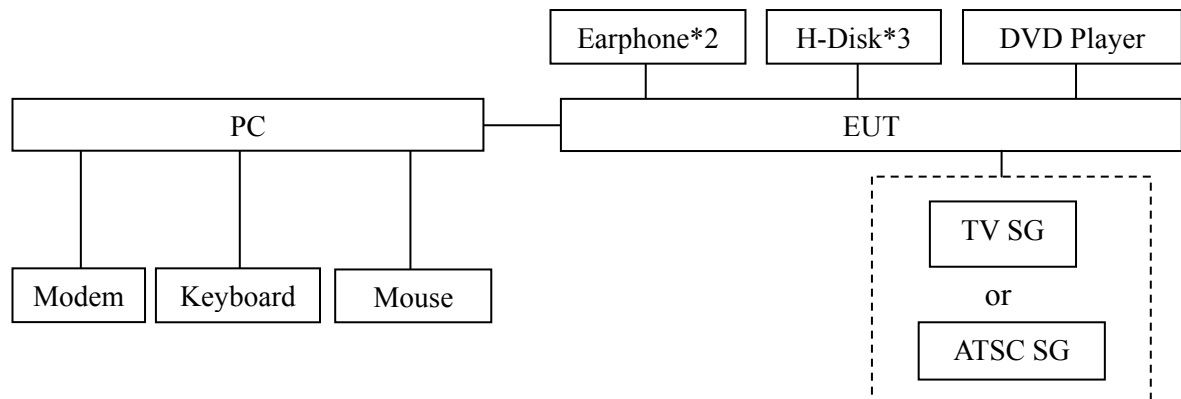
3.1 Test Equipment

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

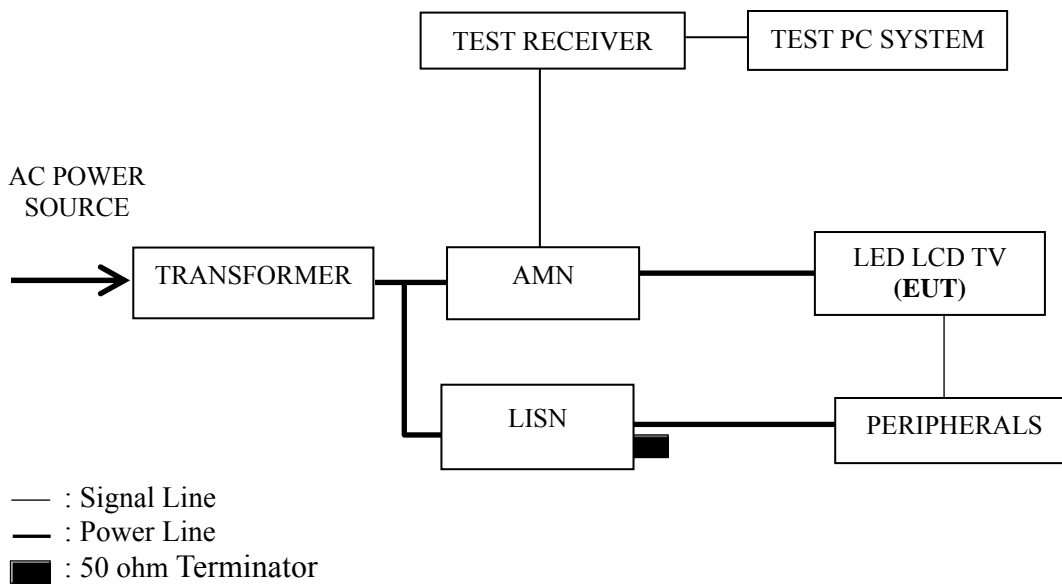
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Apr 27, 2017	Apr 26, 2018
2.	Artificial Mains Network (AMN)	R&S	ENV4200	100125	Jun 25, 2016	Jun 24, 2017
3.	Line Impedance Stabilization Network (LISN)	Kyoritsu	KNW-407	8-1280-4	Mar 17, 2017	Mar 16, 2018
4.	50Ω Terminator	Anritsu	BNC	001	Mar 20, 2017	Sep 19, 2017
5.	Software	Audix	E3	6.111206	--	--

3.2 Block Diagram of Test Setup

3.2.1 EUT & Peripherals



3.2.2 Conducted Disturbance Test Setup



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

Frequency Range (MHz)	Limits Db (μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50

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

3.4 Test Configuration

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

3.5 Operating Condition of EUT

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

Test Mode
HDMI1 3840*2160@60Hz & 1kHz playing
HDMI1 1920*1080@60Hz & 1kHz playing
HDMI1 1280*1024@60Hz & 1kHz playing
HDMI1 640*480@60Hz & 1kHz playing
HDMI2 3840*2160@60Hz & 1kHz playing
HDMI3 3840*2160@30Hz & 1kHz playing
HDMI4 3840*2160@30Hz & 1kHz playing
HDMI1080P
USB Play
LAN Play
WIFI
MHL
BT

3.6 Test Procedures

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

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

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

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

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

3.7 Test Results

< **PASS** >

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

Test Mode	Data Page
HDMI1 3840*2160@60Hz & 1kHz playing	P14
HDMI1 1920*1080@60Hz & 1kHz playing	P15
HDMI1 1280*1024@60Hz & 1kHz playing	P16
HDMI1 640*480@60Hz & 1kHz playing	P17
HDMI2 3840*2160@60Hz & 1kHz playing	P18
HDMI3 3840*2160@30Hz & 1kHz playing	P19
HDMI4 3840*2160@30Hz & 1kHz playing	P20
HDMI1080P	P21
USB Play	P22
LAN Play	P23
WIFI	P24
MHL	P25
BT	P26

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. : 50H8D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 27, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark	
Line	0.190	40.97	10.55	51.52	64.02	12.50	QP	
	0.461	33.81	10.41	44.22	56.67	12.45		
	0.716	21.67	10.41	32.08	56.00	23.92		
	1.141	31.43	10.41	41.84	56.00	14.16		
	1.519	30.38	10.41	40.79	56.00	15.21		
	2.554	30.00	10.43	40.43	56.00	15.57		
	Line	0.190	29.97	10.55	40.52	54.02	13.50	AV
		0.461	18.81	10.41	29.22	46.67	17.45	
		0.716	12.67	10.41	23.08	46.00	22.92	
		1.141	17.43	10.41	27.84	46.00	18.16	
1.519		14.38	10.41	24.79	46.00	21.21		
2.554		18.00	10.43	28.43	46.00	17.57		
Neutral	0.190	40.27	10.54	50.81	64.02	13.21	QP	
	0.461	33.77	10.40	44.17	56.67	12.50		
	0.716	21.13	10.40	31.53	56.00	24.47		
	1.106	29.93	10.41	40.34	56.00	15.66		
	1.519	29.85	10.43	40.28	56.00	15.72		
	2.900	29.74	10.47	40.21	56.00	15.79		
	Neutral	0.190	28.27	10.54	38.81	54.02	15.21	AV
		0.461	18.77	10.40	29.17	46.67	17.50	
		0.716	13.13	10.40	23.53	46.00	22.47	
		1.106	16.93	10.41	27.34	46.00	18.66	
		1.519	14.85	10.43	25.28	46.00	20.72	
		2.900	18.74	10.47	29.21	46.00	16.79	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 27, 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	0.188	40.20	10.55	50.75	64.11	13.36	QP
	0.461	32.75	10.41	43.16	56.67	13.51	
	0.716	23.11	10.41	33.52	56.00	22.48	
	0.830	31.84	10.41	42.25	56.00	13.75	
	1.519	30.38	10.41	40.79	56.00	15.21	
	2.869	30.76	10.44	41.20	56.00	14.80	
	0.188	29.20	10.55	39.75	54.11	14.36	AV
	0.461	18.75	10.41	29.16	46.67	17.51	
	0.716	15.11	10.41	25.52	46.00	20.48	
	0.830	18.84	10.41	29.25	46.00	16.75	
	1.519	14.38	10.41	24.79	46.00	21.21	
	2.869	18.76	10.44	29.20	46.00	16.80	
Neutral	0.190	40.72	10.54	51.26	64.02	12.76	QP
	0.461	32.81	10.40	43.21	56.67	13.46	
	0.716	23.11	10.40	33.51	56.00	22.49	
	0.953	29.71	10.41	40.12	56.00	15.88	
	1.519	29.19	10.43	39.62	56.00	16.38	
	2.650	28.66	10.46	39.12	56.00	16.88	
	0.190	26.72	10.54	37.26	54.02	16.76	AV
	0.461	19.81	10.40	30.21	46.67	16.46	
	0.716	14.11	10.40	24.51	46.00	21.49	
	0.953	16.71	10.41	27.12	46.00	18.88	
	1.519	15.19	10.43	25.62	46.00	20.38	
	2.650	19.66	10.46	30.12	46.00	15.88	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI1 Date of Test : May 27, 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	0.188	40.98	10.55	51.53	64.11	12.58	QP
	0.461	33.74	10.41	44.15	56.67	12.52	
	0.716	24.24	10.41	34.65	56.00	21.35	
	0.953	31.48	10.41	41.89	56.00	14.11	
	1.888	30.10	10.42	40.52	56.00	15.48	
	2.931	29.50	10.44	39.94	56.00	16.06	
	0.188	29.98	10.55	40.53	54.11	13.58	AV
	0.461	18.74	10.41	29.15	46.67	17.52	
	0.716	13.24	10.41	23.65	46.00	22.35	
	0.953	17.48	10.41	27.89	46.00	18.11	
	1.888	15.10	10.42	25.52	46.00	20.48	
	2.931	18.50	10.44	28.94	46.00	17.06	
Neutral	0.188	40.87	10.54	51.41	64.11	12.70	QP
	0.461	32.80	10.40	43.20	56.67	13.47	
	0.716	23.10	10.40	33.50	56.00	22.50	
	0.953	30.44	10.41	40.85	56.00	15.15	
	2.261	28.81	10.45	39.26	56.00	16.74	
	2.900	29.30	10.47	39.77	56.00	16.23	
	0.188	26.87	10.54	37.41	54.11	16.70	AV
	0.461	18.80	10.40	29.20	46.67	17.47	
	0.716	14.10	10.40	24.50	46.00	21.50	
	0.953	16.44	10.41	26.85	46.00	19.15	
	2.261	15.81	10.45	26.26	46.00	19.74	
	2.900	20.30	10.47	30.77	46.00	15.23	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI1 640*480@60Hz Date of Test : May 27, 2017
& 1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.188	40.64	10.55	51.19	64.11	12.92	QP
	0.466	33.87	10.41	44.28	56.58	12.30	
	0.716	22.20	10.41	32.61	56.00	23.39	
	1.645	31.66	10.41	42.07	56.00	13.93	
	2.650	30.86	10.43	41.29	56.00	14.71	
	3.799	30.03	10.44	40.47	56.00	15.53	
	0.188	29.64	10.55	40.19	54.11	13.92	AV
	0.466	19.87	10.41	30.28	46.58	16.30	
	0.716	14.20	10.41	24.61	46.00	21.39	
	1.645	18.66	10.41	29.07	46.00	16.93	
	2.650	15.86	10.43	26.29	46.00	19.71	
	3.799	19.03	10.44	29.47	46.00	16.53	
Neutral	0.190	40.17	10.54	50.71	64.02	13.31	QP
	0.461	32.71	10.40	43.11	56.67	13.56	
	0.716	21.25	10.40	31.65	56.00	24.35	
	0.953	28.84	10.41	39.25	56.00	16.75	
	1.645	28.85	10.43	39.28	56.00	16.72	
	2.931	29.44	10.47	39.91	56.00	16.09	
	0.190	27.17	10.54	37.71	54.02	16.31	AV
	0.461	18.71	10.40	29.11	46.67	17.56	
	0.716	13.25	10.40	23.65	46.00	22.35	
	0.953	17.84	10.41	28.25	46.00	17.75	
	1.645	15.85	10.43	26.28	46.00	19.72	
	2.931	18.44	10.47	28.91	46.00	17.09	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI2 Date of Test : May 27, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.188	39.92	10.55	50.47	64.11	13.64	QP
	0.461	32.99	10.41	43.40	56.67	13.27	
	0.716	23.94	10.41	34.35	56.00	21.65	
	0.953	31.44	10.41	41.85	56.00	14.15	
	1.888	30.06	10.42	40.48	56.00	15.52	
	2.931	30.18	10.44	40.62	56.00	15.38	
	AV	0.188	28.92	10.55	39.47	54.11	14.64
		0.461	18.99	10.41	29.40	46.67	17.27
		0.716	14.94	10.41	25.35	46.00	20.65
		0.953	17.44	10.41	27.85	46.00	18.15
1.888		15.06	10.42	25.48	46.00	20.52	
2.931		19.18	10.44	29.62	46.00	16.38	
Neutral	0.190	39.94	10.54	50.48	64.02	13.54	QP
	0.466	32.65	10.40	43.05	56.58	13.53	
	0.716	22.98	10.40	33.38	56.00	22.62	
	0.953	29.85	10.41	40.26	56.00	15.74	
	1.800	29.61	10.44	40.05	56.00	15.95	
	2.931	30.02	10.47	40.49	56.00	15.51	
	AV	0.190	28.94	10.54	39.48	54.02	14.54
		0.466	18.65	10.40	29.05	46.58	17.53
		0.716	14.98	10.40	25.38	46.00	20.62
		0.953	16.85	10.41	27.26	46.00	18.74
1.800		15.61	10.44	26.05	46.00	19.95	
	2.931	19.02	10.47	29.49	46.00	16.51	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI3 Date of Test : May 27, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.192	39.92	10.55	50.47	63.93	13.46	QP
	0.461	32.71	10.41	43.12	56.67	13.55	
	0.716	21.11	10.41	31.52	56.00	24.48	
	0.953	31.63	10.41	42.04	56.00	13.96	
	1.744	31.29	10.42	41.71	56.00	14.29	
	2.554	30.73	10.43	41.16	56.00	14.84	
	0.192	29.92	10.55	40.47	53.93	13.46	AV
	0.461	19.71	10.41	30.12	46.67	16.55	
	0.716	13.11	10.41	23.52	46.00	22.48	
	0.953	18.63	10.41	29.04	46.00	16.96	
	1.744	16.29	10.42	26.71	46.00	19.29	
	2.554	18.73	10.43	29.16	46.00	16.84	
Neutral	0.188	39.93	10.54	50.47	64.11	13.64	QP
	0.461	32.72	10.40	43.12	56.67	13.55	
	0.716	22.15	10.40	32.55	56.00	23.45	
	0.953	30.08	10.41	40.49	56.00	15.51	
	1.888	29.28	10.44	39.72	56.00	16.28	
	2.650	30.10	10.46	40.56	56.00	15.44	
	0.188	28.93	10.54	39.47	54.11	14.64	AV
	0.461	19.72	10.40	30.12	46.67	16.55	
	0.716	16.15	10.40	26.55	46.00	19.45	
	0.953	17.08	10.41	27.49	46.00	18.51	
	1.888	16.28	10.44	26.72	46.00	19.28	
	2.650	19.10	10.46	29.56	46.00	16.44	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : HDMI4 Date of Test : May 27, 2017
3840*2160@60Hz &
1kHz Playing

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.188	39.72	10.55	50.27	64.11	13.84	QP
	0.461	33.02	10.41	43.43	56.67	13.24	
	0.716	21.33	10.41	31.74	56.00	24.26	
	0.953	30.69	10.41	41.10	56.00	14.90	
	1.519	30.49	10.41	40.90	56.00	15.10	
	3.025	30.82	10.44	41.26	56.00	14.74	
	AV	0.188	28.72	10.55	39.27	54.11	14.84
		0.461	19.02	10.41	29.43	46.67	17.24
		0.716	14.33	10.41	24.74	46.00	21.26
		0.953	17.69	10.41	28.10	46.00	17.90
		1.519	14.49	10.41	24.90	46.00	21.10
		3.025	18.82	10.44	29.26	46.00	16.74
Neutral	0.190	40.07	10.54	50.61	64.02	13.41	QP
	0.461	32.79	10.40	43.19	56.67	13.48	
	0.716	23.12	10.40	33.52	56.00	22.48	
	0.953	30.55	10.41	40.96	56.00	15.04	
	1.503	29.84	10.43	40.27	56.00	15.73	
	3.025	29.19	10.47	39.66	56.00	16.34	
	AV	0.190	27.07	10.54	37.61	54.02	16.41
		0.461	18.79	10.40	29.19	46.67	17.48
		0.716	15.12	10.40	25.52	46.00	20.48
		0.953	18.55	10.41	28.96	46.00	17.04
		1.503	15.84	10.43	26.27	46.00	19.73
		3.025	18.19	10.47	28.66	46.00	17.34

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C
 Model No. : 50H8D Humidity : 48%RH
 Test Mode : HDMI 1080P Date of Test : May 27, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark	
Line	0.192	41.07	10.55	51.62	63.93	12.31	QP	
	0.461	33.73	10.41	44.14	56.67	12.53		
	0.716	23.29	10.41	33.70	56.00	22.30		
	1.071	30.86	10.41	41.27	56.00	14.73		
	1.744	30.16	10.42	40.58	56.00	15.42		
	2.869	30.71	10.44	41.15	56.00	14.85		
	0.192	29.07	10.55	39.62	53.93	14.31	AV	
	0.461	18.73	10.41	29.14	46.67	17.53		
	0.716	13.29	10.41	23.70	46.00	22.30		
	1.071	17.86	10.41	28.27	46.00	17.73		
	1.744	15.16	10.42	25.58	46.00	20.42		
	2.869	19.71	10.44	30.15	46.00	15.85		
	Neutral	0.190	39.89	10.54	50.43	64.02	13.59	QP
		0.461	33.77	10.40	44.17	56.67	12.50	
0.716		23.28	10.40	33.68	56.00	22.32		
1.117		29.80	10.41	40.21	56.00	15.79		
1.888		30.91	10.44	41.35	56.00	14.65		
2.900		29.04	10.47	39.51	56.00	16.49		
0.190		26.89	10.54	37.43	54.02	16.59	AV	
0.461		19.77	10.40	30.17	46.67	16.50		
0.716		15.28	10.40	25.68	46.00	20.32		
1.117		15.80	10.41	26.21	46.00	19.79		
1.888		16.91	10.44	27.35	46.00	18.65		
2.900		18.04	10.47	28.51	46.00	17.49		

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : USB Play Date of Test : May 27, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark	
Line	0.190	40.48	10.55	51.03	64.02	12.99	QP	
	0.461	33.80	10.41	44.21	56.67	12.46		
	0.716	23.23	10.41	33.64	56.00	22.36		
	1.141	31.04	10.41	41.45	56.00	14.55		
	1.645	30.97	10.41	41.38	56.00	14.62		
	2.622	29.59	10.43	40.02	56.00	15.98		
	0.190	29.48	10.55	40.03	54.02	13.99	AV	
	0.461	18.80	10.41	29.21	46.67	17.46		
	0.716	15.23	10.41	25.64	46.00	20.36		
	1.141	18.04	10.41	28.45	46.00	17.55		
	1.645	14.97	10.41	25.38	46.00	20.62		
	2.622	18.59	10.43	29.02	46.00	16.98		
	Neutral	0.186	40.42	10.55	50.97	64.20	13.23	QP
		0.461	33.76	10.40	44.16	56.67	12.51	
0.716		24.27	10.40	34.67	56.00	21.33		
1.153		30.88	10.41	41.29	56.00	14.71		
1.888		29.46	10.44	39.90	56.00	16.10		
2.554		29.97	10.46	40.43	56.00	15.57		
0.186		27.42	10.55	37.97	54.20	16.23	AV	
0.461		19.76	10.40	30.16	46.67	16.51		
0.716		15.27	10.40	25.67	46.00	20.33		
1.153		16.88	10.41	27.29	46.00	18.71		
1.888		14.46	10.44	24.90	46.00	21.10		
2.554		18.97	10.46	29.43	46.00	16.57		

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : LAN Play Date of Test : May 27, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.190	41.47	10.55	52.02	64.02	12.00	QP
	0.461	33.94	10.41	44.35	56.67	12.32	
	0.716	23.23	10.41	33.64	56.00	22.36	
	1.129	31.25	10.41	41.66	56.00	14.34	
	1.645	29.98	10.41	40.39	56.00	15.61	
	3.025	29.36	10.44	39.80	56.00	16.20	
	0.190	29.47	10.55	40.02	54.02	14.00	AV
	0.461	18.94	10.41	29.35	46.67	17.32	
	0.716	13.23	10.41	23.64	46.00	22.36	
	1.129	18.25	10.41	28.66	46.00	17.34	
1.645	14.98	10.41	25.39	46.00	20.61		
3.025	20.36	10.44	30.80	46.00	15.20		
Neutral	0.188	40.98	10.54	51.52	64.11	12.59	QP
	0.466	33.80	10.40	44.20	56.58	12.38	
	0.716	21.11	10.40	31.51	56.00	24.49	
	0.943	29.02	10.41	39.43	56.00	16.57	
	1.645	29.51	10.43	39.94	56.00	16.06	
	2.527	29.06	10.46	39.52	56.00	16.48	
	0.188	28.98	10.54	39.52	54.11	14.59	AV
	0.466	18.80	10.40	29.20	46.58	17.38	
	0.716	13.11	10.40	23.51	46.00	22.49	
	0.943	16.02	10.41	26.43	46.00	19.57	
1.645	15.51	10.43	25.94	46.00	20.06		
2.527	18.06	10.46	28.52	46.00	17.48		

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : WIFI Date of Test : May 27, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μ V)	Factor (dB)	Emission Level dB(μ V)	Limits dB(μ V)	Margin (dB)	Remark
Line	0.190	40.66	10.55	51.21	64.02	12.81	QP
	0.461	32.89	10.41	43.30	56.67	13.37	
	0.716	22.21	10.41	32.62	56.00	23.38	
	0.943	31.53	10.41	41.94	56.00	14.06	
	1.645	30.27	10.41	40.68	56.00	15.32	
	2.527	30.86	10.43	41.29	56.00	14.71	
	AV	0.190	30.66	10.55	41.21	54.02	12.81
		0.461	18.89	10.41	29.30	46.67	17.37
		0.716	14.21	10.41	24.62	46.00	21.38
		0.943	18.53	10.41	28.94	46.00	17.06
		1.645	14.27	10.41	24.68	46.00	21.32
		2.527	18.86	10.43	29.29	46.00	16.71
Neutral	0.188	40.80	10.54	51.34	64.11	12.77	QP
	0.461	33.75	10.40	44.15	56.67	12.52	
	0.716	22.22	10.40	32.62	56.00	23.38	
	1.374	28.06	10.42	38.48	56.00	17.52	
	2.261	28.46	10.45	38.91	56.00	17.09	
	2.900	29.79	10.47	40.26	56.00	15.74	
	AV	0.188	28.80	10.54	39.34	54.11	14.77
		0.461	18.75	10.40	29.15	46.67	17.52
		0.716	14.22	10.40	24.62	46.00	21.38
		1.374	15.06	10.42	25.48	46.00	20.52
		2.261	15.46	10.45	25.91	46.00	20.09
		2.900	18.79	10.47	29.26	46.00	16.74

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C
 Model No. : 50H8D Humidity : 48%RH
 Test Mode : MHL Date of Test : May 27, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark	
Line	0.190	41.48	10.55	52.03	64.02	11.99	QP	
	0.461	33.91	10.41	44.32	56.67	12.35		
	0.716	23.42	10.41	33.83	56.00	22.17		
	1.160	31.35	10.41	41.76	56.00	14.24		
	1.503	31.28	10.41	41.69	56.00	14.31		
	2.622	30.22	10.43	40.65	56.00	15.35		
	Line	0.190	30.48	10.55	41.03	54.02	12.99	AV
		0.461	18.91	10.41	29.32	46.67	17.35	
		0.716	14.42	10.41	24.83	46.00	21.17	
		1.160	18.35	10.41	28.76	46.00	17.24	
		1.503	14.28	10.41	24.69	46.00	21.31	
		2.622	18.22	10.43	28.65	46.00	17.35	
Neutral	0.188	40.01	10.54	50.55	64.11	13.56	QP	
	0.461	33.06	10.40	43.46	56.67	13.21		
	0.716	22.15	10.40	32.55	56.00	23.45		
	0.953	29.22	10.41	39.63	56.00	16.37		
	1.645	28.29	10.43	38.72	56.00	17.28		
	2.622	29.17	10.46	39.63	56.00	16.37		
	Neutral	0.188	27.01	10.54	37.55	54.11	16.56	AV
		0.461	19.06	10.40	29.46	46.67	17.21	
		0.716	14.15	10.40	24.55	46.00	21.45	
		0.953	16.22	10.41	26.63	46.00	19.37	
		1.645	16.29	10.43	26.72	46.00	19.28	
		2.622	18.17	10.46	28.63	46.00	17.37	

TEST ENGINEER: KALSI CHEN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 48%RH

Test Mode : BT Date of Test : Jul 04, 2017

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark	
Line	0.190	39.97	10.55	50.52	64.02	13.50	QP	
	0.461	32.81	10.41	43.22	56.67	13.45		
	0.716	19.67	10.41	30.08	56.00	25.92		
	1.141	32.43	10.41	42.84	56.00	13.16		
	1.519	29.38	10.41	39.79	56.00	16.21		
	2.554	29.00	10.43	39.43	56.00	16.57		
	Line	0.190	27.97	10.55	38.52	54.02	15.50	AV
		0.461	16.81	10.41	27.22	46.67	19.45	
		0.716	10.67	10.41	21.08	46.00	24.92	
		1.141	15.43	10.41	25.84	46.00	20.16	
		1.519	16.38	10.41	26.79	46.00	19.21	
		2.554	20.00	10.43	30.43	46.00	15.57	
Neutral	0.190	38.27	10.54	48.81	64.02	15.21	QP	
	0.461	31.77	10.40	42.17	56.67	14.50		
	0.716	26.13	10.40	36.53	56.00	19.47		
	1.106	31.93	10.41	42.34	56.00	13.66		
	1.519	30.85	10.43	41.28	56.00	14.72		
	2.900	30.74	10.47	41.21	56.00	14.79		
	Neutral	0.190	26.27	10.54	36.81	54.02	17.21	AV
		0.461	15.77	10.40	26.17	46.67	20.50	
		0.716	12.13	10.40	22.53	46.00	23.47	
		1.106	14.93	10.41	25.34	46.00	20.66	
		1.519	18.85	10.43	29.28	46.00	16.72	
		2.900	20.74	10.47	31.21	46.00	14.79	

TEST ENGINEER: KALSI CHEN

4 RADIATED EMISSION TEST

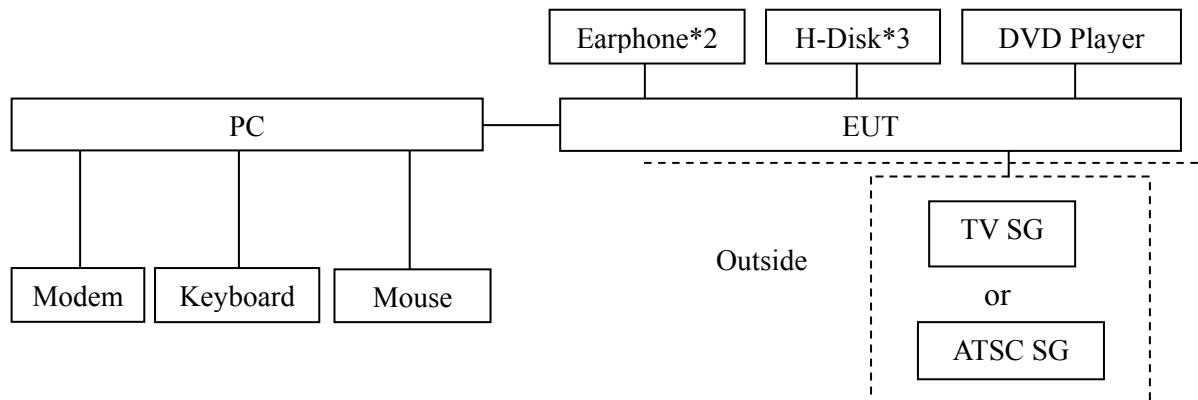
4.1 Test Equipment

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	--	--

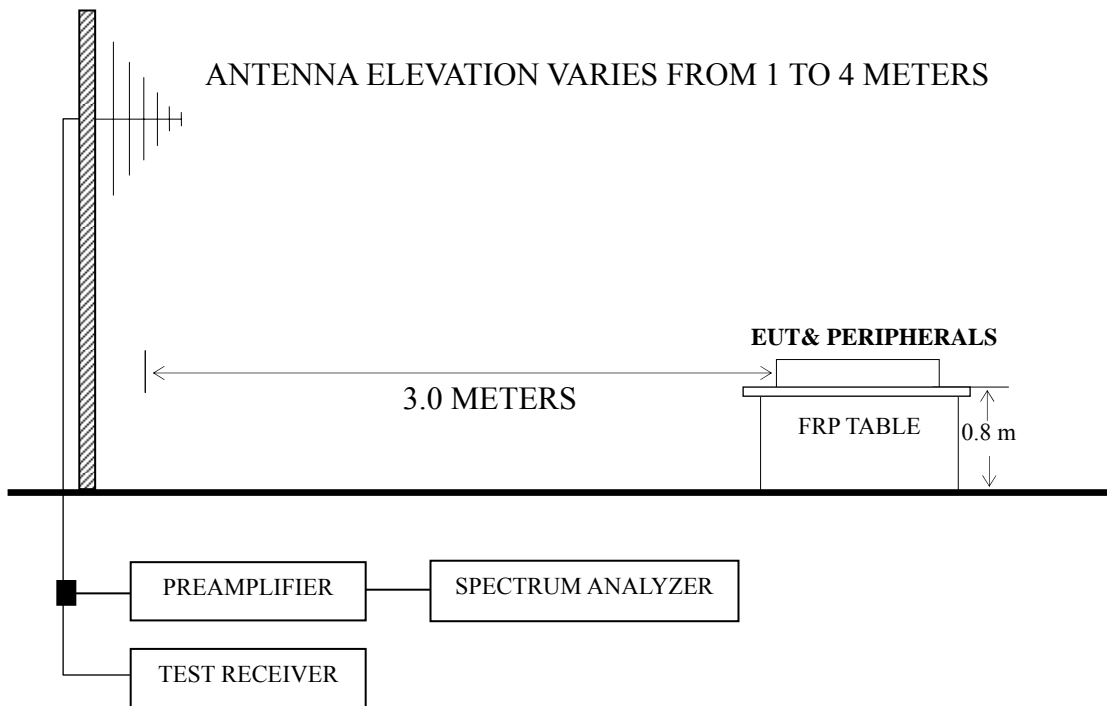
4.2 Block Diagram of Test Setup

4.2.1 EUT & Peripherals



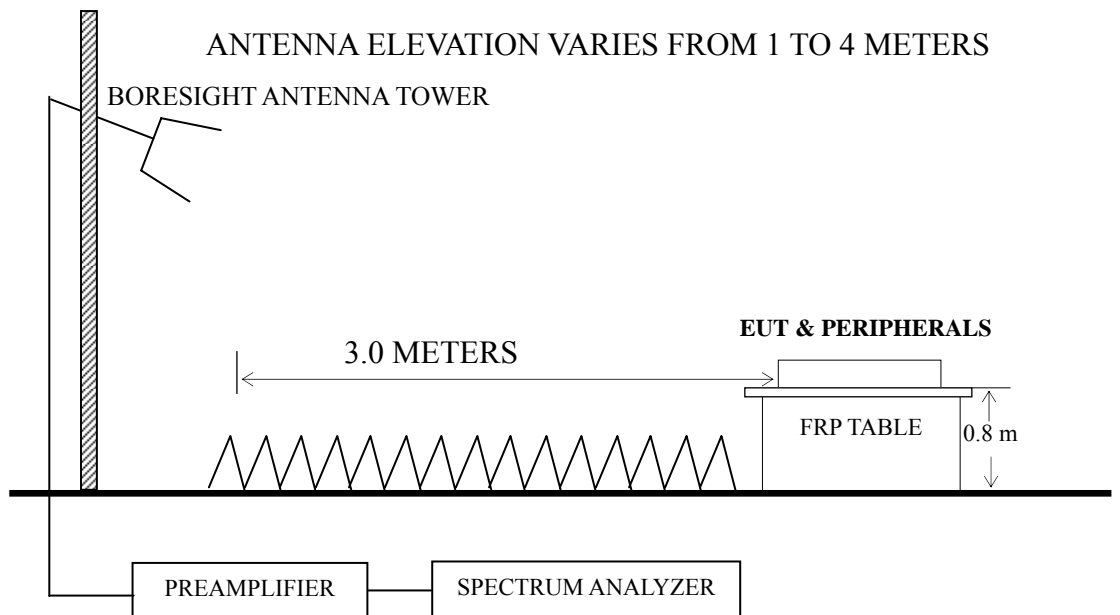
4.2.2 Radiated emission test setup

4.2.2.1 Below 1GHz



■ : 50 ohm Coaxial Switch

4.2.2.2 Above 1GHz



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

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

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

4.4 Test Configuration

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

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

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

4.6 Test Procedures

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

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

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

The frequency range from 1 GHz to 5 GHz was checked for the maximum resolution test mode.

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

4.7 Test Results

<PASS>

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

Test Mode	Data Page
HDMI1 3840*2160@60Hz & 1kHz playing	P31
HDMI2 3840*2160@60Hz & 1kHz playing	P32- P33
HDMI3 3840*2160@30Hz & 1kHz playing	P34
HDMI4 3840*2160@30Hz & 1kHz playing	P35
HDMI2 1920*1080@60Hz & 1kHz playing	P36
HDMI2 1280*1024@60Hz & 1kHz playing	P37
HDMI2 640*480@60Hz & 1kHz playing	P38
HDMI1080P	P39
USB Play	P40
LAN Play	P41
WIFI	P42
MHL	P43
BT	P44

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. : 50H8D Humidity : 60%RH

Test Mode : HDMI1 3840*2160@60Hz Date of Test : Jun 04, 2017
& 1kHz Playing

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	85.898	22.12	10.37	0.91	33.40	40.00	6.60
	247.682	22.55	12.78	1.64	36.97	46.00	9.03
	480.528	22.30	18.00	2.25	42.55	46.00	3.45
	620.710	18.82	19.70	2.55	41.07	46.00	4.93
	742.259	16.02	20.57	2.76	39.35	46.00	6.65
	900.147	16.25	20.90	3.05	40.20	46.00	5.80
Vertical	30.638	15.23	18.43	0.56	34.22	40.00	5.78
	50.942	23.63	8.03	0.73	32.39	40.00	7.61
	88.033	25.42	10.59	0.92	36.93	43.50	6.57
	478.846	19.49	18.00	2.25	39.74	46.00	6.26
	668.142	18.34	20.05	2.64	41.03	46.00	4.97
	752.743	17.88	20.70	2.78	41.36	46.00	4.64

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI2 3840*2160@60Hz & 1kHz playing Date of Test : Jun 04, 2017

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	85.898	21.91	10.37	0.91	0.00	33.19	40.00	6.81	QP
	247.682	21.86	12.78	1.64	0.00	36.28	46.00	9.72	
	480.528	22.65	18.00	2.25	0.00	42.90	46.00	3.10	
	622.890	18.87	19.70	2.55	0.00	41.12	46.00	4.88	
	742.259	17.53	20.57	2.76	0.00	40.86	46.00	5.14	
	890.728	18.48	21.00	3.03	0.00	42.51	46.00	3.49	
	1425.850	48.71	25.35	3.79	35.84	42.01	74.00	31.99	PK
	1862.166	44.32	27.02	4.27	35.33	40.28	74.00	33.72	
	2761.924	45.80	29.53	5.40	35.20	45.53	74.00	28.47	
	1425.850	33.28	25.35	3.79	35.84	26.58	54.00	27.42	AV
	1862.166	30.03	27.02	4.27	35.33	25.99	54.00	28.01	
	2761.924	30.64	29.53	5.40	35.20	30.37	54.00	23.63	

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI2 3840*2160@60Hz Date of Test : Jun 04, 2017
& 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	30.745	15.84	18.36	0.56	0.00	34.76	40.00	5.24	QP
	54.071	26.36	7.40	0.75	0.00	34.51	40.00	5.49	
	84.999	22.52	10.30	0.90	0.00	33.72	40.00	6.28	
	297.224	21.27	13.90	1.76	0.00	36.93	46.00	9.07	
	477.169	19.76	17.96	2.25	0.00	39.97	46.00	6.03	
	670.489	18.29	20.10	2.64	0.00	41.03	46.00	4.97	
	1179.207	51.27	24.35	3.63	36.19	43.06	74.00	30.94	PK
	1767.877	60.73	26.68	4.13	35.43	56.11	74.00	17.89	
	3303.900	41.63	31.12	6.03	34.86	43.92	74.00	30.08	
	1179.207	37.64	24.35	3.63	36.19	29.43	54.00	24.57	AV
	1767.877	46.27	26.68	4.13	35.43	41.65	54.00	12.35	
3303.900	27.83	31.12	6.03	34.86	30.12	54.00	23.88		

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI3 3840*2160@60Hz & 1kHz playing Date of Test : Jun 04, 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	87.112	22.19	10.51	0.92	33.62	40.00	6.38
	207.123	23.74	10.14	1.51	35.39	43.50	8.11
	477.169	22.67	17.96	2.25	42.88	46.00	3.12
	625.078	19.87	19.70	2.55	42.12	46.00	3.88
	739.661	16.44	20.50	2.76	39.70	46.00	6.30
	900.147	17.57	20.90	3.05	41.52	46.00	4.48
Vertical	30.853	14.95	18.29	0.56	33.80	40.00	6.20
	56.991	25.42	7.05	0.76	33.23	40.00	6.77
	87.112	23.44	10.51	0.92	34.87	40.00	5.13
	480.528	20.12	18.00	2.25	40.37	46.00	5.63
	663.473	19.26	19.95	2.64	41.85	46.00	4.15
	752.743	17.77	20.70	2.78	41.25	46.00	4.75

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI4 3840*2160@60Hz Date of Test : Jun 04, 2017
& 1kHz playing

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	84.999	23.37	10.30	0.90	34.57	40.00	5.43
	207.123	21.10	10.14	1.51	32.75	43.50	10.75
	477.169	22.35	17.96	2.25	42.56	46.00	3.44
	616.372	18.90	19.68	2.53	41.11	46.00	4.89
	739.661	16.92	20.50	2.76	40.18	46.00	5.82
	896.997	17.09	20.93	3.03	41.05	46.00	4.95
Vertical	88.033	25.17	10.59	0.92	36.68	43.50	6.82
	297.224	17.36	13.90	1.76	33.02	46.00	12.98
	480.528	21.22	18.00	2.25	41.47	46.00	4.53
	625.078	18.67	19.70	2.55	40.92	46.00	5.08
	663.473	19.18	19.95	2.64	41.77	46.00	4.23
	752.743	17.79	20.70	2.78	41.27	46.00	4.73

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI2 1920*1080@60Hz & 1kHz Playing Date of Test : Jun 04, 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	75.977	24.15	8.59	0.84	33.58	40.00	6.42
	245.951	20.77	12.66	1.63	35.06	46.00	10.94
	480.528	22.60	18.00	2.25	42.85	46.00	3.15
	625.078	20.02	19.70	2.55	42.27	46.00	3.73
	752.743	16.46	20.70	2.78	39.94	46.00	6.06
	900.147	16.61	20.90	3.05	40.56	46.00	5.44
Vertical	56.991	25.27	7.05	0.76	33.08	40.00	6.92
	85.898	23.99	10.37	0.91	35.27	40.00	4.73
	247.682	18.23	12.78	1.64	32.65	46.00	13.35
	477.169	22.01	17.96	2.25	42.22	46.00	3.78
	663.473	18.97	19.95	2.64	41.56	46.00	4.44
	752.743	17.26	20.70	2.78	40.74	46.00	5.26

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI2 1280*1024@60Hz & 1kHz Playing Date of Test : Jun 04, 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	75.977	23.99	8.59	0.84	33.42	40.00	6.58
	88.964	22.85	10.69	0.93	34.47	43.50	9.03
	247.682	20.58	12.78	1.64	35.00	46.00	11.00
	480.528	21.83	18.00	2.25	42.08	46.00	3.92
	625.078	19.35	19.70	2.55	41.60	46.00	4.40
	890.728	15.92	21.00	3.03	39.95	46.00	6.05
Vertical	56.991	25.77	7.05	0.76	33.58	40.00	6.42
	88.033	26.73	10.59	0.92	38.24	43.50	5.26
	247.682	18.17	12.78	1.64	32.59	46.00	13.41
	480.528	21.97	18.00	2.25	42.22	46.00	3.78
	663.473	18.83	19.95	2.64	41.42	46.00	4.58
	750.108	17.72	20.70	2.78	41.20	46.00	4.80

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : HDMI2 640*480@60Hz & 1kHz Playing Date of Test : Jun 04, 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	90.855	22.52	10.98	0.93	34.43	43.50	9.07
	247.682	20.87	12.78	1.64	35.29	46.00	10.71
	477.169	22.42	17.96	2.25	42.63	46.00	3.37
	620.710	18.89	19.70	2.55	41.14	46.00	4.86
	763.376	17.80	20.67	2.80	41.27	46.00	4.73
	906.482	17.52	21.10	3.05	41.67	46.00	4.33
Vertical	40.988	19.14	12.86	0.66	32.66	40.00	7.34
	88.964	24.70	10.69	0.93	36.32	43.50	7.18
	247.682	19.80	12.78	1.64	34.22	46.00	11.78
	480.528	21.78	18.00	2.25	42.03	46.00	3.97
	622.890	18.96	19.70	2.55	41.21	46.00	4.79
	711.674	18.52	20.42	2.71	41.65	46.00	4.35

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C
 Model No. : 50H8D Humidity : 60%RH
 Test Mode : HDMI1080P Date of Test : Jun 04, 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	75.446	23.57	8.52	0.84	32.93	40.00	7.07
	210.048	21.79	10.50	1.52	33.81	43.50	9.69
	497.677	16.69	18.36	2.29	37.34	46.00	8.66
	616.372	19.05	19.68	2.53	41.26	46.00	4.74
	750.108	15.57	20.70	2.78	39.05	46.00	6.95
	884.503	11.75	21.05	3.01	35.81	46.00	10.19
Vertical	54.835	24.68	7.31	0.75	32.74	40.00	7.26
	85.298	23.81	10.34	0.90	35.05	40.00	4.95
	148.963	20.28	11.64	1.28	33.20	43.50	10.30
	443.294	15.98	17.47	2.17	35.62	46.00	10.38
	609.922	16.42	19.60	2.53	38.55	46.00	7.45
	709.182	16.93	20.40	2.71	40.04	46.00	5.96

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : USB Play Date of Test : Jun 04, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	74.396	23.34	8.31	0.84	32.49	40.00	7.51
	128.563	18.80	12.59	1.17	32.56	43.50	10.94
	176.269	19.80	10.07	1.40	31.27	43.50	12.23
	377.259	14.85	16.01	2.01	32.87	46.00	13.13
	590.974	15.15	19.50	2.50	37.15	46.00	8.85
	782.345	12.39	20.73	2.83	35.95	46.00	10.05
Vertical	42.600	18.60	12.29	0.67	31.56	40.00	8.44
	73.103	23.11	8.14	0.83	32.08	40.00	7.92
	216.783	20.48	10.92	1.54	32.94	46.00	13.06
	447.982	15.10	17.57	2.17	34.84	46.00	11.16
	649.660	14.47	19.80	2.61	36.88	46.00	9.12
	881.407	13.77	21.10	3.01	37.88	46.00	8.12

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C
 Model No. : 50H8D Humidity : 60%RH
 Test Mode : LAN Play Date of Test : Jun 04, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	73.617	22.43	8.22	0.83	31.48	40.00	8.52
	127.218	18.45	12.72	1.17	32.34	43.50	11.16
	429.523	14.38	17.30	2.14	33.82	46.00	12.18
	510.044	12.65	18.50	2.31	33.46	46.00	12.54
	682.348	11.61	20.23	2.66	34.50	46.00	11.50
	779.607	13.40	20.70	2.83	36.93	46.00	9.07
Vertical	44.587	20.43	10.90	0.68	32.01	40.00	7.99
	73.359	22.81	8.18	0.83	31.82	40.00	8.18
	99.878	18.27	12.73	1.00	32.00	43.50	11.50
	178.758	20.99	10.03	1.41	32.43	43.50	11.07
	554.825	13.18	18.70	2.41	34.29	46.00	11.71
	787.851	11.99	20.77	2.83	35.59	46.00	10.41

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : WIFI Date of Test : Jun 04, 2017

Polarization	Frequency (MHz)	Meter Reading dB (μ V)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μ V/m)	Limits dB (μ V/m)	Margin (dB)
Horizontal	72.847	23.64	8.09	0.83	32.56	40.00	7.44
	151.067	20.52	11.55	1.29	33.36	43.50	10.14
	311.087	16.62	14.22	1.80	32.64	46.00	13.36
	422.058	16.36	17.17	2.11	35.64	46.00	10.36
	672.845	12.01	20.13	2.64	34.78	46.00	11.22
Vertical	796.183	11.49	20.80	2.85	35.14	46.00	10.86
	70.337	23.84	7.74	0.82	32.40	40.00	7.60
	145.351	19.38	11.86	1.26	32.50	43.50	11.00
	197.893	21.58	9.65	1.48	32.71	43.50	10.79
	438.655	14.28	17.40	2.16	33.84	46.00	12.16
	672.845	14.69	20.13	2.64	37.46	46.00	8.54
	845.088	12.46	20.90	2.94	36.30	46.00	9.70

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : MHL Date of Test : Jun 04, 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	75.182	23.57	8.46	0.84	32.87	40.00	7.13
	151.067	19.64	11.55	1.29	32.48	43.50	11.02
	175.037	19.66	10.10	1.40	31.16	43.50	12.34
	392.095	13.99	16.22	2.04	32.25	46.00	13.75
	654.232	15.19	19.85	2.62	37.66	46.00	8.34
	848.056	11.65	20.90	2.94	35.49	46.00	10.51
Vertical	47.659	21.58	9.46	0.71	31.75	40.00	8.25
	80.362	22.66	9.46	0.86	32.98	40.00	7.02
	109.029	18.91	12.82	1.06	32.79	43.50	10.71
	158.112	20.36	10.84	1.32	32.52	43.50	10.98
	340.782	15.18	15.13	1.90	32.21	46.00	13.79
	564.639	13.84	18.80	2.43	35.07	46.00	10.93

TEST ENGINEER: LEON YUN

EUT : LED LCD TV Temperature : 22°C

Model No. : 50H8D Humidity : 60%RH

Test Mode : BT Date of Test : Jun 04, 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	81.212	22.69	9.59	0.87	33.15	40.00	6.85
	125.446	19.09	12.86	1.16	33.11	43.50	10.39
	238.310	21.82	11.88	1.61	35.31	46.00	10.69
	397.633	18.43	16.27	2.05	36.75	46.00	9.25
	568.613	19.48	18.90	2.45	40.83	46.00	5.17
	744.866	16.82	20.63	2.76	40.21	46.00	5.79
Vertical	32.864	14.62	17.33	0.58	32.53	40.00	7.47
	53.882	25.18	7.43	0.74	33.35	40.00	6.65
	81.212	23.42	9.59	0.87	33.88	40.00	6.12
	213.015	20.59	10.83	1.53	32.95	43.50	10.55
	593.050	16.83	19.50	2.50	38.83	46.00	7.17
	726.805	17.43	20.43	2.74	40.60	46.00	5.40

TEST ENGINEER: LEON YUN

5 DEVIATION TO TEST SPECIFICATIONS

None.

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Manufacturer	Location
SM Contact	SMR-TSL-4-3.5-5R	Qingdao Joinset	See Appendix Figure 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 testing, must be incorporated in each unit marked

TEST ENGINEER:



(BYRON W