

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

LED LCD TV

Model No.	Brand
55K362G	Hisense

FCC ID : W9HLCDF0023

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

Prepared By : Audix Technology (Shanghai) Co., Ltd.
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Report No. : ACI-F13100
Date of Test : Jul 02 – 05, 2013
Date of Report : Jul 11, 2013

TABLE OF CONTENTS

	Page
1 SUMMARY OF STANDARDS AND RESULTS.....	4
1.1 Description of Standards and Results.....	4
2 GENERAL INFORMATION.....	5
2.1 Description of Equipment Under Test.....	5
2.2 Peripherals.....	6
2.3 Description of Test Facility	8
2.4 Measurement Uncertainty	8
3 CONDUCTED EMISSION TEST	9
3.1 Test Equipment.....	9
3.2 Block Diagram of Test Setup	9
3.3 Conducted Emission Limit [FCC Part 15 Subpart B 15.107(a)].....	10
3.4 Test Configuration.....	10
3.5 Operating Condition of EUT	11
3.6 Test Procedures	11
3.7 Test Results	12
4 RADIATED EMISSION TEST	18
4.1 Test Equipment.....	18
4.2 Block Diagram of Test Setup	18
4.3 Radiated Emission Limit [FCC Part 15 Subpart B 15.109(a)].....	19
4.4 Test Configuration.....	19
4.5 Operating Condition of EUT	19
4.6 Test Procedures	20
4.7 Test Results	20
5 DEBUG DESCRIPTION	27
6 DEVIATION TO TEST SPECIFICATIONS	28

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.
EUT Description : LED LCD TV

Model No.	Brand	Power Supply
55K362G	Hisense	120V/60Hz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART B CLASS B OCTOBER 2012
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 Jul 02 – 05, 2013 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.F13099, a Verification report.

Date of Test : Jul 02 – 05, 2013 Date of Report : Jul 11, 2013

Producer : Kathy Wang
KATHY WANG / Supervisor

Review : Dio Yang
DIO YANG / Assistant Manager

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

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Deputy 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 2012 AND ANSI C63.4-2003	15.107(a) Class B	Pass
Radiated Disturbance	FCC RULES AND REGULATIONS PART 15 SUBPART B OCTOBER 2012 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 type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-product <input type="checkbox"/> Pro-type
Model No.	:	55K362G
Bread Name	:	Hisense
Applicant	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China
Manufacturer	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China
Factory #1	:	Hisense Electric Co., Ltd. No.218 Qianwangang Road, Economy & Technology Development Zone, Qingdao, China
Factory #2	:	Tatung Mexico S.A. de C.V. Miguel Catalán 420, Parque Industrial Rio Bravo, Cd. Juarez, Chih., CP 32557
LCD Panel	:	Manufacturer : Hisense M/N : HE550GF-B51(1000)\PW1
Max Resolution	:	1920*1080@60Hz
D-Sub Cable	:	Shielded, Detachable, 1.85m, with two cores on cable
HDMI Cable	:	Shielded, Detachable, 1.00m
Power Cord	:	Unshielded, Detachable, 1.80m

Remark:

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

Bottom Port:

- (1) One DIGITAL AUDIO OUT Port
: Connected with DVD PLAYER
- (2) One USB Port
: Connected with U-Disk
- (3) One HDMI1/ARC Port
: Connected with DVD PLAYER

- (4) One component of Audio/YPbPr Audio Port
: Connected with DVD PLAYER
- (5) One component of Video/YPbPr Port
: Connected with DVD PLAYER
- (6) One Audio Out Port
: Connected with Earphone

Side Port:

- (1) One HDMI2/MHL Port
: Connected with Smart Mobile Phone
- (2) One HDMI3 Port
: Connected with PC
- (3) One ANT/CABLE IN Port
: Connected with Antenna or ATSC SG / TV SG
- (4) One VGA Port
: Connected with PC
- (5) One PC/DVI Audio In Port
: Connected with PC

2.2 Peripherals

2.2.1 PC

Manufacturer : HP
Model Number : dx7200MT
Serial Number : CNG622017W
Power Cord : Unshielded, Detachable, 1.8m
Certificate : FCC DoC; CE/EMC; VCCI; C-Tick; UL
BSMI (R33001) 3C (A000111)
MIC (E-A011-04-2659(B))

2.2.2 Printer

Manufacturer : HP
Model Number : C3990A
Serial Number : JPZX020487
Data Cable : Shielded, detachable, 1.5m
Certificate : GS, CE/EMC, C-Tick, FCC DoC

2.2.3 Keyboard

Manufacturer : Microsoft
Model Number : 1406
Serial Number : 0200702302609
Data Cable : Shielded, undetachable ,1.8m
Certificate : CE/EMC, FCC DoC, VCCI, MIC, C-Tick,
BSMI

2.2.4 Mouse

Manufacturer : Microsoft
Model Number : 1405
Serial Number : 0204603562213
Data Cable : Shielded, undetachable, 1.8m.
Certificate : CE/EMC, FCC DoC, VCCI, MIC, C-Tick,
BSMI

2.2.5 Modem

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

2.2.6 TV Signal Generator

Manufacturer : FLUKE
Model Number : 54200m01
Serial Number : 814008
Data Cable : Shielded, detachable, 2.0m
Power Cord : Unshielded, detachable, 2.0m
Certificate : CE/EMC, FCC DoC, CCC

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 : FCC DoC, CE/EMC, CCC

2.2.9 Smart Mobile Phone

Manufacturer : SAMSUNG
Model Number : GT-I9100G
Serial Number : RV1C2250B7J
Certificate : CE/EMC, CCC

2.2.10 Earphone

Manufacturer : SONY
Model Number : MDR-E808
Serial Number : 1808030805305506

2.2.11 U-DISK

Manufacturer : LG
Model Number : 1GB

2.3 Description of Test Facility

Site Description (No.3 3m Chamber) : Sept. 17, 1998 file on
Mar 16, 2012 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

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

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

NVLAP Lab Code : 200371-0

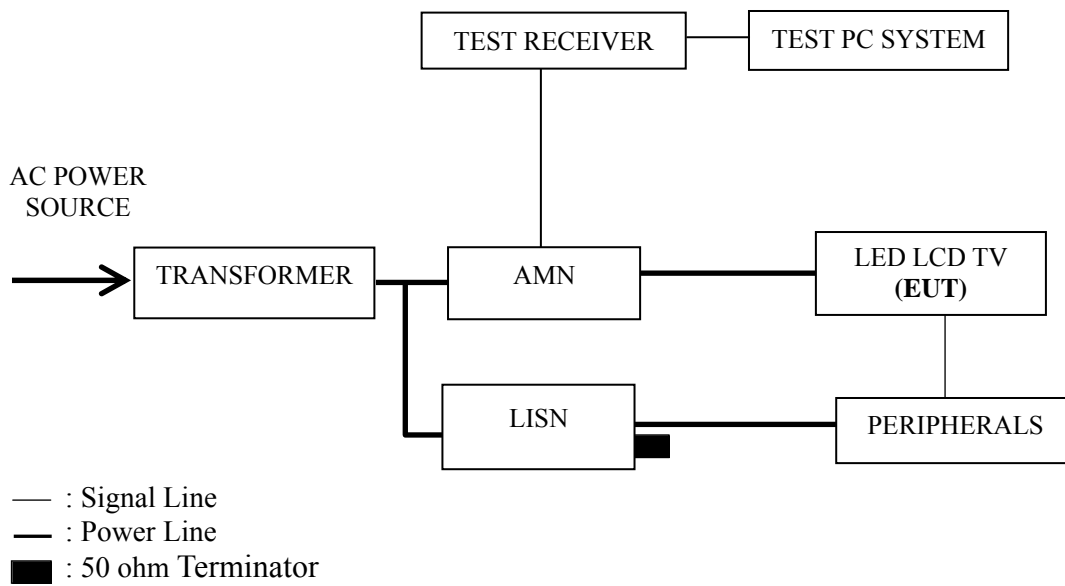
2.4 Measurement Uncertainty

Conducted Emission Expanded Uncertainty: U = 3.42 dB

Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.14 dB (Horizontal)
U = 4.28 dB (Vertical)

Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.18 dB (Horizontal)
U = 4.26 dB (Vertical)

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 D-Sub & HDMI Input).

3.5.5 In USB Play mode, set the EUT play digital media from U-Disk.

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

3.5.7 The test modes are as follows:

Test Mode
D-Sub 1920*1080@60Hz
HDMI 1920*1080@60Hz
D-Sub 1280*1024@60Hz
D-Sub 640*480@60Hz
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 C63.4:2003 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
D-Sub 1920*1080@60Hz	P13
HDMI 1920*1080@60Hz	P14
D-Sub 1280*1024@60Hz	P15
D-Sub 640*480@60Hz	P16
USB Play	P17

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 3 – The worst case is for D-Sub 1920*1080@60Hz test mode. The worst emission is detected at 0.150 MHz (Average Value) with corrected signal level of 55.03 dB (μV) (limit is 56.00 dB (μV)), when the Neutral of the EUT is connected to AMN.

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 48%RH

Test Mode : D-Sub 1920*1080@60Hz Date of Test : Jul 05, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	60.44	0.13	60.57	66.00	5.43	QP
	0.438	39.50	-0.05	39.45	57.11	17.66	
	0.717	40.81	0.09	40.90	56.00	15.10	
	1.307	41.07	0.03	41.10	56.00	14.90	
	2.176	42.33	0.03	42.36	56.00	13.64	
	3.873	43.65	0.13	43.78	56.00	12.22	
	0.150	54.80	0.13	54.93	56.00	1.07	AV
	0.438	33.80	-0.05	33.75	47.11	13.36	
	0.717	32.89	0.09	32.98	46.00	13.02	
	1.307	32.30	0.03	32.33	46.00	13.67	
	2.176	32.81	0.03	32.84	46.00	13.16	
	3.873	31.90	0.13	32.03	46.00	13.97	
Neutral	0.150	60.49	0.12	60.61	66.00	5.39	QP
	0.431	38.62	0.19	38.81	57.23	18.42	
	0.623	40.56	0.12	40.68	56.00	15.32	
	1.300	40.14	0.15	40.29	56.00	15.71	
	2.177	42.42	0.12	42.54	56.00	13.46	
	3.611	44.10	0.16	44.26	56.00	11.74	
	0.150	54.91	0.12	55.03	56.00	0.97	AV
	0.431	34.18	0.19	34.37	47.23	12.86	
	0.623	29.27	0.12	29.39	46.00	16.61	
	1.300	30.56	0.15	30.71	46.00	15.29	
	2.177	32.96	0.12	33.08	46.00	12.92	
	3.611	35.50	0.16	35.66	46.00	10.34	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 48%RH

Test Mode : HDMI 1920*1080@60Hz Date of Test : Jul 05, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	60.30	0.13	60.43	66.00	5.57	QP
	0.435	40.11	-0.05	40.06	57.15	17.09	
	0.727	40.18	0.08	40.26	56.00	15.74	
	1.010	40.25	0.03	40.28	56.00	15.72	
	2.839	43.12	0.07	43.19	56.00	12.81	
	3.603	44.25	0.12	44.37	56.00	11.63	
	0.150	54.01	0.13	54.14	56.00	1.86	AV
	0.435	34.31	-0.05	34.26	47.15	12.89	
	0.727	32.64	0.08	32.72	46.00	13.28	
	1.010	31.09	0.03	31.12	46.00	14.88	
	2.839	33.23	0.07	33.30	46.00	12.70	
	3.603	32.42	0.12	32.54	46.00	13.46	
Neutral	0.150	60.25	0.12	60.37	66.00	5.63	QP
	0.435	39.72	0.19	39.91	57.15	17.24	
	0.611	40.88	0.12	41.00	56.00	15.00	
	1.310	39.59	0.15	39.74	56.00	16.26	
	2.707	43.53	0.12	43.65	56.00	12.35	
	3.881	43.00	0.17	43.17	56.00	12.83	
	0.150	54.18	0.12	54.30	56.00	1.70	AV
	0.435	35.83	0.19	36.02	47.15	11.13	
	0.611	29.68	0.12	29.80	46.00	16.20	
	1.310	28.71	0.15	28.86	46.00	17.14	
	2.707	33.46	0.12	33.58	46.00	12.42	
	3.881	33.84	0.17	34.01	46.00	11.99	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 48%RH

Test Mode : D-Sub 1280*1024@60Hz Date of Test : Jul 05, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	60.66	0.13	60.79	66.00	5.21	QP
	0.435	40.10	-0.05	40.05	57.15	17.10	
	0.621	40.66	0.02	40.68	56.00	15.32	
	1.296	40.02	0.03	40.05	56.00	15.95	
	2.707	43.47	0.05	43.52	56.00	12.48	
	3.603	44.15	0.12	44.27	56.00	11.73	
	0.150	54.58	0.13	54.71	56.00	1.29	AV
	0.435	34.04	-0.05	33.99	47.15	13.16	
	0.621	32.51	0.02	32.53	46.00	13.47	
	1.296	31.12	0.03	31.15	46.00	14.85	
	2.707	33.28	0.05	33.33	46.00	12.67	
	3.603	32.09	0.12	32.21	46.00	13.79	
Neutral	0.150	60.32	0.12	60.44	66.00	5.56	QP
	0.431	39.46	0.19	39.65	57.24	17.59	
	0.621	40.44	0.12	40.56	56.00	15.44	
	1.310	40.56	0.15	40.71	56.00	15.29	
	2.765	43.39	0.12	43.51	56.00	12.49	
	3.603	43.57	0.16	43.73	56.00	12.27	
	0.150	54.19	0.12	54.31	56.00	1.69	AV
	0.431	35.50	0.19	35.69	47.24	11.55	
	0.621	29.38	0.12	29.50	46.00	16.50	
	1.310	30.46	0.15	30.61	46.00	15.39	
	2.765	33.29	0.12	33.41	46.00	12.59	
	3.603	34.18	0.16	34.34	46.00	11.66	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 48%RH

Test Mode : D-Sub 640*480@60Hz Date of Test : Jul 05, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	60.70	0.13	60.83	66.00	5.17	QP
	0.435	39.82	-0.05	39.77	57.15	17.38	
	0.611	40.43	0.01	40.44	56.00	15.56	
	1.282	40.25	0.03	40.28	56.00	15.72	
	2.765	44.08	0.05	44.13	56.00	11.87	
	3.603	45.17	0.12	45.29	56.00	10.71	
	0.150	54.53	0.13	54.66	56.00	1.34	AV
	0.435	33.19	-0.05	33.14	47.15	14.01	
	0.611	32.32	0.01	32.33	46.00	13.67	
	1.282	31.36	0.03	31.39	46.00	14.61	
	2.765	34.13	0.05	34.18	46.00	11.82	
	3.603	33.21	0.12	33.33	46.00	12.67	
Neutral	0.150	60.63	0.12	60.75	66.00	5.25	QP
	0.435	38.84	0.19	39.03	57.15	18.12	
	0.716	41.00	0.10	41.10	56.00	14.90	
	1.282	40.12	0.15	40.27	56.00	15.73	
	2.839	43.11	0.13	43.24	56.00	12.76	
	3.565	44.73	0.16	44.89	56.00	11.11	
	0.150	54.37	0.12	54.49	56.00	1.51	AV
	0.435	34.74	0.19	34.93	47.15	12.22	
	0.716	30.13	0.10	30.23	46.00	15.77	
	1.282	30.08	0.15	30.23	46.00	15.77	
	2.839	33.08	0.13	33.21	46.00	12.79	
	3.565	35.47	0.16	35.63	46.00	10.37	

TEST ENGINEER: WENCY YANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 48%RH

Test Mode : USB Play Date of Test : Jul 05, 2013

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.150	60.69	0.13	60.82	66.00	5.18	QP
	0.431	40.05	-0.04	40.01	57.24	17.23	
	0.727	40.42	0.08	40.50	56.00	15.50	
	1.282	40.24	0.03	40.27	56.00	15.73	
	2.707	44.60	0.05	44.65	56.00	11.35	
	3.565	43.19	0.12	43.31	56.00	12.69	
	0.150	54.37	0.13	54.50	56.00	1.50	AV
	0.431	34.12	-0.04	34.08	47.24	13.16	
	0.727	32.61	0.08	32.69	46.00	13.31	
	1.282	31.17	0.03	31.20	46.00	14.80	
	2.707	34.49	0.05	34.54	46.00	11.46	
	3.565	31.30	0.12	31.42	46.00	14.58	
Neutral	0.150	60.50	0.12	60.62	66.00	5.38	QP
	0.440	39.52	0.19	39.71	57.07	17.36	
	0.727	40.27	0.10	40.37	56.00	15.63	
	1.310	40.77	0.15	40.92	56.00	15.08	
	2.707	43.56	0.12	43.68	56.00	12.32	
	3.840	43.66	0.17	43.83	56.00	12.17	
	0.150	54.24	0.12	54.36	56.00	1.64	AV
	0.440	35.48	0.19	35.67	47.07	11.40	
	0.727	29.19	0.10	29.29	46.00	16.71	
	1.310	30.48	0.15	30.63	46.00	15.37	
	2.707	33.15	0.12	33.27	46.00	12.73	
	3.840	34.08	0.17	34.25	46.00	11.75	

TEST ENGINEER: WENCY YANG

4 RADIATED EMISSION TEST

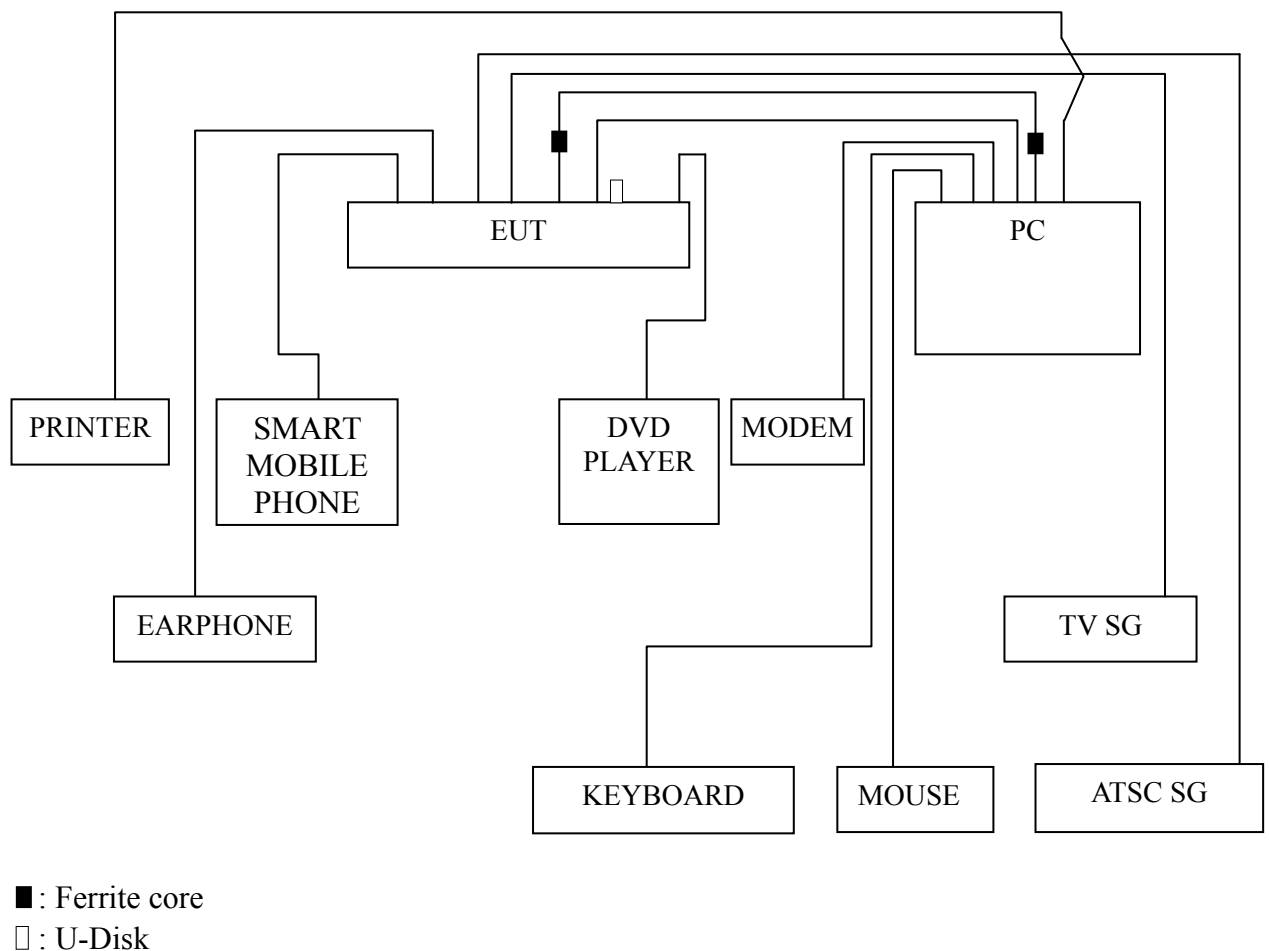
4.1 Test Equipment

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

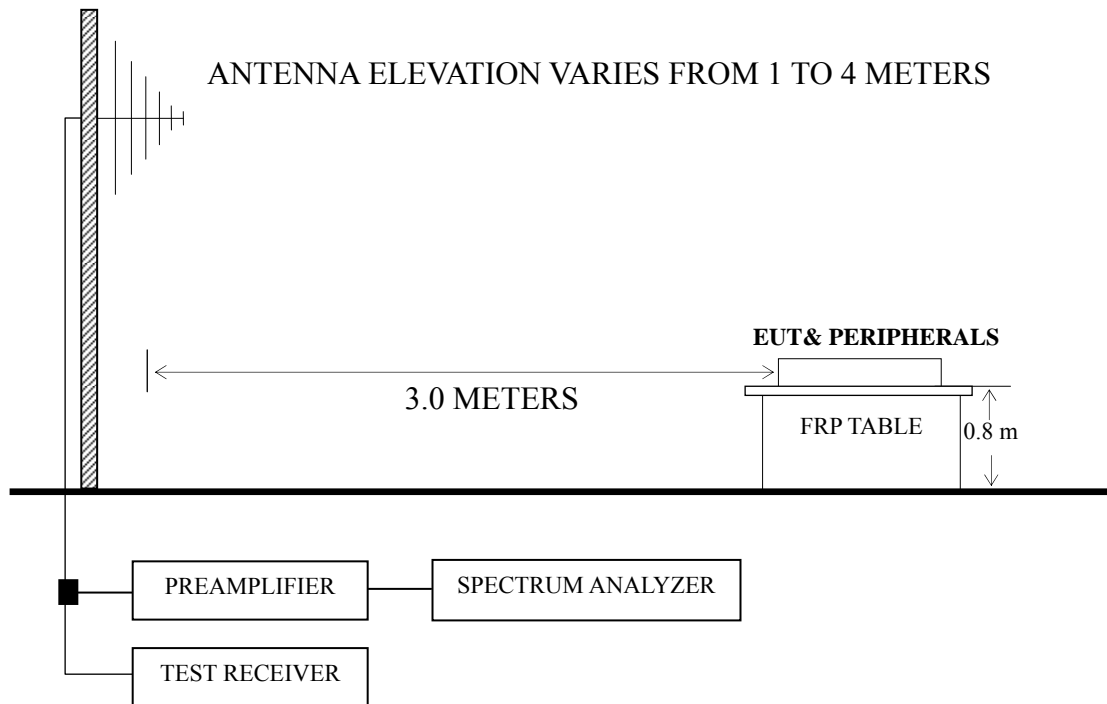
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Sep 11, 2012	Sep 11, 2013
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2013	Sep 18, 2013
3.	Bi-log Antenna	TESEQ	CBL6112D	23192	Nov 29, 2012	Nov 29, 2013
4.	Spectrum	Agilent	E7405A	MY45106600	Dec 17, 2012	Dec 17, 2013
5.	50 Coaxial Switch	Anritsu	MP59B	6200426390	Mar 18, 2013	Sep 18, 2013
6.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

4.2.1 EUT and Peripherals



4.2.2 Radiated emission test setup



■ : 50 ohm Coaxial Switch

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

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

NOTE 1 - Emission Level dB ($\mu\text{V/m}$) = 20 log Emission Level ($\mu\text{V/m}$)

NOTE 2 - The tighter limit applies at the band edges.

NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

NOTE 4 - The limits shown are based on Quasi-peak value detector.

NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT.

4.4 Test Configuration

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

Please refer to Sec.3.4.

4.5 Operating Condition of EUT

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

4.6 Test Procedures

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

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

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

The 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
D-Sub 1920*1080@60Hz	P21 – P22
HDMI 1920*1080@60Hz	P23
D-Sub 1280*1024@60Hz	P24
D-Sub 640*480@60Hz	P25
USB Play	P26

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.

NOTE 2 – All readings are Quasi-Peak values.

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 D-Sub 1920*1080@60Hz test mode. The worst emission at horizontal polarization was detected at 72.680 MHz with corrected signal level of 36.62 dB (μV/m) (limit is 40.00 dB (μV/m)), when the antenna was 1.70 m height and the turntable was at 278°. The worst emission at vertical polarization was detected at 165.800 MHz with corrected signal level of 39.58 dB (μV/m) (limit is 43.50 dB (μV/m)), when the antenna was 1.70 m height and the turntable was at 213°.

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : D-Sub 1920*1080@60Hz Date of Test : Jul 02, 2013

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	33.880	7.76	16.12	0.70	--	24.58	40.00	15.42	QP
	67.830	22.00	5.31	0.91	--	28.22	40.00	11.78	
	105.660	19.10	11.40	1.38	--	31.88	43.50	11.62	
	165.800	19.52	8.40	1.75	--	29.67	43.50	13.83	
	450.010	22.63	16.90	2.84	--	42.37	46.00	3.63	
	682.810	15.25	19.32	3.48	--	38.05	46.00	7.95	
	1004.000	47.89	23.71	4.89	38.19	38.30	74.00	35.70	PK
	1115.000	48.16	24.15	5.01	37.95	39.37	74.00	34.63	
	1207.000	46.40	24.56	5.15	37.72	38.39	74.00	35.61	
	1308.000	46.17	25.02	5.39	37.46	39.12	74.00	34.88	
	1536.000	46.45	25.96	5.64	36.82	41.23	74.00	32.77	
	1705.000	47.54	27.98	6.01	36.49	45.04	74.00	28.96	
	1004.000	35.00	23.71	4.89	38.19	25.41	54.00	28.59	AV
	1115.000	35.48	24.15	5.01	37.95	26.69	54.00	27.31	
	1207.000	33.65	24.56	5.15	37.72	25.64	54.00	28.36	
	1308.000	32.11	25.02	5.39	37.46	25.06	54.00	28.94	
	1536.000	34.01	25.96	5.64	36.82	28.79	54.00	25.21	
	1705.000	34.21	27.98	6.01	36.49	31.71	54.00	22.29	

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : D-Sub 1920*1080@60Hz Date of Test : Jul 02, 2013

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Vertical	31.940	15.30	16.50	0.68	--	32.48	40.00	7.52	QP
	53.280	27.46	6.46	0.86	--	34.78	40.00	5.22	
	139.610	22.33	10.37	1.59	--	34.29	43.50	9.21	
	396.660	17.56	15.93	2.68	--	36.17	46.00	9.83	
	596.480	19.98	18.40	3.20	--	41.58	46.00	4.42	
	678.930	13.51	19.00	3.48	--	35.99	46.00	10.01	
	1051.000	46.70	23.89	4.94	38.09	37.44	74.00	36.56	PK
	1112.000	45.68	24.14	5.01	37.95	36.88	74.00	37.12	
	1236.000	45.73	24.70	5.20	37.65	37.98	74.00	36.02	
	1417.000	45.52	25.39	5.60	37.14	39.37	74.00	34.63	
	1613.000	46.03	26.81	5.74	36.65	41.93	74.00	32.07	
	1811.000	47.16	29.23	6.16	36.33	46.22	74.00	27.78	
	1051.000	33.41	23.89	4.94	38.09	24.15	54.00	29.85	AV
	1112.000	32.14	24.14	5.01	37.95	23.34	54.00	30.66	
	1236.000	32.35	24.70	5.20	37.65	24.60	54.00	29.40	
	1417.000	33.13	25.39	5.60	37.14	26.98	54.00	27.02	
	1613.000	33.92	26.81	5.74	36.65	29.82	54.00	24.18	
	1811.000	35.63	29.23	6.16	36.33	34.69	54.00	19.31	

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : HDMI 1920*1080@60Hz Date of Test : Jul 02, 2013

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	80.440	21.60	6.84	1.08	29.52	40.00	10.48
	138.640	19.42	10.51	1.59	31.52	43.50	11.98
	184.230	18.80	8.28	1.86	28.94	43.50	14.56
	297.720	18.52	12.55	2.52	33.59	46.00	12.41
	445.160	22.21	17.15	2.82	42.18	46.00	3.82
	680.870	10.52	19.00	3.48	33.00	46.00	13.00
Vertical	35.820	17.80	15.63	0.73	34.16	40.00	5.84
	76.560	27.01	6.59	1.03	34.63	40.00	5.37
	137.670	20.24	10.58	1.58	32.40	43.50	11.10
	272.500	15.55	12.60	2.35	30.50	46.00	15.50
	453.890	16.34	17.03	2.84	36.21	46.00	9.79
	600.360	17.27	18.30	3.22	38.79	46.00	7.21

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : D-Sub 1280*1024@60Hz Date of Test : Jul 02, 2013

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	63.950	23.47	4.70	0.90	29.07	40.00	10.93
	104.690	17.62	11.30	1.37	30.29	43.50	13.21
	184.230	19.77	8.28	1.86	29.91	43.50	13.59
	297.720	19.22	12.55	2.52	34.29	46.00	11.71
	404.420	16.54	16.23	2.69	35.46	46.00	10.54
	707.060	10.33	19.97	3.55	33.85	46.00	12.15
Vertical	31.940	17.79	16.50	0.68	34.97	40.00	5.03
	55.220	26.37	6.08	0.87	33.32	40.00	6.68
	137.670	20.72	10.58	1.58	32.88	43.50	10.62
	270.560	15.30	12.60	2.35	30.25	46.00	15.75
	433.520	15.71	17.50	2.78	35.99	46.00	10.01
	672.140	8.76	19.60	3.44	31.80	46.00	14.20

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : D-Sub 640*480@60Hz Date of Test : Jul 02, 2013

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	61.040	24.09	4.70	0.89	29.68	40.00	10.32
	91.110	22.96	8.47	1.24	32.67	43.50	10.83
	138.640	19.17	10.51	1.59	31.27	43.50	12.23
	185.200	21.53	8.30	1.87	31.70	43.50	11.80
	297.720	17.15	12.55	2.52	32.22	46.00	13.78
	594.540	16.25	18.50	3.20	37.95	46.00	8.05
Vertical	33.880	16.94	16.12	0.70	33.76	40.00	6.24
	48.430	23.06	7.98	0.84	31.88	40.00	8.12
	139.610	20.77	10.37	1.59	32.73	43.50	10.77
	272.500	14.95	12.60	2.35	29.90	46.00	16.10
	394.720	15.64	15.80	2.68	34.12	46.00	11.88
	682.810	10.65	19.32	3.48	33.45	46.00	12.55

TEST ENGINEER: NEAL WANG

EUT : LED LCD TV Temperature : 22

Model No. : 55K362G Humidity : 60%RH

Test Mode : USB Play Date of Test : Jul 02, 2013

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	58.130	23.26	5.58	0.88	29.72	40.00	10.28
	81.410	21.59	6.97	1.10	29.66	40.00	10.34
	184.230	18.80	8.28	1.86	28.94	43.50	14.56
	251.160	12.00	12.18	2.22	26.40	46.00	19.60
	375.320	11.50	15.00	2.66	29.16	46.00	16.84
	734.220	4.40	19.10	3.57	27.07	46.00	18.93
Vertical	36.790	17.89	14.92	0.74	33.55	40.00	6.45
	58.130	27.71	5.58	0.88	34.17	40.00	5.83
	116.330	12.53	11.54	1.46	25.53	43.50	17.97
	161.920	18.41	9.20	1.72	29.33	43.50	14.17
	268.620	12.55	12.67	2.32	27.54	46.00	18.46
	864.200	6.96	20.57	4.20	31.73	46.00	14.27

TEST ENGINEER: NEAL WANG

5 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Manufacturer	Location
Al Tape	JCT-A-40-0.09-50	Qingdao Joinset S&T Co., Ltd.	See Internal Photos Figure 16

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: Neal Wang
(NEAL WANG)

6 DEVIATION TO TEST SPECIFICATIONS

None.