#### FCC ID:W8ULE39E3010C1

# APPLICATION OF CERTIFICATION For

TTE Technology Inc.

### LCD TV

Brand Name	Model Number				
TCL	LE39FHDE3010				

FCC ID: W8ULE39E3010C1

Prepared for: TTE Technology Inc.

555 S. Promenade Ave., Suite 103, Corona, CA 92879,

U.S.A.

Prepared By: Audix Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Rd., 52 Block,

Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

Tel: (0755) 26639496 Fax: (0755) 26632877

Report Number : ACS-F13153

Date of Test : May.18~Jun.02, 2013

Date of Report : Jun.24, 2013



### FCC ID:W8ULE39E3010C1

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FCC ID: W8ULE39E3010C1

## TEST REPORT CERTIFICATION

Applicant

TTE Technology Inc.

Manufacturer

TCL King Electrical Appliances (Huizhou) Co., Ltd.

**EUT** Description

LCD TV

FCC ID

W8ULE39E3010C1

(A) Model No. &:

Brand Name | Model Number

Brand Name

TCL LE39FHDE3010

(B) Power Supply: AC 120V/60Hz (C) Test Voltage: AC 120V/60Hz

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart B Class B 2012

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) 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 conducted and radiated emissions. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed of full responsibility for the accuracy and completeness of these tests. This report contains data that are not covered by the NVLAP accreditation.

After the test, our opinion is that EUT compliance with the requirement of the above standards.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The 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.

Date of Test: May.18~ Jun.02,2013 Report

Report of date:

Jun.24, 2013

Prepared by:

Julia Zhu

Reviewed by:

Sun Zeng / Supervisor

Julia Zhu / Assistant

AUDI)

Audix Technology (Shenzhen) Co., Ltd.

® 信華科技 (深圳) 有限公司

EMC部門報告專用章

Stamp only for EMC Dept. Report

Signature: David TM 6-24

Approved & Authorized Signer

David Jin / 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.

EMISSION							
<b>Description of Test Item</b>	Standard	Results	Remarks				
Power Line Conducted Emission Test	FCC Part 15: 2012 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 3.11dB at 0.44600MHz				
Radiated Emission Test (30-1000MHz)	FCC Part 15: 2012 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 3.23dB at 930.250MHz				
Radiated Emission Test (1-2GHz)	FCC Part 15: 2012 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 9.85dB at 1219.325MHz				



# 2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Description : LCD TV

Model Number : LE39FHDE3010

FCC ID : W8ULE39E3010C1

Applicant : TTE Technology Inc.

555 S. Promenade Ave., Suite 103, Corona, CA 92879,

U.S.A.

Manufacturer : TCL King Electrical Appliances (Huizhou) Co., Ltd.

Section 19, Zhongkai Development Zone for New & High-Level Tech Industries, Huizhou, Guangdong Province, China, 516006.

FREQUENCIES USED AND GENERATED WITHIN DEVICE				
LVDS (HD)	78MHZ			
LVDS (FHD)	75MHZ			
IF	6MHz			
DC-DC	U302->385KHz			
DDR	390MHz			
AMP	384KHz			

Power Cord : Unshielded, Undetachable, 1.8m

Date of Test : May.18~Jun.02, 2013

Date of Receipt : May.17, 2013

Sample Type : Prototype production

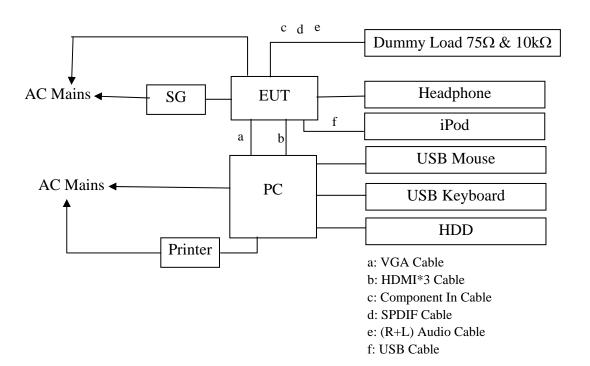


# 2.2.Tested Supporting System Details

	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type			
1.	Personal	Test PC M	DELL	Studio 540	224XK2X	☑FCC DoC ☑BSMI ID:R33002			
	Computer	Power Cord: Unshie Display Card: HD34							
2.	USB Keyboard	ACS-EMC- K04R	DELL	SK-8115	CN-ODJ313-7161 6-6BB-049J	☑ FCC DoC ☑BSMI ID: T3A002			
		Data Cable: shielded	ata Cable: shielded, Undetachable, 2.0m						
3.	Headphone	ACS-EMC-EP03	OVANN	OV880V	N/A	□FCC ID □BSMI ID			
		Cable: Shielded, Un	detachabled, 4.0n	1					
		ACS-EMC-PT04	НР	C9079A	N/A	☑FCC DoC ☑BSMI ID: R33001			
4.	Printer	USB Cable: Shielded, Detachabled, 1.8m  Power Cord: Unshielded, Detachabled, 1.8m  Power Adapter: HP, M/N: 0957-2119, BSMI ID: R33030,  DC Cable: Unshielded, Detachabled, 1.5m							
5.	USB Mouse	ACS-EMC-M04R	DELL	M056UO	512024282	☑ FCC DoC ☑BSMI ID: R41108			
		Data Cable: shielded, Undetachable, 1.8m							
6.	iPod nano	ACS-EMC-IP03	APPLE	A1199	YM711H3LVQ5	☑FCC DoC ☑BSMI ID: R33057			
		Data Cable: Shielded	d, Detachabled, 1	.0m					
7.	HDD	ACS-EMC-HDD03	Terasys	F12-UF	A0100215-53900 30	☑FCC DoC ☑BSMI ID: 4912A022			
		USB Cable: Shielded, Detachable, 1.8m							
8.	Dummy Load $(10 \text{K}\Omega \& 75\Omega)$	Component In Cable SPDIF Cable: Uns (R+L)Audio Cable	hielded, Detach	able, 1.5m					
9.		ielded, Detachable iielded, Detachable	, 1.5m	,					



# 2.3.Block diagram of connection between the EUT and simulators



(EUT: LCD TV)



# AUDIX Technology (Shenzhen) Co., Ltd.

FCC ID: W8ULE39E3010C1 Page 2-4

## 2.4.Test Facility

Site Description

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

No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Certificated by FCC, USA

Registration Number: 90454 Valid Date: Feb.22, 2015

3m & 10m Anechoic Chamber : Certificated by FCC, USA

Registration Number: 794232 Valid Date: Oct.31, 2015

EMC Lab. : Certificated by DAkkS, Germany

Registration No: D-PL-12151-01-01

Valid Date: Feb.01, 2014

Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2014

# 2.5. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty		
Uncertainty for Conduction emission test in No. 1 Conduction	3.1 dB(150KHz to 30MHz)		
	3.22dB(30~200MHz, Polarize: H)		
Uncertainty for Radiation Emission test	3.23dB(30~200MHz, Polarize: V)		
in 3m chamber	3.31dB(200M~1GHz, Polarize: H)		
	3.21dB(200M~1GHz, Polarize: V)		
Uncertainty for Radiation Emission test in	4.2dB(1~6GHz, Distance: 3m)		
3m chamber (1GHz-18GHz)	4.24dB(6~18GHz, Distance: 3m)		
Uncertainty for test site temperature	3%		
and humidity	0.6℃		

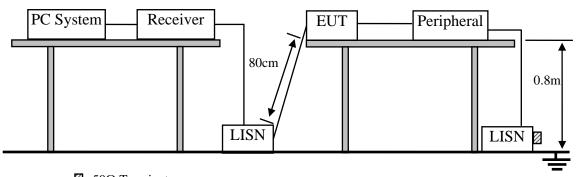


## 3. POWER LINE CONDUCTED EMISSION MEASUREMENT

## 3.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 12	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 12	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 13	1 Year
4.	Terminator	Hubersuhner	$50\Omega$	No. 1	May.08, 13	1 Year
5.	Terminator	Hubersuhner	$50\Omega$	No. 2	May.08, 13	1 Year
6.	RF Cable	Fujikura	3D-2W	No.1	May.08, 13	1Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 13	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 13	1 Year

## 3.2.Block Diagram of Test Setup



 $\blacksquare$  :50 $\Omega$  Terminator

### 3.3. Power Line Conducted Emission Test Limits

	Maximum RF Line Voltage			
Frequency	Quasi-Peak Level	Average Level		
	dB(µV)	$dB(\mu V)$		
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*		
500kHz ~ 5MHz	56	46		
5MHz ~ 30MHz	60	50		

Notes: 1. \* Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

## 3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

### 3.4.1.LCD TV (EUT)

Model Number : LE39FHDE3010

Serial Number : N/A

3.4.2. Support Equipment: As Tested Supporting System Detail, in Section 2.2.



## 3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT and simulator as shown as Section 3.2.
- 3.5.2. Turn on the power of all equipment.
- 3.5.3. PC system ran the Self-test program "EMC Test. exe" by windows XP and sent "H" Character to LCD TV (EUT), the Screen of EUT displayed and filled with "H" pattern, use white letters on a black ground, set the contrast control to maximum, set the brightness control to maximum and measure it.
- 3.5.4. The other peripheral devices were driven and operated in turn during all testing.

#### 3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#3). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4: 2009 on conducted Emission test.

The bandwidth of test receiver (R&S TEST RECEIVER ESHS10) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked. The test result are reported on Section 3.7.

#### 3.7. Conducted Emission at Mains Terminals Test Results

**PASS.** (All emissions not reported below are too low against the prescribed limits.)

The EUT with the following test modes were tested and selected to read Q.P values and average values, all the test results are listed in next pages.

EUT: LCD TV Model No.: LE39FHDE3010

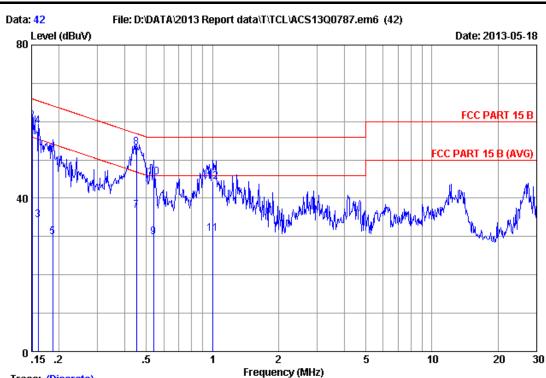
Test Date: May.18, 2013 Temperature: 26.6°C Humidity: 68%

The details of test modes are as follows:

No.	Test Mode Input Po		Resolution &	Reference Test Data No.		
			Frequency	Line	Neutral	
1.			640*480 @60Hz	#42	#41	
2.	PC Mode	VGA	1024*768 @ 60Hz	#40	#39	
3.			1920*1080@60Hz	#38	#37	
4. ※		HDMI 1	1920*1080@60Hz	#32	#31	
5.		HDMI 2	1920*1080@60Hz	#34	#33	
6.		HDMI 3	1920*1080@60Hz	#36	#35	

(\* Worst test mode)





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz Test Mode :PC Mode

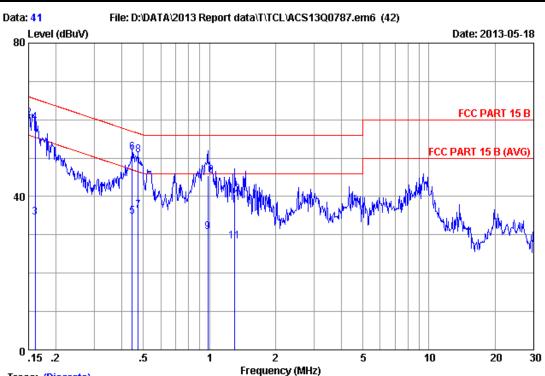
Running "H" Pattern And 1KHz Playing

VGA:640\*480@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15100	0.19	0.14	35.51	35.84	55.94	20.10	Average
2	0.15100	0.19	0.14	59.81	60.14	65.94	5.80	QP
3	0.16100	0.19	0.14	33.91	34.24	55.41	21.17	Average
4	0.16100	0.19	0.14	58.51	58.84	65.41	6.57	QP
5	0.18700	0.19	0.14	29.50	29.83	54.17	24.34	Average
6	0.18700	0.19	0.14	51.20	51.53	64.17	12.64	QP
7	0.45100	0.19	0.15	36.40	36.74	46.86	10.12	Average
8	0.45100	0.19	0.15	52.90	53.24	56.86	3.62	QP
9	0.54000	0.19	0.15	29.50	29.84	46.00	16.16	Average
10	0.54000	0.19	0.15	45.20	45.54	56.00	10.46	QP
11	1.004	0.21	0.14	30.30	30.65	46.00	15.35	Average
12	1.004	0.21	0.14	44.10	44.45	56.00	11.55	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :PC Mode

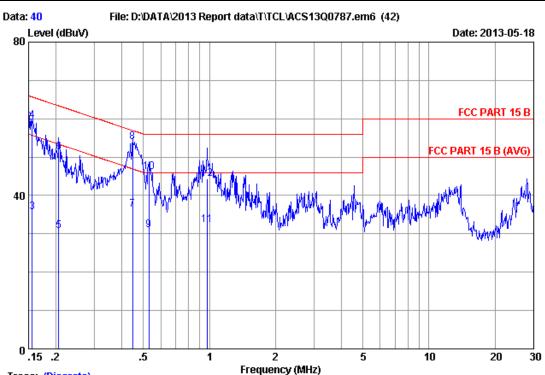
Running "H" Pattern And 1KHz Playing

VGA:640\*480@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	0.14	36.90	37.25	56.00	18.75	Average
2	0.15000	0.21	0.14	60.10	60.45	66.00	5.55	QP
3	0.16100	0.21	0.14	34.10	34.45	55.41	20.96	Average
4	0.16100	0.21	0.14	59.00	59.35	65.41	6.06	QP
5	0.44400	0.23	0.15	34.49	34.87	46.99	12.12	Average
6	0.44400	0.23	0.15	50.99	51.37	56.99	5.62	QP
7	0.47300	0.23	0.15	35.99	36.37	46.46	10.09	Average
8	0.47300	0.23	0.15	50.49	50.87	56.46	5.59	QP
9	0.98300	0.24	0.14	30.30	30.68	46.00	15.32	Average
10	0.98300	0.24	0.14	45.00	45.38	56.00	10.62	QP
11	1.302	0.26	0.14	27.79	28.19	46.00	17.81	Average
12	1.302	0.26	0.14	40.19	40.59	56.00	15.41	OP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

:1#conduction Site no Data No

:\*\* 2012 ESH2-Z5 LINE Dis./Ant.

:FCC PART 15 B Limit

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

:LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

:PC Mode Test Mode

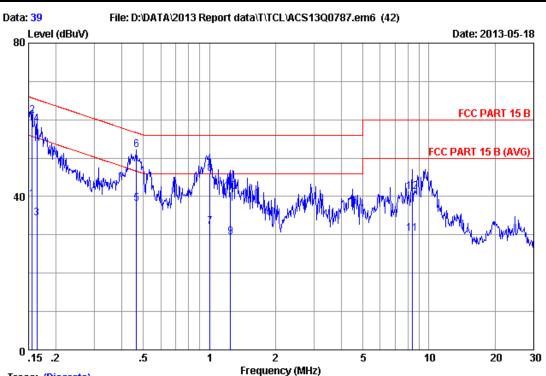
Running "H" Pattern And 1KHz Playing

VGA:1024\*768@60Hz

	LISN	Cable		Emissior	1		
Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
0.15000	0.19	0.14	35.97	36.30	56.00	19.70	Average
0.15000	0.19	0.14	58.81	59.14	66.00	6.86	QP
0.15600	0.19	0.14	35.31	35.64	55.67	20.03	Average
0.15600	0.19	0.14	59.21	59.54	65.67	6.13	QP
0.20600	0.19	0.15	30.40	30.74	53.37	22.63	Average
0.20600	0.19	0.15	51.00	51.34	63.37	12.03	QP
0.44600	0.19	0.15	35.90	36.24	46.95	10.71	Average
0.44600	0.19	0.15	53.50	53.84	56.95	3.11	QP
0.52900	0.19	0.15	30.70	31.04	46.00	14.96	Average
0.52900	0.19	0.15	45.90	46.24	56.00	9.76	QP
0.97300	0.21	0.14	31.90	32.25	46.00	13.75	Average
0.97300	0.21	0.14	44.00	44.35	56.00	11.65	QP
	(MHz) 0.15000 0.15000 0.15600 0.15600 0.20600 0.20600 0.44600 0.44600 0.52900 0.52900 0.97300	Freq Factor (MHz) (dB)  0.15000 0.19 0.15000 0.19 0.15600 0.19 0.20600 0.19 0.20600 0.19 0.44600 0.19 0.44600 0.19 0.52900 0.19 0.52900 0.19 0.97300 0.21	Freq Factor Loss (MHz) (dB) (dB)  0.15000 0.19 0.14  0.15000 0.19 0.14  0.15600 0.19 0.14  0.20600 0.19 0.15  0.20600 0.19 0.15  0.44600 0.19 0.15  0.44600 0.19 0.15  0.52900 0.19 0.15  0.52900 0.19 0.15  0.52900 0.19 0.15	Freq Factor Loss Reading (MHz) (dB) (dB) (dBUV)  0.15000 0.19 0.14 35.97  0.15000 0.19 0.14 35.31  0.15600 0.19 0.14 59.21  0.20600 0.19 0.15 30.40  0.20600 0.19 0.15 51.00  0.44600 0.19 0.15 35.90  0.44600 0.19 0.15 53.50  0.52900 0.19 0.15 30.70  0.52900 0.19 0.15 45.90  0.97300 0.21 0.14 31.90	Freq Factor Loss Reading Level (MHz) (dB) (dB) (dBuV) (dBuV)  0.15000 0.19 0.14 35.97 36.30  0.15000 0.19 0.14 58.81 59.14  0.15600 0.19 0.14 35.31 35.64  0.15600 0.19 0.14 59.21 59.54  0.20600 0.19 0.15 30.40 30.74  0.20600 0.19 0.15 51.00 51.34  0.44600 0.19 0.15 35.90 36.24  0.44600 0.19 0.15 53.50 53.84  0.52900 0.19 0.15 30.70 31.04  0.52900 0.19 0.15 45.90 46.24  0.97300 0.21 0.14 31.90 32.25	Freq Factor Loss Reading Level Limits (MHz) (dB) (dB) (dBuV) (dBuV) (dBuV)  0.15000 0.19 0.14 35.97 36.30 56.00 0.15000 0.19 0.14 58.81 59.14 66.00 0.15600 0.19 0.14 35.31 35.64 55.67 0.15600 0.19 0.14 59.21 59.54 65.67 0.20600 0.19 0.15 30.40 30.74 53.37 0.20600 0.19 0.15 51.00 51.34 63.37 0.44600 0.19 0.15 35.90 36.24 46.95 0.44600 0.19 0.15 53.50 53.84 56.95 0.52900 0.19 0.15 30.70 31.04 46.00 0.52900 0.19 0.15 45.90 46.24 56.00 0.97300 0.21 0.14 31.90 32.25 46.00	Freq (MHz)         Factor (dB)         Loss (dBuV)         Reading (dBuV)         Level (dBuV)         Limits (dBuV)         Margin (dBuV)           0.15000         0.19         0.14         35.97         36.30         56.00         19.70           0.15000         0.19         0.14         58.81         59.14         66.00         6.86           0.15600         0.19         0.14         35.31         35.64         55.67         20.03           0.15600         0.19         0.14         59.21         59.54         65.67         6.13           0.20600         0.19         0.15         30.40         30.74         53.37         22.63           0.20600         0.19         0.15         51.00         51.34         63.37         12.03           0.44600         0.19         0.15         35.90         36.24         46.95         10.71           0.42600         0.19         0.15         53.50         53.84         56.95         3.11           0.52900         0.19         0.15         30.70         31.04         46.00         14.96           0.97300         0.21         0.14         31.90         32.25         46.00         13.75

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No :39

Dis./Ant. :\*\* 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating : AC 120V/60Hz

Test Mode :PC Mode

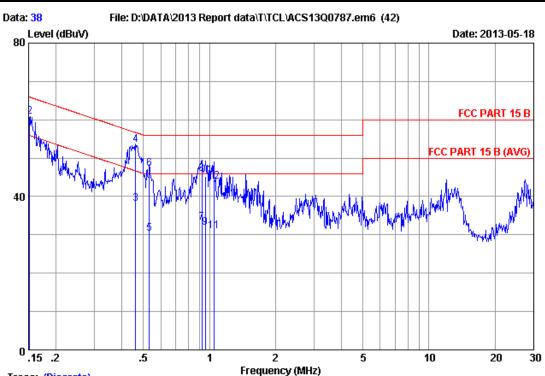
Running "H" Pattern And 1KHz Playing

VGA:1024\*768@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15600	0.21	0.14	38.90	39.25	55.67	16.42	Average
2	0.15600	0.21	0.14	60.80	61.15	65.67	4.52	QP
3	0.16400	0.21	0.14	33.90	34.25	55.26	21.01	Average
4	0.16400	0.21	0.14	58.40	58.75	65.26	6.51	QP
5	0.46600	0.23	0.15	37.79	38.17	46.58	8.41	Average
6	0.46600	0.23	0.15	51.79	52.17	56.58	4.41	QP
7	1.004	0.24	0.14	31.80	32.18	46.00	13.82	Average
8	1.004	0.24	0.14	45.50	45.88	56.00	10.12	QP
9	1.248	0.25	0.14	29.00	29.39	46.00	16.61	Average
10	1.248	0.25	0.14	40.80	41.19	56.00	14.81	QP
11	8.367	0.42	0.16	29.80	30.38	50.00	19.62	Average
12	8.367	0.42	0.16	40.70	41.28	60.00	18.72	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :PC Mode

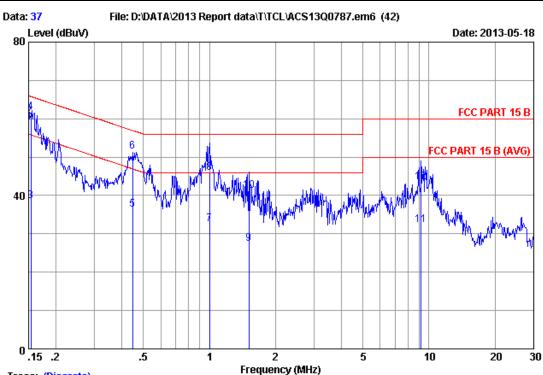
Running "H" Pattern And 1KHz Playing

VGA:1920\*1080@60Hz

		LISN	Cable		Emissior	1		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15200	0.19	0.14	36.31	36.64	55.89	19.25	Average
2	0.15200	0.19	0.14	60.61	60.94	65.89	4.95	QP
3	0.46100	0.19	0.15	37.80	38.14	46.67	8.53	Average
4	0.46100	0.19	0.15	53.20	53.54	56.67	3.13	QP
5	0.53200	0.19	0.15	29.90	30.24	46.00	15.76	Average
6	0.53200	0.19	0.15	47.00	47.34	56.00	8.66	QP
7	0.92300	0.21	0.14	32.90	33.25	46.00	12.75	Average
8	0.92300	0.21	0.14	45.50	45.85	56.00	10.15	QP
9	0.95800	0.21	0.14	31.50	31.85	46.00	14.15	Average
10	0.95800	0.21	0.14	44.80	45.15	56.00	10.85	QP
11	1.048	0.21	0.14	30.70	31.05	46.00	14.95	Average
12	1.048	0.21	0.14	43.50	43.85	56.00	12.15	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Data No

:37

Trace: (Discrete)

:1#conduction Site no

:\*\* 2012 ESH2-Z5 NEUTRAL Dis./Ant.

:FCC PART 15 B Limit

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

:LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

:PC Mode Test Mode

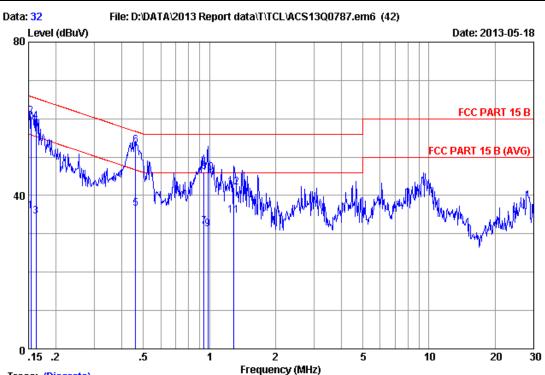
Running "H" Pattern And 1KHz Playing

VGA:1920\*1080@60Hz

		LISN	Cable		Emissior	1		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15000	0.21	0.14	37.50	37.85	56.00	18.15	Average
2	0.15000	0.21	0.14	60.20	60.55	66.00	5.45	QP
3	0.15400	0.21	0.14	38.10	38.45	55.78	17.33	Average
4	0.15400	0.21	0.14	61.30	61.65	65.78	4.13	QP
5	0.44600	0.23	0.15	35.89	36.27	46.95	10.68	Average
6	0.44600	0.23	0.15	51.19	51.57	56.95	5.38	QP
7	0.99900	0.24	0.14	32.20	32.58	46.00	13.42	Average
8	0.99900	0.24	0.14	45.50	45.88	56.00	10.12	QP
9	1.511	0.26	0.14	26.90	27.30	46.00	18.70	Average
10	1.511	0.26	0.14	40.80	41.20	56.00	14.80	QP
11	9.204	0.43	0.17	31.70	32.30	50.00	17.70	Average
12	9.204	0.43	0.17	42.80	43.40	60.00	16.60	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Data No

:32

Trace: (Discrete)

Dis./Ant.

Site no :1#conduction

:\*\* 2012 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode : PC Mode

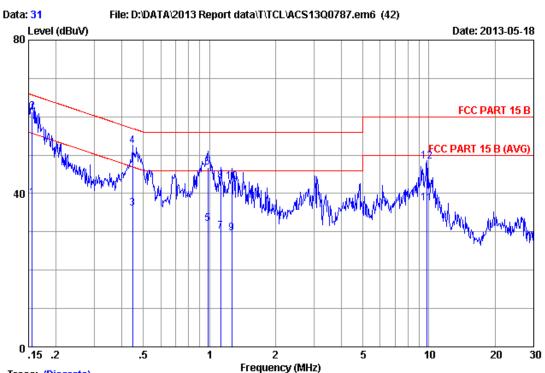
Running "H" Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15400	0.19	0.14	35.61	35.94	55.78	19.84	Average
2	0.15400	0.19	0.14	60.31	60.64	65.78	5.14	QP
3	0.16200	0.19	0.14	34.11	34.44	55.36	20.92	Average
4	0.16200	0.19	0.14	58.91	59.24	65.36	6.12	QP
5	0.46100	0.19	0.15	36.20	36.54	46.67	10.13	Average
6	0.46100	0.19	0.15	52.60	52.94	56.67	3.73	QP
7	0.94300	0.21	0.14	31.50	31.85	46.00	14.15	Average
8	0.94300	0.21	0.14	45.80	46.15	56.00	9.85	QP
9	0.98300	0.21	0.14	30.80	31.15	46.00	14.85	Average
10	0.98300	0.21	0.14	45.60	45.95	56.00	10.05	QP
11	1.289	0.22	0.14	34.50	34.86	46.00	11.14	Average
12	1.289	0.22	0.14	41.70	42.06	56.00	13.94	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :PC Mode

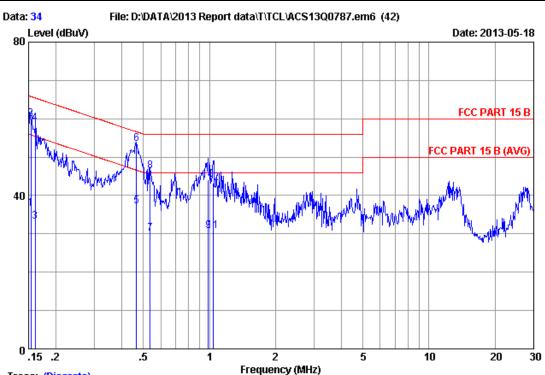
Running "H" Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

		LISN	Cable		Emissior	1		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15600	0.21	0.14	38.50	38.85	55.67	16.82	Average
2	0.15600	0.21	0.14	61.00	61.35	65.67	4.32	QP
3	0.44600	0.23	0.15	35.79	36.17	46.95	10.78	Average
4	0.44600	0.23	0.15	52.09	52.47	56.95	4.48	QP
5	0.98300	0.24	0.14	31.80	32.18	46.00	13.82	Average
6	0.98300	0.24	0.14	46.50	46.88	56.00	9.12	QP
7	1.123	0.25	0.14	29.60	29.99	46.00	16.01	Average
8	1.123	0.25	0.14	42.80	43.19	56.00	12.81	QP
9	1.262	0.25	0.14	29.30	29.69	46.00	16.31	Average
10	1.262	0.25	0.14	42.70	43.09	56.00	12.91	QP
11	9.756	0.44	0.17	36.90	37.51	50.00	12.49	Average
12	9.756	0.44	0.17	47.80	48.41	60.00	11.59	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode : PC Mode

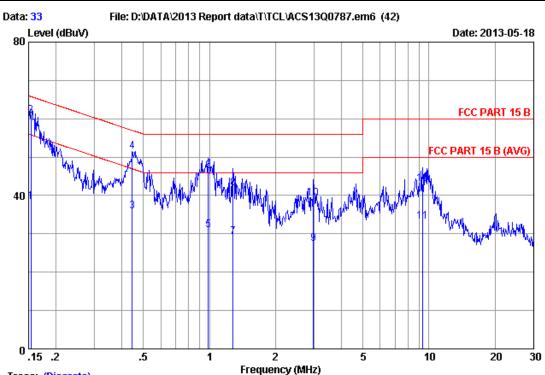
Running "H" Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15400	0.19	0.14	36.21	36.54	55.78	19.24	Average
2	0.15400	0.19	0.14	59.51	59.84	65.78	5.94	QP
3	0.16100	0.19	0.14	32.81	33.14	55.41	22.27	Average
4	0.16100	0.19	0.14	58.41	58.74	65.41	6.67	QP
5	0.46600	0.19	0.15	36.90	37.24	46.58	9.34	Average
6	0.46600	0.19	0.15	53.10	53.44	56.58	3.14	QP
7	0.53700	0.19	0.15	29.80	30.14	46.00	15.86	Average
8	0.53700	0.19	0.15	46.00	46.34	56.00	9.66	QP
9	0.98900	0.21	0.14	30.50	30.85	46.00	15.15	Average
10	0.98900	0.21	0.14	43.70	44.05	56.00	11.95	QP
11	1.037	0.21	0.14	30.30	30.65	46.00	15.35	Average
12	1.037	0.21	0.14	42.90	43.25	56.00	12.75	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating : AC 120V/60Hz

Test Mode : PC Mode

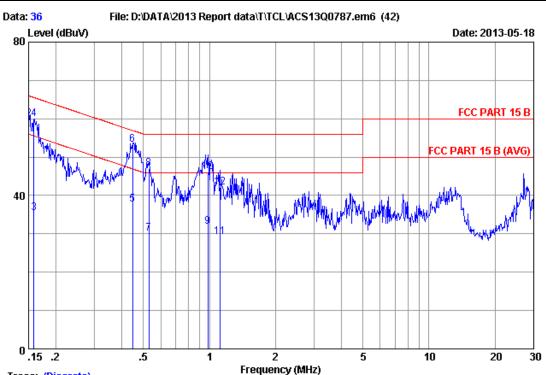
Running "H" Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15400	0.21	0.14	37.90	38.25	55.78	17.53	Average
2	0.15400	0.21	0.14	60.50	60.85	65.78	4.93	QP
3	0.44400	0.23	0.15	35.49	35.87	46.99	11.12	Average
4	0.44400	0.23	0.15	51.09	51.47	56.99	5.52	QP
5	0.98900	0.24	0.14	30.50	30.88	46.00	15.12	Average
6	0.98900	0.24	0.14	45.90	46.28	56.00	9.72	QP
7	1.282	0.25	0.14	28.70	29.09	46.00	16.91	Average
8	1.282	0.25	0.14	41.60	41.99	56.00	14.01	QP
9	2.977	0.31	0.14	26.89	27.34	46.00	18.66	Average
10	2.977	0.31	0.14	38.69	39.14	56.00	16.86	QP
11	9.351	0.43	0.17	32.70	33.30	50.00	16.70	Average
12	9.351	0.43	0.17	42.50	43.10	60.00	16.90	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :\*\* 2012 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating : AC 120V/60Hz

Test Mode : PC Mode

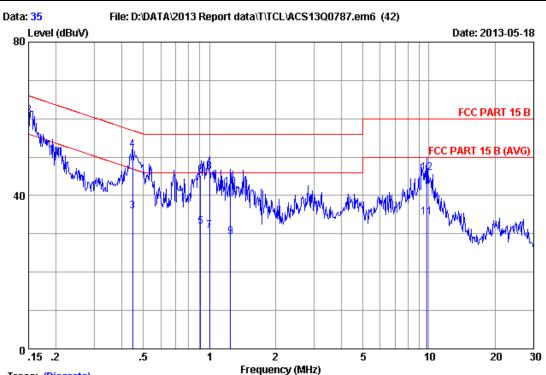
Running "H" Pattern And 1KHz Playing

HDMI 3:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.19	0.14	36.81	37.14	56.00	18.86	Average
2	0.15000	0.19	0.14	59.51	59.84	66.00	6.16	QP
3	0.15900	0.19	0.14	35.11	35.44	55.52	20.08	Average
4	0.15900	0.19	0.14	59.51	59.84	65.52	5.68	QP
5	0.44600	0.19	0.15	37.30	37.64	46.95	9.31	Average
6	0.44600	0.19	0.15	53.00	53.34	56.95	3.61	QP
7	0.52900	0.19	0.15	29.70	30.04	46.00	15.96	Average
8	0.52900	0.19	0.15	46.60	46.94	56.00	9.06	QP
9	0.98300	0.21	0.14	31.50	31.85	46.00	14.15	Average
10	0.98300	0.21	0.14	45.70	46.05	56.00	9.95	QP
11	1.117	0.21	0.14	28.90	29.25	46.00	16.75	Average
12	1.117	0.21	0.14	41.70	42.05	56.00	13.95	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.





Data No

:35

Trace: (Discrete)

Site no :1#conduction

Dis./Ant. :\*\* 2012 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :26.6\*C/68% Engineer :Nick\_Huang

EUT :LCD TV M/N:LE39FHDE3010

Power Rating : AC 120V/60Hz

Test Mode : PC Mode

Running "H" Pattern And 1KHz Playing

HDMI 3:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	0.14	38.40	38.75	56.00	17.25	Average
2	0.15000	0.21	0.14	60.50	60.85	66.00	5.15	QP
3	0.44600	0.23	0.15	35.59	35.97	46.95	10.98	Average
4	0.44600	0.23	0.15	51.49	51.87	56.95	5.08	QP
5	0.91300	0.24	0.14	31.50	31.88	46.00	14.12	Average
6	0.91300	0.24	0.14	44.80	45.18	56.00	10.82	QP
7	0.99900	0.24	0.14	30.30	30.68	46.00	15.32	Average
8	0.99900	0.24	0.14	45.70	46.08	56.00	9.92	QP
9	1.248	0.25	0.14	28.80	29.19	46.00	16.81	Average
10	1.248	0.25	0.14	41.70	42.09	56.00	13.91	QP
11	9.756	0.44	0.17	33.80	34.41	50.00	15.59	Average
12	9.756	0.44	0.17	45.20	45.81	60.00	14.19	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss+Reading.



# 4. RADIATED EMISSION MEASUREMENT

# 4.1.Test Equipment

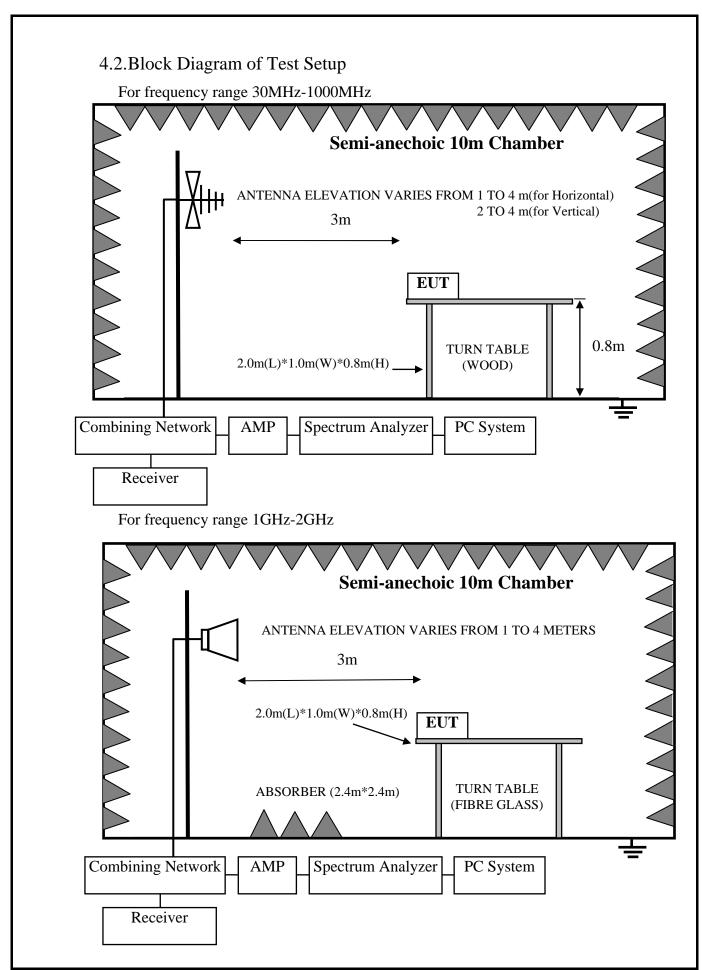
4.1.1.For frequency range 30MHz~1000MHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	10m Chamber	AUDIX	N/A	N/A	Nov.25,12	1 Year
2	PXA Signal	Agilent	N9030A	MY51380221	Oct.31, 12	1 Year
	Analyzer					
3	Test Receiver	Rohde & Schwarz	ESCI	100843	Oct.31, 12	1 Year
4	Amplifier	Agilent	8447D	2944A10684	May.08, 13	1 Year
5	Trilog-Broadband	SCHWARZBECK	VULB 9168	9168-493	Mar.14, 13	1 Year
	Antenna					
6	RF Cable	MIYAZAKI	CFD400-NL	10m Chamber	May.08, 13	1 Year
			CFD400-NL	No.1		
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 13	1 Year
8	Coaxial Switch	Anritsu	MP59B	6200766905	May.08, 13	1 Year

# 4.1.2.For frequency range 1GHz~2GHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	PXA Signal	Agilent	N9030A	MY51380221	Oct.31, 12	1 Year
1	Analyzer					
2	Horn Antenna	EMCO	3115	9607-4877	Aug.28, 13	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 13	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	May.08, 13	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	May.08, 13	1 Year







#### 4.3. Radiated Emission Limit

Frequency	Distance	Field Strengths Limits
MHz	(Meters)	$dB(\mu V)/m$
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0
Above 1000	3	74(Peak)54(Average)

Remark: (1) Emission level = Antenna Factor + Cable Loss + Reading Emission level = Antenna Factor - Amp Factor + Cable Loss + Reading (above 1000MHz)

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

### 4.4.EUT Configuration on Test

The configurations of EUT are listed in Section 3.4

### 4.5. Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.5. except the test set up replaced by Section 4.2.

#### 4.6.Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 3m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4: 2009 on Radiated Emission test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's RBW is set at 1MHz and VBW is set at 3MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz.



### 4.7. Radiated Disturbance Test Results

**PASS.** (All emissions not reported below are too low against the prescribed limits.)

EUT: LCD TV Model No. : LE39FHDE3010

### For frequency range 30MHz~1000MHz

The EUT with the following test modes were tested and selected to read Q.P values, all the test results are listed in next pages.

Test Date: Jun.02, 2013 Temperature: 24°C Humidity: 59%

The details of test modes are as follows:

No.	Test Mode	Input Port	Resolution &		Reference Test Data No.		
			Frequency	Horizontal	Vertical		
1.			640*480 @60Hz	#6	#5		
2.		VGA	1024*768 @ 60Hz	#4	#3		
3.	PC Mode		1920*1080@60Hz	#2	#1		
4.	PC Widde	HDMI 1	1920*1080@60Hz	#12	#11		
5.		HDMI 2	1920*1080@60Hz	#10	#9		
6. 💥		HDMI 3	1920*1080@60Hz	#8	#7		

<sup>(\*</sup> Worst test mode)

### For frequency range 1GHz~2GHz

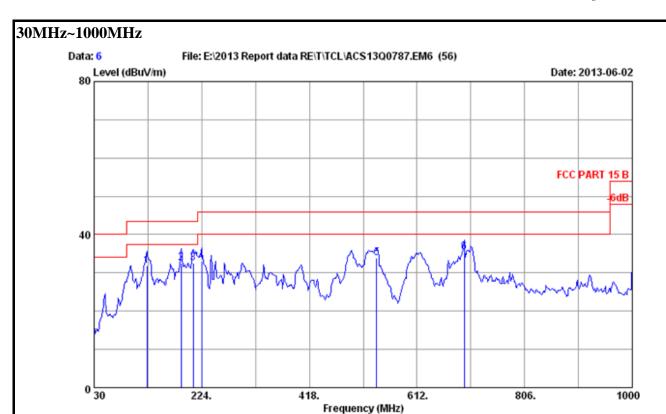
The EUT with below test mode were measured within Anechoic Chamber and the test results listed in next pages

Note: For all the emissions above 1GHz, the peak measured level comply with peak limit, so the average level were deemed to comply with average limit.

Test Date: Jun.02, 2013 Temperature: 24°C Humidity: 59%

NO.	Test Mode	Desclution & Fraguency	Reference Test Data No.			
NO.	Test Mode	Resolution & Frequency	Horizontal	Vertical		
1.	VGA	1920*1080 @60Hz	#55	#56		
2.	HDMI 1	1920*1080 @60Hz	#54	#53		
3.	HDMI 2	1920*1080 @60Hz	#52	#51		
4.	HDMI 3	1920*1080 @60Hz	#49	#50		





Site no :10M Data No :6

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

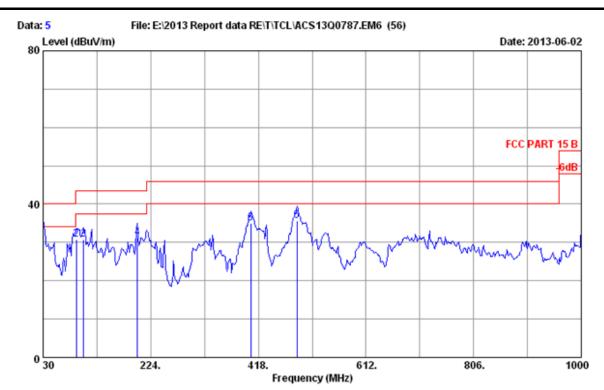
Test Mode :Running ''H'' Pattern And 1KHz Playing

VGA:640\*480@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	125.060	12.52	1.05	18.22	31.79	43.50	11.71	QP
2	187.140	10.82	1.28	20.41	32.51	43.50	10.99	QP
3	208.480	10.04	1.36	21.04	32.44	43.50	11.06	QP
4	224.000	10.87	1.42	20.75	33.04	46.00	12.96	QP
5	539.250	17.21	2.38	14.19	33.78	46.00	12.22	QP
6	697.360	19.61	2.82	12.98	35.41	46.00	10.59	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.





Site no :10M Data No :5

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

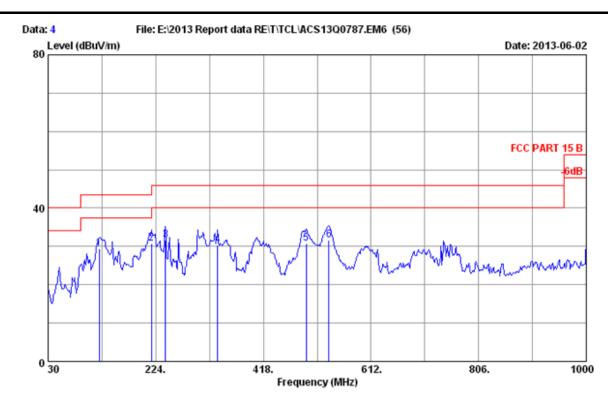
Test Mode : Running ''H'' Pattern And 1KHz Playing

VGA:640\*480@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	13.22	0.56	17.45	31.23	40.00	8.77	QP
2	90.140	9.45	0.91	20.29	30.65	43.50	12.85	QP
3	102.750	10.42	0.97	19.35	30.74	43.50	12.76	QP
4	199.750	9.91	1.33	20.04	31.28	43.50	12.22	QP
5	404.420	14.85	2.00	18.24	35.09	46.00	10.91	QP
6	487.840	16.36	2.24	17.00	35.60	46.00	10.40	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.





Site no :10M Data No

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

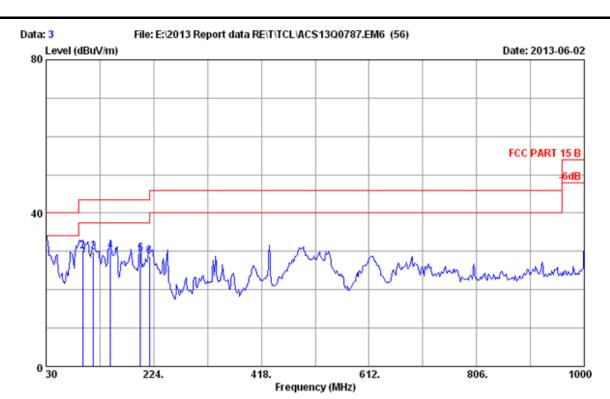
Test Mode : Running ''H'' Pattern And 1KHz Playing

VGA:1024\*768@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	122.150	12.36	1.04	16.00	29.40	43.50	14.10	QP
2	216.240	10.43	1.39	18.94	30.76	46.00	15.24	QP
3	241.460	11.47	1.48	18.66	31.61	46.00	14.39	QP
4	335.550	13.60	1.80	14.81	30.21	46.00	15.79	QP
5	495.600	16.46	2.26	12.05	30.77	46.00	15.23	QP
6	536.340	17.16	2.37	12.22	31.75	46.00	14.25	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.





Site no :10M Data No :3

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

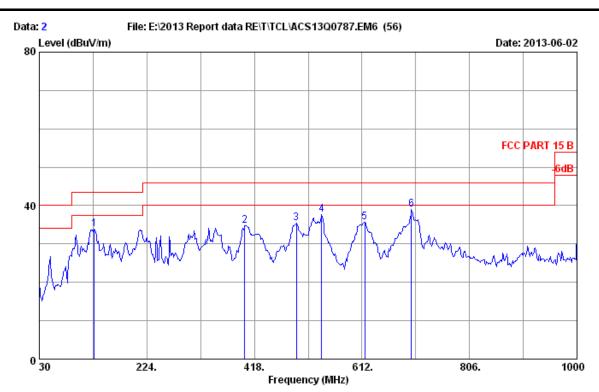
Test Mode : Running ''H'' Pattern And 1KHz Playing

VGA:1024\*768@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	13.22	0.56	16.83	30.61	40.00	9.39	QP
2	95.960	9.86	0.94	19.18	29.98	43.50	13.52	QP
3	115.360	11.72	1.02	17.12	29.86	43.50	13.64	QP
4	146.400	13.93	1.13	15.09	30.15	43.50	13.35	QP
5	199.750	9.91	1.33	18.23	29.47	43.50	14.03	QP
6	216.240	10.43	1.39	17.01	28.83	46.00	17.17	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.





Site no :10M Data No :2

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

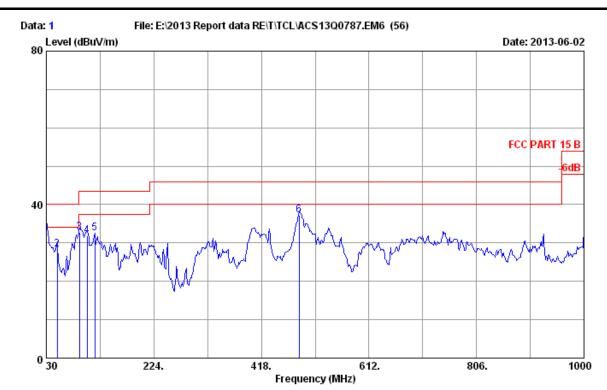
Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

VGA:1920\*1080@60Hz

	ANT	Cable		Emission			
Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
128.940	12.73	1.03	20.11	33.87	43.50	9.63	OP
400.540	14.75	1.80	18.24	34.79	46.00	11.21	QP
493.660	16.43	2.11	16.80	35.34	46.00	10.66	QP
539.250	17.21	2.23	18.20	37.64	46.00	8.36	QP
616.850	18.64	2.43	14.54	35.61	46.00	10.39	QP
701.240	19.66	2.64	16.76	39.06	46.00	6.94	QP
	(MHz) 128.940 400.540 493.660 539.250 616.850	Freq Factor (MHz) (dB/m) 128.940 12.73 400.540 14.75 493.660 16.43 539.250 17.21 616.850 18.64	Freq Factor Loss (MHz) (dB/m) (dB) 128.940 12.73 1.03 400.540 14.75 1.80 493.660 16.43 2.11 539.250 17.21 2.23 616.850 18.64 2.43	Freq Factor Loss Reading (MHz) (dB/m) (dB) (dBuV)  128.940 12.73 1.03 20.11 400.540 14.75 1.80 18.24 493.660 16.43 2.11 16.80 539.250 17.21 2.23 18.20 616.850 18.64 2.43 14.54	Freq Factor Loss Reading Level (MHz) (dB/m) (dB) (dBuV) (dBuV/m)  128.940 12.73 1.03 20.11 33.87 400.540 14.75 1.80 18.24 34.79 493.660 16.43 2.11 16.80 35.34 539.250 17.21 2.23 18.20 37.64 616.850 18.64 2.43 14.54 35.61	Freq Factor Loss Reading Level Limits (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m)  128.940 12.73 1.03 20.11 33.87 43.50 400.540 14.75 1.80 18.24 34.79 46.00 493.660 16.43 2.11 16.80 35.34 46.00 539.250 17.21 2.23 18.20 37.64 46.00 616.850 18.64 2.43 14.54 35.61 46.00	Freq Factor Loss Reading Level Limits Margin (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB)  128.940 12.73 1.03 20.11 33.87 43.50 9.63 400.540 14.75 1.80 18.24 34.79 46.00 11.21 493.660 16.43 2.11 16.80 35.34 46.00 10.66 539.250 17.21 2.23 18.20 37.64 46.00 8.36 616.850 18.64 2.43 14.54 35.61 46.00 10.39

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.



Site no :10M Data No :1

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

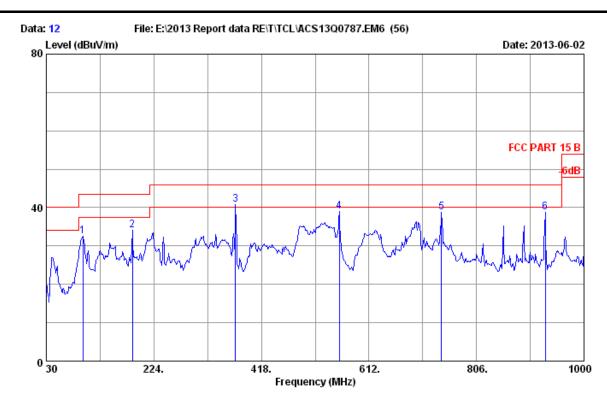
Test Mode :Running ''H'' Pattern And 1KHz Playing

VGA:1920\*1080@60Hz

		ANT	Cable		Emission			
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.000	13.22	0.53	20.74	34.49	40.00	5.51	QP
2	49.400	13.55	0.66	14.08	28.29	40.00	11.71	QP
3	90.140	9.45	0.87	22.51	32.83	43.50	10.67	QP
4	103.720	10.51	0.96	20.50	31.97	43.50	11.53	QP
5	117.300	11.94	1.00	19.57	32.51	43.50	10.99	QP
6	485.900	16.34	2.08	18.90	37.32	46.00	8.68	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.

2. The emission Levels that are 20db below the official limit are not reported  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 



Site no :10M Data No :12

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

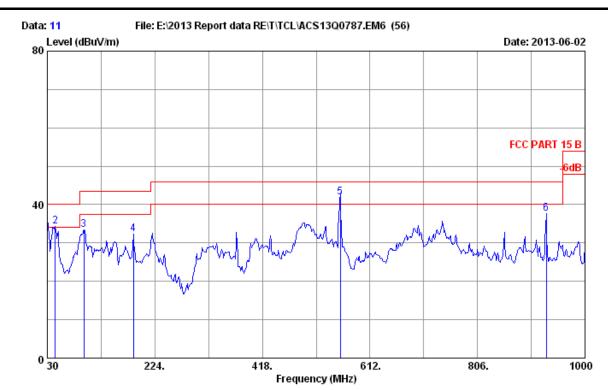
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

		ANT	Cable		Emission			
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	95.960	9.86	0.92	21.65	32.43	43.50	11.07	QP
2	185.200	11.05	1.17	21.83	34.05	43.50	9.45	QP
3	371.440	14.25	1.71	24.76	40.72	46.00	5.28	QP
4	558.650	17.54	2.27	19.08	38.89	46.00	7.11	QP
5	742.950	20.19	2.74	15.95	38.88	46.00	7.12	QP
6	930.160	22.01	3.17	13.65	38.83	46.00	7.17	QP

 ${\tt Remarks: 1.Emission \ Level=Antenna \ Factor+Cable \ Loss+Reading.}$ 

2. The emission Levels that are 20db below the official limit are not reported  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 



Site no :10M Data No :11

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

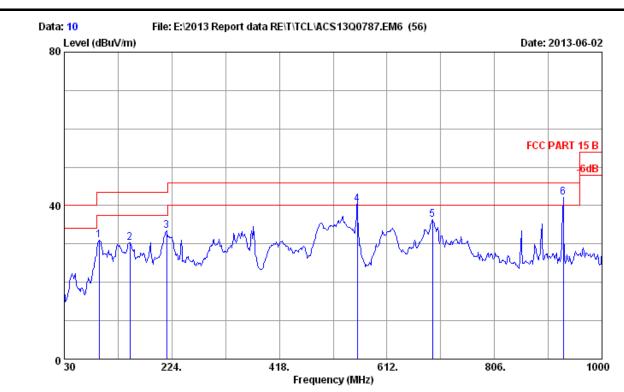
Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	13.22	0.53	22.00	35.75	40.00	4.25	QP
2	44.550	13.69	0.62	20.03	34.34	40.00	5.66	QP
3	95.960	9.86	0.92	22.63	33.41	43.50	10.09	QP
4	185.200	11.05	1.17	20.19	32.41	43.50	11.09	QP
5	558.650	17.54	2.27	22.09	41.90	46.00	4.10	QP
6	930.160	22.01	3.17	12.50	37.68	46.00	8.32	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.



Site no :10M Data No :10

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

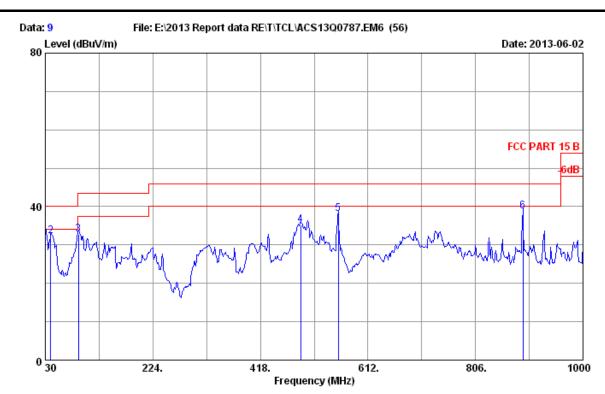
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
93.050	9.66	0.92	20.41	30.99	43.50	12.51	QP
148.340	14.05	1.08	15.25	30.38	43.50	13.12	QP
214.300	10.32	1.24	21.81	33.37	43.50	10.13	QP
558.650	17.54	2.27	20.54	40.35	46.00	5.65	QP
694.450	19.59	2.62	14.09	36.30	46.00	9.70	QP
930.160	22.01	3.17	16.93	42.11	46.00	3.89	QP
	93.050 148.340 214.300 558.650 694.450	Freq Factor (MHz) (dB/m) 93.050 9.66 148.340 14.05 214.300 10.32 558.650 17.54 694.450 19.59	Freq Factor Loss (MHz) (dB/m) (dB) 93.050 9.66 0.92 148.340 14.05 1.08 214.300 10.32 1.24 558.650 17.54 2.27 694.450 19.59 2.62	Freq Factor Loss Reading (MHz) (dB/m) (dB) (dBuV)  93.050 9.66 0.92 20.41 148.340 14.05 1.08 15.25 214.300 10.32 1.24 21.81 558.650 17.54 2.27 20.54 694.450 19.59 2.62 14.09	Freq Factor Loss Reading Level (MHz) (dB/m) (dB) (dBuV) (dBuV/m)  93.050 9.66 0.92 20.41 30.99 148.340 14.05 1.08 15.25 30.38 214.300 10.32 1.24 21.81 33.37 558.650 17.54 2.27 20.54 40.35 694.450 19.59 2.62 14.09 36.30	Freq Factor Loss Reading Level Limits (MHz) (dB/m) (dB) (dBuV) (dBuV/m) (dBuV/m)  93.050 9.66 0.92 20.41 30.99 43.50 148.340 14.05 1.08 15.25 30.38 43.50 214.300 10.32 1.24 21.81 33.37 43.50 558.650 17.54 2.27 20.54 40.35 46.00 694.450 19.59 2.62 14.09 36.30 46.00	Freq         Factor (MHz)         Loss (dB/m)         Reading (dBuV)         Level (dBuV/m)         Limits (dBuV/m)         Margin (dB)           93.050         9.66         0.92         20.41         30.99         43.50         12.51           148.340         14.05         1.08         15.25         30.38         43.50         13.12           214.300         10.32         1.24         21.81         33.37         43.50         10.13           558.650         17.54         2.27         20.54         40.35         46.00         5.65           694.450         19.59         2.62         14.09         36.30         46.00         9.70

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.

2. The emission Levels that are 20db below the official limit are not reported  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 



Site no :10M Data No :9

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

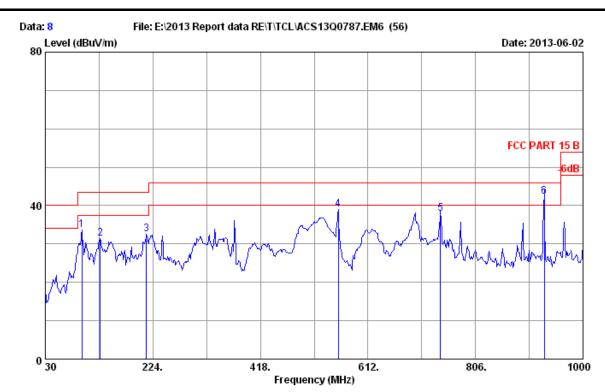
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

		ANT	Cable		Emission			
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.000	13.22	0.53	19.71	33.46	40.00	6.54	QP
2	39.700	14.03	0.57	17.61	32.21	40.00	7.79	QP
3	90.140	9.45	0.87	22.47	32.79	43.50	10.71	QP
4	490.750	16.40	2.11	16.68	35.19	46.00	10.81	QP
5	558.650	17.54	2.27	18.21	38.02	46.00	7.98	QP
6	891.360	21.53	3.08	14.12	38.73	46.00	7.27	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.

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Site no :10M Data No :8

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :HORIZONTAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

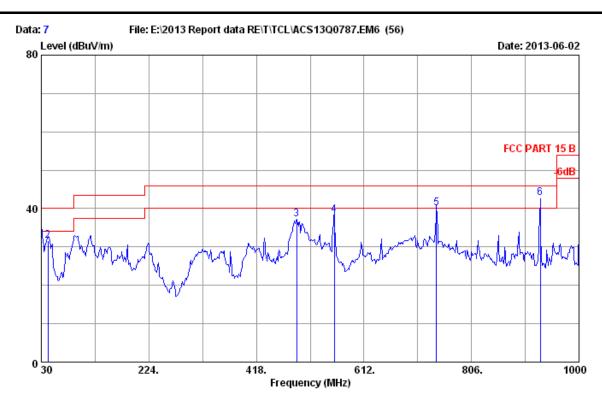
HDMI 3:1920\*1080@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	95.960	9.86	0.92	22.94	33.72	43.50	9.78	QP
2	128.940	12.73	1.03	17.66	31.42	43.50	12.08	QP
3	212.360	10.20	1.24	21.08	32.52	43.50	10.98	QP
4	558.650	17.54	2.27	19.17	38.98	46.00	7.02	QP
5	742.950	20.19	2.74	14.93	37.86	46.00	8.14	QP
6	930.160	22.01	3.17	17.27	42.45	46.00	3.55	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.

2. The emission Levels that are 20db below the official limit are not reported  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ 

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Site no :10M Data No :7

Dis./Ant. :3m 2013 9168-493 3M Ant.pol :VERTICAL

Limit :FCC PART 15 B

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

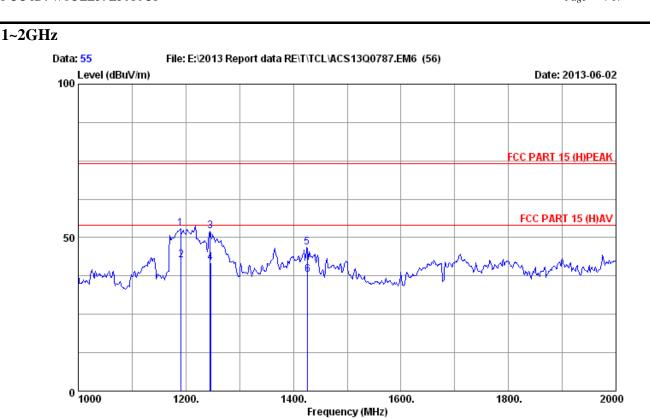
Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 3:1920\*1080@60Hz

		ANT	Cable		Emission			
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	30.000	13.22	0.53	19.50	33.25	40.00	6.75	QP
2	41.640	13.93	0.62	17.15	31.70	40.00	8.30	QP
3	490.750	16.40	2.11	18.76	37.27	46.00	8.73	QP
4	558.650	17.54	2.27	18.48	38.29	46.00	7.71	QP
5	742.950	20.19	2.74	17.16	40.09	46.00	5.91	QP
6	930.250	22.01	3.17	17.59	42.77	46.00	3.23	QP

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading.



:10M Site no

2012 3115 95104877 :3m

Data No :55 :HORIZONTAL Ant.pol

Engineer :RICK\_LI

Dis./Ant. :FCC PART 15 (H) PEAK Limit

Env./Ins. :24\*C/59%

:LCD TV M/N:LE39FHDE3010

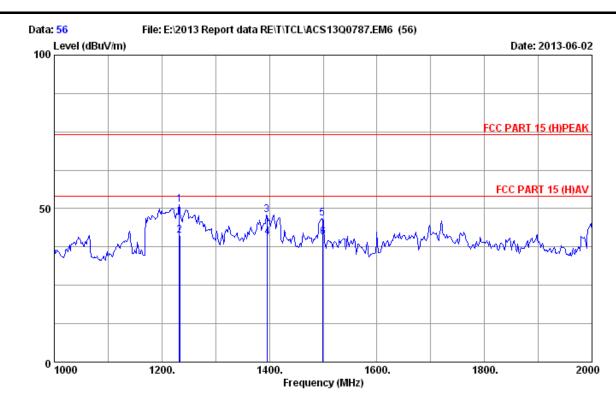
Power Rating :AC 120V/60Hz

:Running ''H'' Pattern And 1KHz Playing Test Mode

VGA:1920\*1080@60Hz

No	Freq (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	AMP Factor (dB)	Reading (dBuV)	Emissio: Level (dBuV/m)	n Limits (dBuV/m)	Margin (dB)	Remark
1	1190.012	23.48	2.01	34.06	61.49	52.92	74.00	21.08	Peak
2	1191.265	23.48	2.02	34.06	51.25	42.69	54.00	11.31	Average
3	1245.476	23.58	2.06	34.05	60.52	52.11	74.00	21.89	Peak
4	1246.325	23.58	2.06	34.05	50.26	41.85	54.00	12.15	Average
5	1425.420	23.96	2.19	34.01	54.66	46.80	74.00	27.20	Peak
6	1426.325	23.96	2.19	34.01	45.63	37.77	54.00	16.23	Average

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.



Site no :10M

Dis./Ant. :3m 2012 3115 95104877 Ant.pol :VERTICAL

Limit :FCC PART 15 (H) PEAK

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

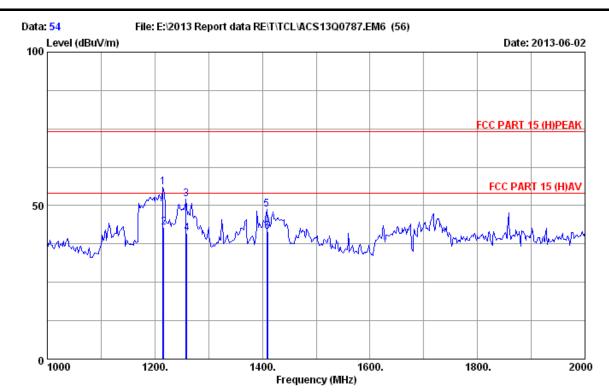
VGA:1920\*1080@60Hz

		ANT	Cable	AMP		Emissio	n		
No	Freq (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1232.375	23.58	2.05	34.05	59.58	51.16	74.00	22.84	Peak
2	1233.625	23.58	2.05	34.05	49.62	41.20	54.00	12.80	Average
3	1395.142	23.89	2.17	34.02	55.92	47.96	74.00	26.04	Peak
4	1396.325	23.89	2.17	34.02	48.63	40.67	54.00	13.33	Average
5	1498.475	24.10	2.25	34.00	54.42	46.77	74.00	27.23	Peak
6	1499.623	24.10	2.25	34.00	48.29	40.64	54.00	13.36	Average

Data No

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.

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Site no :10M

Dis./Ant. :3m 2012 3115 95104877 Ant.pol :HORIZONTAL

Limit :FCC PART 15 (H) PEAK

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

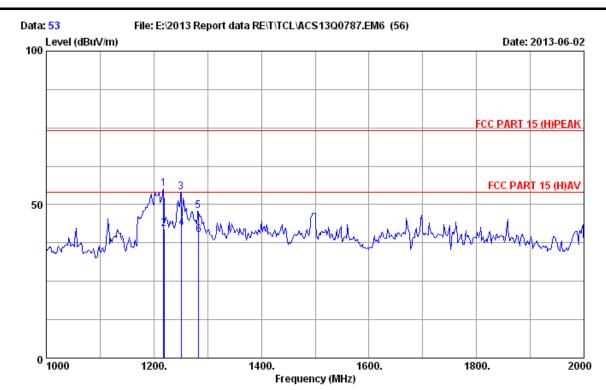
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

		ANT	Cable	AMP		Emissio	n		
No	Freq (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1215.178	23.55	2.03	34.06	64.58	56.10	74.00	17.90	Peak
2	1216.250	23.55	2.03	34.06	51.33	42.85	54.00	11.15	Average
3	1258.124	23.62	2.07	34.05	60.42	52.06	74.00	21.94	Peak
4	1259.325	23.62	2.07	34.05	49.26	40.90	54.00	13.10	Average
5	1408.140	23.93	2.18	34.02	56.67	48.76	74.00	25.24	Peak
6	1409.625	23.93	2.18	34.02	49.33	41.42	54.00	12.58	Average

Data No

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.



Site no :10M Data No

Dis./Ant. :3m 2012 3115 95104877 Ant.pol :VERTICAL

Limit :FCC PART 15 (H) PEAK

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

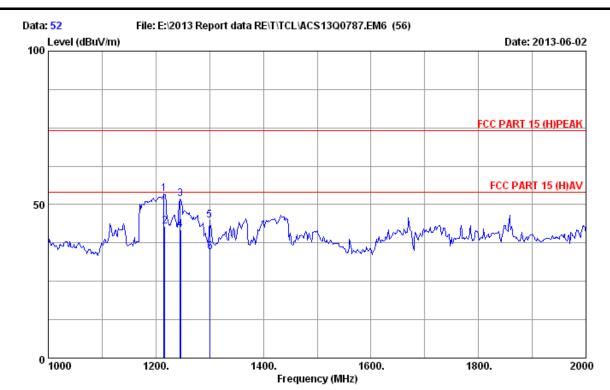
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 1:1920\*1080@60Hz

		ANT	Cable	AMP		Emissio	n		
No	Freq (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1218.420	23.55	2.04	34.06	63.55	55.08	74.00	18.92	Peak
2	1219.325	23.55	2.04	34.06	50.63	42.16	54.00	11.84	Average
3	1250.475	23.62	2.06	34.05	62.48	54.11	74.00	19.89	Peak
4	1251.265	23.62	2.06	34.05	50.62	42.25	54.00	11.75	Average
5	1282.475	23.69	2.08	34.04	56.23	47.96	74.00	26.04	Peak
6	1283.652	23.69	2.09	34.04	48.31	40.05	54.00	13.95	Average

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.

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Site no :10M Data No

Dis./Ant. :3m 2012 3115 95104877 Ant.pol :HORIZONTAL

Limit :FCC PART 15 (H) PEAK

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

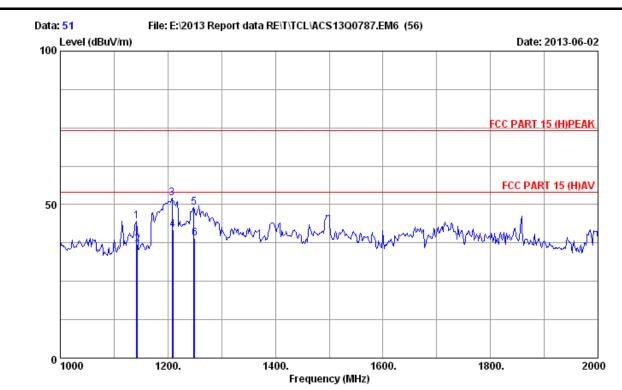
Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

		ANT	Cable	AMP		Emissio	n		
No	Freq (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1215.268	23.55	2.03	34.06	61.85	53.37	74.00	20.63	Peak
2	1216.325	23.55	2.03	34.06	51.26	42.78	54.00	11.22	Average
3	1245.370	23.58	2.06	34.05	60.25	51.84	74.00	22.16	Peak
4	1246.326	23.58	2.06	34.05	50.14	41.73	54.00	12.27	Average
5	1300.236	23.72	2.10	34.04	52.99	44.77	74.00	29.23	Peak
6	1301.230	23.72	2.10	34.04	42.62	34.40	54.00	19.60	Average

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.

FCC ID: W8ULE39E3010C1 Page 4-22



Site no :10M Data No

Dis./Ant. :3m 2012 3115 95104877 Ant.pol :VERTICAL

Limit :FCC PART 15 (H) PEAK

Env./Ins. :24\*C/59% Engineer :RICK\_LI

EUT :LCD TV M/N:LE39FHDE3010

Power Rating :AC 120V/60Hz

Test Mode :Running ''H'' Pattern And 1KHz Playing

HDMI 2:1920\*1080@60Hz

		ANT	Cable	AMP		Emissio	n		
No	Freq (MHz)	Factor (dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1142.234	23.38	1.98	34.07	53.37	44.66	74.00	29.34	Peak
2	1143.220	23.38	1.98	34.07	45.62	36.91	54.00	17.09	Average
3	1208.120	23.51	2.03	34.06	60.67	52.15	74.00	21.85	Peak
4	1209.326	23.51	2.03	34.06	50.26	41.74	54.00	12.26	Average
5	1248.420	23.62	2.06	34.05	57.51	49.14	74.00	24.86	Peak
6	1249.623	23.62	2.06	34.05	47.25	38.88	54.00	15.12	Average

Remarks: 1.Emission Level=Antenna Factor+Cable Loss+Reading-Amp factor.



5. DEVIATION TO TEST SPECIFICATIONS [NONE]