FCC ID:W8ULE32HDE5200

APPLICATION OF CERTIFICATION For

TTE Technology Inc.

LED TV

Brand Name	Model Number
TCL	LE32HDE5200

FCC ID: W8ULE32HDE5200

Prepared for: TTE Technology Inc.

5541 W. 74th St, Indianapolis, IN 46268, 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- F11199

Date of Test : Jul.28~Sep.04, 2011

Date of Report : Sep.09, 2011



FCC ID:W8ULE32HDE5200

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FCC ID: W8ULE32HDE5200

TEST REPORT CERTIFICATION

Applicant

: TTE Technology Inc.

Manufacturer

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

EUT Description

LED TV

FCC ID

W8ULE32HDE5200

(A) Model No. &

Brand Name Model Number
TCL LE32HDE5200

Brand Name

(B) Serial No. : N/A

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

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart B Class B 2010, ANSI C63.4: 2009 ICES-003 Issue 4 February 2004.

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: Jul.28 Sep.04, 2011 Report of date: Sep.09, 2011

Prepared by: _____ Reviewed by: ____

Cerry He / Assistant

Sun Zeng / Supervisor

信奉科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部 門 報 告 専 用 章

Stamp only for EMC Dept. Report

Signature:

Ken Lu / 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						
Description of Test Item	Standard	Results	Remarks			
Power Line Conducted Emission Test	FCC Part 15: 2010 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 8.05dB at 0.45878MHz			
Radiated Emission Test (30-1000MHz)	FCC Part 15: 2010 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 0.66dB at 891.000MHz			
Radiated Emission Test (1-2GHz)	FCC Part 15: 2010 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 6.43dB at 1490.260MHz			



2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Description : LED TV

Model Number : Brand

Brand Name Model Number
TCL LE32HDE5200

FCC ID : W8ULE32HDE5200

Applicant : TTE Technology Inc.

5541 W. 74th St, Indianapolis, IN 46268, 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					
X54M1	45-OSC54M-0Y1CR	54MHz			
LVDS CLOCK	81.43MHZ				
IF	44MHz				
DC-DC	U302->385KHz	U303->1MHz			
DDR	390MHz				
AMP	384KHz				

Date of Test : Jul.28~Sep.04, 2011

Date of Receipt : Jul.27, 2011

Sample Type : Prototype production



2.2.Tested Supporting System Details

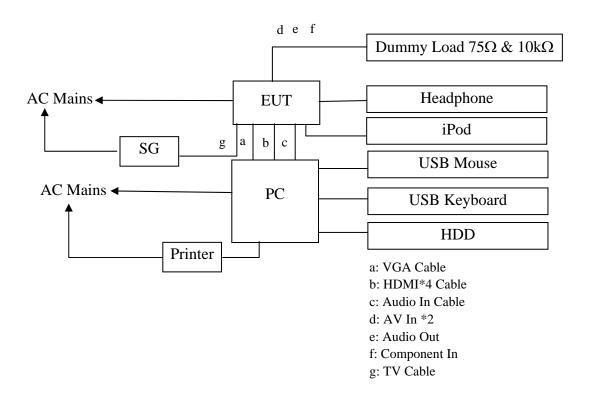
	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type			
1.	Personal	Test PC P	DELL	Studio 540	124XK2X	☑FCC DoC ☑BSMI ID:R33002			
	Computer	Power Cord: Unshie Display Card: HD34	·						
2.	USB Keyboard	ACS-EMC- K04R	DELL	SK-8115	CN-ODJ313-7161 6-6BB-049J	☑ FCC DoC ☑BSMI ID: T3A002			
		Power Cord: shielde	d, Undetachable,	2.0m					
3.	Headphone	ACS-EMC-EP02	OVANN	OV880V	N/A	□FCC ID □BSMI ID			
	Treadphone	Cable: Shielded, Un	detachabled, 4.0n	ı					
		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			
		Power Cord: shielded, Undetachable, 1.8m							
6.	iPod nano	ACS-EMC-IP03	APPLE	A1199	YM711H3LVQ5	☑FCC DoC ☑BSMI ID: R33057			
		Data Cable: Shielded, Detachabled, 1.0m							
7.	iPod nano	ACS-EMC-IP04	APPLE	A1199	YM706N0EVQ5	☑FCC DoC ☑BSMI ID: R33057			
		Data Cable: Shielded, Detachabled, 1.0m							
8.	HDD	ACS-EMC-HDD03	Terasys	F12-UF	A0100215-53900 30	☑FCC DoC ☑BSMI ID: 4912A022			
		USB Cable: Shielded, Detachable, 1.8m							
9.	Dummy Load $(10 \text{K}\Omega \& 75\Omega)$	Audio Out Cable: U	Component In Cable: Unshielded, Detachabled, 1.5m Audio Out Cable: Unshielded, Detachabled, 1.5m AV Cable: Unshielded, Detachable, 1.5m						

AUDIX Technology (Shenzhen) Co., Ltd.

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Power Cord: Unshielded, Detachable, 2.0m
D-Sub Cable: Shielded, Detachable, 1.5m
HDMI Cable: Shielded, Detachable, 1.5m
Audio Cable: Unshieled, Detachable, 1.5m

2.3.Block diagram of connection between the EUT and simulators



(EUT: LED TV)



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: Mar.31, 2012

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

Registration Number: 794232 Valid Date: Dec.30, 2012

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, 2012

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

Test Item	Uncertainty		
Uncertainty for Conduction emission test in No. 1 Conduction	3.2 dB		
	3.6 dB(30~200MHz, Polarize: H)		
Uncertainty for Radiation Emission test	3.7 dB(30~200MHz, Polarize: V)		
in 3m chamber	4.0 dB(200M~1GHz, Polarize: H)		
	3.7 dB(200M~1GHz, Polarize: V)		
Uncertainty for test site temperature	3%		
and humidity	0.6℃		

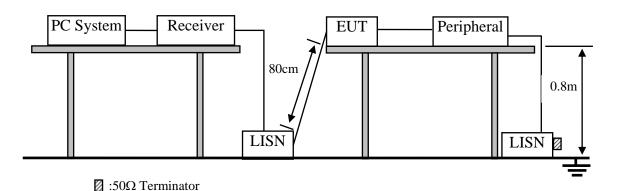


3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.05, 10	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Nov.05, 10	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 11	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 11	1 Year
5.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 11	1Year
6.	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 11	1 Year
7.	Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May.08, 11	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 11	1 Year

3.2.Block Diagram of Test Setup



3.3. Power Line Conducted Emission Test Limits

	Maximum RF Line Voltage				
Frequency	Quasi-Peak Level	Average Level			
	$dB(\mu V)$	$dB(\mu V)$			
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.LED TV (EUT)

Model Number : LE32HDE5200

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 blackground, set the contrast control to maximum, set the brightness control to maximum and measure it.
- 3.5.4. The PC system was running the program "1kHz signal Playing" and sending sound to EUT.
- 3.5.5. 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 10kHz.

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

3.7. Conducted Disturbance 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, all the test results are listed in next pages.

EUT: LED TV Model No. : LE32HDE5200

Test Date: Jul.28, 2011 Temperature: 29.5°C Humidity: 55%



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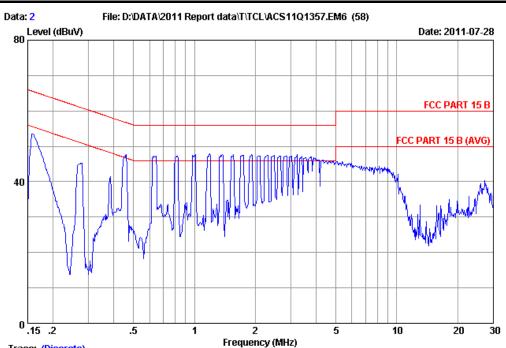
FCC ID: W8ULE32HDE5200 Page 3-3

The details of test modes are as follows:

No.	Test Mode	Input Port	nput Port Resolution &		Reference Test Data No.		
		_	Frequency	Line	Neutral		
1.			640*480 @60Hz	#2	#1		
2.		VGA	800*600 @ 60Hz	#3	#4		
3. ※			1024*768 @60Hz	#6	#5		
4.	PC Mode	HDMI 1	1920*1080@60Hz	#7	#8		
5.		HDMI 2	1920*1080@60Hz	#10	#9		
6.		HDMI 3	1920*1080@60Hz	#11	#12		
7.		HDMI 4	1920*1080@60Hz	#14	#13		

(* Worst test mode)





Trace: (Discrete)

Site no :1#conduction Data No :2

Dis./Ant. :** 2011 ESH2-Z5 LINE

Limit :FCC PART 15 B

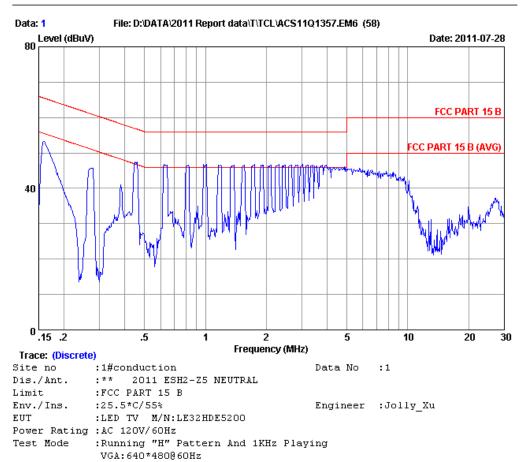
Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

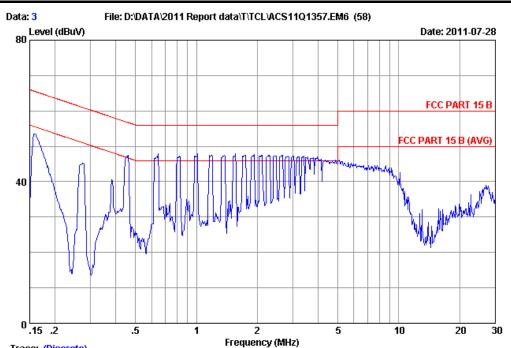
Test Mode :Running "H" Pattern And 1KHz Playing

VGA:640*480@60Hz





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Trace: (Discrete)

Site no :1#conduction Data No :3

2011 ESH2-Z5 LINE Dis./Ant. : * *

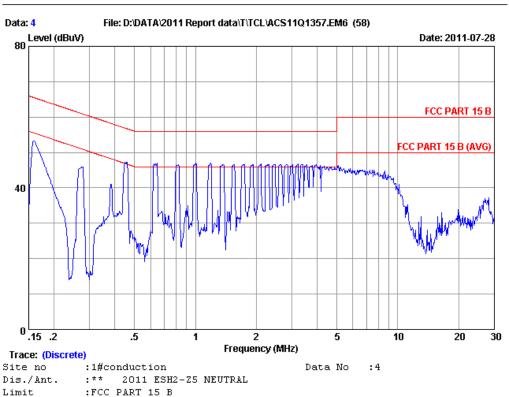
Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200 Power Rating :AC 120V/60Hz

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

VGA:800*600@60Hz



Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

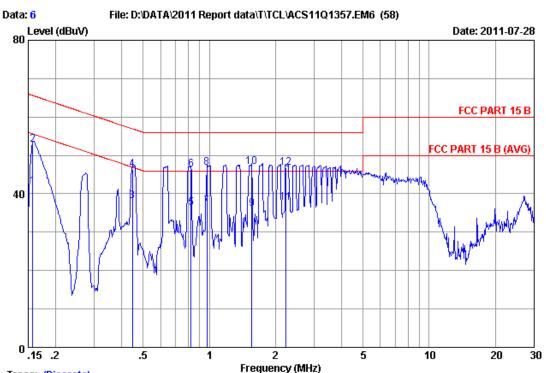
:LED TV M/N:LE32HDE5200 EUT

Power Rating :AC 120V/60Hz

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

VGA:800*600@60Hz





Trace: (Discrete)

Site no :1#conduction Data No :6

Dis./Ant. :** 2011 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

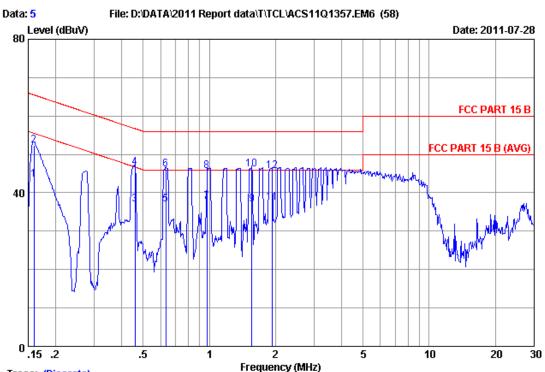
Test Mode :Running "H" Pattern And 1KHz Playing

VGA:1024*768@60Hz

		LISN	Cable		Emissio	n		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15733	0.17	9.98	31.85	42.00	55.60	13.60	Average
2	0.15733	0.17	9.98	42.57	52.72	65.60	12.88	QP
3	0.44679	0.19	9.98	27.97	38.14	46.93	8.79	Average
4	0.44679	0.19	9.98	36.28	46.45	56.93	10.48	QP
5	0.82608	0.21	9.97	26.07	36.25	46.00	9.75	Average
6	0.82608	0.21	9.97	36.14	46.32	56.00	9.68	QP
7	0.97354	0.23	9.98	26.56	36.77	46.00	9.23	Average
8	0.97354	0.23	9.98	36.48	46.69	56.00	9.31	QP
9	1.560	0.28	9.97	25.87	36.12	46.00	9.88	Average
10	1.560	0.28	9.97	36.74	46.99	56.00	9.01	QP
11	2.237	0.31	9.96	27.46	37.73	46.00	8.27	Average
12	2.237	0.31	9.96	36.43	46.70	56.00	9.30	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.





Trace: (Discrete)

Site no :1#conduction Data No :5

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

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

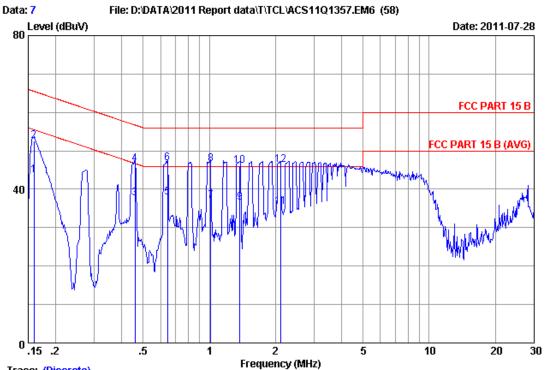
VGA:1024*768@60Hz

		LISN	Cable		Emissio	n		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15900	0.21	9.98	33.19	43.38	55.52	12.14	Average
2	0.15900	0.21	9.98	42.12	52.31	65.52	13.21	QP
3	0.45878	0.22	9.98	26.86	37.06	46.71	9.65	Average
4	0.45878	0.22	9.98	36.35	46.55	56.71	10.16	QP
5	0.63383	0.23	9.97	26.79	36.99	46.00	9.01	Average
6	0.63383	0.23	9.97	35.84	46.04	56.00	9.96	QP
7	0.97354	0.24	9.98	27.39	37.61	46.00	8.39	Average
8	0.97354	0.24	9.98	35.45	45.67	56.00	10.33	QP
9	1.560	0.26	9.97	26.78	37.01	46.00	8.99	Average
10	1.560	0.26	9.97	35.89	46.12	56.00	9.88	QP
11	1.939	0.27	9.96	27.24	37.47	46.00	8.53	Average
12	1.939	0.27	9.96	35.37	45.60	56.00	10.40	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.

AUDIX Technology (Shenzhen) Co., Ltd.





Trace: (Discrete)

FCC ID: W8ULE32HDE5200

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 LINE

:FCC PART 15 B Limit

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

:LED TV M/N:LE32HDE5200 EUT

Power Rating :AC 120V/60Hz

:Running "H" Pattern And 1KHz Playing

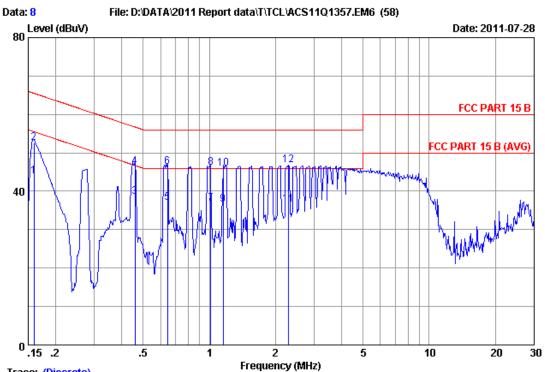
HDMI 1:1920*1080@60Hz

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15900	0.17	9.98	33.53	43.68	55.52	11.84	Average
2	0.15900	0.17	9.98	42.47	52.62	65.52	12.90	QP
3	0.45878	0.19	9.98	27.38	37.55	46.71	9.16	Average
4	0.45878	0.19	9.98	36.41	46.58	56.71	10.13	QP
5	0.64398	0.19	9.97	27.66	37.82	46.00	8.18	Average
6	0.64398	0.19	9.97	36.55	46.71	56.00	9.29	QP
7	1.016	0.23	9.98	26.68	36.89	46.00	9.11	Average
8	1.016	0.23	9.98	36.44	46.65	56.00	9.35	QP
9	1.374	0.26	9.97	26.32	36.55	46.00	9.45	Average
10	1.374	0.26	9.97	36.00	46.23	56.00	9.77	QP
11	2.110	0.31	9.96	25.24	35.51	46.00	10.49	Average
12	2.110	0.31	9.96	36.04	46.31	56.00	9.69	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.



Page 3-9 FCC ID: W8ULE32HDE5200



Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

:FCC PART 15 B Limit

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

:LED TV M/N:LE32HDE5200 EUT

Power Rating :AC 120V/60Hz

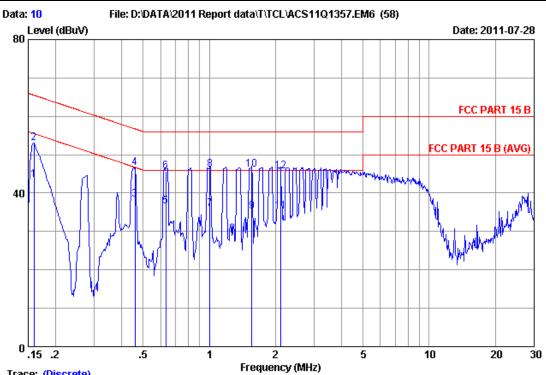
:Running "H" Pattern And 1KHz Playing

HDMI 1:1920*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15900	0.21	9.98	33.74	43.93	55.52	11.59	Average
2	0.15900	0.21	9.98	42.40	52.59	65.52	12.93	QP
3	0.45878	0.22	9.98	28.46	38.66	46.71	8.05	Average
4	0.45878	0.22	9.98	36.25	46.45	56.71	10.26	QP
5	0.64398	0.23	9.97	26.90	37.10	46.00	8.90	Average
6	0.64398	0.23	9.97	36.15	46.35	56.00	9.65	QP
7	1.016	0.24	9.98	26.56	36.78	46.00	9.22	Average
8	1.016	0.24	9.98	35.89	46.11	56.00	9.89	QP
9	1.153	0.24	9.98	26.40	36.62	46.00	9.38	Average
10	1.153	0.24	9.98	35.68	45.90	56.00	10.10	QP
11	2.285	0.28	9.96	26.31	36.55	46.00	9.45	Average
12	2.285	0.28	9.96	36.52	46.76	56.00	9.24	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.

Page 3-10 FCC ID: W8ULE32HDE5200



Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 LINE

:FCC PART 15 B Limit

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

:LED TV M/N:LE32HDE5200 EHT

Power Rating : AC 120V/60Hz

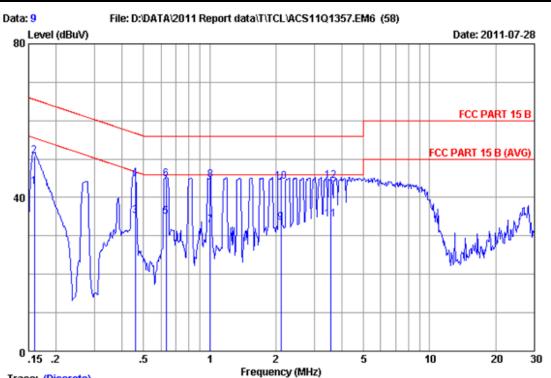
Test Mode :Running "H" Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15900	0.17	9.98	33.28	43.43	55.52	12.09	Average
2	0.15900	0.17	9.98	42.83	52.98	65.52	12.54	QP
3	0.45878	0.19	9.98	28.06	38.23	46.71	8.48	Average
4	0.45878	0.19	9.98	36.38	46.55	56.71	10.16	QP
5	0.63383	0.19	9.97	26.38	36.54	46.00	9.46	Average
6	0.63383	0.19	9.97	35.54	45.70	56.00	10.30	QP
7	1.005	0.23	9.98	25.69	35.90	46.00	10.10	Average
8	1.005	0.23	9.98	35.85	46.06	56.00	9.94	QP
9	1.560	0.28	9.97	25.03	35.28	46.00	10.72	Average
10	1.560	0.28	9.97	35.77	46.02	56.00	9.98	QP
11	2.110	0.31	9.96	24.99	35.26	46.00	10.74	Average
12	2.110	0.31	9.96	35.46	45.73	56.00	10.27	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)





Trace: (Discrete)

Site no :1#conduction Data No :9

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

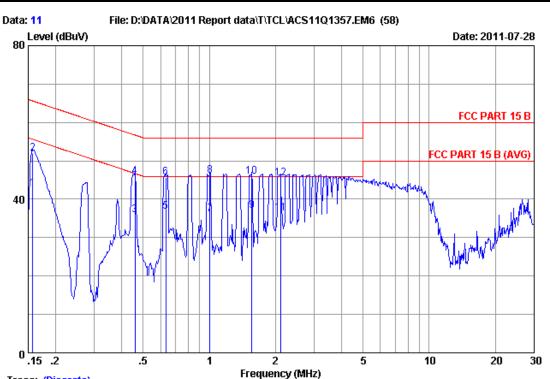
Test Mode : Running "H" Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz

		LISN	Cable		Emissio	n		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15900	0.21	9.98	32.70	42.89	55.52	12.63	Average
2	0.15900	0.21	9.98	40.59	50.78	65.52	14.74	QP
3	0.45878	0.22	9.98	25.07	35.27	46.71	11.44	Average
4	0.45878	0.22	9.98	34.88	45.08	56.71	11.63	QP
5	0.63383	0.23	9.97	24.68	34.88	46.00	11.12	Average
6	0.63383	0.23	9.97	34.50	44.70	56.00	11.30	QP
7	1.005	0.24	9.98	22.63	32.85	46.00	13.15	Average
8	1.005	0.24	9.98	34.39	44.61	56.00	11.39	QP
9	2.110	0.27	9.96	23.09	33.32	46.00	12.68	Average
10	2.110	0.27	9.96	33.96	44.19	56.00	11.81	QP
11	3.565	0.30	9.94	24.10	34.34	46.00	11.66	Average
12	3.565	0.30	9.94	34.01	44.25	56.00	11.75	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.





Trace: (Discrete)

Site no :1#conduction Data No :11

Dis./Ant. :** 2011 ESH2-Z5 LINE

Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

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

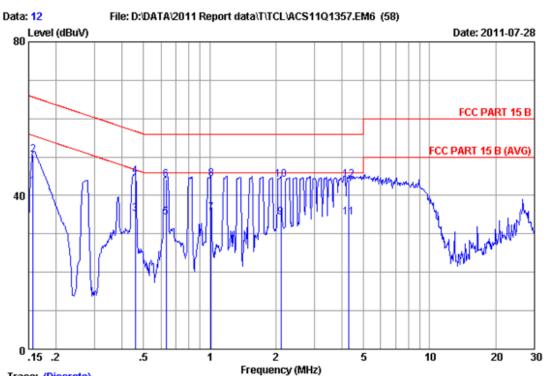
HDMI 3:1920*1080@60Hz

		LISN	Cable		Emissio:	n		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1 0	0.15733	0.17	9.98	32.67	42.82	55.60	12.78	Average
2 0	0.15733	0.17	9.98	41.81	51.96	65.60	13.64	QP
3 0	.45878	0.19	9.98	25.69	35.86	46.71	10.85	Average
4 0	.45878	0.19	9.98	35.78	45.95	56.71	10.76	QP
5 0	0.63383	0.19	9.97	26.58	36.74	46.00	9.26	Average
6 0	0.63383	0.19	9.97	35.54	45.70	56.00	10.30	QP
7	1.005	0.23	9.98	25.87	36.08	46.00	9.92	Average
8	1.005	0.23	9.98	35.91	46.12	56.00	9.88	QP
9	1.560	0.28	9.97	26.77	37.02	46.00	8.98	Average
10	1.560	0.28	9.97	35.75	46.00	56.00	10.00	QP
11	2.110	0.31	9.96	26.11	36.38	46.00	9.62	Average
12	2.110	0.31	9.96	35.28	45.55	56.00	10.45	QP
4 0 5 0 6 0 7 8 9	0.45878 0.63383 0.63383 1.005 1.005 1.560 1.560 2.110	0.19 0.19 0.19 0.23 0.23 0.28 0.28	9.98 9.97 9.97 9.98 9.98 9.97 9.97	35.78 26.58 35.54 25.87 35.91 26.77 35.75 26.11	45.95 36.74 45.70 36.08 46.12 37.02 46.00 36.38	56.71 46.00 56.00 46.00 56.00 46.00 56.00 46.00	10.76 9.26 10.30 9.92 9.88 8.98 10.00 9.62	QP Aver QP Aver QP Aver QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.



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Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

:FCC PART 15 B Limit

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

:LED TV M/N:LE32HDE5200 EUT

Power Rating : AC 120V/60Hz

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

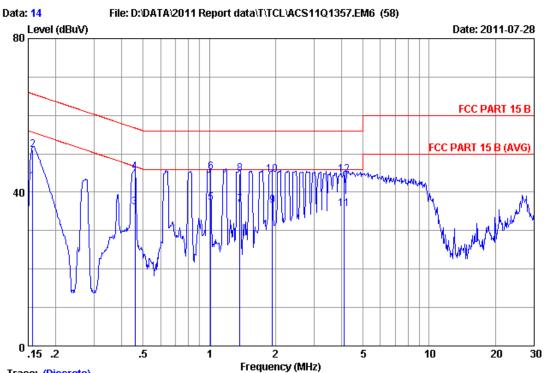
HDMI 3:1920*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15733	0.21	9.98	32.13	42.32	55.60	13.28	Average
2	0.15733	0.21	9.98	40.37	50.56	65.60	15.04	QP
3	0.45878	0.22	9.98	25.09	35.29	46.71	11.42	Average
4	0.45878	0.22	9.98	34.76	44.96	56.71	11.75	QP
5	0.63383	0.23	9.97	24.03	34.23	46.00	11.77	Average
6	0.63383	0.23	9.97	33.92	44.12	56.00	11.88	QP
7	1.016	0.24	9.98	25.17	35.39	46.00	10.61	Average
8	1.016	0.24	9.98	34.03	44.25	56.00	11.75	QP
9	2.110	0.27	9.96	24.07	34.30	46.00	11.70	Average
10	2.110	0.27	9.96	33.80	44.03	56.00	11.97	QP
11	4.292	0.32	9.94	23.98	34.24	46.00	11.76	Average
12	4.292	0.32	9.94	33.91	44.17	56.00	11.83	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.



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Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 LINE

:FCC PART 15 B Limit

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

:LED TV M/N:LE32HDE5200 EUT

Power Rating :AC 120V/60Hz

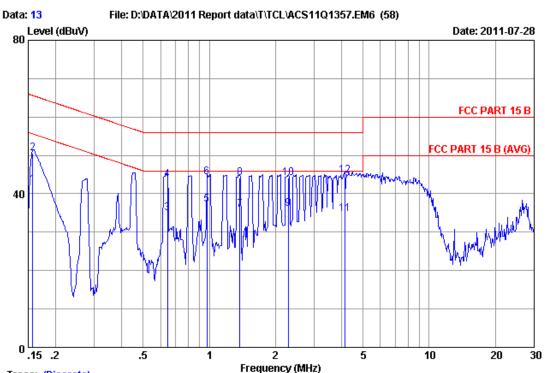
:Running "H" Pattern And 1KHz Playing

HDMI 4:1920*1080@60Hz

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15733	0.17	9.98	32.65	42.80	55.60	12.80	Average
2	0.15733	0.17	9.98	40.82	50.97	65.60	14.63	QP
3	0.45878	0.19	9.98	25.87	36.04	46.71	10.67	Average
4	0.45878	0.19	9.98	34.96	45.13	56.71	11.58	QP
5	1.016	0.23	9.98	26.93	37.14	46.00	8.86	Average
6	1.016	0.23	9.98	34.95	45.16	56.00	10.84	QP
7	1.374	0.26	9.97	26.59	36.82	46.00	9.18	Average
8	1.374	0.26	9.97	34.62	44.85	56.00	11.15	QP
9	1.939	0.31	9.96	26.31	36.58	46.00	9.42	Average
10	1.939	0.31	9.96	34.37	44.64	56.00	11.36	QP
11	4.092	0.35	9.94	25.36	35.65	46.00	10.35	Average
12	4.092	0.35	9.94	34.25	44.54	56.00	11.46	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.





Trace: (Discrete)

Site no :1#conduction Data No :13

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 B

Env./Ins. :25.5*C/55% Engineer :Jolly_Xu

EUT :LED TV M/N:LE32HDE5200

Power Rating :AC 120V/60Hz

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

HDMI 4:1920*1080@60Hz

		LISN	Cable		Emissio	n		
No	Freq	Factor	Loss	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dB)	
1	0.15733	0.21	9.98	32.07	42.26	55.60	13.34	Average
2	0.15733	0.21	9.98	40.39	50.58	65.60	15.02	QP
3	0.64398	0.23	9.97	24.68	34.88	46.00	11.12	Average
4	0.64398	0.23	9.97	33.44	43.64	56.00	12.36	QP
5	0.97354	0.24	9.98	26.90	37.12	46.00	8.88	Average
6	0.97354	0.24	9.98	34.05	44.27	56.00	11.73	QP
7	1.374	0.25	9.97	25.70	35.92	46.00	10.08	Average
8	1.374	0.25	9.97	33.88	44.10	56.00	11.90	QP
9	2.285	0.28	9.96	25.93	36.17	46.00	9.83	Average
10	2.285	0.28	9.96	33.88	44.12	56.00	11.88	QP
11	4.136	0.31	9.94	24.62	34.87	46.00	11.13	Average
12	4.136	0.31	9.94	34.43	44.68	56.00	11.32	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.



4. RADIATED EMISSION TEST

4.1.Test Equipment

4.1.1.For frequency range 30MHz~1000MHz

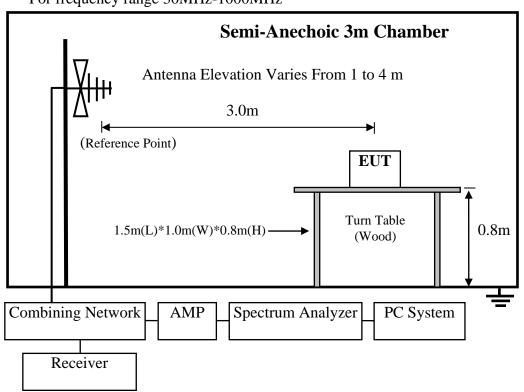
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.06,10	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 11	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 11	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 11	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 11	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 11	1 Year

4.1.2.For frequency range 1GHz~2GHz

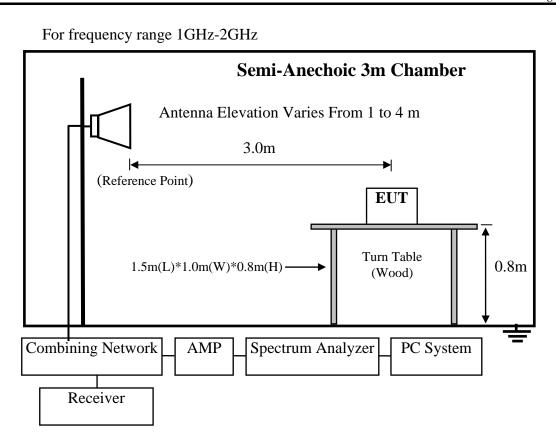
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 11	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	July.01, 11	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 11	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX102	28622/2	May.08, 11	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 11	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz







4.3. Radiated Emission Limit

Frequency	Distance	Field Strengths Limits
MHz	(Meters)	dB(μV)/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: LED TV Model No.: LE32HDE5200

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: Sep.04, 2011 Temperature: 24°C Humidity: 56%



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	#58	#57
2.		VGA	800*600 @ 60Hz	#55	#356
3.			1024*768 @60Hz	#54	#53
4.	PC Mode	HDMI 1	1920*1080@60Hz	#45	#46
5.		HDMI 2	1920*1080@60Hz	#48	#47
6. 💥		HDMI 3	1920*1080@60Hz	#49	#50
7.		HDMI 4	1920*1080@60Hz	#52	#51

^{(*} Worst test mode)

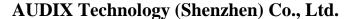
For frequency range 1GHz~2GHz

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

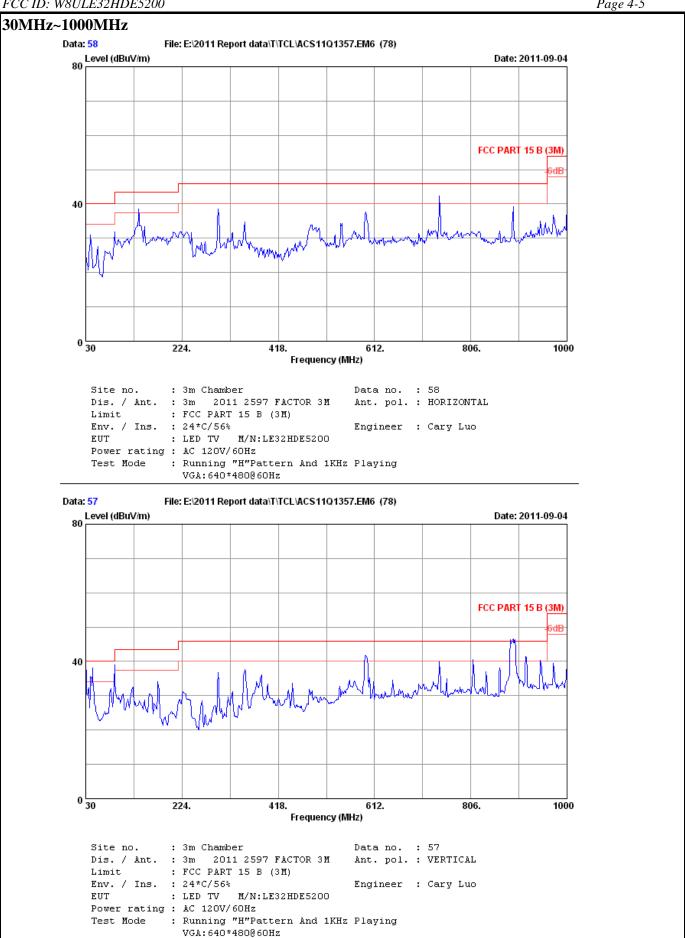
Note: For all the emissions above 1GHz, the peak measured level comply with peak limit, so the average level were deemed to comply with average limit.

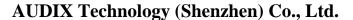
Test Date: Sep.04, 2011 Temperature: 24°C Humidity: 56%

		E			
NO.	Test Mode	Resolution & Frequency	Reference Test Data No.		
		Resolution & Frequency	Horizontal	Vertical	
1.	VGA	1024*768 @60Hz	#59, #60	#61, #62	
2.	HDMI 1	1920*1080 @60Hz	#63,#64	#65, #66	
3.	HDMI 2	1920*1080 @60Hz	#69, #70	#67, #68	
4.	HDMI 3	1920*1080 @60Hz	#71, #72	#73, #74	
5.	HDMI 4	1920*1080 @60Hz	#77, #78	#75, #76	

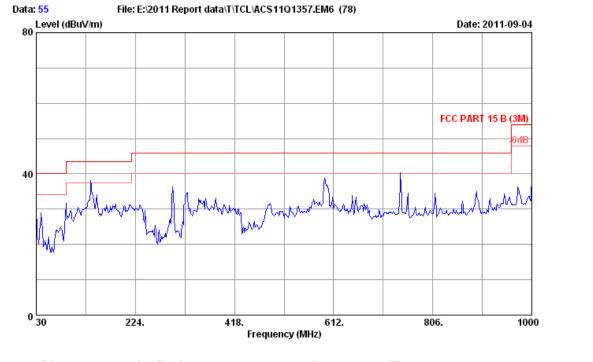












Site no. : 3m Chamber Data no. : 55

Dis. / Ant. : 3m 2011 2597 FACTOR 3M Ant. pol. : HORIZONTAL

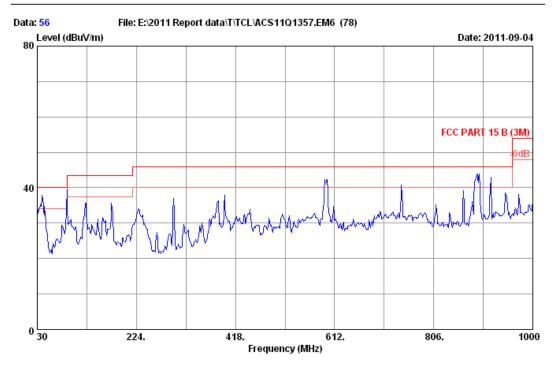
Limit : FCC PART 15 B (3M)

Env. / Ins. : 24 * C/56 * Engineer : Cary Luo EUT : LED TV M/N:LE32HDE5200

Power rating: AC 120V/60Hz

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

VGA:800*600@60Hz



Site no. : 3m Chamber Data no. : 56
Dis. / Ant. : 3m 2011 2597 FACTOR 3M Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

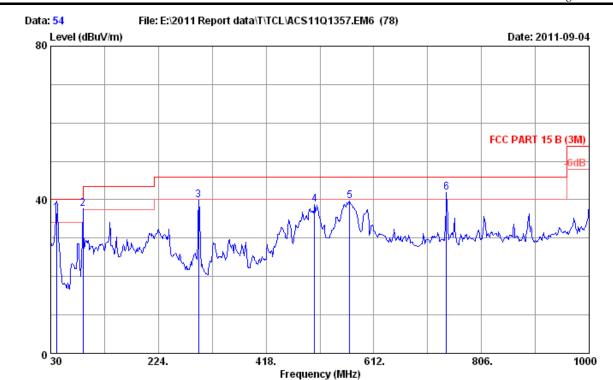
Power rating : AC 120V/60Hz

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

VGA:800*600@60Hz

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FCC ID: W8ULE32HDE5200 Page 4-7



Site no. : 3m Chamber Data no. : 54

Dis. / Ant. : 3m 2597 FACTOR 3M Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

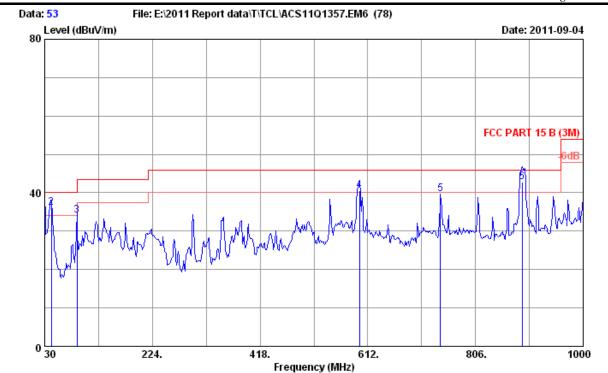
Test Mode : Running "H"Pattern And 1KHz Playing

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	40.670	14.55	0.72	21.32	36.59	40.00	3.41	QP
2	88.200	10.00	1.09	26.46	37.55	43.50	5.95	QP
3	296.750	13.18	2.96	23.82	39.96	46.00	6.04	QP
4	505.300	17.80	4.03	16.98	38.81	46.00	7.19	QP
5	568.350	19.08	4.34	16.19	39.61	46.00	6.39	QP
6	742.950	21.30	5.22	15.39	41.91	46.00	4.09	QP

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

2. The emission levels that are 20dB below the official limit are not reported.



EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

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

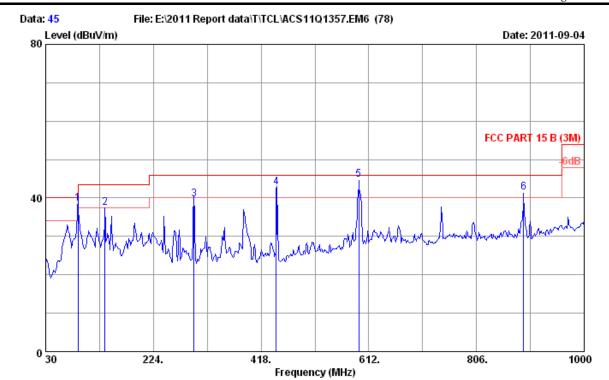
VGA:1024*768@60Hz

_	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	20.40	0.58	14.83	35.81	40.00	4.19	QP	
	2	41.640	14.00	0.73	21.48	36.21	40.00	3.79	QP	
	3	88.200	10.00	1.09	22.91	34.00	43.50	9.50	QP	
	4	597.450	18.90	4.49	17.14	40.53	46.00	5.47	QP	
	5	742.950	21.30	5.22	13.17	39.69	46.00	6.31	QP	
	6	890.390	22.30	5.64	14.86	42.80	46.00	3.20	QP	

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

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FCC ID: W8ULE32HDE5200 Page 4-9



Site no. : 3m Chamber Data no. : 45

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

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

HDMI 1:1920*1080@60Hz

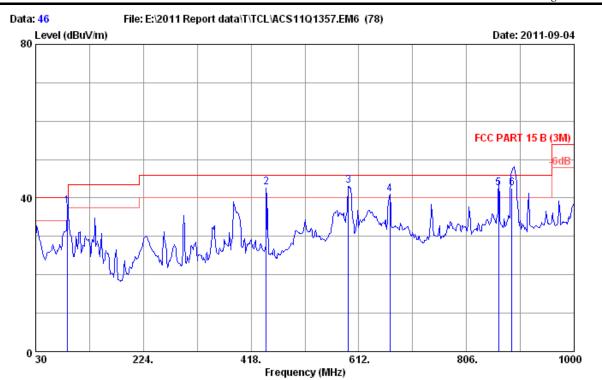
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	88.600	8.82	1.10	28.70	38.62	43.50	4.88	QP
2	136.700	12.06	1.41	23.99	37.46	43.50	6.04	QP
3	297.000	13.70	2.96	23.00	39.66	46.00	6.34	QP
4	445.500	17.10	3.63	22.00	42.73	46.00	3.27	QP
5	593.980	19.84	4.47	20.50	44.81	46.00	1.19	QP
6	891.100	22.89	5.65	13.00	41.54	46.00	4.46	QP

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

2. The emission levels that are 20dB below the official limit are not reported.

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FCC ID: W8ULE32HDE5200 Page 4-10



Site no. : 3m Chamber Data no. : 46
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

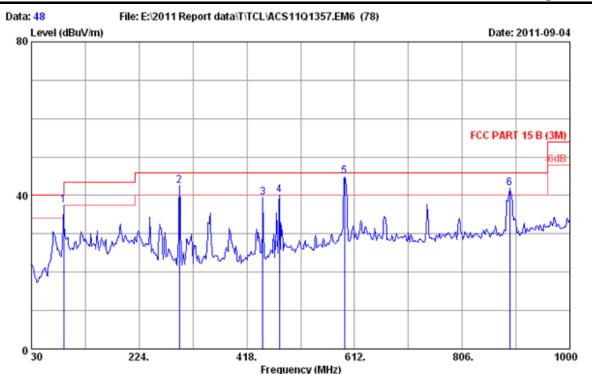
Test Mode : Running "H"Pattern And 1KHz Playing

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	86.800	8.68	1.08	28.20	37.96	40.00	2.04	QP
2	445.400	17.10	3.63	22.00	42.73	46.00	3.27	QP
3	593.390	19.84	4.47	18.99	43.30	46.00	2.70	QP
4	668.260	20.76	4.84	15.35	40.95	46.00	5.05	QP
5	864.200	22.80	5.60	14.07	42.47	46.00	3.53	QP
6	888.100	22.88	5.64	14.00	42.52	46.00	3.48	QP

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

2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 48

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

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

HDMI 2:1920*1080@60Hz

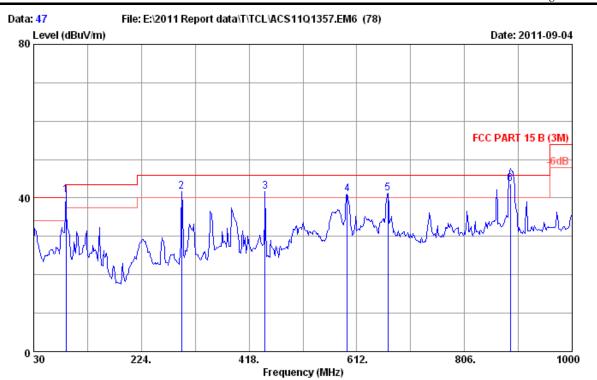
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	88.200	8.82	1.09	27.48	37.39	43.50	6.11	QP
2	296.750	13.70	2.96	26.00	42.66	46.00	3.34	QP
3	447.100	17.06	3.64	18.69	39.39	46.00	6.61	QP
4	477.170	17.95	3.85	18.24	40.04	46.00	5.96	QP
5	594.000	19.84	4.47	20.60	44.91	46.00	1.09	QP
6	891.360	22.89	5.65	13.35	41.89	46.00	4.11	QP

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

The emission levels that are 20dB below the official limit are not reported.

AUDIX Technology (Shenzhen) Co., Ltd.

FCC ID: W8ULE32HDE5200 Page 4-12



Site no. : 3m Chamber Data no. : 47
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

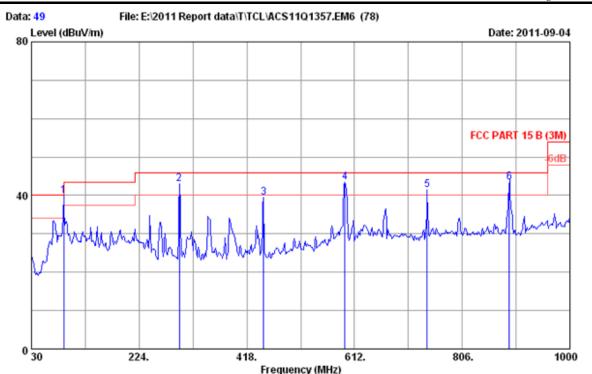
Test Mode : Running "H"Pattern And 1KHz Playing

HDMI 2:1920*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	88.200	8.82	1.09	30.92	40.83	43.50	2.67	QP
	2	296.750	13.70	2.96	24.92	41.58	46.00	4.42	QP
	3	447.100	17.06	3.64	20.99	41.69	46.00	4.31	QP
	4	594.540	19.85	4.47	16.75	41.07	46.00	4.93	QP
	5	668.260	20.76	4.84	15.73	41.33	46.00	4.67	QP
	6	888.450	22.88	5.64	15.25	43.77	46.00	2.23	QP

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

^{2.} The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 49

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

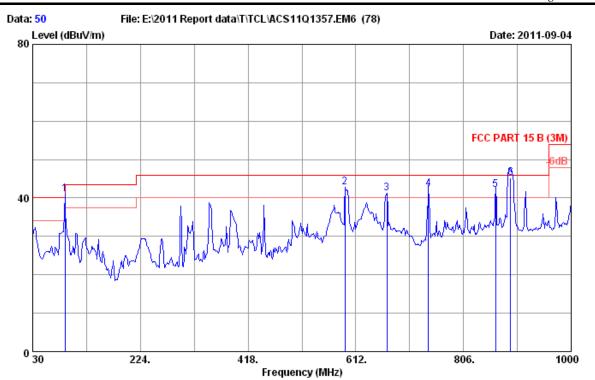
Test Mode : Running "H"Pattern And 1KHz Playing

HDMI 3:1920*1080@60Hz

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	88.200	8.82	1.09	30.04	39.95	43.50	3.55	QP
2	296.750	13.70	2.96	26.44	43.10	46.00	2.90	QP
3	448.070	17.04	3.65	18.77	39.46	46.00	6.54	QP
4	594.540	19.85	4.47	19.03	43.35	46.00	2.65	QP
5	742.950	21.86	5.22	14.48	41.56	46.00	4.44	QP
6	891.010	22.89	5.65	15.00	43.54	46.00	2.46	QP

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

The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 50
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power rating : AC 120V/60Hz

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

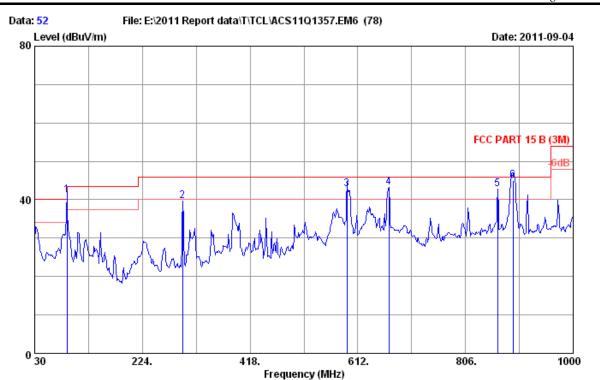
HDMI 3:1920*1080@60Hz

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	88.200	8.82	1.09	30.99	40.90	43.50	2.60	QP
2	592.600	19.83	4.47	18.41	42.71	46.00	3.29	QP
3	668.260	20.76	4.84	15.65	41.25	46.00	4.75	QP
4	742.950	21.86	5.22	15.22	42.30	46.00	3.70	QP
5	864.200	22.80	5.60	13.63	42.03	46.00	3.97	QP
6	891.000	22.89	5.65	16.80	45.34	46.00	0.66	QP

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

^{2.} The emission levels that are 20dB below the official limit are not reported.

FCC ID: W8ULE32HDE5200 Page 4-15



Site no. : 3m Chamber Data no. : 52

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

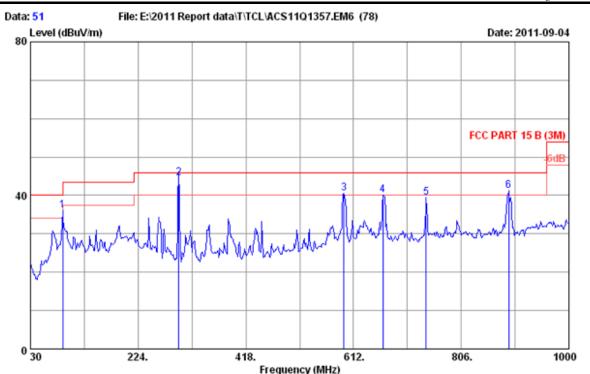
Power rating : AC 120V/60Hz

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

HDMI 4:1920*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	88.200	8.82	1.09	31.28	41.19	43.50	2.31	QP
2	296.750	13.70	2.96	23.08	39.74	46.00	6.26	QP
3	592.600	19.83	4.47	18.45	42.75	46.00	3.25	QP
4	668.260	20.76	4.84	17.68	43.28	46.00	2.72	QP
5	864.200	22.80	5.60	14.29	42.69	46.00	3.31	QP
6	891.360	22.89	5.65	16.50	45.04	46.00	0.96	QP

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



Site no. : 3m Chamber Data no. : 51
Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL

Limit : FCC PART 15 B (3M)

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

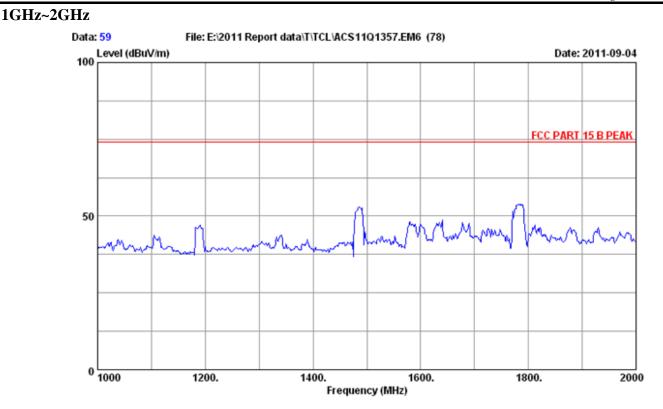
Power rating : AC 120V/60Hz

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

HDMI 4:1920*1080@60Hz

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	88.200	8.82	1.09	26.19	36.10	43.50	7.40	QP
2	297.010	13.70	2.96	28.00	44.66	46.00	1.34	QP
3	594.540	19.85	4.47	16.22	40.54	46.00	5.46	QP
4	665.350	20.71	4.82	14.65	40.18	46.00	5.82	QP
5	742.950	21.86	5.22	12.32	39.40	46.00	6.60	QP
6	891.360	22.89	5.65	12.78	41.32	46.00	4.68	QP
_								

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



Site no. : site Data no. : 59

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

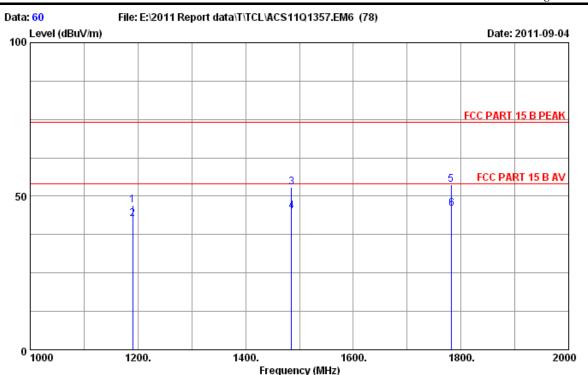
EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

VGA:1024*768@60Hz

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Site no. : site

Data no. : 60 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 9607-4877

: FCC PART 15 B PEAK Limit

Env. / Ins. : 24*C/56% Engineer : Cary Luo

: LED TV M/N:LE32HDE5200

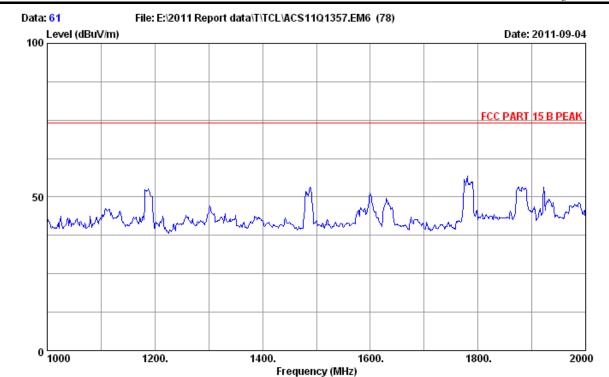
Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

VGA:1024*768@60Hz

		Ant.	Cable	AMP		Emission			
No.	Freq. (MHz)	Factor (dB/m)	Loss (dB)	factor (dBuV)	Reading (dBuV/m)	Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
	(Mnz)	(ав/т)	(ub)	(ubuv)	(ubuv/m)	(ubuv/m)	(ив) 	(ub) 	
1	1190.000	24.11	3.32	35.24	55.00	47.19	74.00	26.81	Peak
2	1190.150	24.11	3.32	35.24	50.56	42.75	54.00	11.25	Average
3	1485.000	25.60	3.79	35.02	58.67	53.04	74.00	20.96	Peak
4	1485.580	25.60	3.79	35.02	50.69	45.06	54.00	8.94	Average
5	1782.000	26.68	4.26	34.78	57.69	53.85	74.00	20.15	Peak
6	1782.690	26.68	4.29	34.78	49.64	45.83	54.00	8.17	Average
3 4 5	1190.150 1485.000 1485.580 1782.000	24.11 25.60 25.60 26.68	3.32 3.79 3.79 4.26	35.24 35.02 35.02 34.78	50.56 58.67 50.69 57.69	42.75 53.04 45.06 53.85	54.00 74.00 54.00 74.00	11.25 20.96 8.94 20.15	Averaç Peak Averaç Peak

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



Site no. : site Data no. : 61
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

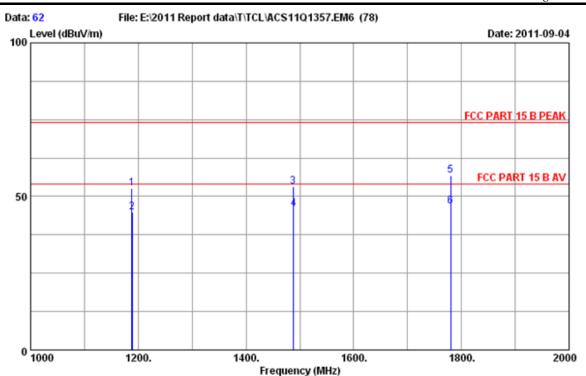
Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

VGA: 1024*768@60Hz



Site no. : site Data no. : 62

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

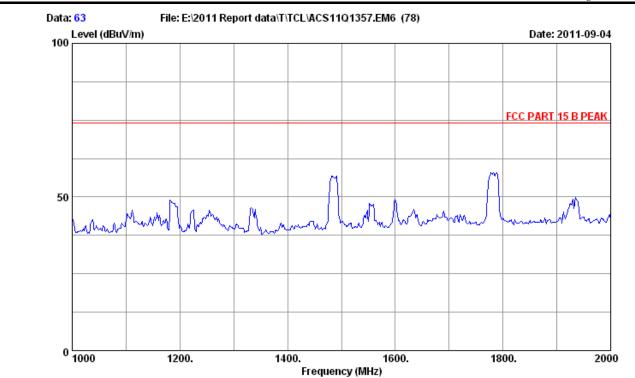
Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

VGA: 1024*768@60Hz

No.	Freq.	Ant. Factor	Cable Loss	AMP factor	Reading	Emission Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	
1	1188.000	24.11	3.29	35.24	60.59	52.75	74.00	21.25	Peak
2	1188.550	24.11	3.29	35.24	52.70	44.86	54.00	9.14	Average
3	1488.000	25.60	3.79	35.00	58.95	53.34	74.00	20.66	Peak
4	1488.470	25.60	3.79	35.00	51.63	46.02	54.00	7.98	Average
5	1780.000	26.68	4.26	34.78	60.69	56.85	74.00	17.15	Peak
6	1780.250	26.68	4.26	34.78	50.57	46.73	54.00	7.27	Average

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



Site no. : 3m Chamber Data no. : 63

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

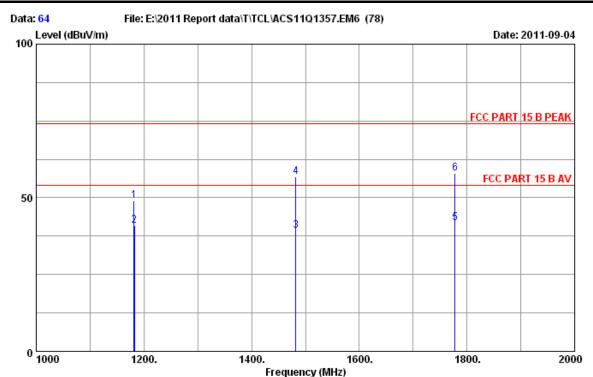
Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 1:1920*1080@60Hz



Site no. : 3m Chamber Data no. : 64

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

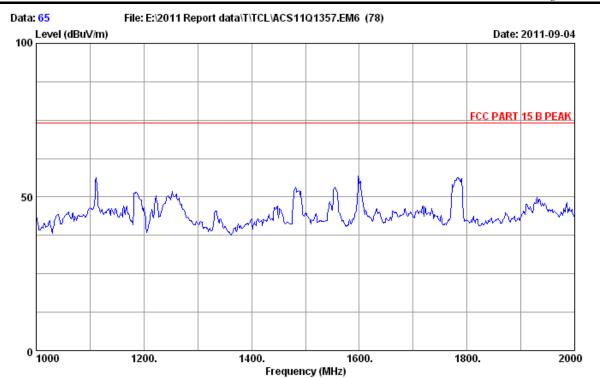
Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 1:1920*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1182.000	24.11	3.29	35.26	56.80	48.94	74.00	25.06	Peak
2	1182.580	24.11	3.29	35.26	48.78	40.92	54.00	13.08	Average
3	1481.750	25.52	3.79	35.02	45.04	39.33	54.00	14.67	Average
4	1482.000	25.52	3.79	35.02	62.54	56.83	74.00	17.17	Peak
5	1778.000	26.68	4.26	34.78	45.57	41.73	54.00	12.27	Average
6	1778.000	26.68	4.26	34.78	61.76	57.92	74.00	16.08	Peak

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



Site no. : site Data no. : 65
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

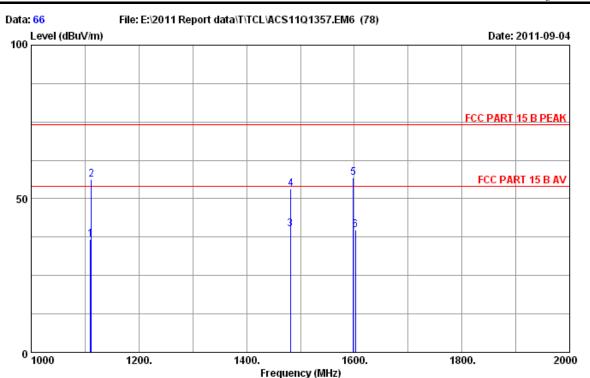
Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 1:1920*1080@60Hz



Site no. : site Data no. : 66
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

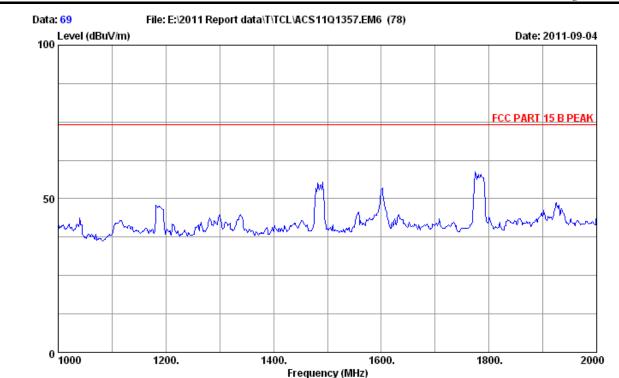
HDMI 1:1920*1080@60Hz

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor	Loss	factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	
1	1109.950	23.70	3.17	35.32	45.31	36.86	54.00	17.14	Average
2	1112.000	23.78	3.17	35.32	64.73	56.36	74.00	17.64	Peak
3	1481.550	25.52	3.79	35.02	45.84	40.13	54.00	13.87	Average
4	1482.000	25.52	3.79	35.02	58.91	53.20	74.00	20.80	Peak
5	1598.000	25.98	3.97	34.92	61.79	56.82	74.00	17.18	Peak
6	1601.900	25.98	3.97	34.92	44.86	39.89	54.00	14.11	Average

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

FCC ID: W8ULE32HDE5200 Page 4-25



Site no. : site Data no. : 69

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

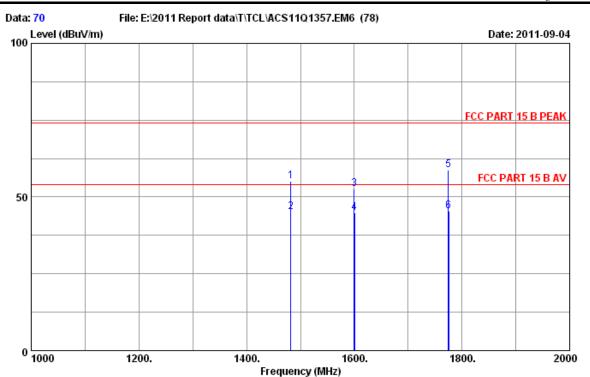
Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz



Site no. : site Data no. : 70

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

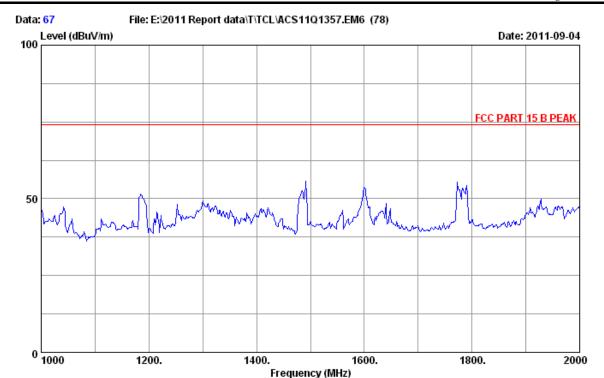
Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1482.000 1482.250	25.52 25.52	3.79 3.79	35.02 35.02	60.73 50.79	55.02 45.08	74.00 54.00	18.98 8.92	Peak Average
3 4	1600.000 1600.480	25.98 25.98	3.97 3.97	34.92 34.92	57.70 49.77	52.73 44.80	74.00 54.00	21.27 9.20	Peak Average
5	1775.000	26.68	4.26	34.78	62.63	58.79	74.00	15.21	Peak
6	1775.550	26.68	4.26	34.78	49.18	45.34	54.00	8.66	Average

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



Site no. : 3m Chamber Data no. : 67
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

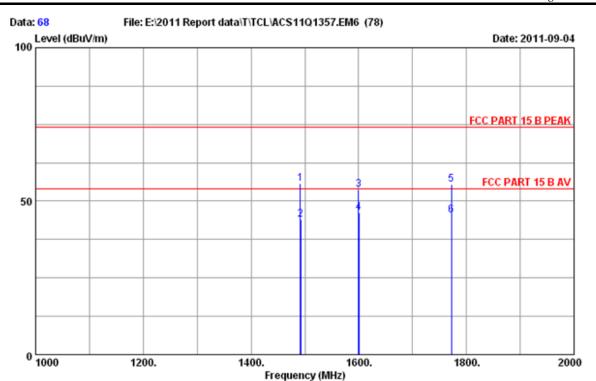
EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz

FCC ID: W8ULE32HDE5200 Page 4-28



Site no. : 3m Chamber Data no. : 68
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

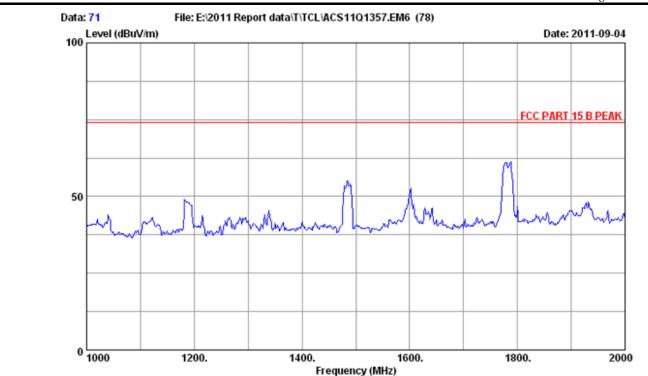
Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 2:1920*1080@60Hz

		Ant.	Cable	AMP		Emission			
No.	Freq. (MHz)	Factor (dB/m)	Loss (dB)	factor (dBuV)	Reading (dBuV/m)	Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1492.000	25.60	3.79	35.00	61.32	55.71	74.00	18.29	Peak
2	1492.650	25.60	3.79	35.00	49.68	44.07	54.00	9.93	Average
3	1600.000	25.98	3.97	34.92	58.62	53.65	74.00	20.35	Peak
4	1600.580	25.98	3.97	34.92	51.25	46.28	54.00	7.72	Average
5	1772.000	26.61	4.26	34.78	59.37	55.46	74.00	18.54	Peak
6	1772.570	26.61	4.26	34.78	49.40	45.49	54.00	8.51	Average

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



Site no. : 3m Chamber Data no. : 71

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

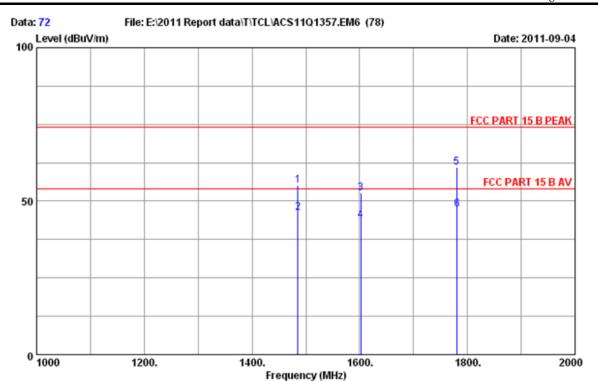
EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 3:1920*1080@60Hz

FCC ID: W8ULE32HDE5200 Page 4-30



Site no. : 3m Chamber Data no. : 72

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

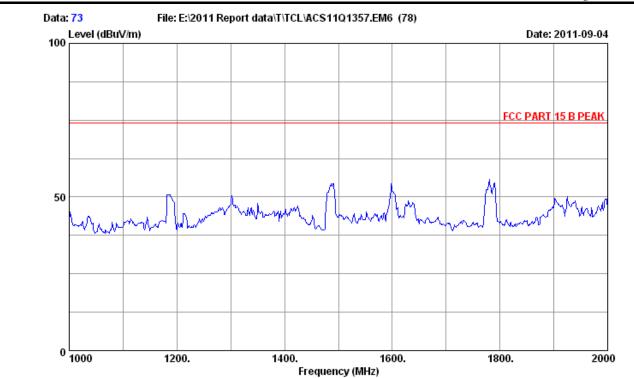
Test Mode : Running H Pattern And 1KHz Playing

HDMI 3:1920*1080@60Hz

		Ant.	Cable	AMP		Emission			
No.	Freq. (MHz)	Factor (dB/m)	Loss (dB)	factor (dBuV)	Reading (dBuV/m)	Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1485.000	25.60	3.79	35.02	60.71	55.08	74.00	18.92	Peak
2	1485.460	25.60	3.79	35.02	51.79	46.16	54.00	7.84	Average
3	1602.000	25.98	3.97	34.92	57.50	52.53	74.00	21.47	Peak
4	1602.360	25.98	3.97	34.92	48.59	43.62	54.00	10.38	Average
5	1780.000	26.68	4.26	34.78	64.97	61.13	74.00	12.87	Peak
6	1780.740	26.68	4.26	34.78	51.25	47.41	54.00	6.59	Average

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

FCC ID: W8ULE32HDE5200 Page 4-31



Site no. : site Data no. : 73
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

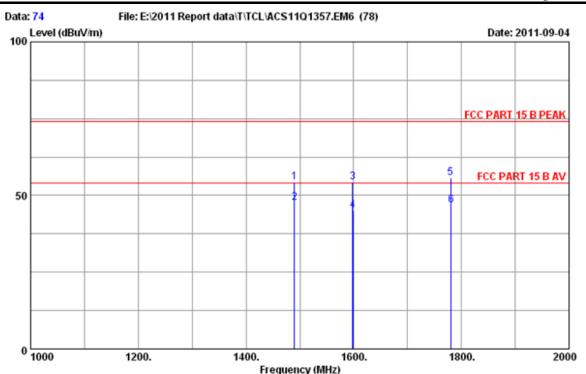
Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 3:1920*1080@60Hz



Site no. : site Data no. : 74

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

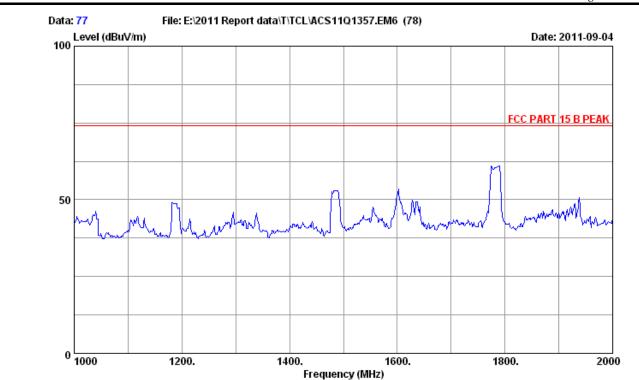
Test Mode : Running H Pattern And 1KHz Playing

HDMI 3:1920*1080@60Hz

		Ant.	Cable	AMP		Emission			
No.	Freq.	Factor (dB/m)	Loss (dB)	factor (dBuV)	Reading (dBuV/m)	Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1490.000	25.60	3.79	35.00	60.06	54.45	74.00	19.55	Peak
2	1490.260	25.60	3.79	35.00	53.18	47.57	54.00	6.43	Average
3	1598.000	25.98	3.97	34.92	59.17	54.20	74.00	19.80	Peak
4	1598.570	25.98	3.97	34.92	50.18	45.21	54.00	8.79	Average
5	1780.000	26.68	4.26	34.78	59.67	55.83	74.00	18.17	Peak
6	1780.740	26.68	4.26	34.78	50.69	46.85	54.00	7.15	Average

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

FCC ID: W8ULE32HDE5200 Page 4-33



Site no. : 3m Chamber Data no. : 77

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

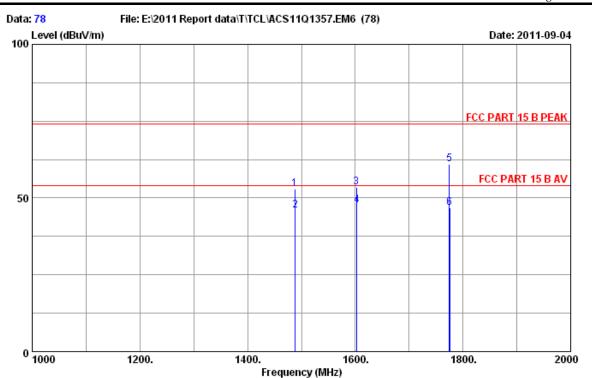
EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 4:1920*1080@60Hz

FCC ID: W8ULE32HDE5200 Page 4-34



Site no. : 3m Chamber Data no. : 78

Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

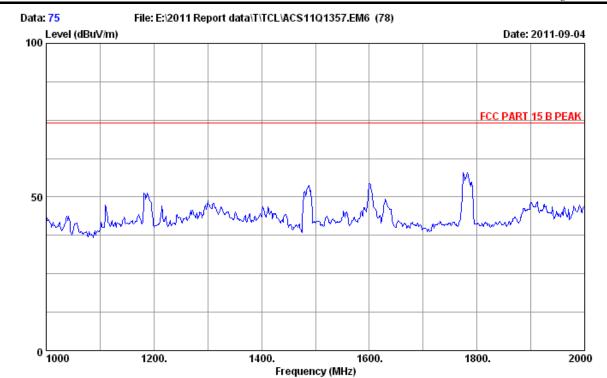
Test Mode : Running H Pattern And 1KHz Playing

HDMI 4:1920*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1 2	1488.000 1488.690	25.60 25.60	3.79 3.79	35.00 35.00	58.67 51.69	53.06 46.08	74.00 54.00	20.94 7.92	Peak Average
3	1602.000	25.98	3.97	34.92	58.40	53.43	74.00	20.57	Peak
4	1602.680	25.98	4.00	34.92	52.47	47.53	54.00	6.47	Average
5	1775.000	26.68	4.26	34.78	64.92	61.08	74.00	12.92	Peak
6	1775.690	26.68	4.26	34.78	50.75	46.91	54.00	7.09	Average

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

FCC ID: W8ULE32HDE5200 Page 4-35



Site no. : 3m Chamber Data no. : 75
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

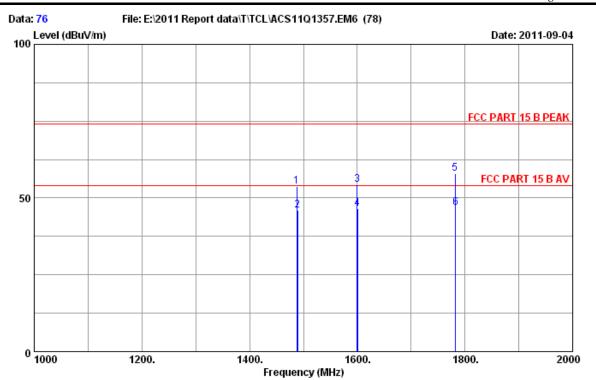
EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

Test Mode : Running H Pattern And 1KHz Playing

HDMI 4:1920*1080@60Hz

FCC ID: W8ULE32HDE5200 Page 4-36



Site no. : 3m Chamber Data no. : 76
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL

Limit : FCC PART 15 B PEAK

Env. / Ins. : 24*C/56% Engineer : Cary Luo

EUT : LED TV M/N:LE32HDE5200

Power Rating : AC 120V/60Hz

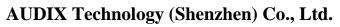
Test Mode : Running H Pattern And 1KHz Playing

HDMI 4:1920*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1 2	1488.000 1488.890	25.60 25.60	3.79 3.79	35.00 35.00	59.41 51.49	53.80 45.88	74.00 54.00	20.20	Peak Average
3	1600.000	25.98	3.97	34.92	59.40	54.43	74.00	19.57	Peak
4	1600.540	25.98	3.97	34.92	51.47	46.50	54.00	7.50	Average
5	1782.000	26.68	4.26	34.78	61.69	57.85	74.00	16.15	Peak
6	1782.680	26.68	4.29	34.78	50.62	46.81	54.00	7.19	Average

Parameter de Francisco I anno la Antonio - Frantasia de Caballa I anno la Prodicio

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





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5. DEVIATION TO TEST SPECIFICATIONS [NONE]