



FCC ID: W8ULE40FHDE5200

APPLICATION OF CERTIFICATION

For

TTE Technology Inc.

LED TV

Brand Name	Model Number
TCL	LE40FHDE5200

FCC ID: W8ULE40FHDE5200

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- F11197  
Date of Test : Jul.28~Sep.04, 2011  
Date of Report : Sep.07, 2011

**TABLE OF CONTENTS**

<b>Description</b>	<b>Page</b>
<b>Test Report Certification</b>	
<b>1. SUMMARY OF STANDARDS AND RESULTS .....</b>	<b>1-1</b>
1.1. Description of Standards and Results .....	1-1
<b>2. GENERAL INFORMATION.....</b>	<b>2-1</b>
2.1. Description of Device (EUT).....	2-1
2.2. Tested Supporting System Details .....	2-2
2.3. Block diagram of connection between the EUT and simulators.....	2-3
2.4. Test Facility .....	2-4
2.5. Measurement Uncertainty (95% confidence levels, k=2).....	2-4
<b>3. POWER LINE CONDUCTED EMISSION TEST .....</b>	<b>3-1</b>
3.1. Test Equipment.....	3-1
3.2. Block Diagram of Test Setup.....	3-1
3.3. Power Line Conducted Emission Test Limits .....	3-1
3.4. Configuration of EUT on Test.....	3-1
3.5. Operating Condition of EUT .....	3-2
3.6. Test Procedure .....	3-2
3.7. Conducted Disturbance at Mains Terminals Test Results .....	3-2
<b>4. RADIATED EMISSION TEST.....</b>	<b>4-1</b>
4.1. Test Equipment.....	4-1
4.2. Block Diagram of Test Setup.....	4-1
4.3. Radiated Emission Limit .....	4-2
4.4. EUT Configuration on Test .....	4-2
4.5. Operating Condition of EUT .....	4-2
4.6. Test Procedure .....	4-3
4.7. Radiated Disturbance Test Results .....	4-3
<b>5. DEVIATION TO TEST SPECIFICATIONS .....</b>	<b>5-1</b>
<b>6. PHOTOGRAPH .....</b>	<b>6-1</b>
6.1. Photos of Power Line Conducted Emission Test.....	6-1
6.2. Photos of Radiated Emission Test (In Anechoic Chamber) .....	6-2
<b>7. PHOTOS OF THE EUT .....</b>	<b>7-1</b>

FCC ID: W8ULE40FHDE5200

### TEST REPORT CERTIFICATION

Applicant : TTE Technology Inc.  
 Manufacturer : TCL King Electrical Appliances (Huizhou) Co., Ltd.  
 EUT Description : LED TV  
 FCC ID : W8ULE40FHDE5200

(A) Model No. & Brand Name	:	Brand Name	Model Number
		TCL	LE40FHDE5200

(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.07, 2011

Prepared by : Blove Ye  
 Blove Ye / Assistant

Reviewed by : Sun Zeng  
 Sun Zeng / Supervisor



信安科技 (深圳) 有限公司  
 Audix Technology (Shenzhen) Co., Ltd.  
 EMC 部門報告專用章  
 Stamp only for EMC Dept. Report  
 Signature: Ken Lu 9/11/11

Approved & Authorized Signer : Ken Lu  
 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 17.57dB at 0.19654MHz
Radiated Emission Test (30-1000MHz)	FCC Part 15: 2010 ANSI C63.4: 2009	PASS	Meets Class B Limit Minimum passing margin is 0.73dB 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 5.25dB at 1775.170MHz

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description : LED TV

Model Number : 

Brand Name	Model Number
TCL	LE40FHDE5200

FCC ID : W8ULE40FHDE5200

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.26, 2011

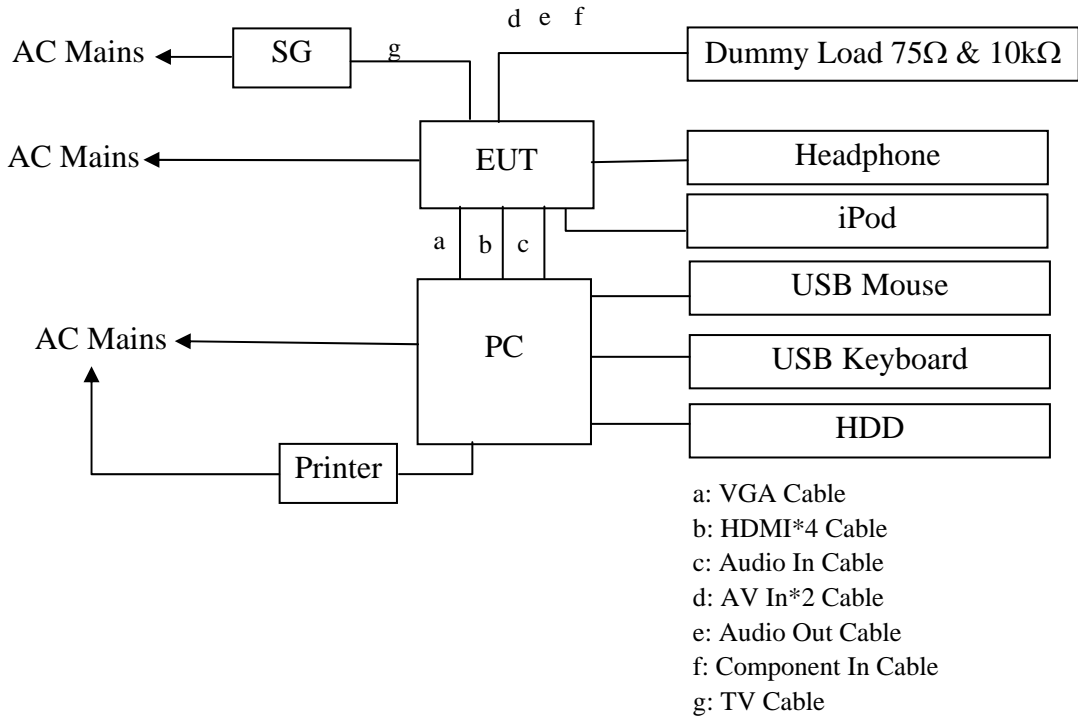
Sample Type : Prototype production



**2.2. Tested Supporting System Details**

	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1.	Personal Computer	Test PC P	DELL	Studio 540	124XK2X	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID:R33002
Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3450 (DVI+VGA+HDMI)						
2.	USB Keyboard	ACS-EMC- K04R	DELL	SK-8115	CN-ODJ313-7161 6-6BB-049J	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: T3A002
Power Cord: shielded, Undetachable, 2.0m						
3.	Headphone	ACS-EMC-EP02	OVANN	OV880V	N/A	<input type="checkbox"/> FCC ID <input type="checkbox"/> BSMI ID
Cable: Shielded, Undetachable, 4.0m						
4.	Printer	ACS-EMC-PT04	HP	C9079A	N/A	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R33001
USB Cable: Shielded, Detachable, 1.8m Power Cord: Unshielded, Detachable, 1.8m Power Adapter: HP, M/N: 0957-2119, BSMI ID: R33030, DC Cable: Unshielded, Detachable, 1.5m						
5.	USB Mouse	ACS-EMC-M04R	DELL	M056UO	512024282	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R41108
Power Cord: shielded, Undetachable, 1.8m						
6.	iPod nano	ACS-EMC-IP03	APPLE	A1199	YM711H3LVQ5	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R33057
Data Cable: Shielded, Detachable, 1.0m						
7.	iPod nano	ACS-EMC-IP04	APPLE	A1199	YM706N0EVQ5	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R33057
Data Cable: Shielded, Detachable, 1.0m						
8.	HDD	ACS-EMC-HDD03	Terasys	F12-UF	A0100215-53900 30	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: 4912A022
USB Cable: Shielded, Detachable, 1.8m						
9.	Dummy Load (10KΩ & 75Ω )	Component In Cable: Unshielded, Detachable, 1.5m Audio Out Cable: Unshielded, Detachable, 1.5m AV Cable: Unshielded, Detachable, 1.5m				
10.	Power Cord : Unshielded, Detachable, 2.0m D-Sub Cable: Shielded, Detachable, 1.5m HDMI Cable: Shielded, Detachable, 1.5m Audio Cable: Unshielded, 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
Uncertainty for Radiation Emission test in 3m chamber	3.6 dB(30~200MHz, Polarize: H)
	3.7 dB(30~200MHz, Polarize: V)
	4.0 dB(200M~1GHz, Polarize: H)
	3.7 dB(200M~1GHz, Polarize: V)
Uncertainty for test site temperature and humidity	3%
	0.6°C

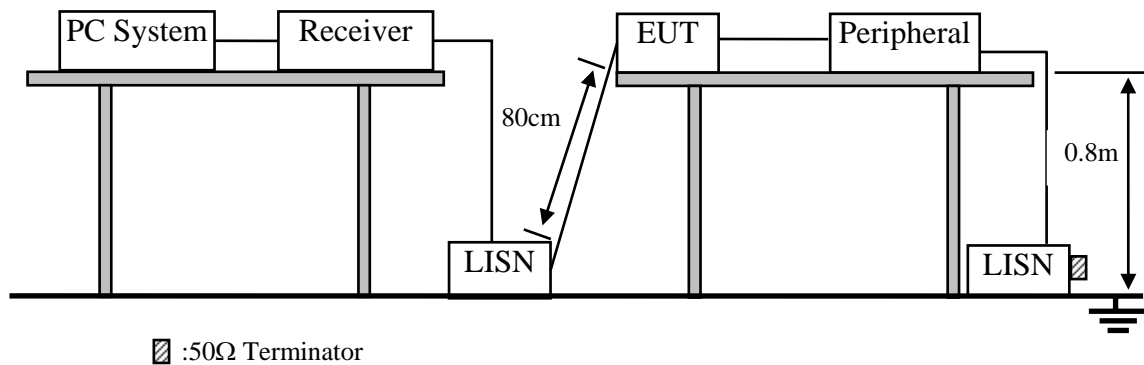


### 3. POWER LINE CONDUCTED EMISSION TEST

#### 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

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
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 : LE40FHDE5200  
 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. : LE40FHDE5200

Test Date: Jul.28, 2011

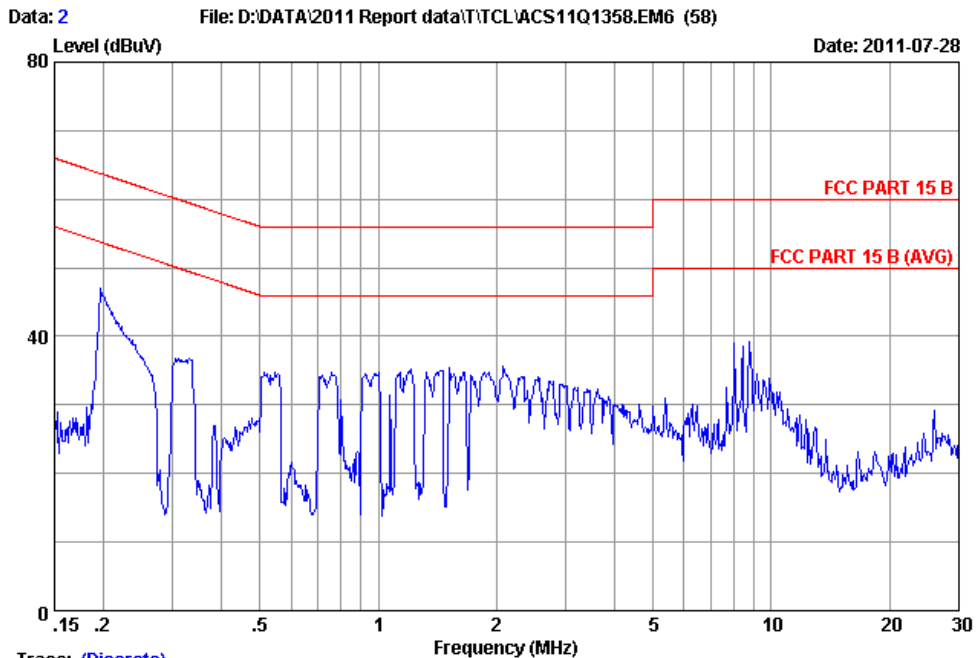
Temperature: 29.5°C

Humidity: 55%

The details of test modes are as follows :

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

(※ Worst test mode)



Trace: (Discrete)

Site no :1#conduction Data No :2

Dis./Ant. \*\*: 2011 ESH2-25 LINE

Limit :FCC PART 15 B

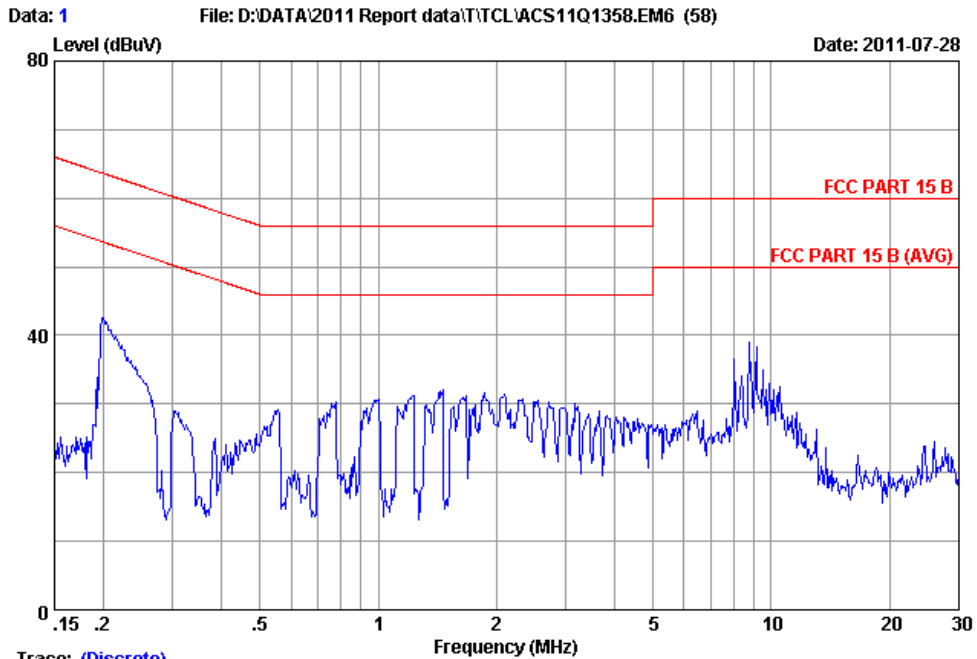
Env./Ins. :25.5\*C/55% Engineer :Jolly\_Xu

EUT :LED TV M/N:LE40FHDE5200

Power Rating :AC 120V/60Hz

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

VGA:640\*480@60Hz



Trace: (Discrete)

Site no :1#conduction Data No :1

Dis./Ant. \*\*: 2011 ESH2-25 NEUTRAL

Limit :FCC PART 15 B

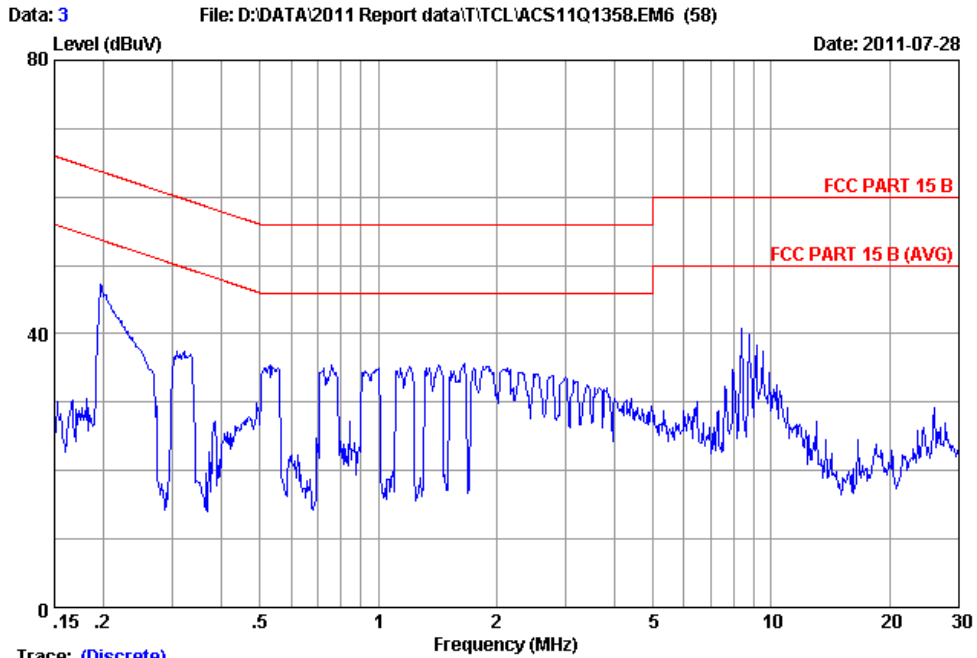
Env./Ins. :25.5\*C/55% Engineer :Jolly\_Xu

EUT :LED TV M/N:LE40FHDE5200

Power Rating :AC 120V/60Hz

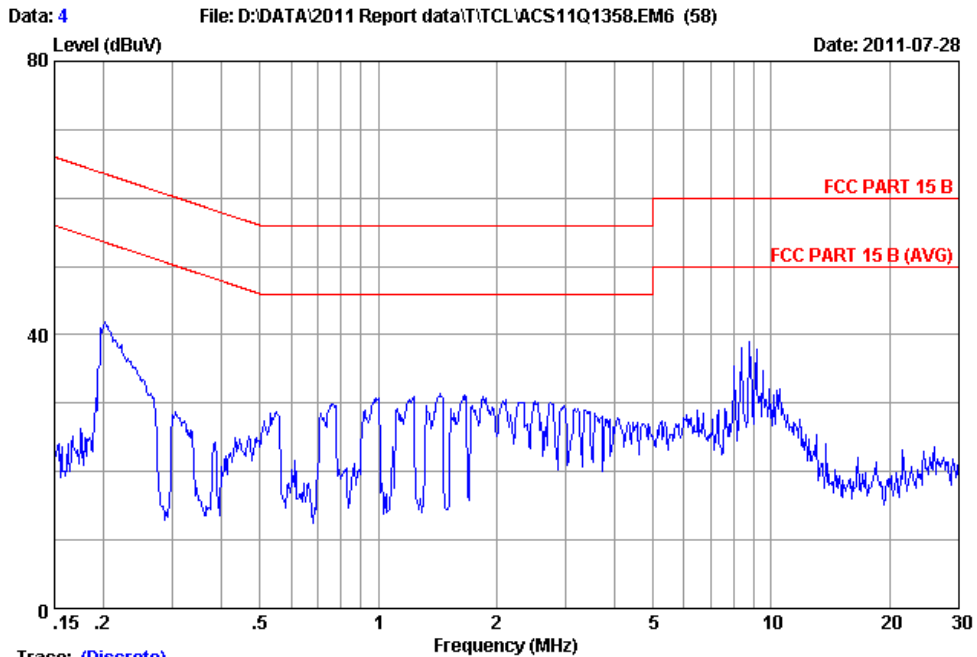
Test Mode :Running "H" Pattern And 1KHz Playing

VGA:640\*480@60Hz



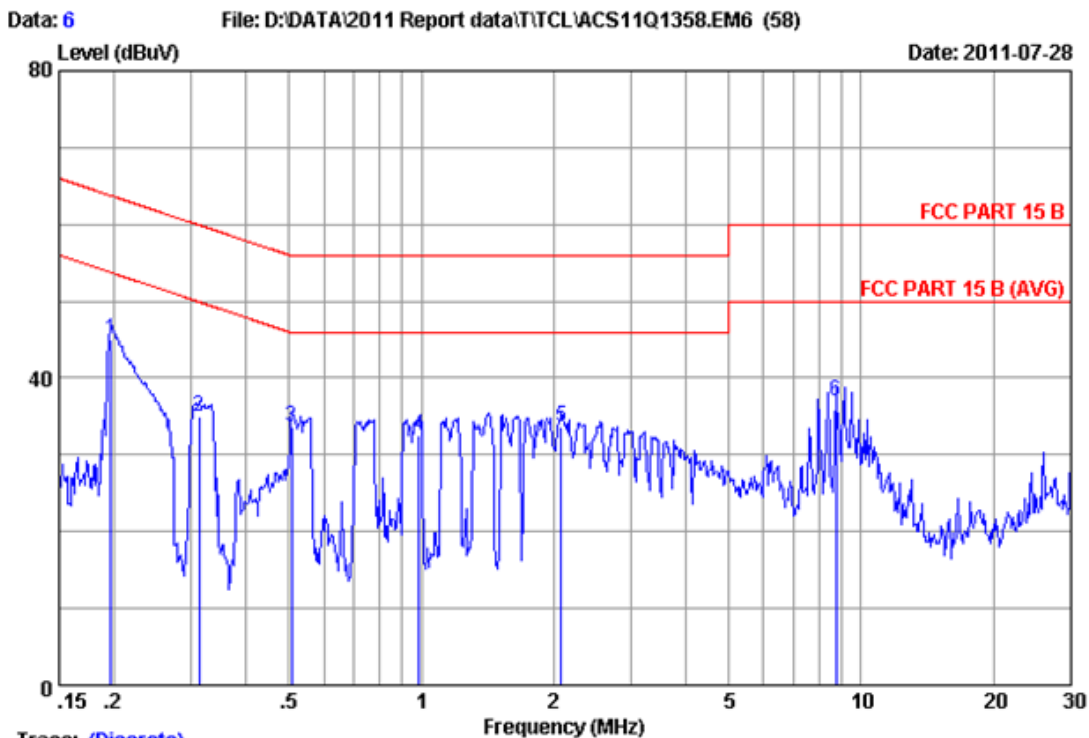
Trace: (Discrete)

Site no	:1#conduction	Data No	:3
Dis./Ant.	** 2011 ESH2-25 LINE		
Limit	:FCC PART 15 B		
Env./Ins.	:25.5°C/55%	Engineer	:Jolly_Xu
EUT	:LED TV M/N:LE40FHDE5200		
Power Rating	:AC 120V/60Hz		
Test Mode	:Running "H" Pattern And 1KHz Playing		
	VGA:800*600@60Hz		



Trace: (Discrete)

Site no	:1#conduction	Data No	:4
Dis./Ant.	** 2011 ESH2-25 NEUTRAL		
Limit	:FCC PART 15 B		
Env./Ins.	:25.5°C/55%	Engineer	:Jolly_Xu
EUT	:LED TV M/N:LE40FHDE5200		
Power Rating	:AC 120V/60Hz		
Test Mode	:Running "H" Pattern And 1KHz Playing		
	VGA:800*600@60Hz		



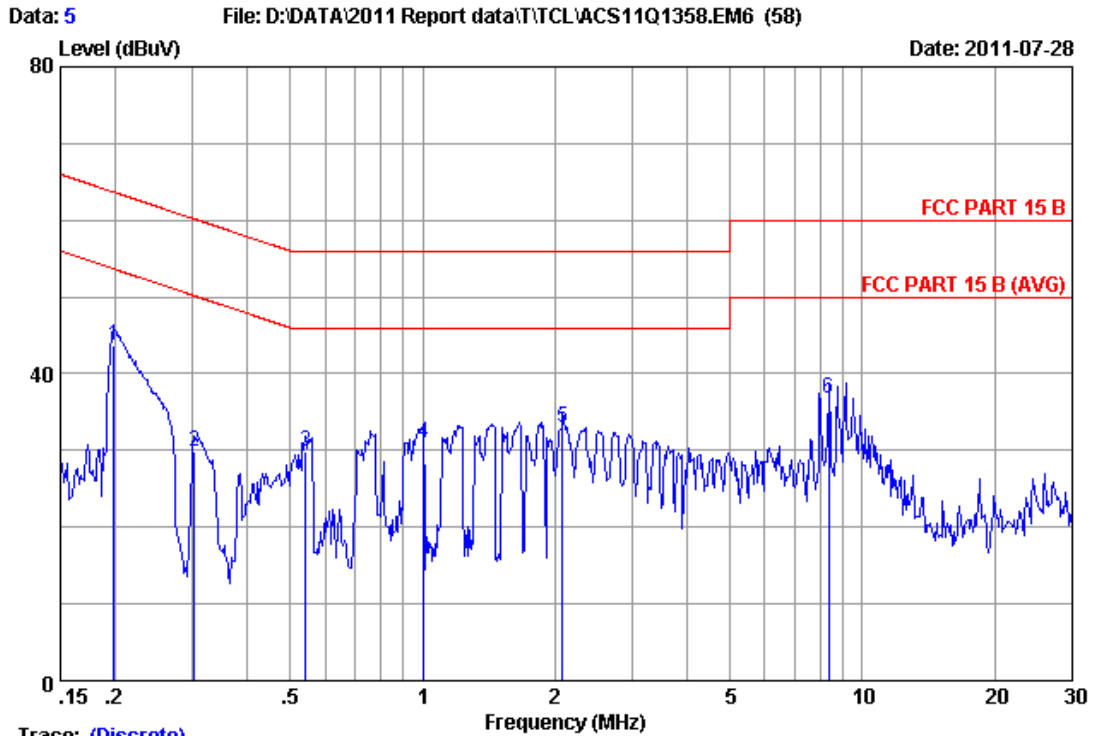
Trace: (Discrete)

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:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19654	0.17	9.98	34.77	44.92	63.76	18.84	QP
2	0.31163	0.18	9.98	24.82	34.98	59.93	24.95	QP
3	0.50737	0.19	9.98	23.59	33.76	56.00	22.24	QP
4	0.98914	0.23	9.98	22.33	32.54	56.00	23.46	QP
5	2.077	0.31	9.96	23.42	33.69	56.00	22.31	QP
6	8.776	0.58	9.91	26.46	36.95	60.00	23.05	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



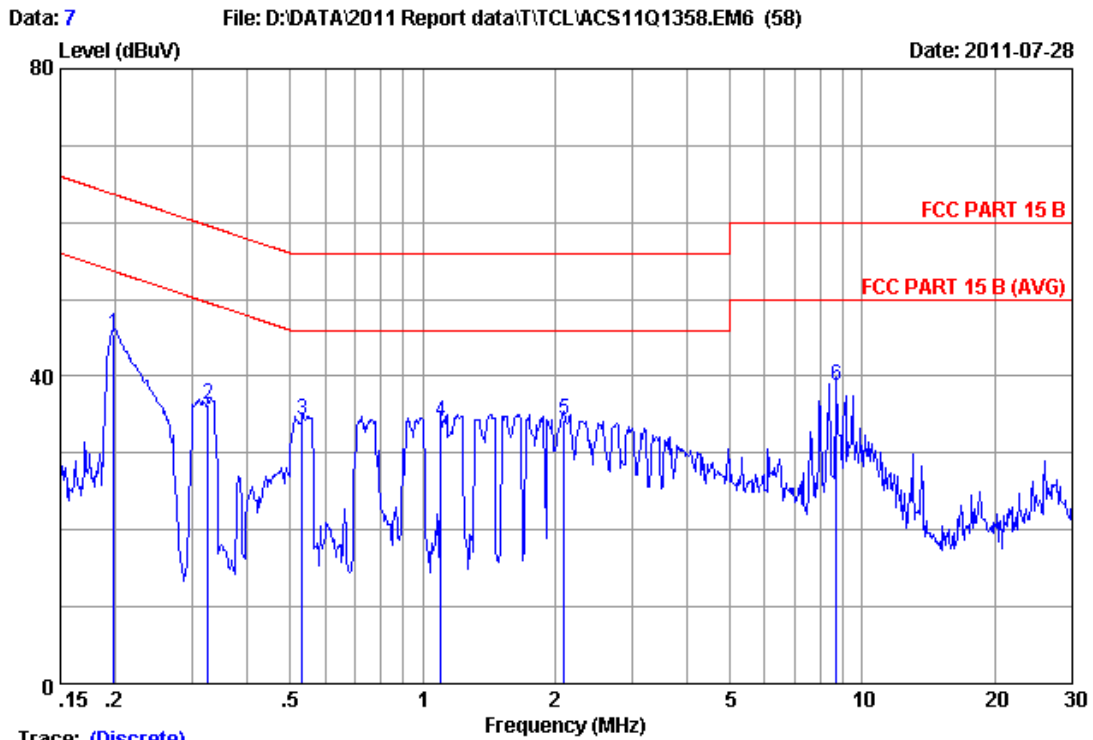


Trace: (Discrete)

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:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19863	0.21	9.98	33.57	43.76	63.67	19.91	QP
2	0.30188	0.21	9.98	19.60	29.79	60.19	30.40	QP
3	0.54068	0.22	9.98	19.63	29.83	56.00	26.17	QP
4	1.005	0.24	9.98	20.70	30.92	56.00	25.08	QP
5	2.077	0.27	9.96	22.85	33.08	56.00	22.92	QP
6	8.367	0.42	9.91	26.55	36.88	60.00	23.12	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

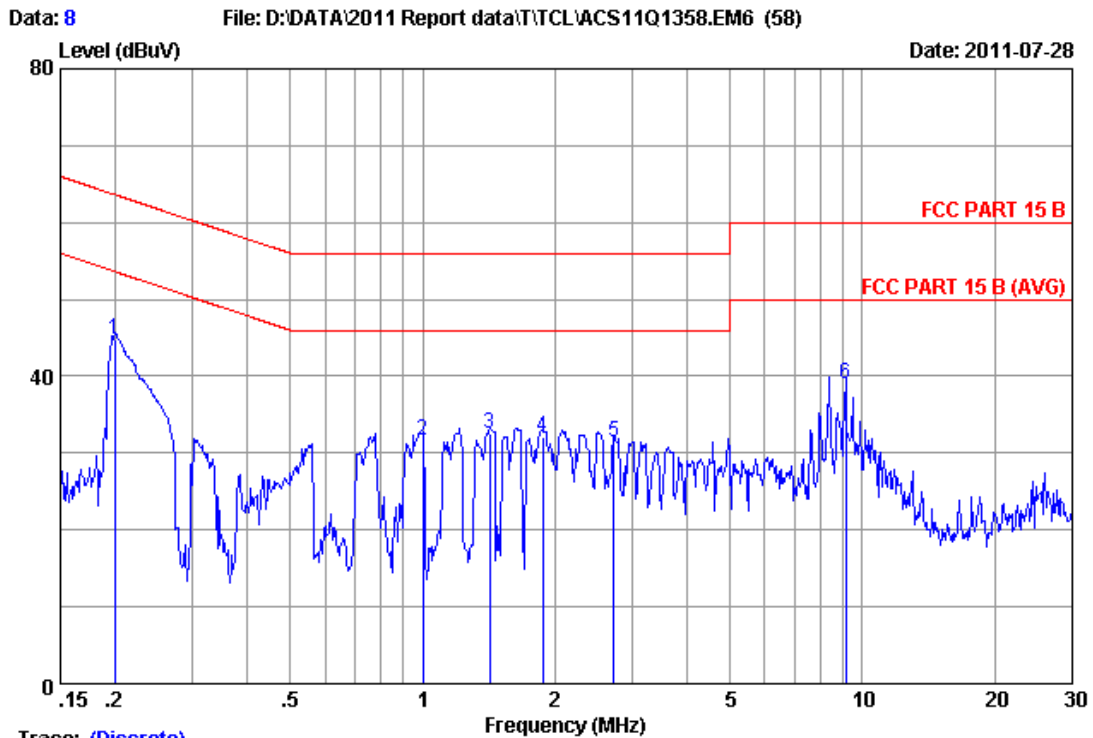


Trace: (Discrete)

Site no :1#conduction Data No :7  
 Dis./Ant. \*\*: 2011 ESH2-25 LINE  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5°C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19863	0.17	9.98	35.23	45.38	63.67	18.29	QP
2	0.32512	0.18	9.98	26.08	36.24	59.57	23.33	QP
3	0.53215	0.19	9.98	24.12	34.29	56.00	21.71	QP
4	1.100	0.24	9.98	23.90	34.12	56.00	21.88	QP
5	2.099	0.31	9.96	24.11	34.38	56.00	21.62	QP
6	8.729	0.58	9.91	28.32	38.81	60.00	21.19	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

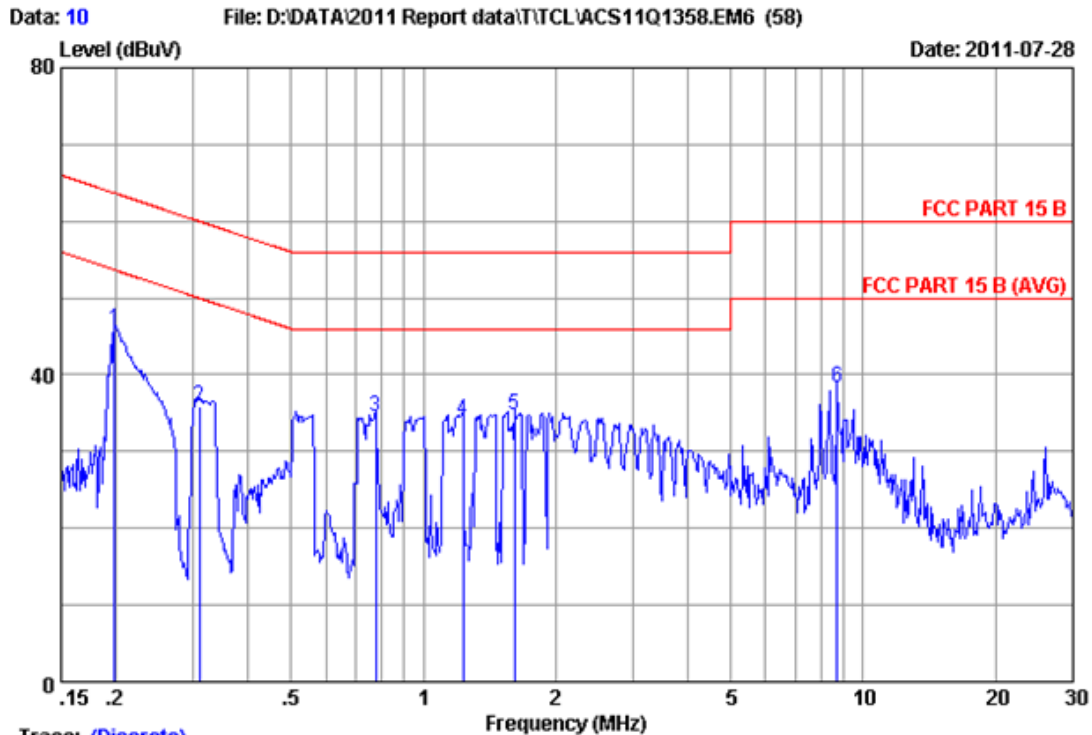


Trace: (Discrete)

Site no :1#conduction Data No :8  
 Dis./Ant. \*\*: 2011 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5°C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19969	0.21	9.98	34.49	44.68	63.62	18.94	QP
2	0.99968	0.24	9.98	21.50	31.72	56.00	24.28	QP
3	1.418	0.25	9.97	22.21	32.43	56.00	23.57	QP
4	1.878	0.27	9.96	21.94	32.17	56.00	23.83	QP
5	2.721	0.28	9.95	21.19	31.42	56.00	24.58	QP
6	9.156	0.43	9.91	28.61	38.95	60.00	21.05	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

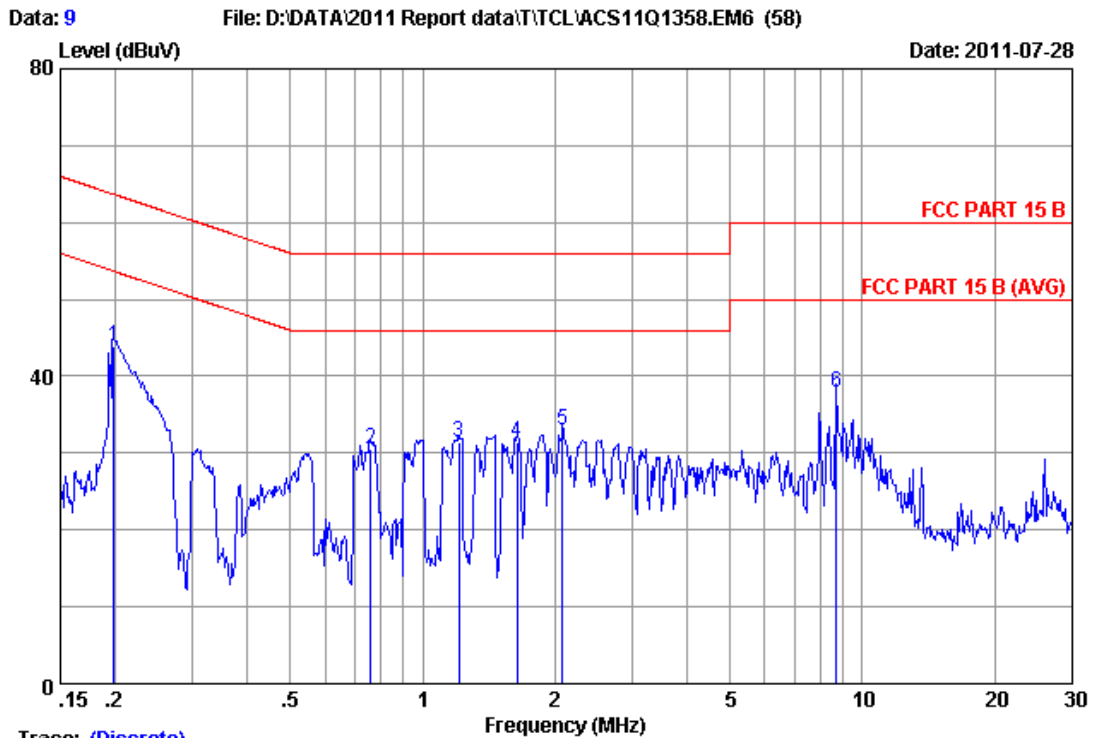


Trace: (Discrete)

Site no :1#conduction Data No :10  
 Dis./Ant. :\*\* 2011 ESH2-25 LINE  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5°C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 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)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.19863	0.17	9.98	35.69	45.84	63.67	17.83	QP
2	0.30998	0.18	9.98	25.78	35.94	59.97	24.03	QP
3	0.77931	0.20	9.97	24.32	34.49	56.00	21.51	QP
4	1.229	0.25	9.97	23.89	34.11	56.00	21.89	QP
5	1.610	0.28	9.97	24.41	34.66	56.00	21.34	QP
6	8.729	0.58	9.91	27.80	38.29	60.00	21.71	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

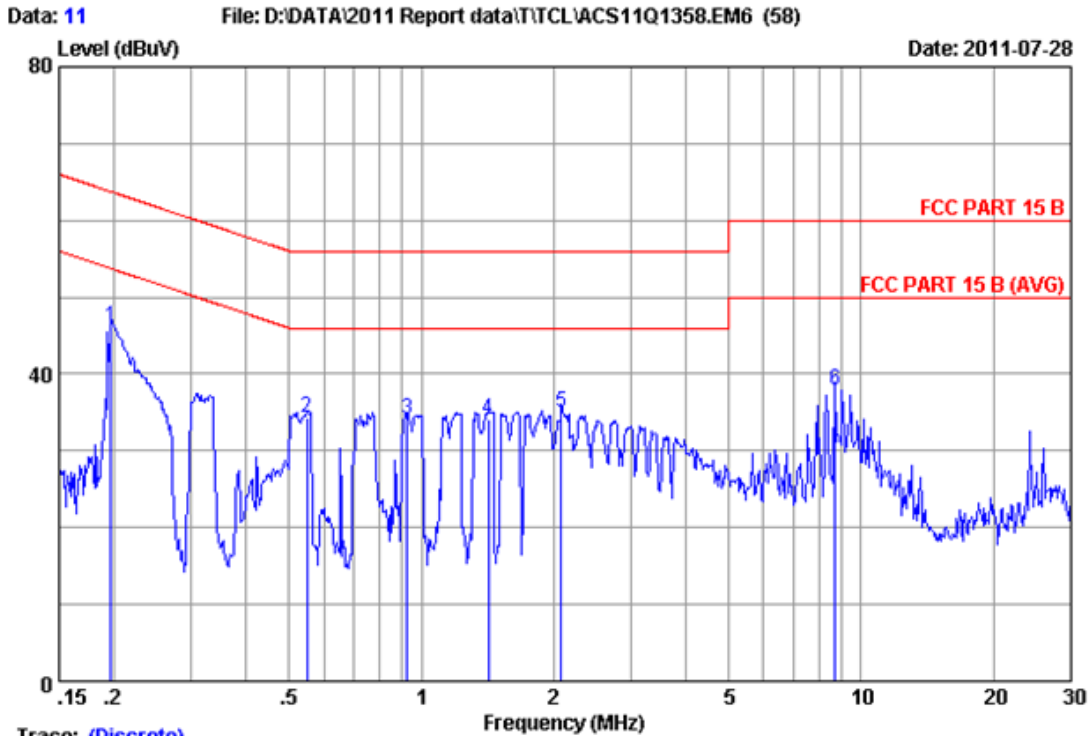


Trace: (Discrete)

Site no :1#conduction Data No :9  
 Dis./Ant. \*\*: 2011 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5\*C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 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)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.19863	0.21	9.98	33.79	43.98	63.67	19.69	QP
2	0.76297	0.23	9.97	20.39	30.59	56.00	25.41	QP
3	1.210	0.25	9.97	21.16	31.38	56.00	24.62	QP
4	1.636	0.26	9.97	21.20	31.43	56.00	24.57	QP
5	2.077	0.27	9.96	22.64	32.87	56.00	23.13	QP
6	8.729	0.42	9.91	27.66	37.99	60.00	22.01	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



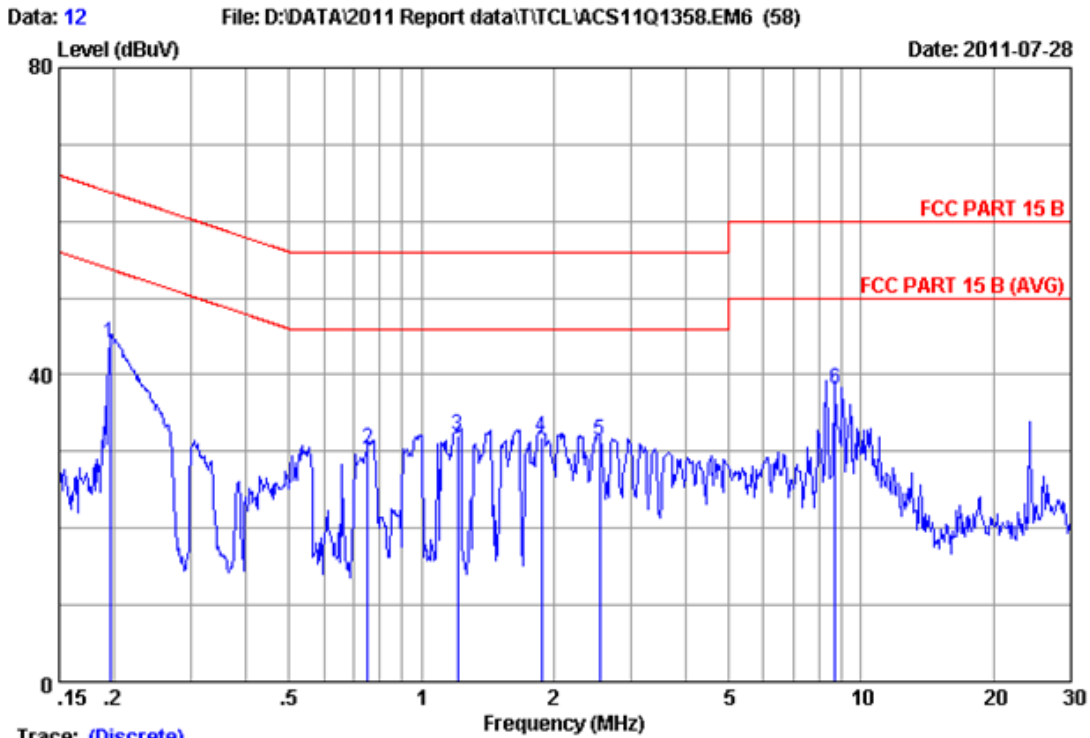
Trace: (Discrete)

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:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19654	0.17	9.98	36.04	46.19	63.76	17.57	QP
2	0.54934	0.19	9.98	24.04	34.21	56.00	21.79	QP
3	0.92821	0.22	9.98	23.89	34.09	56.00	21.91	QP
4	1.418	0.26	9.97	23.88	34.11	56.00	21.89	QP
5	2.077	0.31	9.96	24.74	35.01	56.00	20.99	QP
6	8.729	0.58	9.91	27.46	37.95	60.00	22.05	QP

Remarks: 1. Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



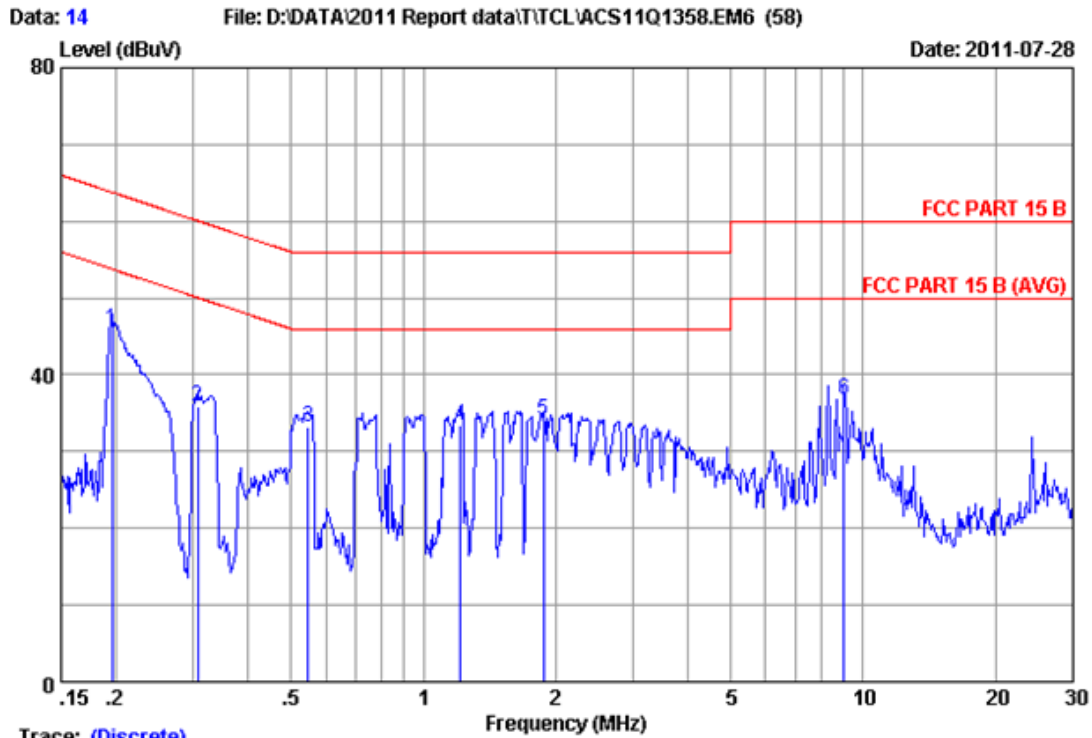


Trace: (Discrete)

Site no :1#conduction Data No :12  
 Dis./Ant. :\*\* 2011 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5°C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test 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	0.19550	0.21	9.98	34.01	44.20	63.80	19.60	QP
2	0.75493	0.23	9.97	20.17	30.37	56.00	25.63	QP
3	1.210	0.25	9.97	21.89	32.11	56.00	23.89	QP
4	1.878	0.27	9.96	21.60	31.83	56.00	24.17	QP
5	2.540	0.28	9.95	21.17	31.40	56.00	24.60	QP
6	8.729	0.42	9.91	27.86	38.19	60.00	21.81	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

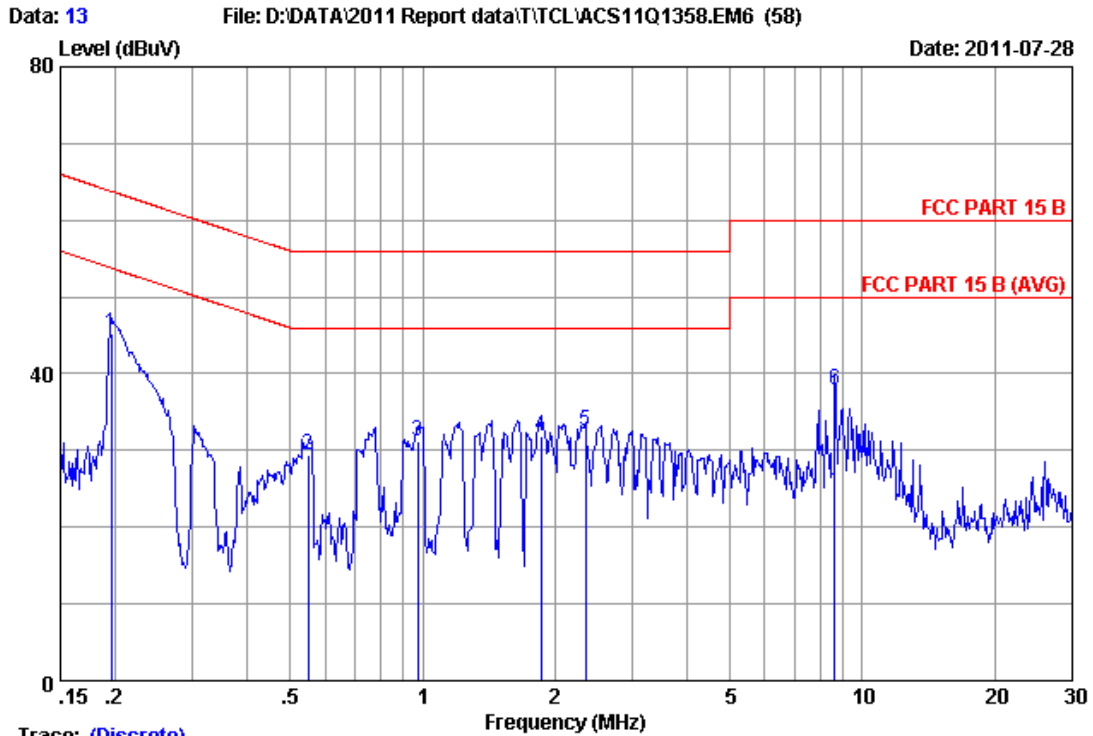


Trace: (Discrete)

Site no :1#conduction Data No :14  
 Dis./Ant. :\*\* 2011 ESH2-25 LINE  
 Limit :FCC PART 15 B  
 Env./Ins. :25.5°C/55% Engineer :Jolly\_Xu  
 EUT :LED TV M/N:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" Pattern And 1KHz Playing  
 HDMI 4:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.19550	0.17	9.98	35.74	45.89	63.80	17.91	QP
2	0.30671	0.18	9.98	25.68	35.84	60.06	24.22	QP
3	0.54644	0.19	9.98	22.96	33.13	56.00	22.87	QP
4	1.216	0.25	9.97	23.13	33.35	56.00	22.65	QP
5	1.878	0.30	9.96	23.91	34.17	56.00	21.83	QP
6	9.059	0.60	9.91	26.36	36.87	60.00	23.13	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



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:LE40FHDE5200  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" Pattern And 1KHz Playing  
 HDMI 4:1920\*1080@60Hz

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.19550	0.21	9.98	35.08	45.27	63.80	18.53	QP
2	0.54934	0.22	9.98	19.27	29.47	56.00	26.53	QP
3	0.97354	0.24	9.98	21.06	31.28	56.00	24.72	QP
4	1.858	0.27	9.96	21.68	31.91	56.00	24.09	QP
5	2.346	0.28	9.96	22.35	32.59	56.00	23.41	QP
6	8.637	0.42	9.91	27.53	37.86	60.00	22.14	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)+Reading.  
 2.If the average limit is met when using a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

#### 4.1.1. For frequency range 30MHz~1000MHz

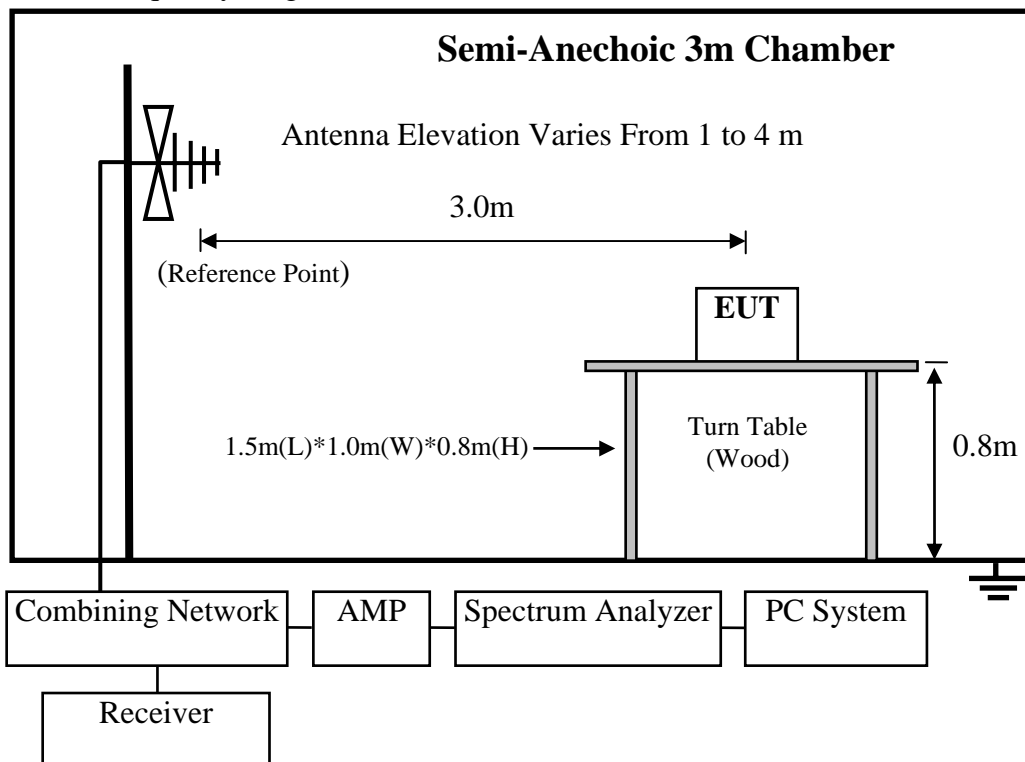
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.06,10	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 11	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 11	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 11	1 Year
5	Bilog 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

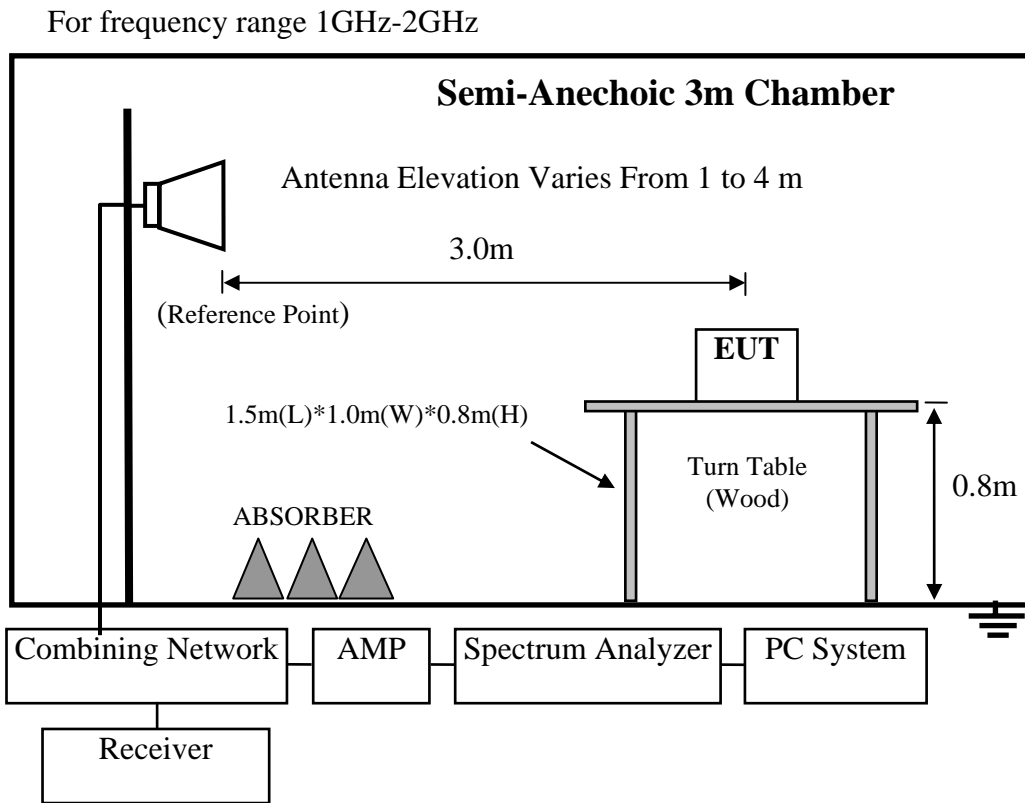
#### 4.1.2. For frequency range 1GHz~2GHz

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 MHz	Distance (Meters)	Field Strengths Limits 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. : LE40FHDE5200

#### 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 & Frequency	Reference Test Data No.	
				Horizontal	Vertical
1.	PC Mode	VGA	640*480 @60Hz	#49	#50
2.			800*600 @ 60Hz	#48	#47
3.			<b>1024*768@60Hz</b>	<b>#45</b>	<b>#46</b>
4.		HDMI 1	<b>1920*1080@60Hz</b>	<b>#52</b>	<b>#51</b>
5. ※		HDMI 2	<b>1920*1080@60Hz</b>	<b>#53</b>	<b>#54</b>
6.		HDMI 3	<b>1920*1080@60Hz</b>	<b>#56</b>	<b>#55</b>
7.		HDMI 4	<b>1920*1080@60Hz</b>	<b>#57</b>	<b>#58</b>

(※ 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.

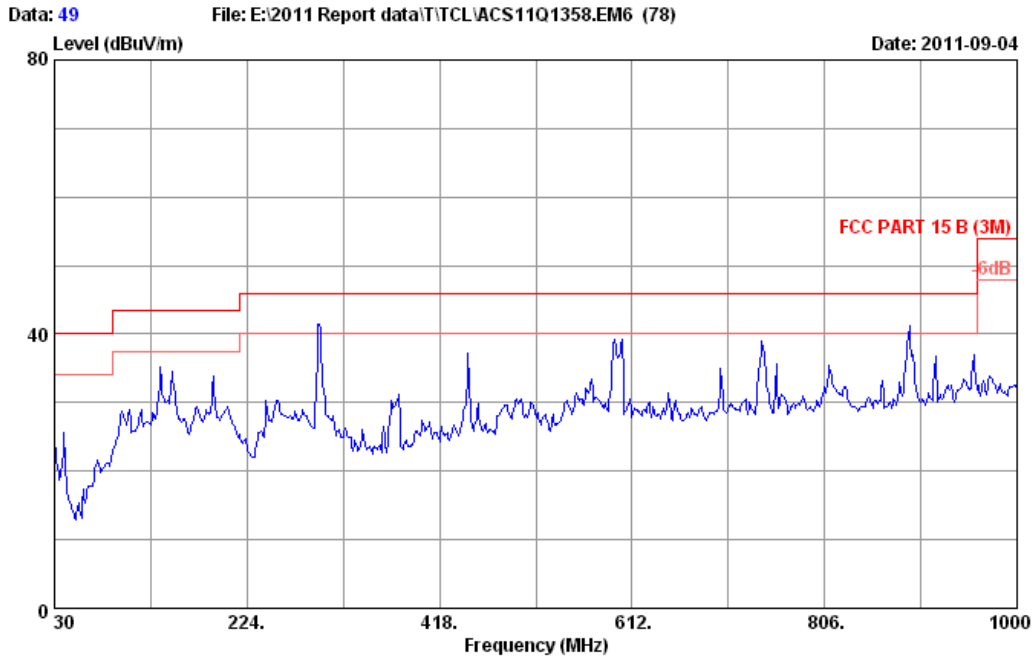
Test Date: Sep.04, 2011

Temperature: 24°C

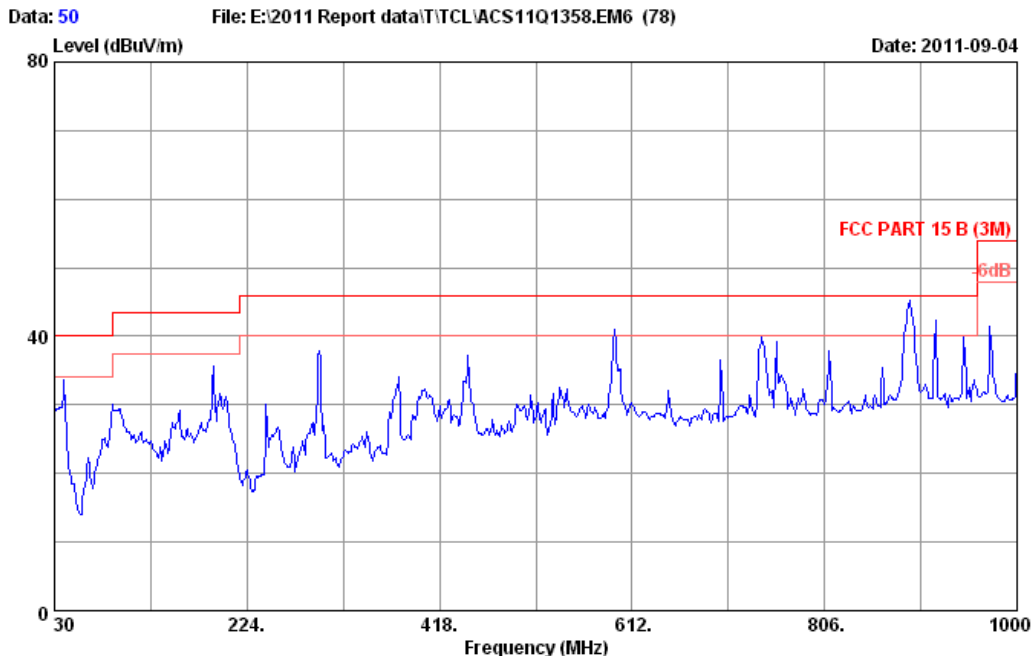
Humidity: 56%

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

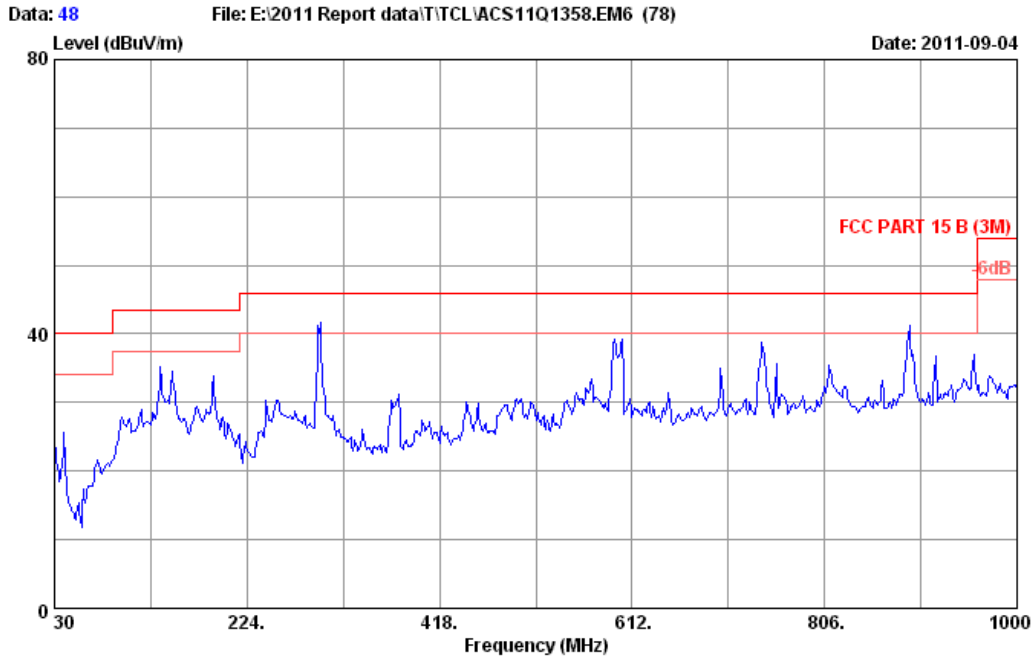
30MHz~1000MHz



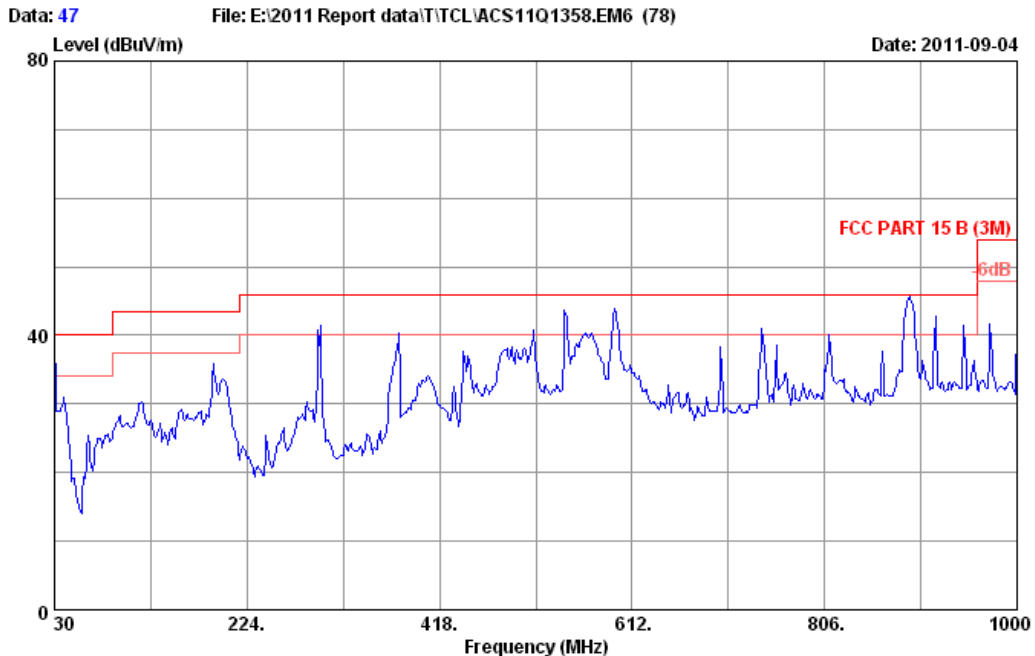
Site no. : 3m Chamber Data no. : 49  
 Dis. / Ant. : 3m 2011 2597 FACTOR 3M Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:640\*480@60Hz



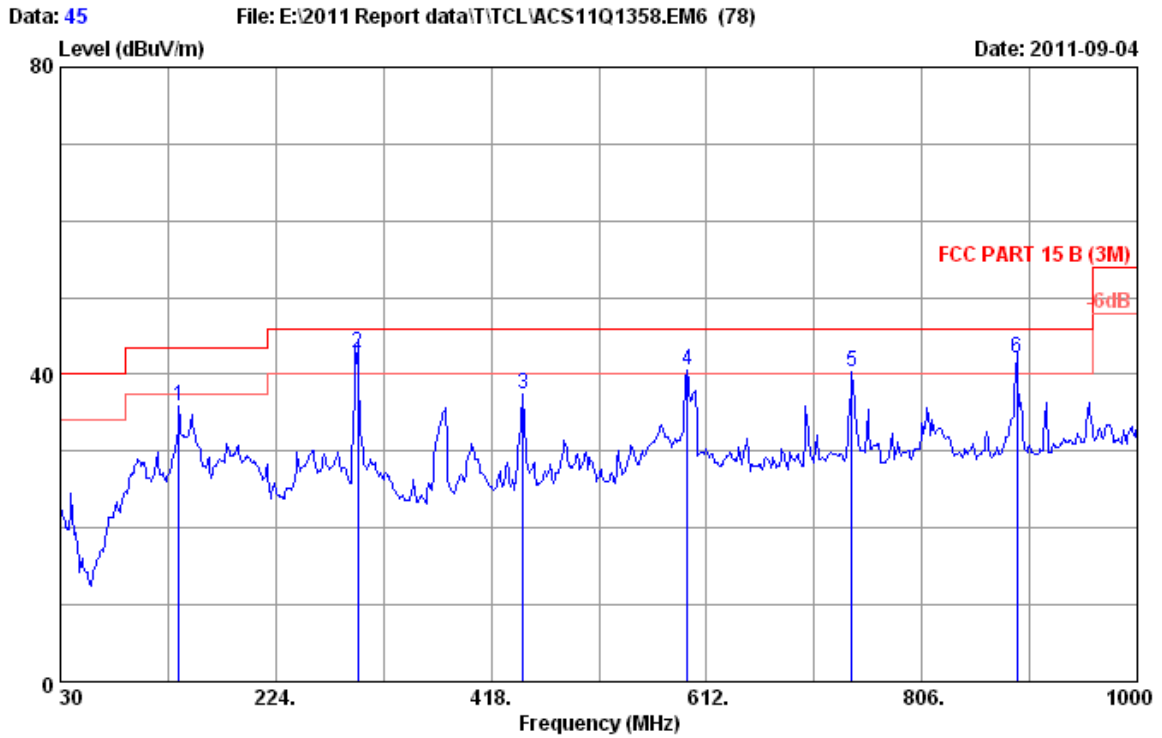
Site no. : 3m Chamber Data no. : 50  
 Dis. / Ant. : 3m 2011 2597 FACTOR 3M Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:640\*480@60Hz



Site no. : 3m Chamber Data no. : 48  
 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:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:800\*600@60Hz



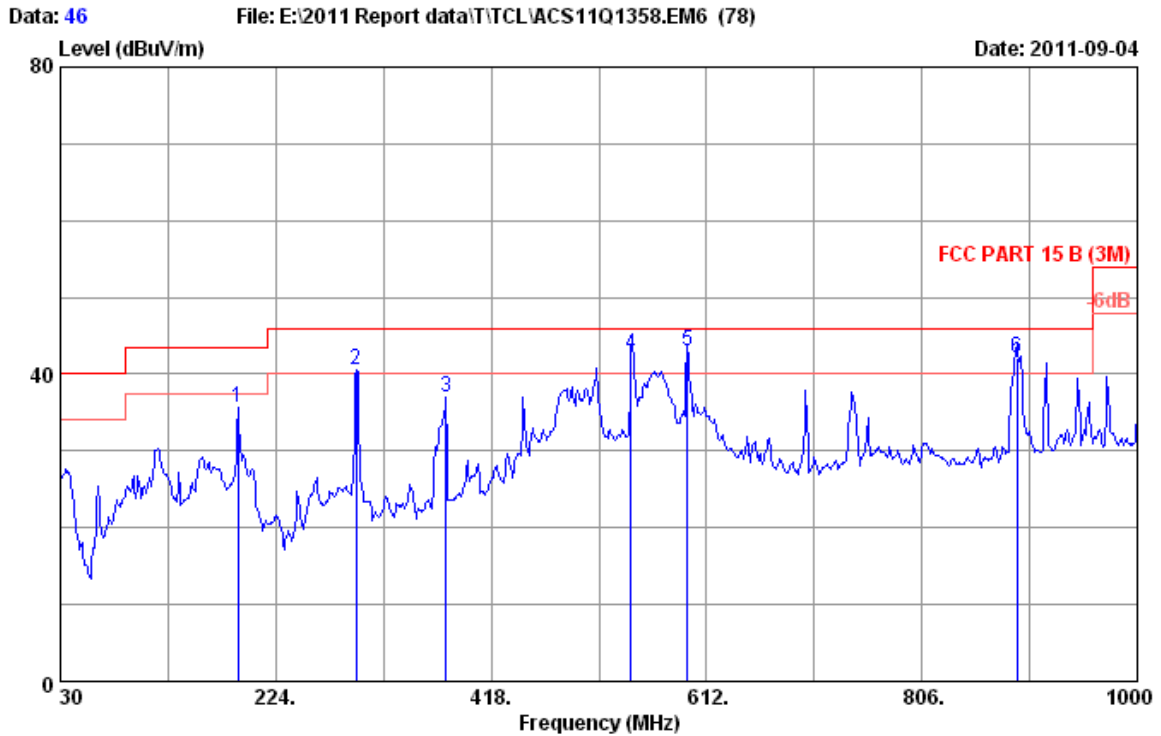
Site no. : 3m Chamber Data no. : 47  
 Dis. / Ant. : 3m 2011 2597 FACTOR 3M Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:800\*600@60Hz



Site no. : 3m Chamber Data no. : 45  
 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:LE40FHDE5200  
 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	136.700	13.23	1.41	21.28	35.92	43.50	7.58	QP
2	297.720	13.22	2.98	26.70	42.90	46.00	3.10	QP
3	447.100	16.62	3.64	17.21	37.47	46.00	8.53	QP
4	594.540	18.90	4.47	17.27	40.64	46.00	5.36	QP
5	742.950	21.30	5.22	13.72	40.24	46.00	5.76	QP
6	891.360	22.32	5.65	14.06	42.03	46.00	3.97	QP

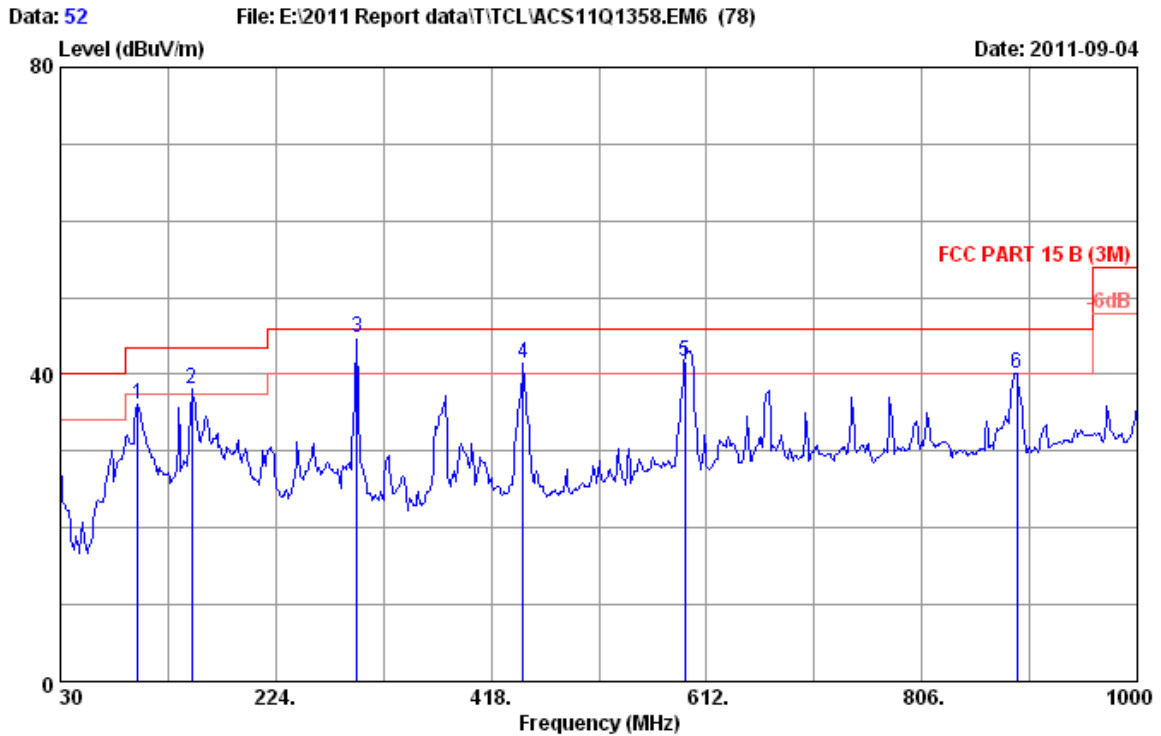
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 46  
 Dis. / Ant. : 3m 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:LE40FHDE5200  
 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	190.050	9.60	1.76	24.35	35.71	43.50	7.79	QP
2	296.750	13.18	2.96	24.44	40.58	46.00	5.42	QP
3	377.260	15.24	3.25	18.54	37.03	46.00	8.97	QP
4	544.100	18.72	4.22	19.66	42.60	46.00	3.40	QP
5	594.540	18.90	4.47	19.56	42.93	46.00	3.07	QP
6	891.360	22.32	5.65	14.09	42.06	46.00	3.94	QP

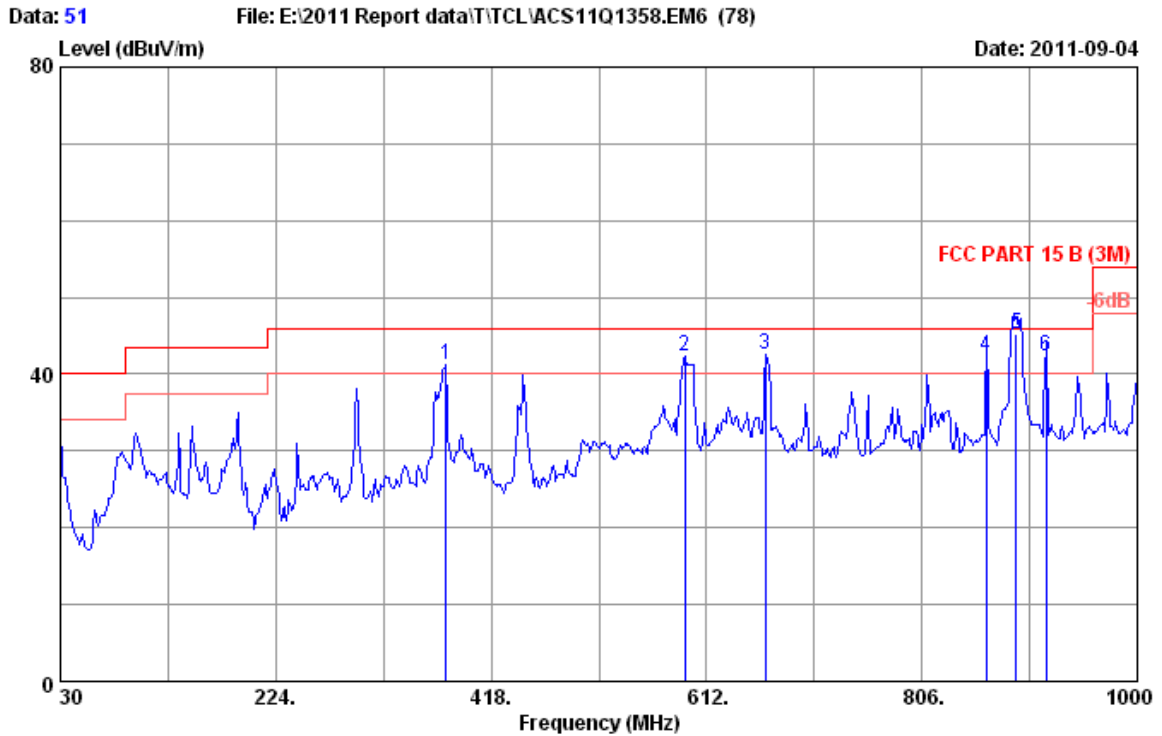
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 52  
 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:LE40FHDE5200  
 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	99.840	11.80	1.17	23.04	36.01	43.50	7.49	QP
2	148.340	13.10	1.49	23.50	38.09	43.50	5.41	QP
3	297.100	13.18	2.96	28.70	44.84	46.00	1.16	QP
4	447.100	16.62	3.64	21.21	41.47	46.00	4.53	QP
5	592.600	18.86	4.47	18.29	41.62	46.00	4.38	QP
6	891.360	22.32	5.65	12.14	40.11	46.00	5.89	QP

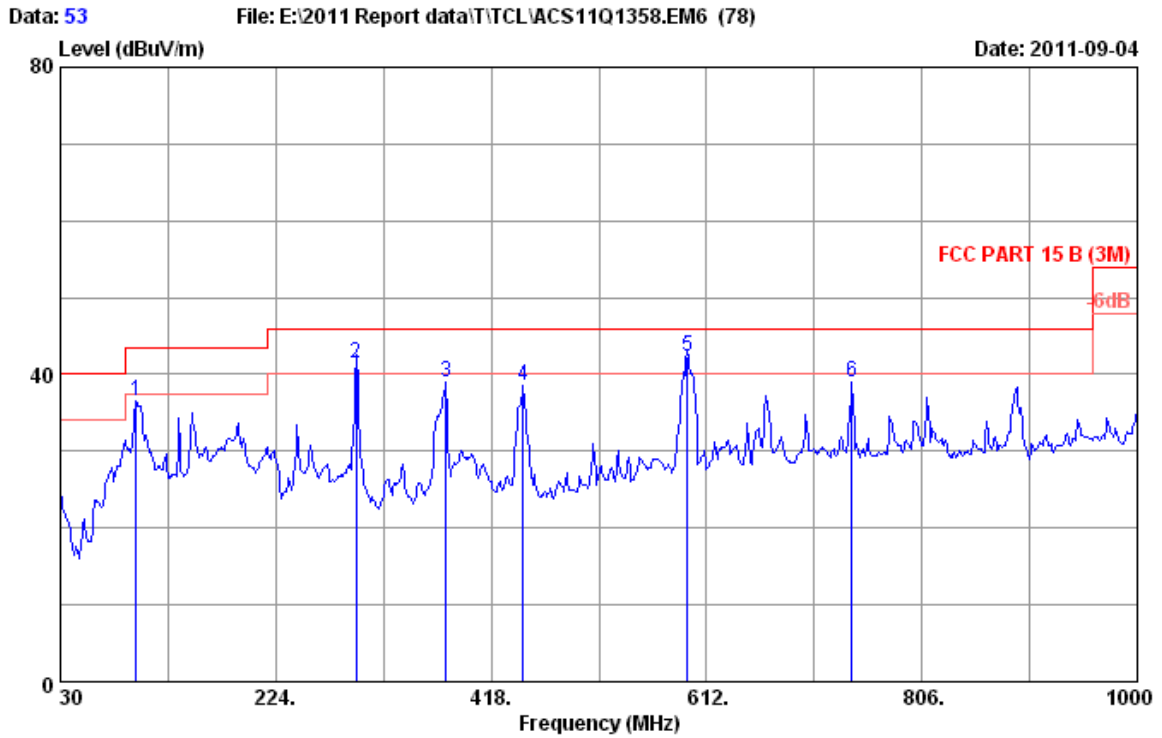
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 51  
 Dis. / Ant. : 3m 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:LE40FHDE5200  
 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	377.260	15.24	3.25	22.69	41.18	46.00	4.82	QP
2	592.600	18.86	4.47	19.05	42.38	46.00	3.62	QP
3	665.350	19.60	4.82	18.06	42.48	46.00	3.52	QP
4	864.200	22.20	5.60	14.47	42.27	46.00	3.73	QP
5	891.000	22.32	5.65	17.20	45.17	46.00	0.83	QP
6	917.550	22.90	5.75	13.68	42.33	46.00	3.67	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

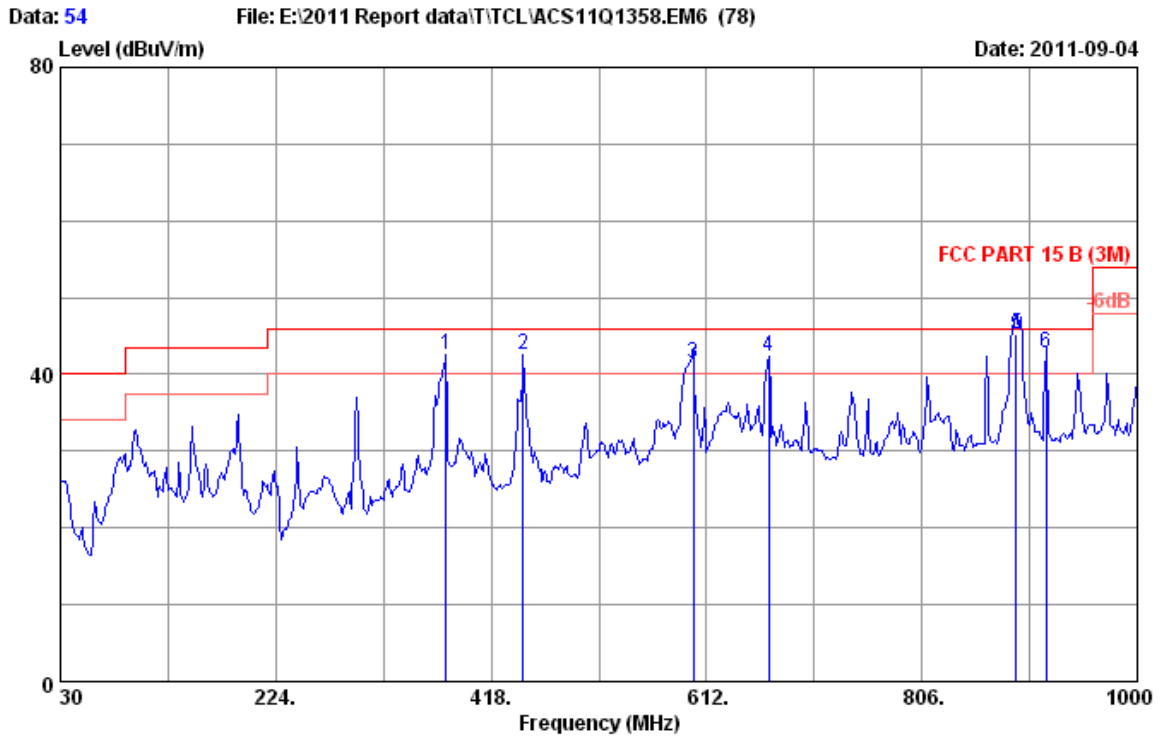


Site no. : 3m Chamber Data no. : 53  
 Dis. / Ant. : 3m 2597 FACTOR 3M Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 2:1920\*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	97.900	11.60	1.16	23.84	36.60	43.50	6.90	QP
2	296.750	13.18	2.96	25.37	41.51	46.00	4.49	QP
3	377.260	15.24	3.25	20.55	39.04	46.00	6.96	QP
4	447.100	16.62	3.64	18.26	38.52	46.00	7.48	QP
5	594.540	18.90	4.47	18.93	42.30	46.00	3.70	QP
6	742.950	21.30	5.22	12.46	38.98	46.00	7.02	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

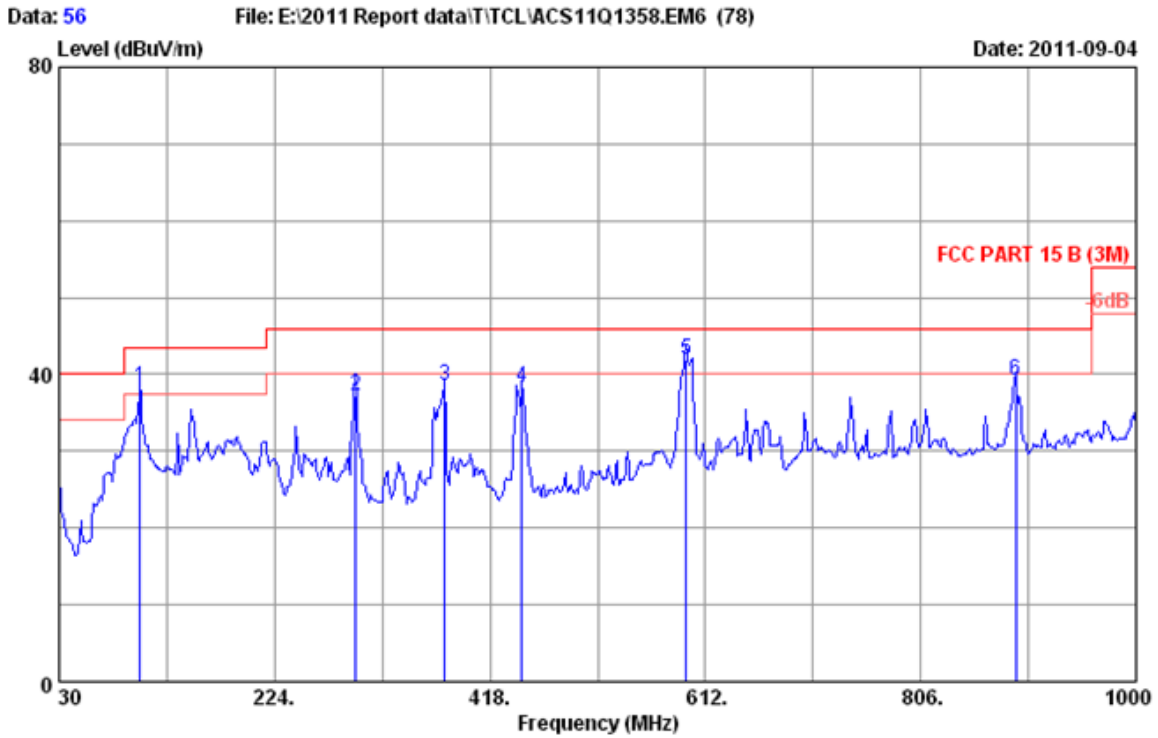




Site no. : 3m Chamber Data no. : 54  
 Dis. / Ant. : 3m 2597 FACTOR 3M Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 2:1920\*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	377.260	15.24	3.25	24.15	42.64	46.00	3.36	QP
2	447.100	16.62	3.64	22.27	42.53	46.00	3.47	QP
3	600.360	18.90	4.50	18.05	41.45	46.00	4.55	QP
4	668.260	19.66	4.84	17.83	42.33	46.00	3.67	QP
5	891.000	22.32	5.65	17.30	45.27	46.00	0.73	QP
6	917.550	22.90	5.75	14.07	42.72	46.00	3.28	QP

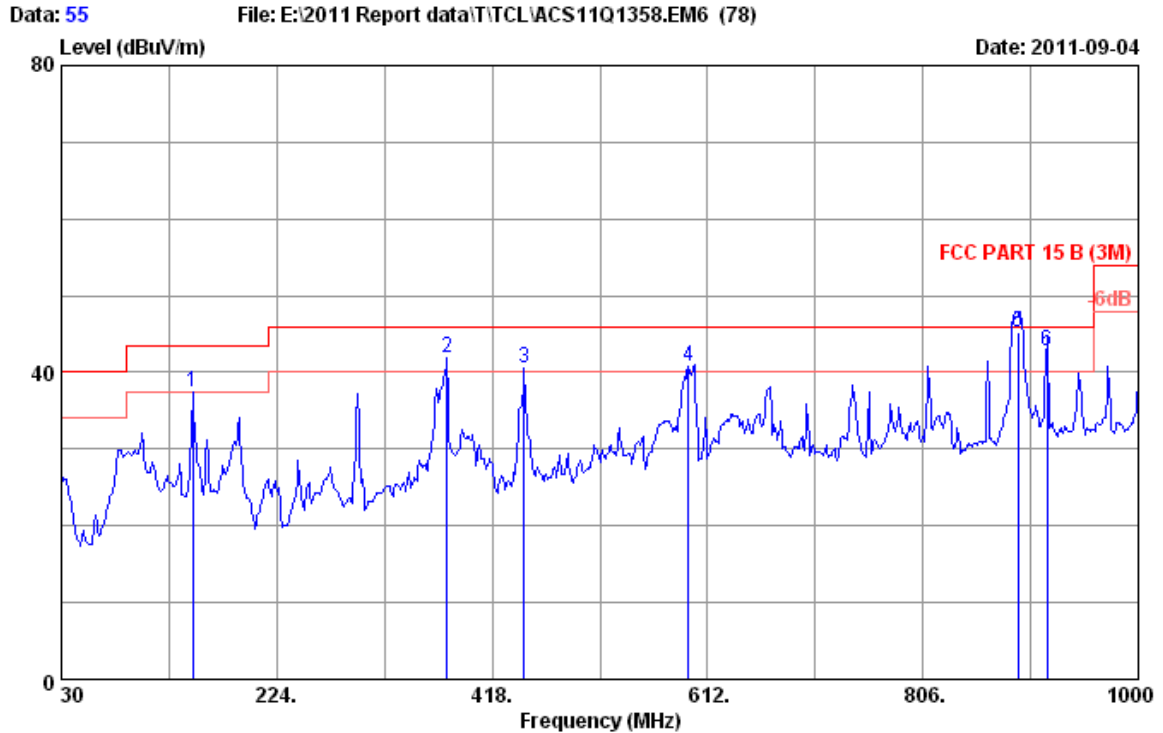
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 56  
 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:LE40FHDE5200  
 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	102.750	12.25	1.19	24.78	38.22	43.50	5.28	QP
2	297.010	13.18	2.96	21.00	37.14	46.00	8.86	QP
3	377.260	15.24	3.25	19.97	38.46	46.00	7.54	QP
4	447.100	16.62	3.64	18.04	38.30	46.00	7.70	QP
5	594.540	18.90	4.47	18.57	41.94	46.00	4.06	QP
6	891.360	22.32	5.65	11.31	39.28	46.00	6.72	QP

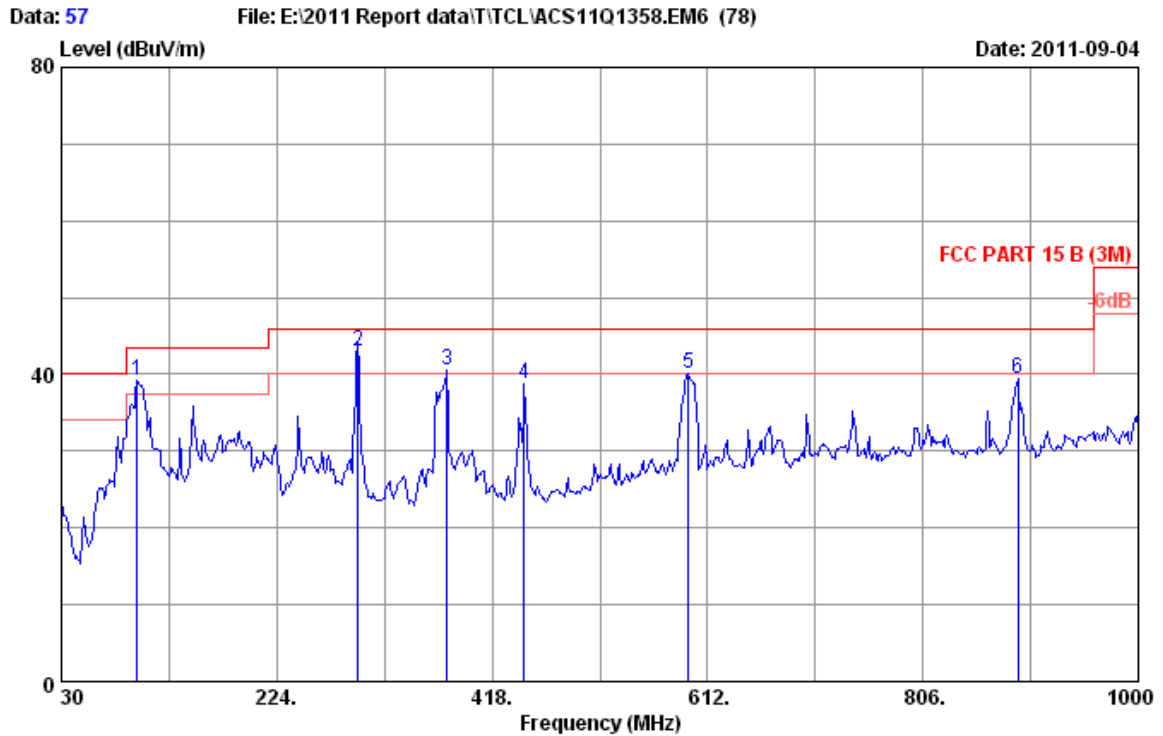
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 55  
 Dis. / Ant. : 3m 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:LE40FHDE5200  
 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	148.340	13.10	1.49	22.90	37.49	43.50	6.01	QP
2	377.260	15.24	3.25	23.32	41.81	46.00	4.19	QP
3	447.100	16.62	3.64	20.26	40.52	46.00	5.48	QP
4	594.540	18.90	4.47	17.38	40.75	46.00	5.25	QP
5	891.360	22.32	5.65	17.20	45.17	46.00	0.83	QP
6	917.550	22.90	5.75	14.20	42.85	46.00	3.15	QP

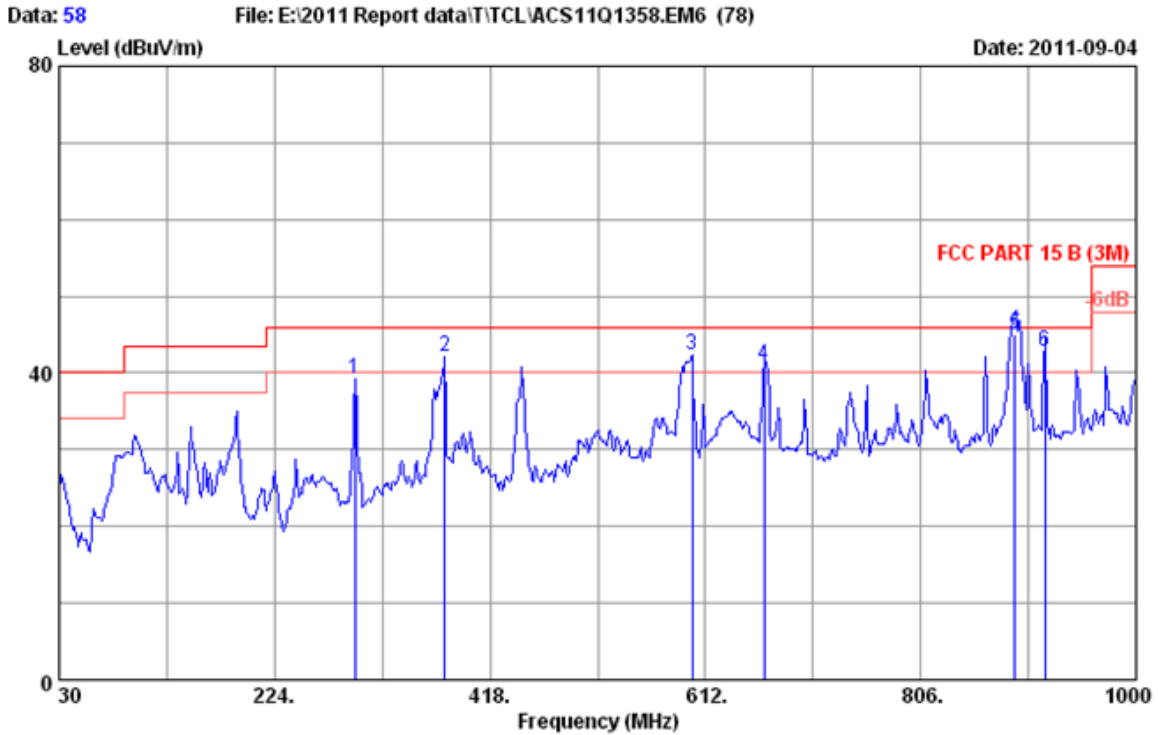
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 57  
 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:LE40FHDE5200  
 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	97.900	11.60	1.16	26.37	39.13	43.50	4.37	QP
2	297.000	13.18	2.96	26.80	42.94	46.00	3.06	QP
3	377.260	15.24	3.25	22.11	40.60	46.00	5.40	QP
4	447.100	16.62	3.64	18.59	38.85	46.00	7.15	QP
5	594.540	18.90	4.47	16.70	40.07	46.00	5.93	QP
6	891.360	22.32	5.65	11.43	39.40	46.00	6.60	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

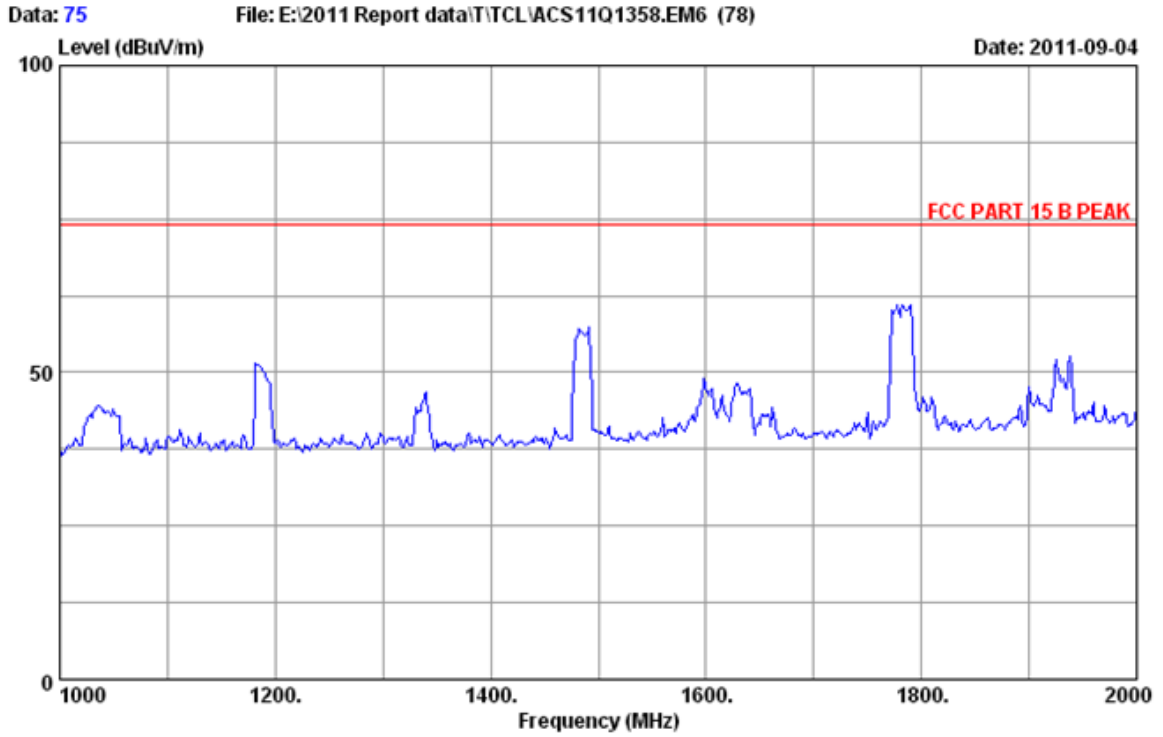


Site no. : 3m Chamber Data no. : 58  
 Dis. / Ant. : 3m 2597 FACTOR 3M Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 4:1920\*1080@60Hz

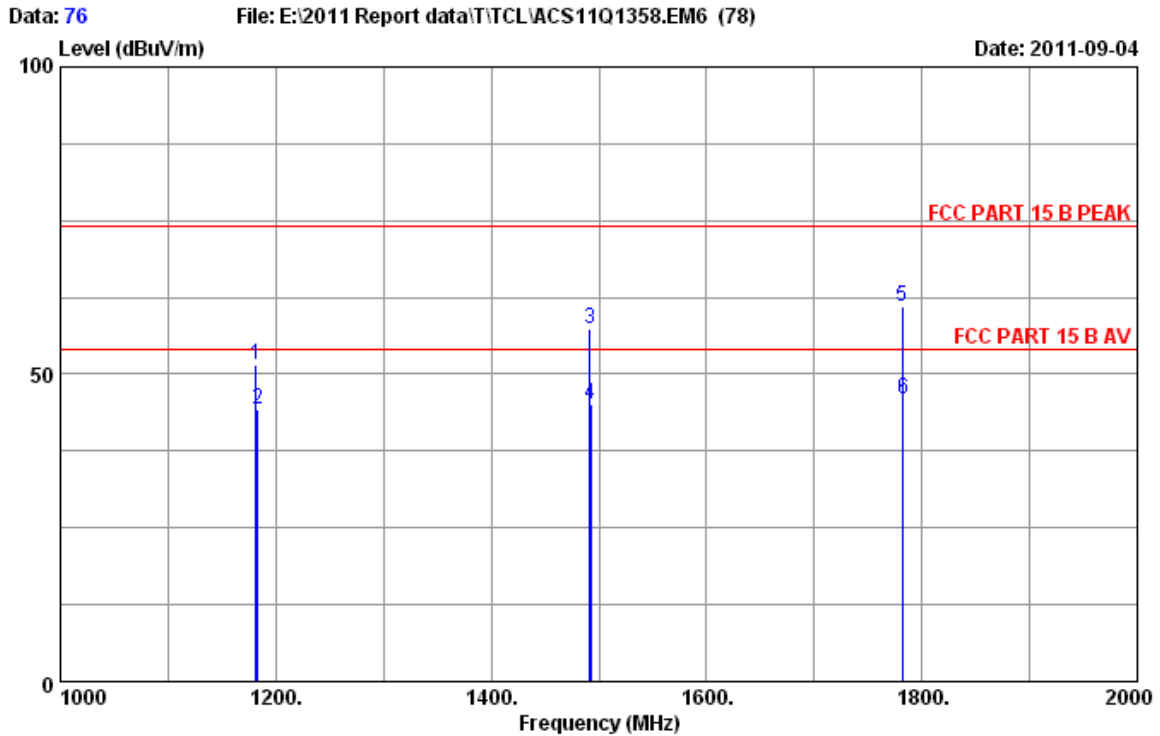
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	296.750	13.18	2.96	23.07	39.21	46.00	6.79	QP
2	377.260	15.24	3.25	23.56	42.05	46.00	3.95	QP
3	600.360	18.90	4.50	18.90	42.30	46.00	3.70	QP
4	665.350	19.60	4.82	16.55	40.97	46.00	5.03	QP
5	891.000	22.32	5.65	17.00	44.97	46.00	1.03	QP
6	917.550	22.90	5.75	14.20	42.85	46.00	3.15	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.  
 2. The emission levels that are 20dB below the official limit are not reported.

1GHz~2GHz



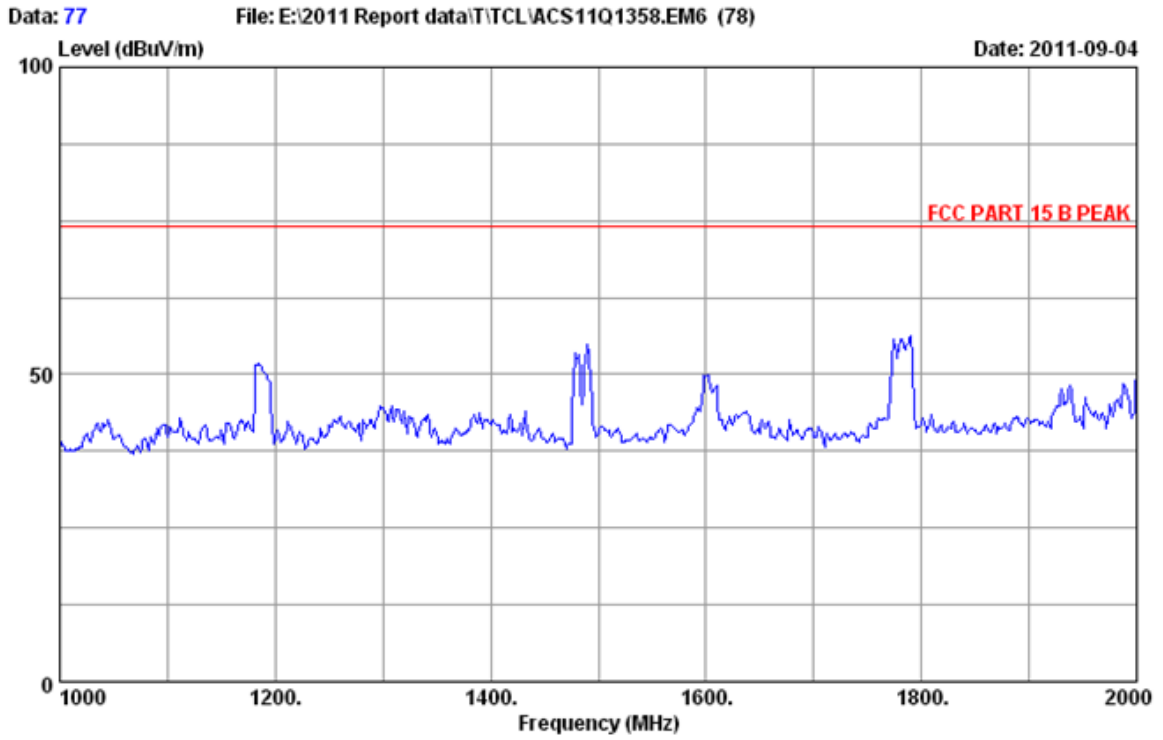
Site no. : 3m Chamber Data no. : 75  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
VG#:1024\*768@60Hz



Site no. : 3m Chamber Data no. : 76  
 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:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:1024\*768@60Hz

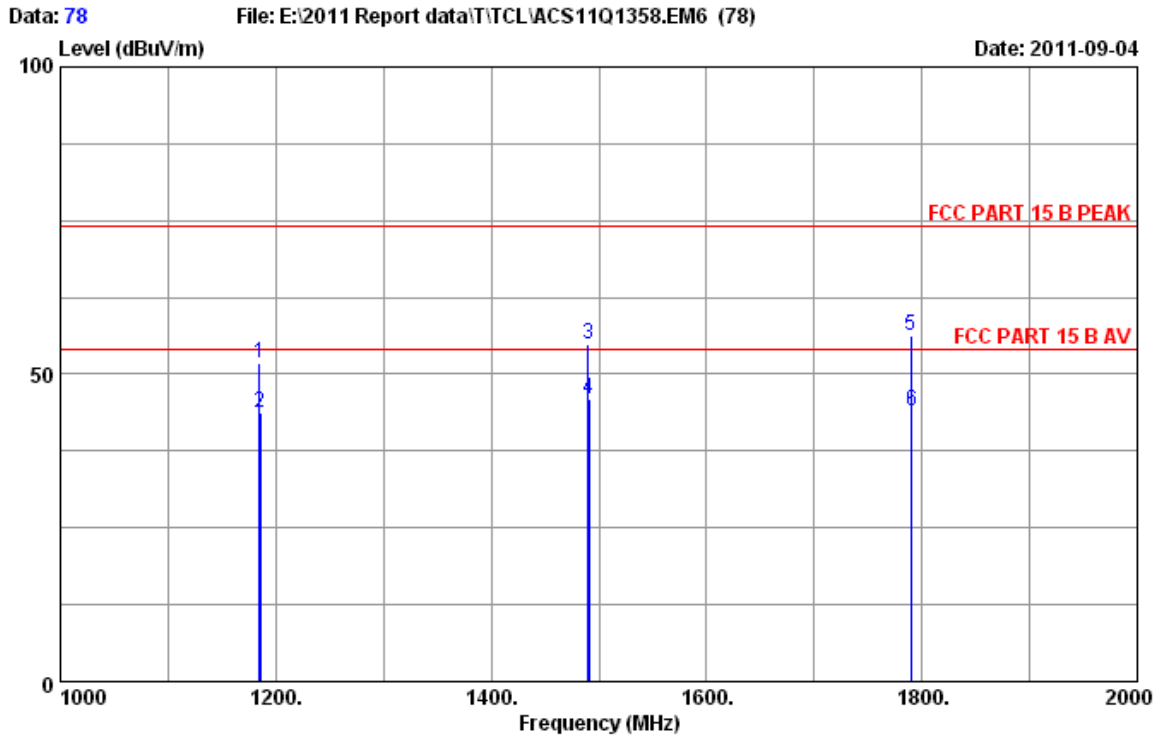
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1182.000	24.11	3.29	35.26	59.26	51.40	74.00	22.60	Peak
2	1182.870	24.11	3.29	35.26	52.29	44.43	54.00	9.57	Average
3	1492.000	25.60	3.79	35.00	62.95	57.34	74.00	16.66	Peak
4	1492.540	25.60	3.79	35.00	50.87	45.26	54.00	8.74	Average
5	1782.000	26.68	4.26	34.78	64.81	60.97	74.00	13.03	Peak
6	1782.250	26.68	4.29	34.78	49.74	45.93	54.00	8.07	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : site Data no. : 77  
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:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
VGA:1024\*768@60Hz

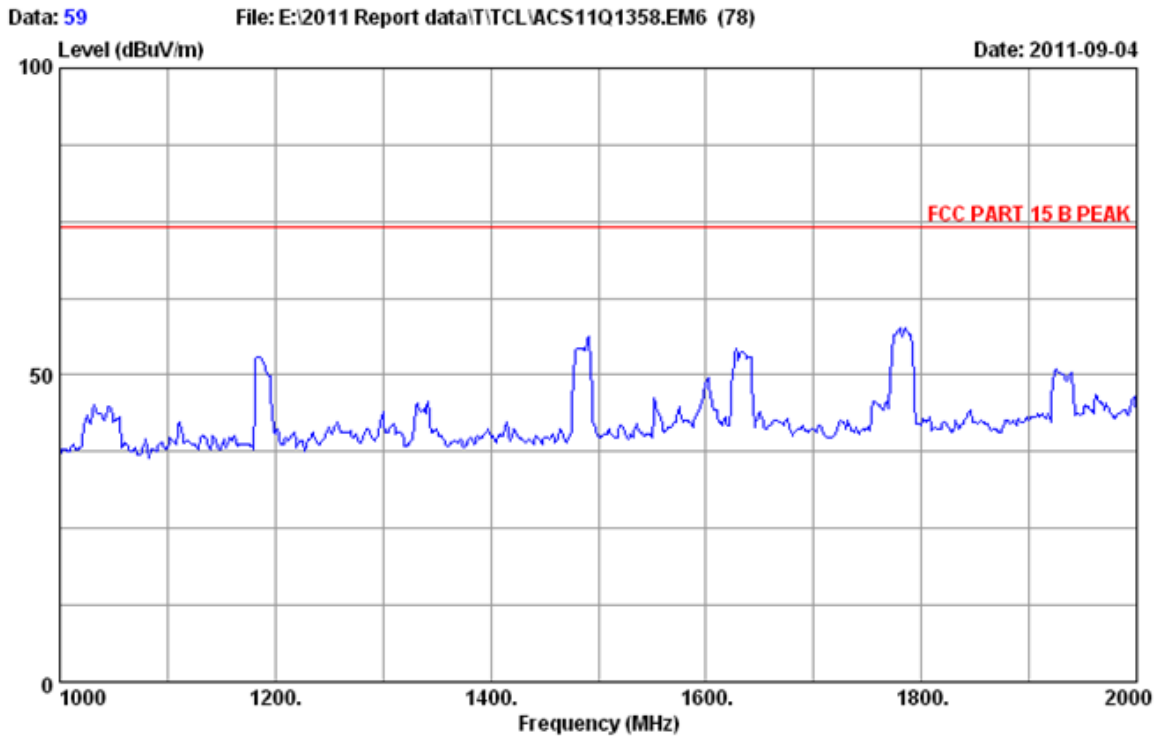




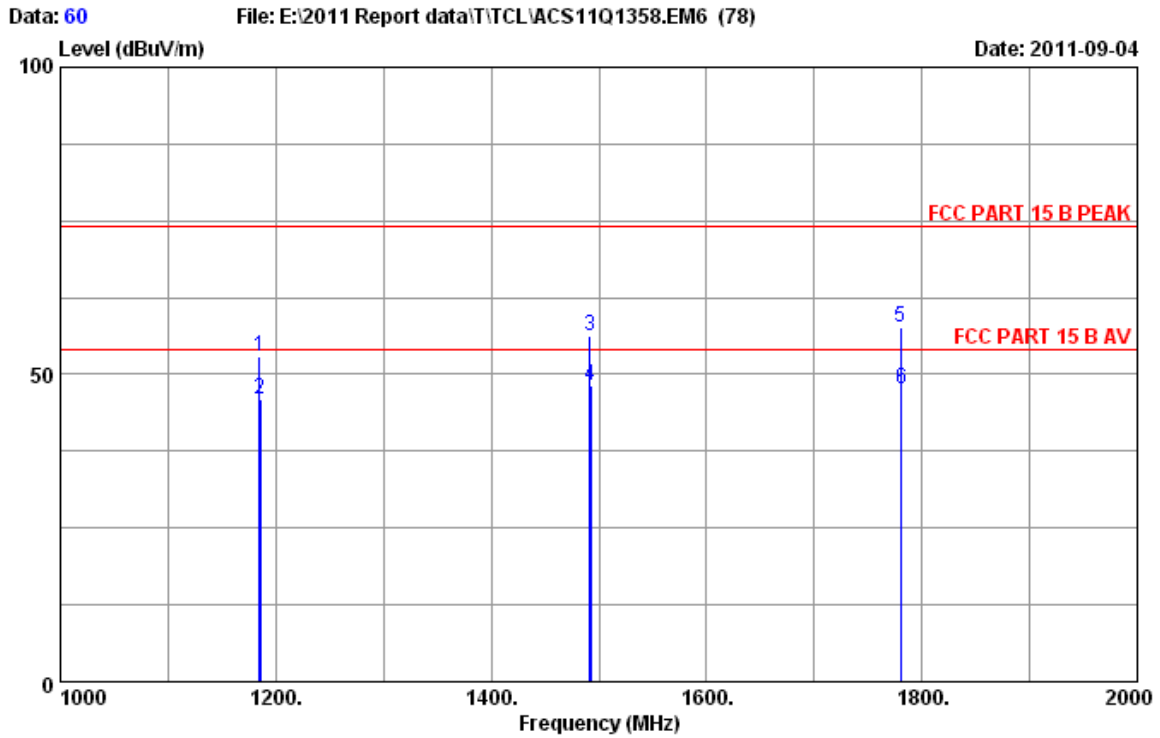
Site no. : site Data no. : 78  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 VGA:1024\*768@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1185.000	24.11	3.29	35.26	59.60	51.74	74.00	22.26	Peak
2	1185.870	24.11	3.29	35.26	51.66	43.80	54.00	10.20	Average
3	1490.000	25.60	3.79	35.00	60.50	54.89	74.00	19.11	Peak
4	1490.870	25.60	3.79	35.00	51.55	45.94	54.00	8.06	Average
5	1790.000	26.68	4.29	34.76	59.92	56.13	74.00	17.87	Peak
6	1790.440	26.68	4.29	34.76	47.89	44.10	54.00	9.90	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



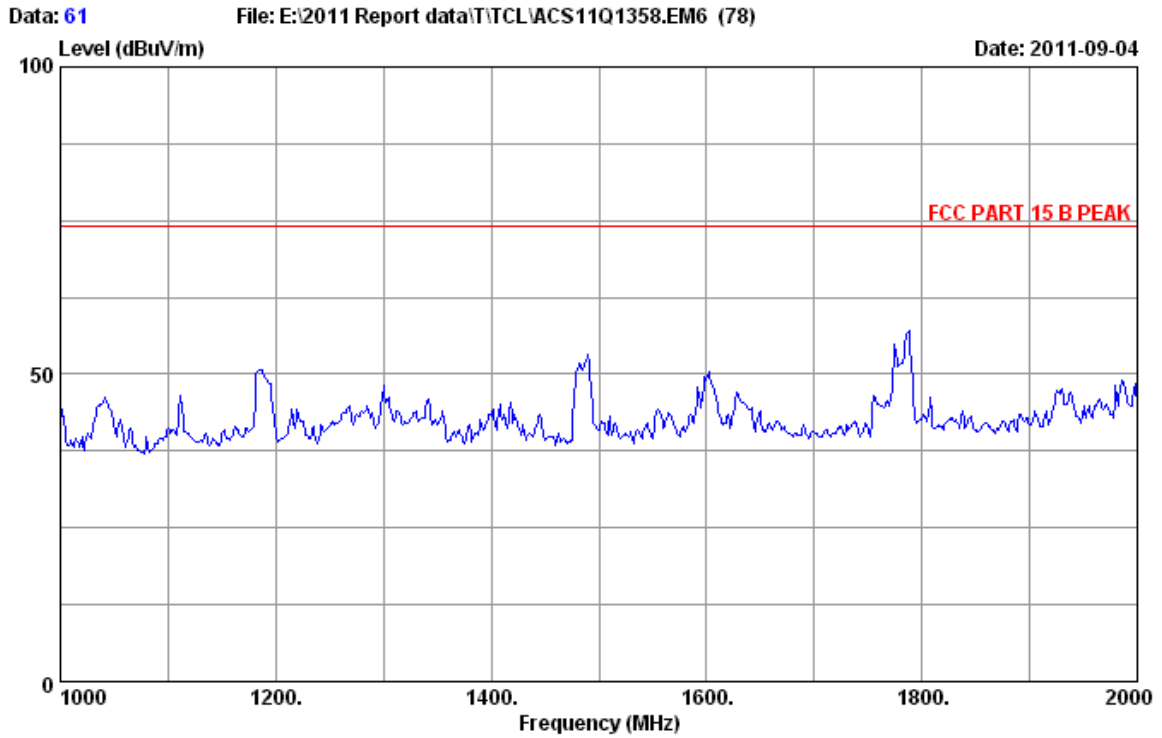
Site no. : site Data no. : 59  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 1:1920\*1080@60Hz



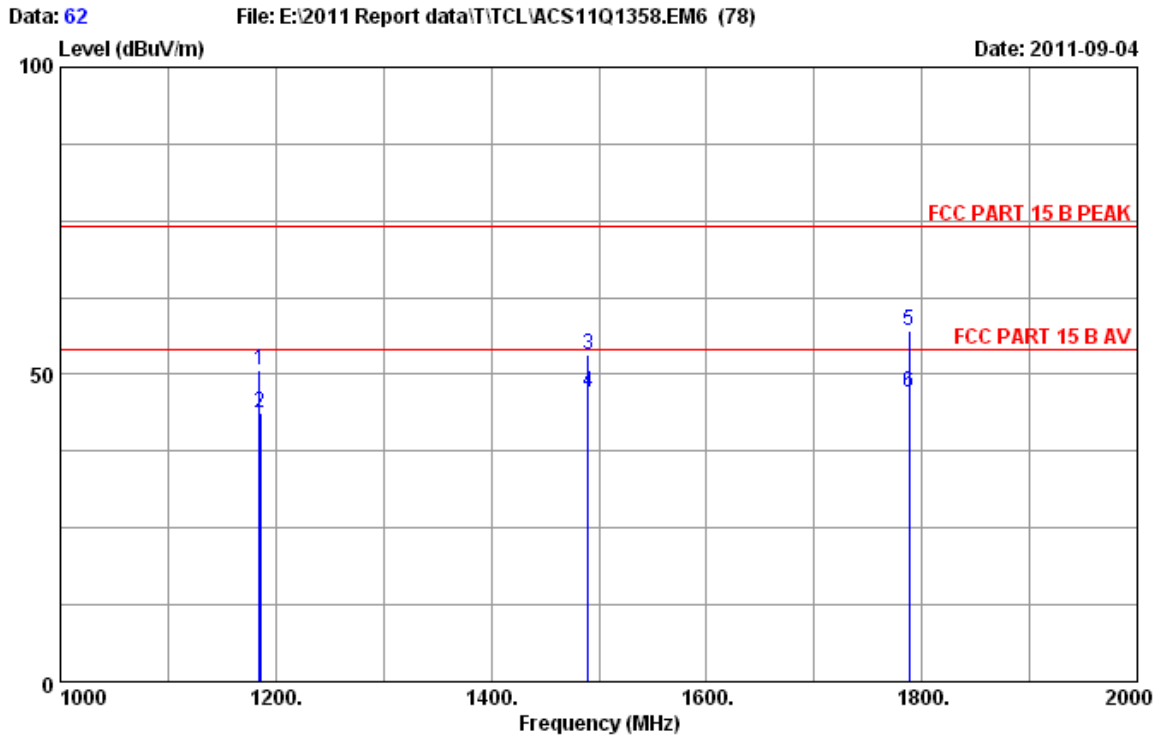
Site no. : site Data no. : 60  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 1:1920\*1080@60Hz

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	1185.000	24.11	3.29	35.26	60.91	53.05	74.00	20.95	Peak
2	1185.500	24.11	3.29	35.26	53.70	45.84	54.00	8.16	Average
3	1492.000	25.60	3.79	35.00	61.79	56.18	74.00	17.82	Peak
4	1492.250	25.60	3.79	35.00	53.79	48.18	54.00	5.82	Average
5	1780.000	26.68	4.26	34.78	61.55	57.71	74.00	16.29	Peak
6	1780.650	26.68	4.26	34.78	51.55	47.71	54.00	6.29	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



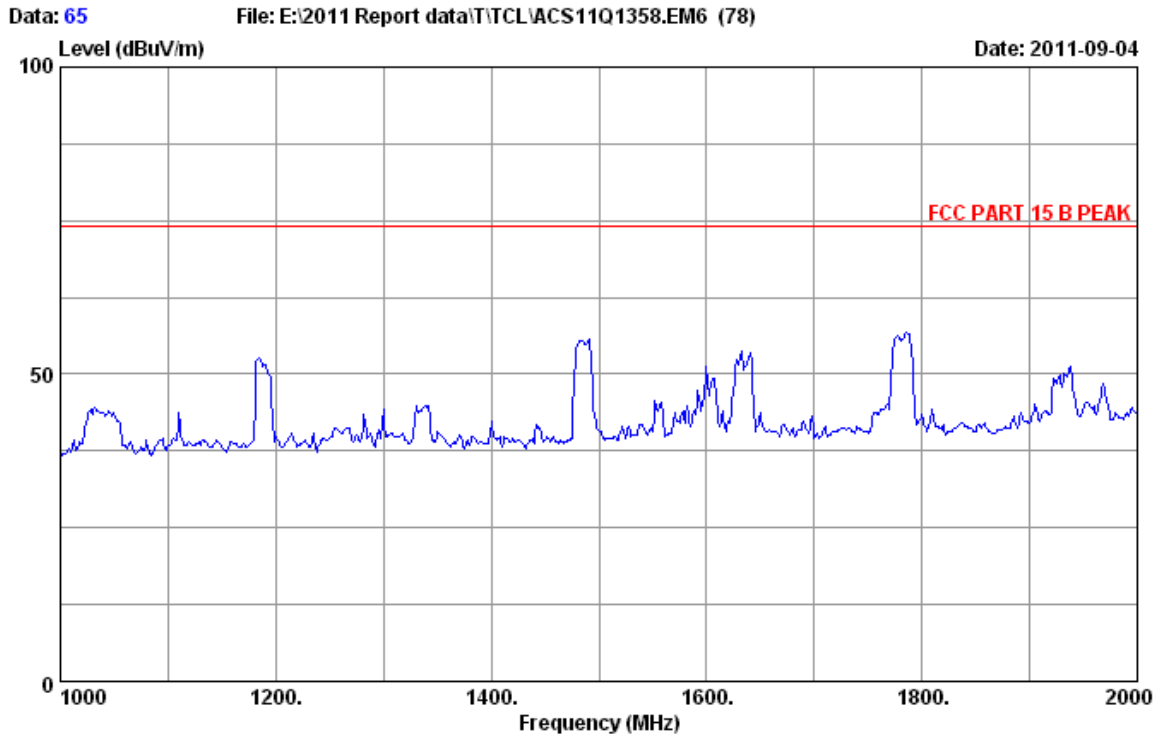
Site no. : 3m Chamber Data no. : 61  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 1:1920\*1080@60Hz



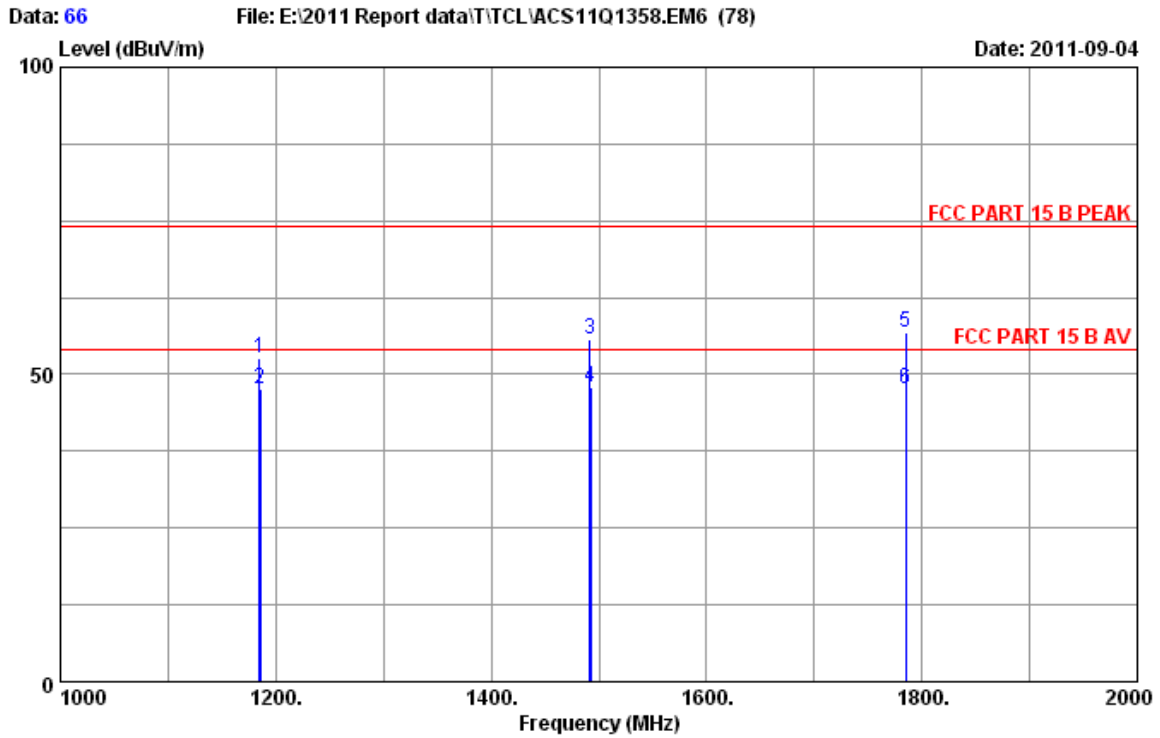
Site no. : 3m Chamber Data no. : 62  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 1:1920\*1080@60Hz

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	1185.000	24.11	3.29	35.26	58.67	50.81	74.00	23.19	Peak
2	1185.680	24.11	3.29	35.26	51.58	43.72	54.00	10.28	Average
3	1490.000	25.60	3.79	35.00	58.77	53.16	74.00	20.84	Peak
4	1490.330	25.60	3.79	35.00	52.74	47.13	54.00	6.87	Average
5	1788.000	26.68	4.29	34.76	60.76	56.97	74.00	17.03	Peak
6	1788.470	26.68	4.29	34.76	50.74	46.95	54.00	7.05	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



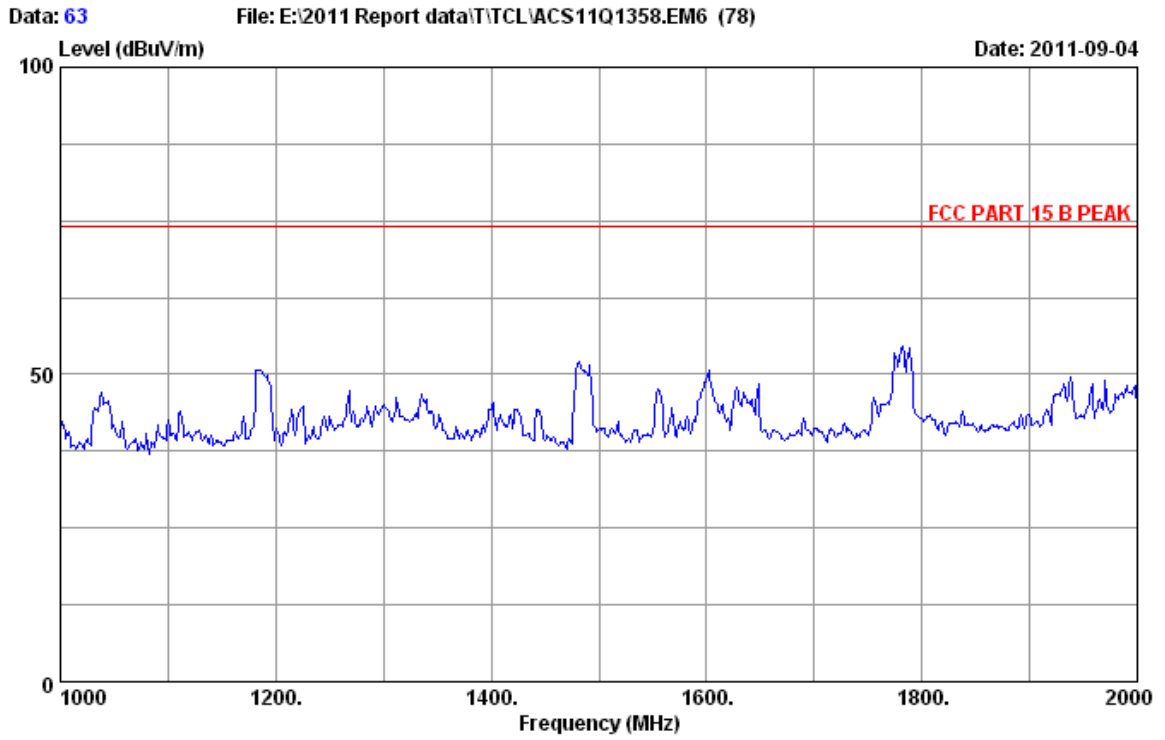
Site no. : site Data no. : 65  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 2:1920\*1080@60Hz



Site no. : site Data no. : 66  
 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:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 2:1920\*1080@60Hz

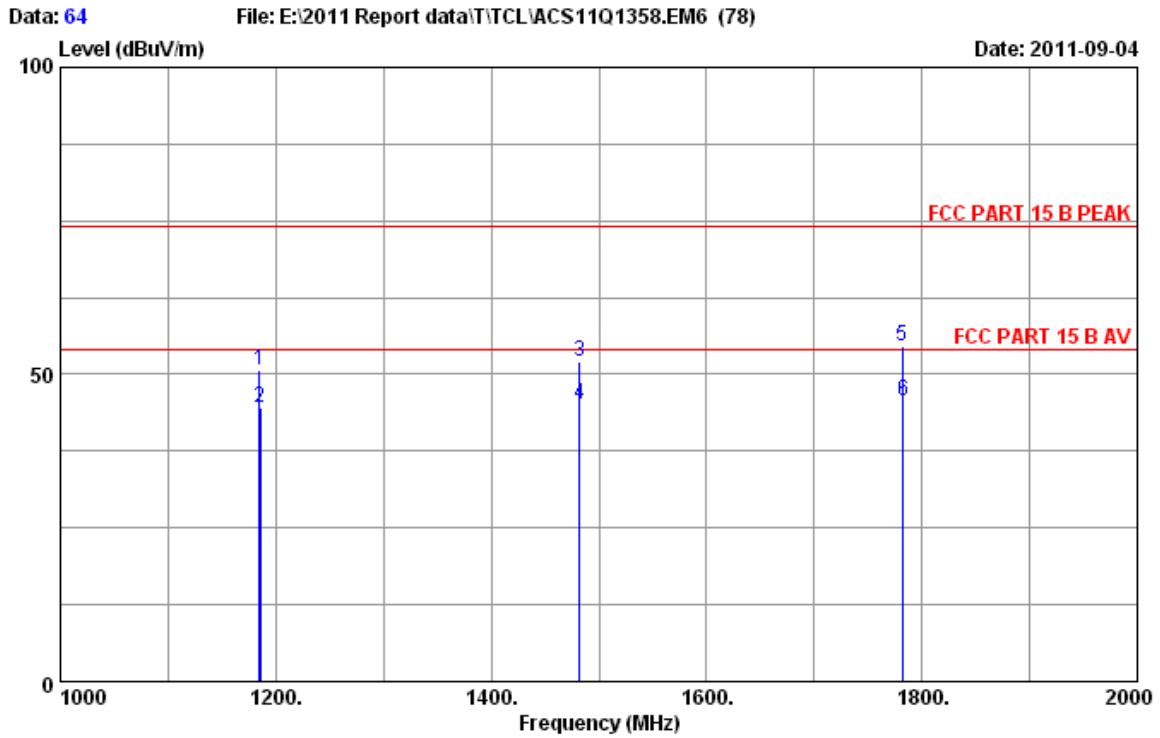
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1185.000	24.11	3.29	35.26	60.64	52.78	74.00	21.22	Peak
2	1185.250	24.11	3.29	35.26	55.60	47.74	54.00	6.26	Average
3	1492.000	25.60	3.79	35.00	61.43	55.82	74.00	18.18	Peak
4	1492.320	25.60	3.79	35.00	53.48	47.87	54.00	6.13	Average
5	1785.000	26.68	4.29	34.78	60.57	56.76	74.00	17.24	Peak
6	1785.170	26.68	4.29	34.78	51.51	47.70	54.00	6.30	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 63  
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:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 2:1920\*1080@60Hz

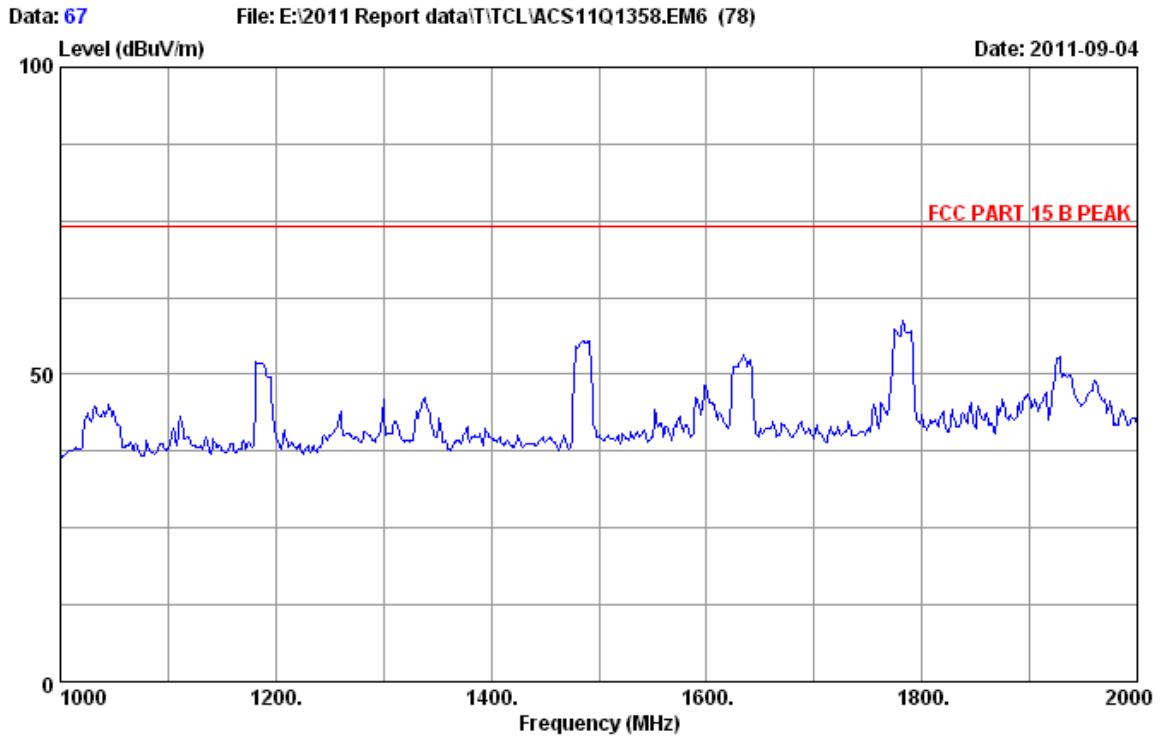




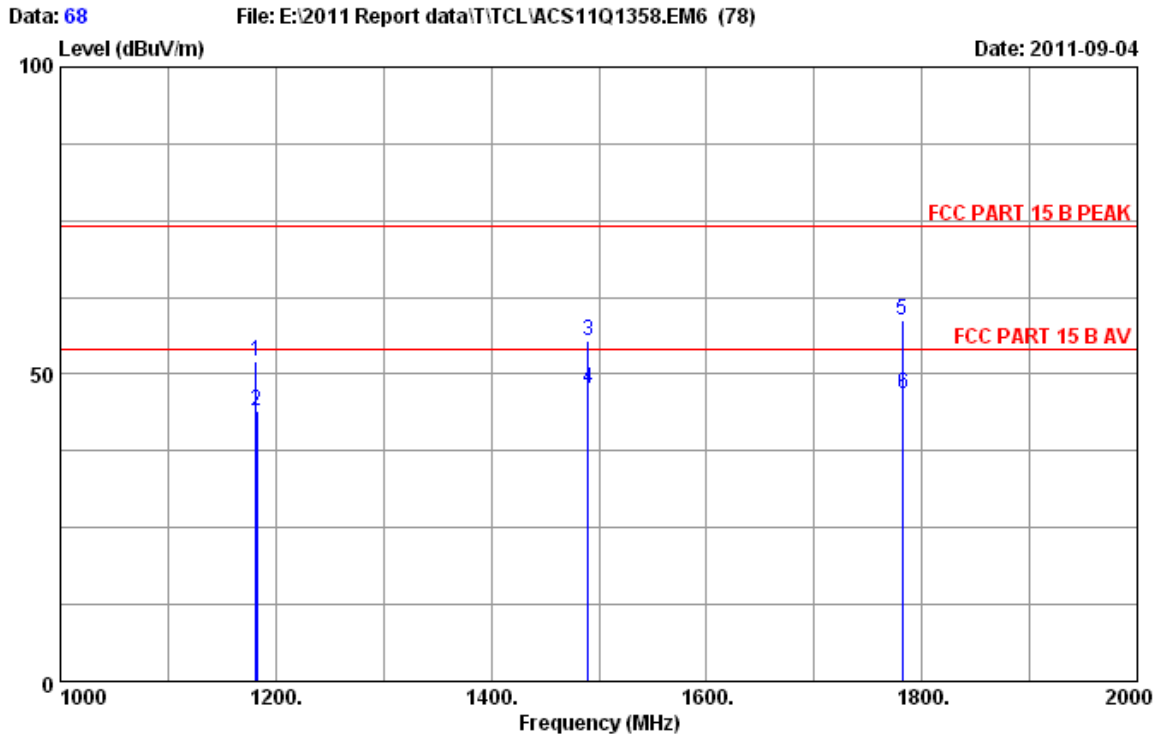
Site no. : 3m Chamber Data no. : 64  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24\*C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 2:1920\*1080@60Hz

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	1185.000	24.11	3.29	35.26	58.60	50.74	74.00	23.26	Peak
2	1185.360	24.11	3.29	35.26	52.50	44.64	54.00	9.36	Average
3	1482.000	25.52	3.79	35.02	57.79	52.08	74.00	21.92	Peak
4	1482.480	25.52	3.79	35.02	50.70	44.99	54.00	9.01	Average
5	1782.000	26.68	4.26	34.78	58.55	54.71	74.00	19.29	Peak
6	1782.550	26.68	4.29	34.78	49.55	45.74	54.00	8.26	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



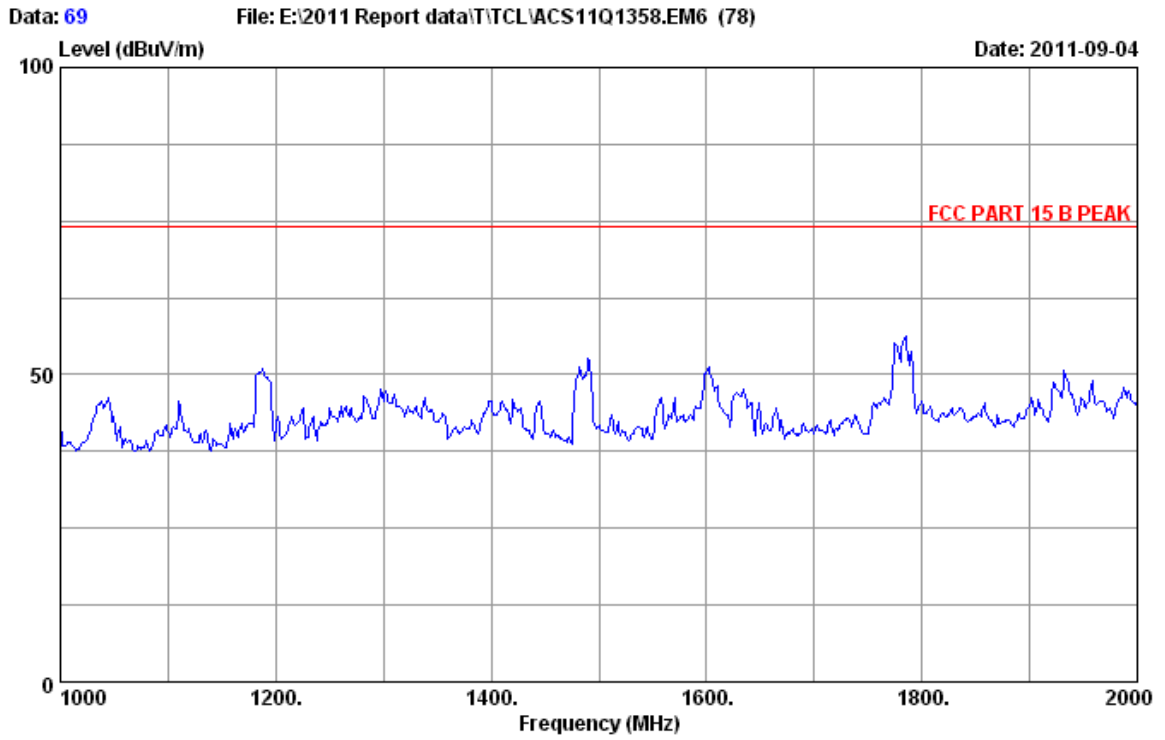
Site no. : 3m Chamber Data no. : 67  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 3:1920\*1080@60Hz



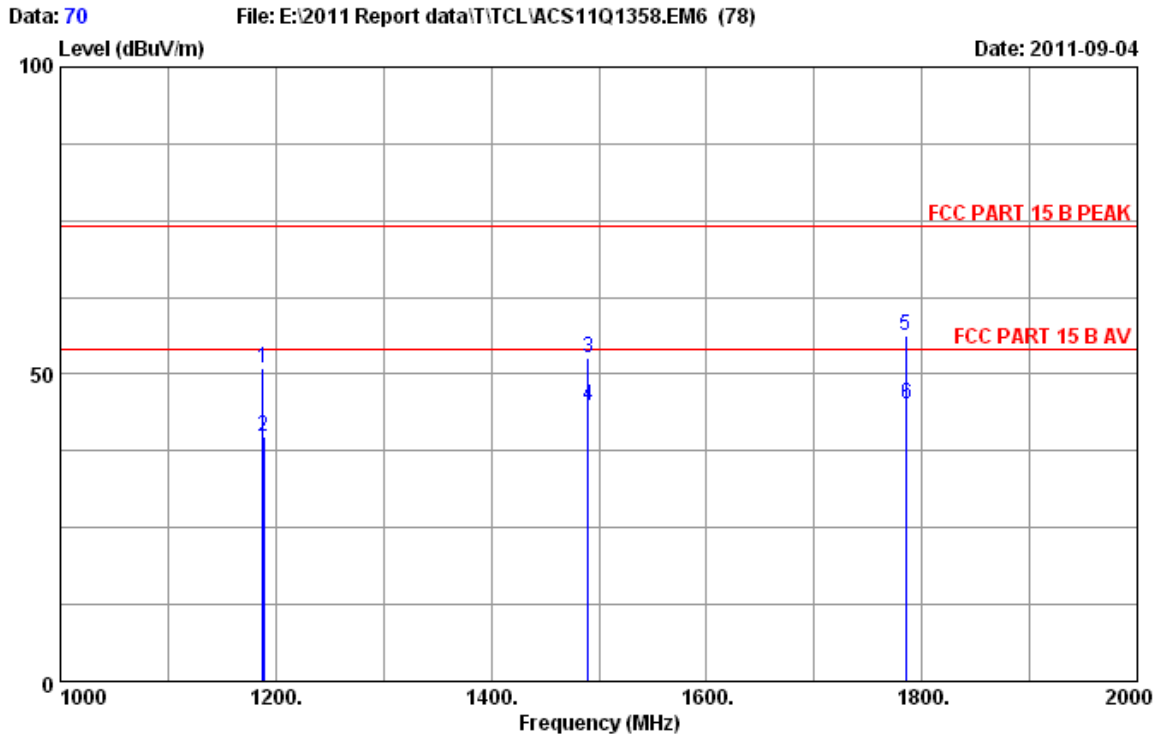
Site no. : 3m Chamber Data no. : 68  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 3:1920\*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBUV)	Reading (dBUV/m)	Emission Level (dBUV/m)	Limits (dB)	Margin (dB)	Remark
1	1182.000	24.11	3.29	35.26	59.84	51.98	74.00	22.02	Peak
2	1182.220	24.11	3.29	35.26	51.81	43.95	54.00	10.05	Average
3	1490.000	25.60	3.79	35.00	61.09	55.48	74.00	18.52	Peak
4	1490.170	25.60	3.79	35.00	53.12	47.51	54.00	6.49	Average
5	1782.000	26.68	4.26	34.78	62.59	58.75	74.00	15.25	Peak
6	1782.690	26.68	4.29	34.78	50.58	46.77	54.00	7.23	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



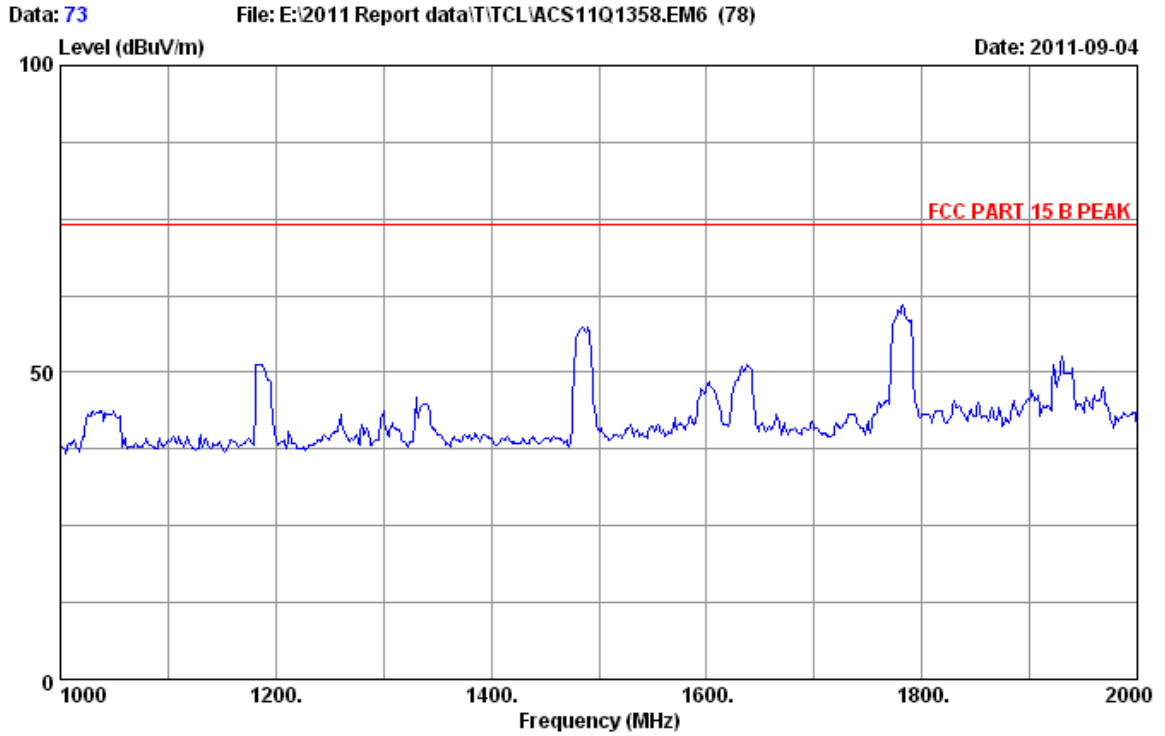
Site no. : site Data no. : 69  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 3:1920\*1080@60Hz



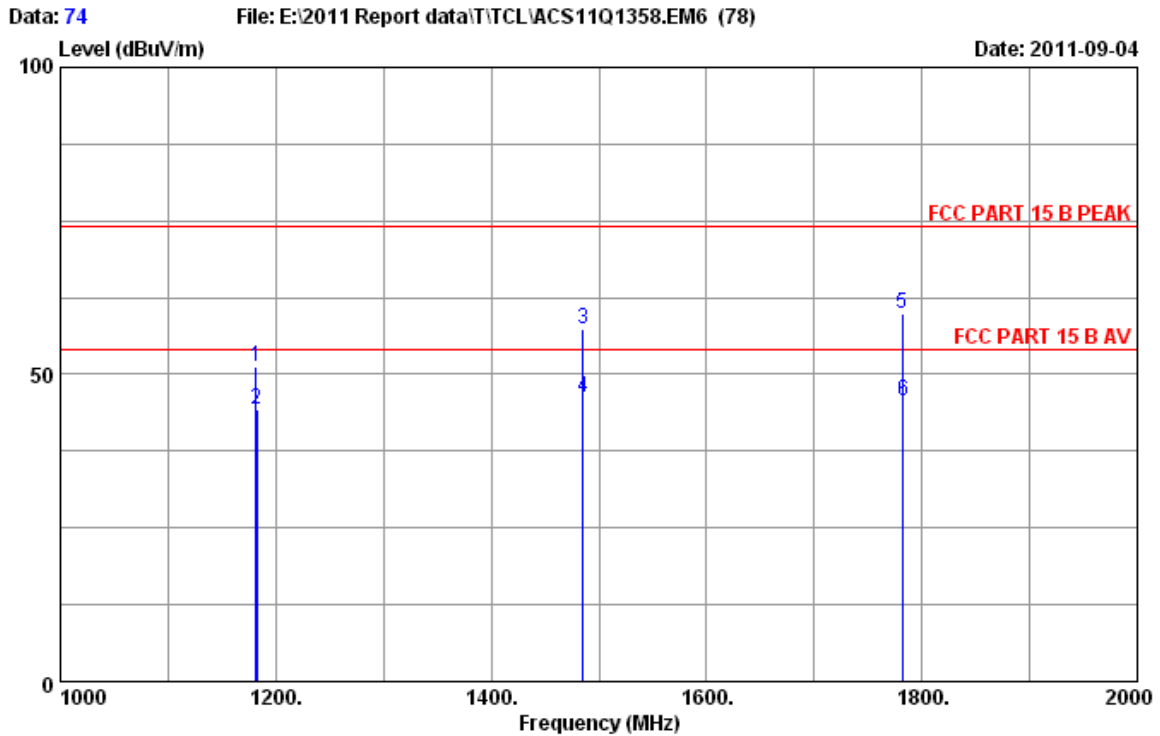
Site no. : site Data no. : 70  
 Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Cary Luo  
 EUT : LED TV M/N:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 3:1920\*1080@60Hz

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBUV)	Reading (dBUV/m)	Emission Level (dBUV/m)	Limits (dB)	Margin (dB)	Remark
1	1188.000	24.11	3.29	35.24	58.76	50.92	74.00	23.08	Peak
2	1188.560	24.11	3.29	35.24	47.73	39.89	54.00	14.11	Average
3	1490.000	25.60	3.79	35.00	58.31	52.70	74.00	21.30	Peak
4	1490.290	25.60	3.79	35.00	50.37	44.76	54.00	9.24	Average
5	1785.000	26.68	4.29	34.78	59.97	56.16	74.00	17.84	Peak
6	1785.580	26.68	4.29	34.78	48.89	45.08	54.00	8.92	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



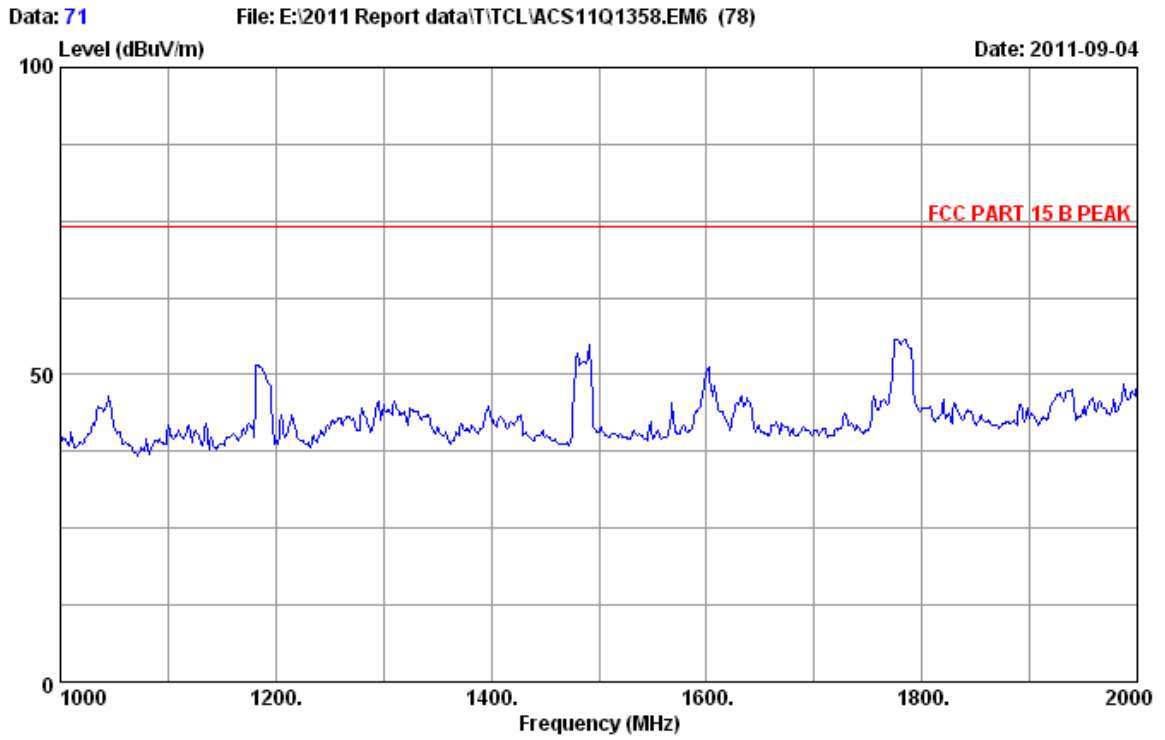
Site no. : site Data no. : 73  
Dis. / Ant. : 3m 2011 3115 9607-4877 Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B PEAK  
Env. / Ins. : 24°C/56% Engineer : Cary Luo  
EUT : LED TV M/N:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 4:1920\*1080@60Hz



Site no. : site Data no. : 74  
 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:LE40FHDE5200  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running H Pattern And 1KHz Playing  
 HDMI 4:1920\*1080@60Hz

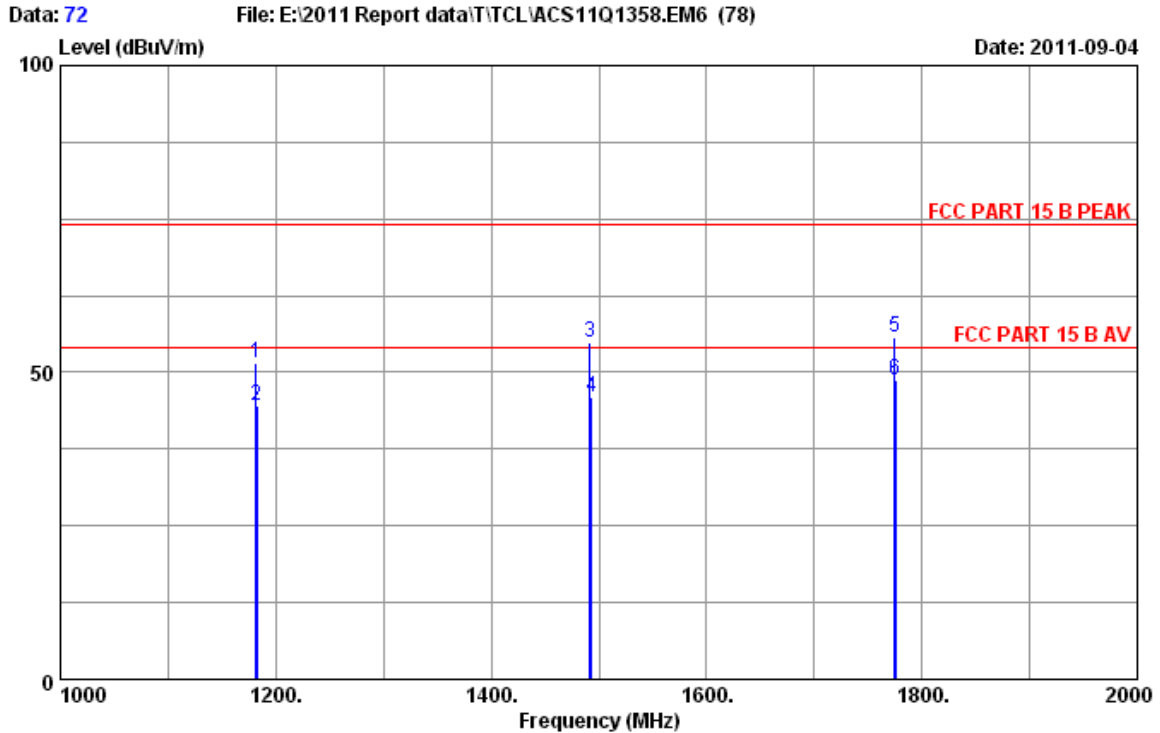
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBUV)	Reading (dBUV/m)	Emission Level (dBUV/m)	Limits (dB)	Margin (dB)	Remark
1	1182.000	24.11	3.29	35.26	59.15	51.29	74.00	22.71	Peak
2	1182.470	24.11	3.29	35.26	52.19	44.33	54.00	9.67	Average
3	1485.000	25.60	3.79	35.02	63.04	57.41	74.00	16.59	Peak
4	1485.580	25.60	3.79	35.02	51.75	46.12	54.00	7.88	Average
5	1782.000	26.68	4.26	34.78	63.74	59.90	74.00	14.10	Peak
6	1782.540	26.68	4.29	34.78	49.49	45.68	54.00	8.32	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 71  
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:LE40FHDE5200  
Power Rating : AC 120V/60Hz  
Test Mode : Running H Pattern And 1KHz Playing  
HDMI 4:1920\*1080@60Hz





Site no. : 3m Chamber Data no. : 72  
 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:LE40FHDE5200  
 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	1182.000	24.11	3.29	35.26	59.43	51.57	74.00	22.43	Peak
2	1182.580	24.11	3.29	35.26	52.49	44.63	54.00	9.37	Average
3	1492.000	25.60	3.79	35.00	60.57	54.96	74.00	19.04	Peak
4	1492.870	25.60	3.79	35.00	51.57	45.96	54.00	8.04	Average
5	1775.000	26.68	4.26	34.78	59.65	55.81	74.00	18.19	Peak
6	1775.170	26.68	4.26	34.78	52.59	48.75	54.00	5.25	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.

## **5. DEVIATION TO TEST SPECIFICATIONS**

[NONE]