

APPLICATION OF CERTIFICATION  
For

TTE Technology Inc.

LCD TV

Brand Name	Model Number
TCL	L24HDF11TA

FCC ID: W8UL24HDF11TA

Prepared for : TTE Technology Inc.  
5541 W. 74th St, Indianapolis, IN 46268, U.S.A.

Prepared By: Audix Technology (Shenzhen) Co., Ltd.  
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Shenzhen Science & Industrial Park,  
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Report Number : ACS-F10167  
Date of Test : Jul.08~09, 2010  
Date of Report : Jul.13, 2010

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## TEST REPORT CERTIFICATION

Applicant : TTE Technology Inc.  
 Manufacturer : TCL King Electrical Appliances (Huizhou) Co., Ltd.  
 EUT Description : LCD TV  
 FCC ID : W8UL24HDF11TA

(A) MODEL NO.& Brand Name	Brand Name	Model Number
	TCL	L24HDF11TA

(B) SERIAL NO. : N/A

(C) TEST VOLTAGE : AC 120V/60Hz

Measurement Standard Used:

FCC Rules and Regulations Part 15 Subpart B Class B 2008, ANSI C63.4-2003  
 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.

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

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.

Date of Test: Jul.08~09, 2010

Prepared by:

*Annie Wu*  
 Annie Wu / Senior Assistant

Reviewer:

*Richzy*  
 Richzhy Zhong / Assistant Manager

Approved & Authorized Signer:



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.

<b>EMISSION</b>			
<b>Description of Test Item</b>	<b>Standard</b>	<b>Limits</b>	<b>Results</b>
Power Line Conducted Emission Test	FCC Part 15: 2008 ANSI C63.4: 2003	Class B	PASS
Radiated Emission Test	FCC Part 15: 2008 ANSI C63.4: 2003	Class B	PASS

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description : LCD TV

Model Number :	Brand Name	Model Number
	TCL	L24HDF11TA

FCC ID : W8UL24HDF11TA

Frequencies used : and generated within device	X54M1	45-OSC54M-0Y1CR	540000000Hz
	LVDS CLOCK	80MHz	
	IF	45.75MHz	
	DC-DC	U302->385KHz	U303->1MHz
	DDR	440MHz	
	AMP IIS	384KHz	

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.

Power Cord : Unshielded, Undetachable, 1.5m

Date of Test : Jul.08~09, 2010

Date of Receipt : Jul.07, 2010

Sample Type : Prototype production

### 2.2. Tested Supporting System Details

#### 2.2.1. PERSONAL COMPUTER

EMC CODE : Test PC N  
M/N : Studio 540  
S/N : J14XK2X  
Manufacturer : DELL  
Power cord : Unshielded, Detachable, 1.8m  
FCC ID : By DoC  
BSMI ID : R33002  
Display Card : HD3650  
(Display port+DVI+HDMI)

## 2.2.2.PRINTER

EMC CODE : ACS-EMC-PT04  
M/N : C9079A  
Manufacturer : HP  
USB Cable : Shielded, Detachable, 1.8m  
Power Cord : Unshielded, Detachable, 1.8m  
FCC ID : By DoC  
BSMI ID : R33001  
Power Adaptor : Manufacturer: HP  
M/N: 0957-2119  
BSMI ID: R33030  
DC Cable: Unshielded, Detachable, 1.5m

## 2.2.3.USB KEYBOARD

EMC CODE : ACS-EMC-K04R  
M/N : SK-8115  
S/N : CN-ODJ313-71616-6BB-049J  
Manufacturer : DELL  
Data Cable : Shielded, Undetachable, 2.0m  
FCC ID : By DoC  
BSMI ID : T3A002

## 2.2.4.USB MOUSE

EMC CODE : ACS-EMC-M05R  
M/N : M028UOL  
S/N : 44N1421  
Manufacturer : Lenovo  
Data Cable : Shielded, Undetachable, 1.8m  
FCC ID : By DoC  
BSMI ID : R41108

## 2.2.5.HDD

EMC CODE : ACS-EMC-HDD04  
M/N : F12-UF  
S/N : A0100215-5390002  
Manufacturer : Terasys  
Data Cable : Shielded, Detachable, 1.8m  
FCC ID : By DoC  
BSMI ID : 4912A022

## 2.2.6.iPod

EMC CODE	:	ACS-EMC-IP01
M/N	:	A1199
S/N	:	YM706MLDVQ5
Manufacturer	:	APPLE
Data Cable	:	Shielded, Detachable, 1.0m
FCC ID	:	By DoC
BSMI ID	:	R33057

## 2.2.7.Headphone

EMC CODE	:	ACS-EMC-EP03
M/N	:	OV880V
Manufacturer	:	OVANN
Data Cable	:	Shielded, Undetachable, 4.0m

## 2.2.8.Cables

Audio Cable	:	Shielded, Detachable, 1.8m
HDMI Cable	:	Shielded, Detachable, 1.5m
VGA Cable	:	Shielded, Detachable, 1.5m
Y/Pb/Pr Cable	:	Shielded, Detachable, 1.5m
Coaxial Cable	:	Shielded, Detachable, 1.5m
L+R+V Cable	:	Shielded, Detachable, 1.5m

### 2.3. 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	: Mar. 31, 2009 File on Federal Communication Commission Registration Number: 90454
3m & 10m Anechoic Chamber	: Dec.30, 2009 File on Federal Communication Commission Registration Number: 794232
EMC Lab.	: Accredited by DATech, German Registration Number: DAT-P-091/99-01 Feb,02, 2009
	Accredited by NVLAP, USA NVLAP Code: 200372-0 Apr. 01, 2010

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

Test Item	Uncertainty
Uncertainty for Conduction emission test in No. 1 Conduction	3.64 dB (9kHz to 150kHz)
	3.22 dB (150kHz to 30MHz)
Uncertainty for Radiation Emission test in 3m chamber	4.20 dB (Polarize: V)
	4.66 dB (Polarize: H)
Uncertainty for test site temperature and humidity	0.3°C
	2%



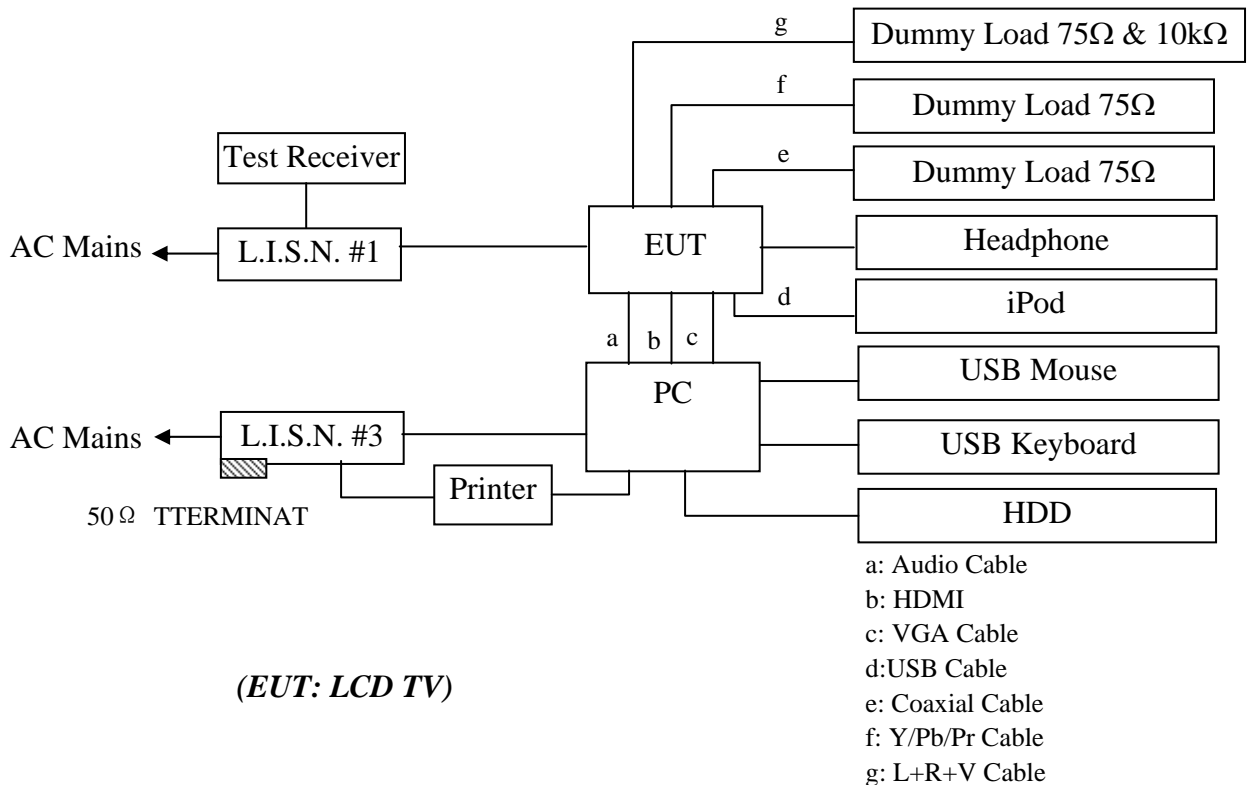
### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Test Receiver	Rohde & Schwarz	ESHS20	836600/006	May.08, 10	1 Year
2	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Mar.30, 10	1 Year
3	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 10	1 Year
4	Terminator	Hubersuhner	50Ω	No. 1	May.08, 10	1 Year
5	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 10	1Year
6	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 10	1 Year
7	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 10	1 Year

#### 3.2. Block Diagram of Test Setup

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



#### 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. LCD TV (EUT)

Model Number : L24HDF11TA  
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. Let the EUT work in test mode (Running “H” Pattern and 1kHz Playing 640\*480 60Hz/ Running “H” Pattern and 1kHz Playing 800\*600 60Hz / Running “H” Pattern and 1kHz Playing 1024\*768 60Hz / HDMI 1080P) , use white letters on a black background, set the contrast control to maximum, set the brightness control to maximum and measure it.

### 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 C63.4-2003 on conducted Emission test.

The bandwidth of test receiver (R&S TEST RECEIVER ESHS20) 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 (mode 3 & 4) to read Q.P values and Average values, all the test results are listed in next pages.

EUT: LCD TV                      Model No. : L24HDF11TA

Test Date: Jul.09, 2010              Temperature: 23°C              Humidity: 54%

The details of test modes are as follows :

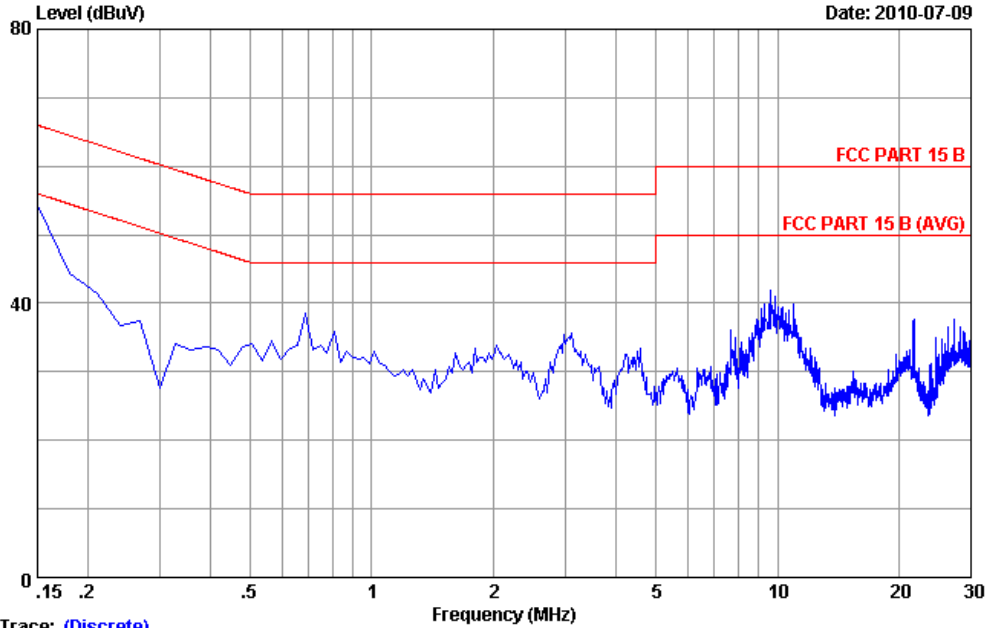
NO.	Resolution & Frequency	Reference Test Data No.	
		LINE	NEUTRAL
1.	VGA 640*480 60Hz	#31	#32
2.	VGA 800*600 60Hz	#30	#29
<b>3. ✖</b>	<b>VGA 1024*768 60Hz</b>	<b>#27</b>	<b>#28</b>
<b>4.</b>	<b>HDMI1 1080P</b>	<b>#34</b>	<b>#33</b>
5.	HDMI2 1080P	#35	#36

(✖ Worst test mode)



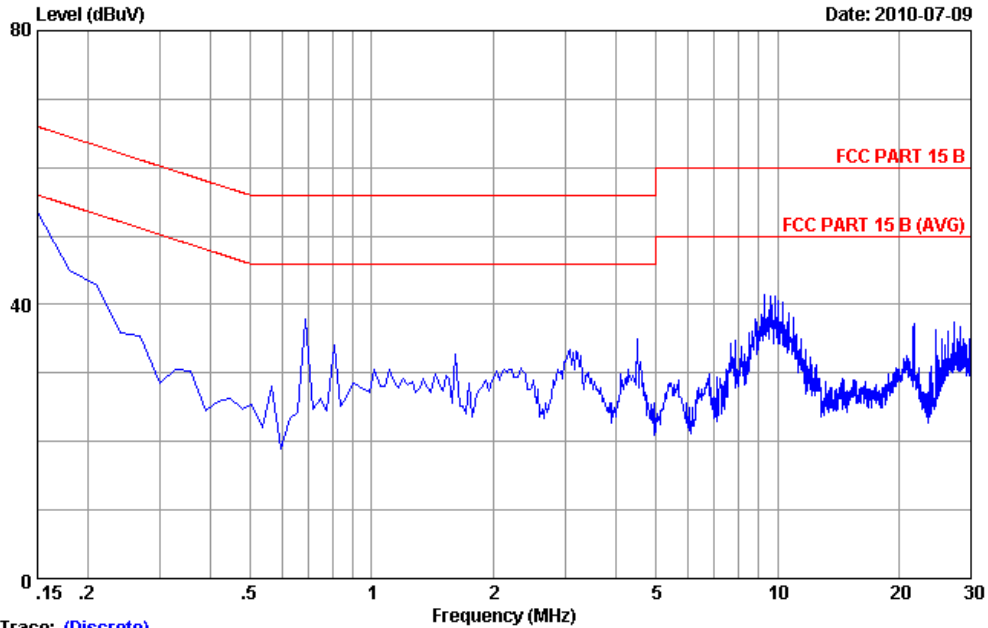
NO.6 Ke Feng Road,Block 52,  
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Tel:+86-755-26639495  
Fax:+86-755-26632877  
Postcode:518057

Data: 31 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36) Date: 2010-07-09



Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :31  
Dis./Ant. \*\*: 2010 ESH2-25 LINE  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23°C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :VGA:640\*480@60Hz

Data: 32 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36) Date: 2010-07-09

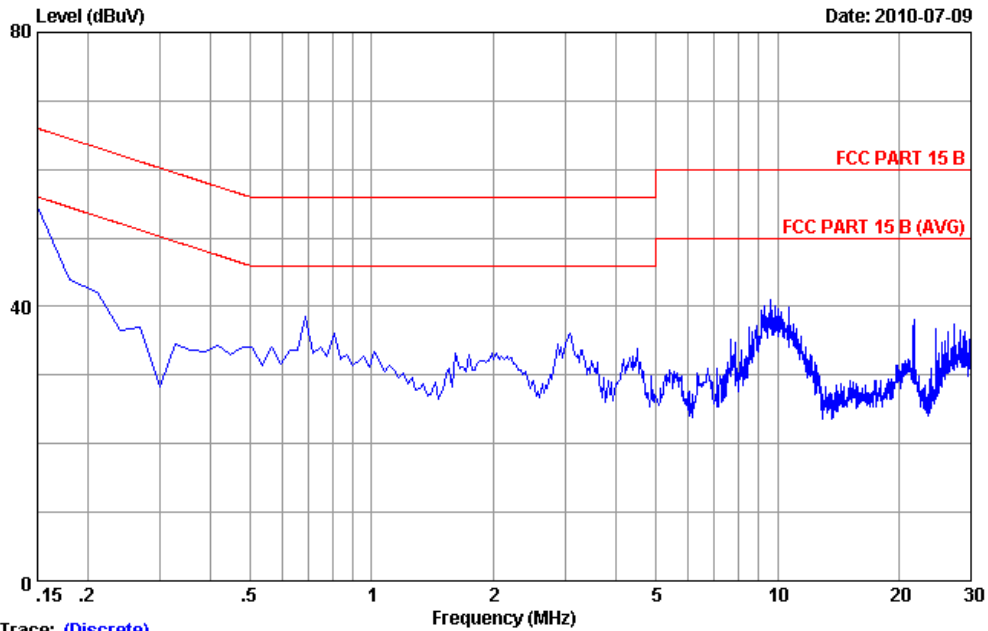


Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :32  
Dis./Ant. \*\*: 2010 ESH2-25 NEUTRAL  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23°C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :VGA:640\*480@60Hz



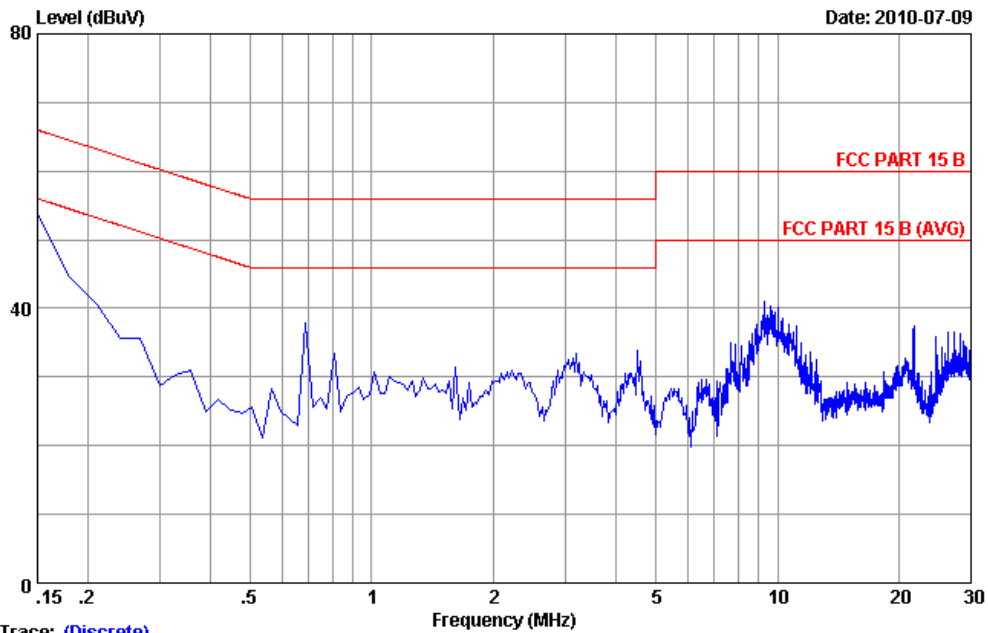
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Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :30  
Dis./Ant. \*\*: 2010 ESH2-25 LINE  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :VGA:800\*600@60Hz

Data: 29 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36)

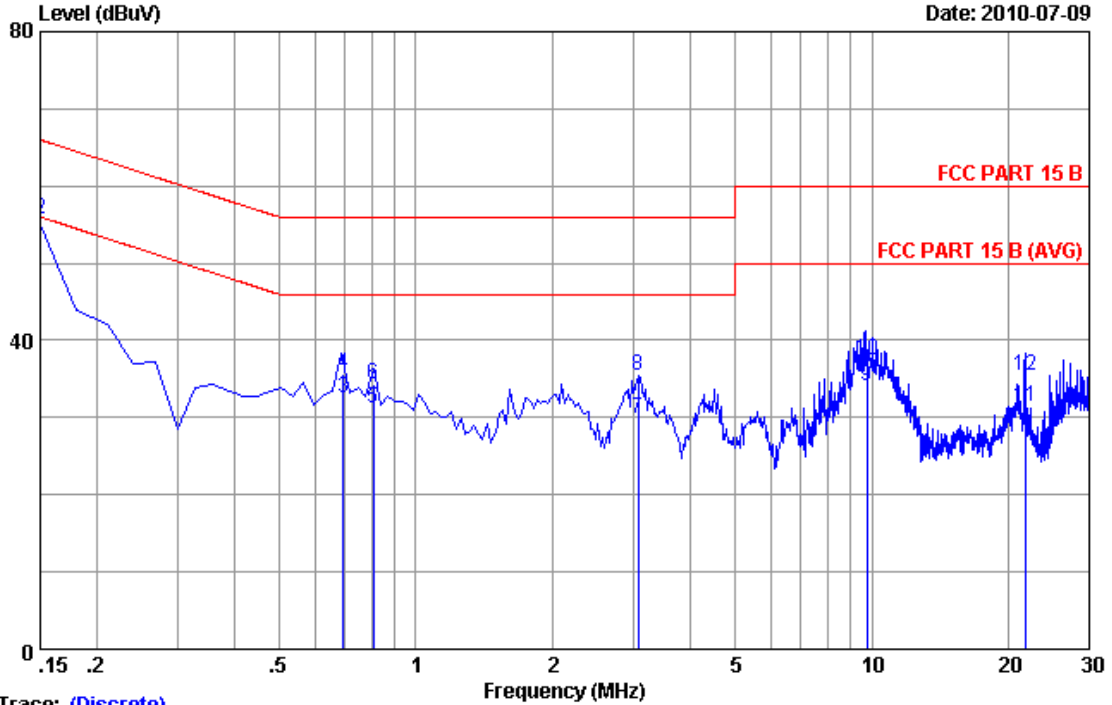


Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :29  
Dis./Ant. \*\*: 2010 ESH2-25 NEUTRAL  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :VGA:800\*600@60Hz



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Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :27  
 Dis./Ant. \*\*: 2010 ESH2-25 LINE  
 Limit :FCC PART 15 B  
 Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
 EUT :LCD TV M/N:L24HDF11TA  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" And 1kHz Playing  
 Memo :VGA:1024\*768@60Hz

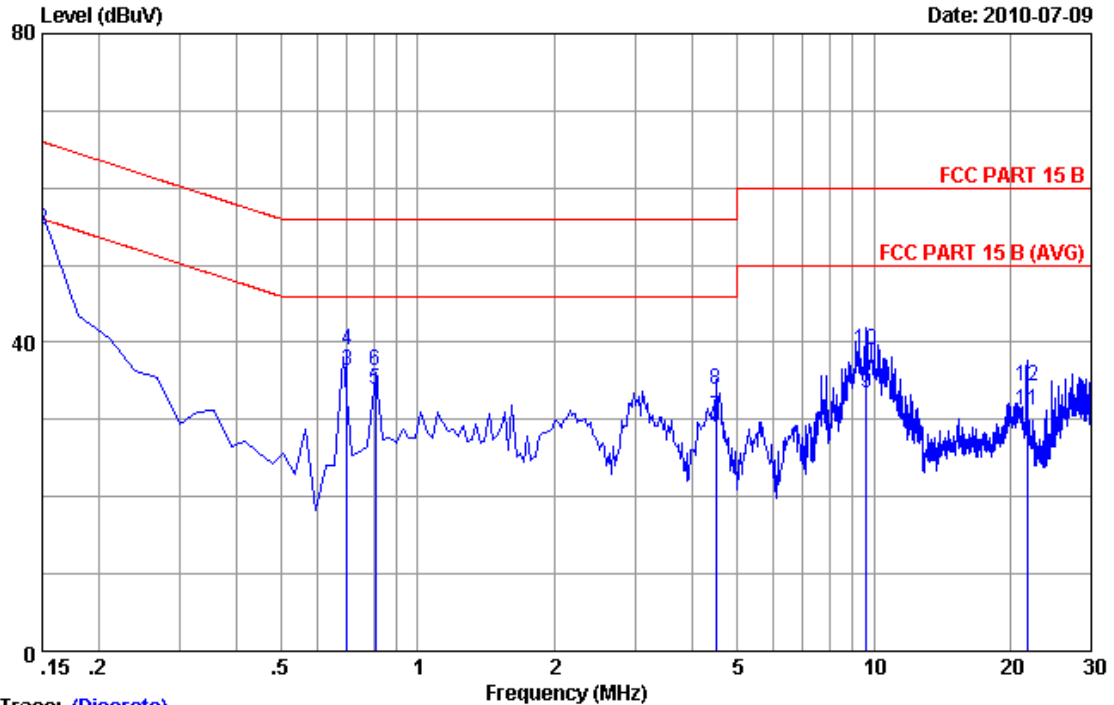
No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.23	9.88	27.90	38.01	56.00	17.99	Average
2	0.15000	0.23	9.88	45.60	55.71	66.00	10.29	QP
3	0.69300	0.25	9.89	22.30	32.44	46.00	13.56	Average
4	0.69300	0.25	9.89	25.60	35.74	56.00	20.26	QP
5	0.80670	0.24	9.89	21.10	31.23	46.00	14.77	Average
6	0.80670	0.24	9.89	24.09	34.22	56.00	21.78	QP
7	3.075	0.26	9.93	19.60	29.79	46.00	16.21	Average
8	3.075	0.26	9.93	25.19	35.38	56.00	20.62	QP
9	9.750	0.39	9.99	23.60	33.98	50.00	16.02	Average
10	9.750	0.39	9.99	27.10	37.48	60.00	22.52	QP
11	21.672	0.63	10.09	20.71	31.43	50.00	18.57	Average
12	21.672	0.63	10.09	24.61	35.33	60.00	24.67	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Cable loss+pulse limiter)+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.



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Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :28  
 Dis./Ant. \*\*: 2010 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 B  
 Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
 EUT :LCD TV M/N:L24HDF11TA  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" And 1kHz Playing  
 Memo :VGA:1024\*768@60Hz

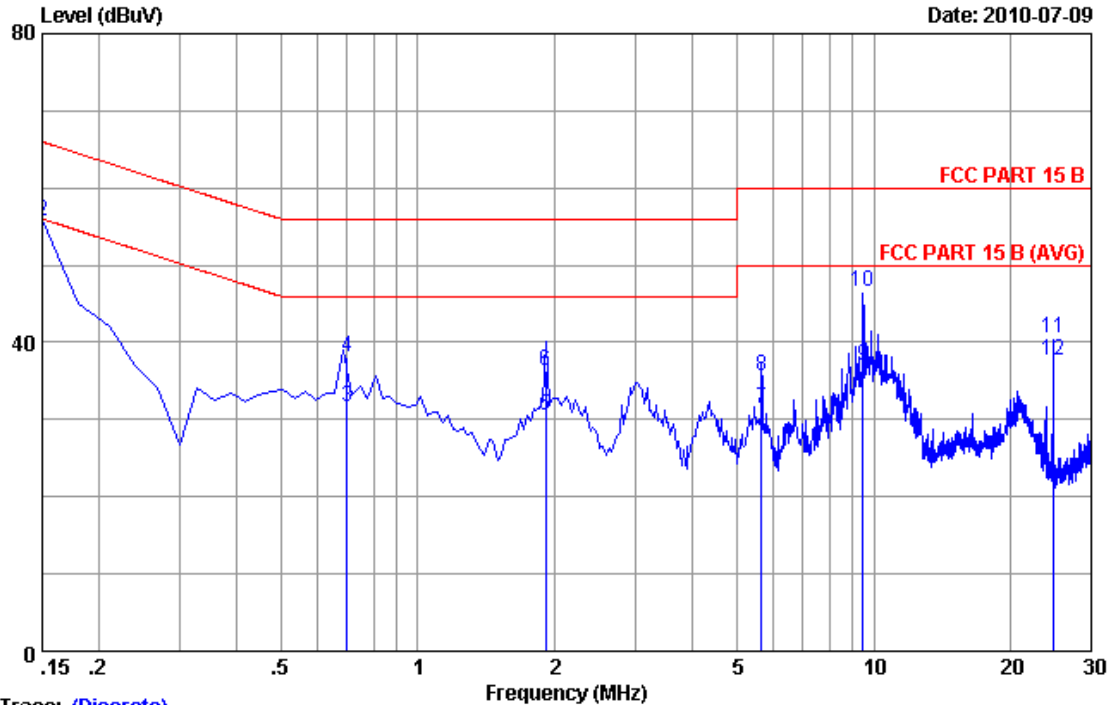
No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	9.88	30.10	40.19	56.00	15.81	Average
2	0.15000	0.21	9.88	44.60	54.69	66.00	11.31	QP
3	0.70000	0.24	9.89	26.10	36.23	46.00	9.77	Average
4	0.70000	0.24	9.89	28.90	39.03	56.00	16.97	QP
5	0.80700	0.24	9.89	23.70	33.83	46.00	12.17	Average
6	0.80700	0.24	9.89	26.10	36.23	56.00	19.77	QP
7	4.510	0.28	9.94	20.10	30.32	46.00	15.68	Average
8	4.510	0.28	9.94	23.60	33.82	56.00	22.18	QP
9	9.620	0.42	9.99	23.10	33.51	50.00	16.49	Average
10	9.620	0.42	9.99	28.50	38.91	60.00	21.09	QP
11	21.690	0.87	10.09	20.20	31.16	50.00	18.84	Average
12	21.690	0.87	10.09	23.30	34.26	60.00	25.74	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Cable loss+pulse limiter)+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.



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Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :34  
 Dis./Ant. \*\*: 2010 ESH2-25 LINE  
 Limit :FCC PART 15 B  
 Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
 EUT :LCD TV M/N:L24HDF11TA  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" And 1kHz Playing  
 Memo :HDMI 1:1080P

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.23	9.88	12.60	22.71	56.00	33.29	Average
2	0.15000	0.23	9.88	45.60	55.71	66.00	10.29	QP
3	0.70000	0.25	9.89	21.50	31.64	46.00	14.36	Average
4	0.70000	0.25	9.89	27.90	38.04	56.00	17.96	QP
5	1.910	0.25	9.90	20.30	30.45	46.00	15.55	Average
6	1.910	0.25	9.90	26.20	36.35	56.00	19.65	QP
7	5.680	0.28	9.95	21.10	31.33	50.00	18.67	Average
8	5.680	0.28	9.95	25.50	35.73	60.00	24.27	QP
9	9.490	0.39	9.99	26.60	36.98	50.00	13.02	Average
10	9.490	0.39	9.99	36.10	46.48	60.00	13.52	QP
11	24.780	0.87	10.12	29.50	40.49	50.00	9.51	Average
12	24.780	0.87	10.12	26.60	37.59	60.00	22.41	QP

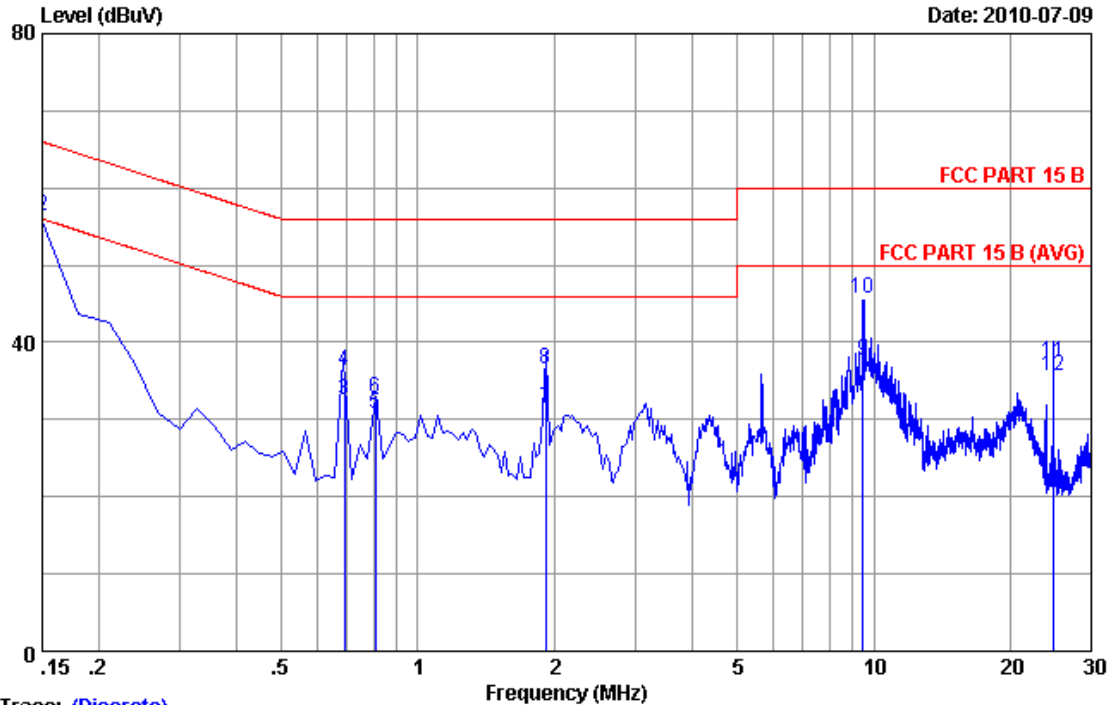
Remarks: 1.Emission Level=LISN Factor+Cable Loss(Cable loss+pulse limiter)+Reading  
 2.If the average limit is met when using a quasi-peak detector,  
 the EUT shall be deemed to meet both limits and measurement  
 with average detector is unnecessary.





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Data: 33 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36)



Trace: (Discrete)

Site no :Audix No.1 Conduction Data no :33  
 Dis./Ant. \*\*: 2010 ESH2-25 NEUTRAL  
 Limit :FCC PART 15 B  
 Env./Ins. :Temp:23'C Humi:54% Engineer :Gary\_Zeng  
 EUT :LCD TV M/N:L24HDF11TA  
 Power Rating :AC 120V/60Hz  
 Test Mode :Running "H" And 1kHz Playing  
 Memo :HDMI 1:1080P

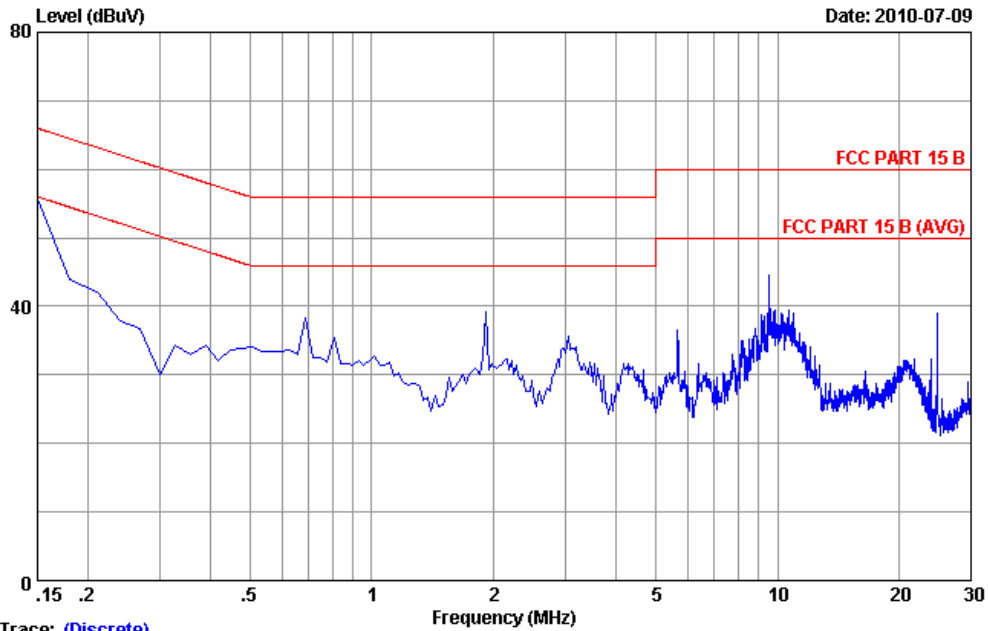
No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	9.88	29.20	39.29	56.00	16.71	Average
2	0.15000	0.21	9.88	46.30	56.39	66.00	9.61	QP
3	0.68900	0.24	9.89	22.50	32.63	46.00	13.37	Average
4	0.68900	0.24	9.89	26.30	36.43	56.00	19.57	QP
5	0.80600	0.24	9.89	20.60	30.73	46.00	15.27	Average
6	0.80600	0.24	9.89	22.60	32.73	56.00	23.27	QP
7	1.910	0.26	9.90	21.30	31.46	46.00	14.54	Average
8	1.910	0.26	9.90	26.30	36.46	56.00	19.54	QP
9	9.490	0.42	9.99	27.19	37.60	50.00	12.40	Average
10	9.490	0.42	9.99	35.20	45.61	60.00	14.39	QP
11	24.750	1.04	10.12	26.30	37.46	50.00	12.54	Average
12	24.750	1.04	10.12	24.60	35.76	60.00	24.24	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Cable loss+pulse limiter)+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.



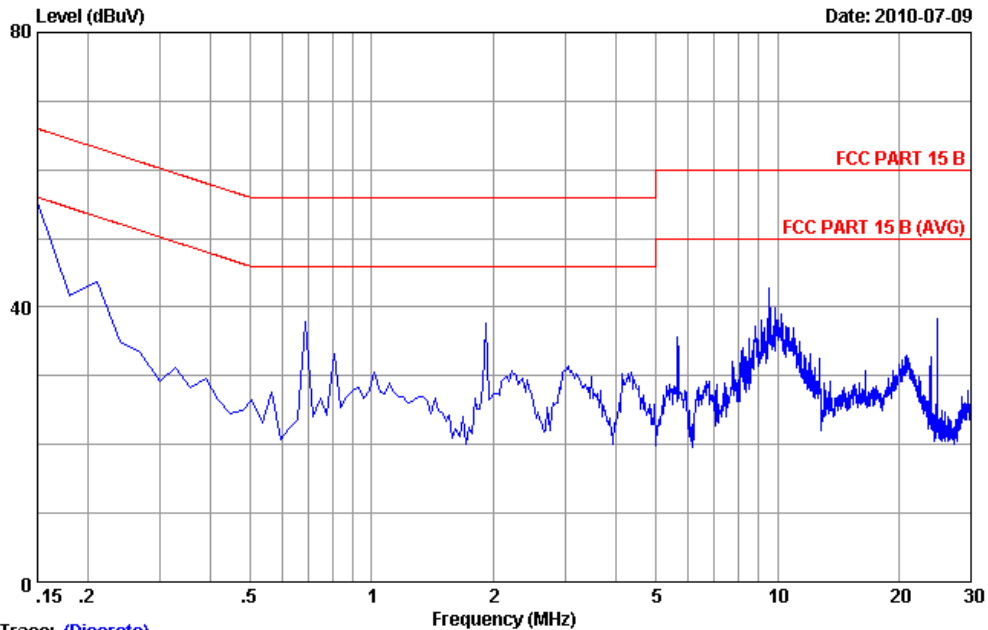
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Fax:+86-755-26632877  
Postcode:518057

Data: 35 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36)



Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :35  
Dis./Ant. \*\*: 2010 ESH2-25 LINE  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23°C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :HDMI 2:1080P

Data: 36 File: D:\DATA\2010 REPORT\TCL\ACS10Q1143.EM6 (36)



Trace: (Discrete)  
Site no :Audix No.1 Conduction Data no :36  
Dis./Ant. \*\*: 2010 ESH2-25 NEUTRAL  
Limit :FCC PART 15 B  
Env./Ins. :Temp:23°C Humi:54% Engineer :Gary\_Zeng  
EUT :LCD TV M/N:L24HDF11TA  
Power Rating :AC 120V/60Hz  
Test Mode :Running "H" And 1kHz Playing  
Memo :HDMI 2:1080P

## 4. RADIATED EMISSION TEST

### 4.1. Test Equipment

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

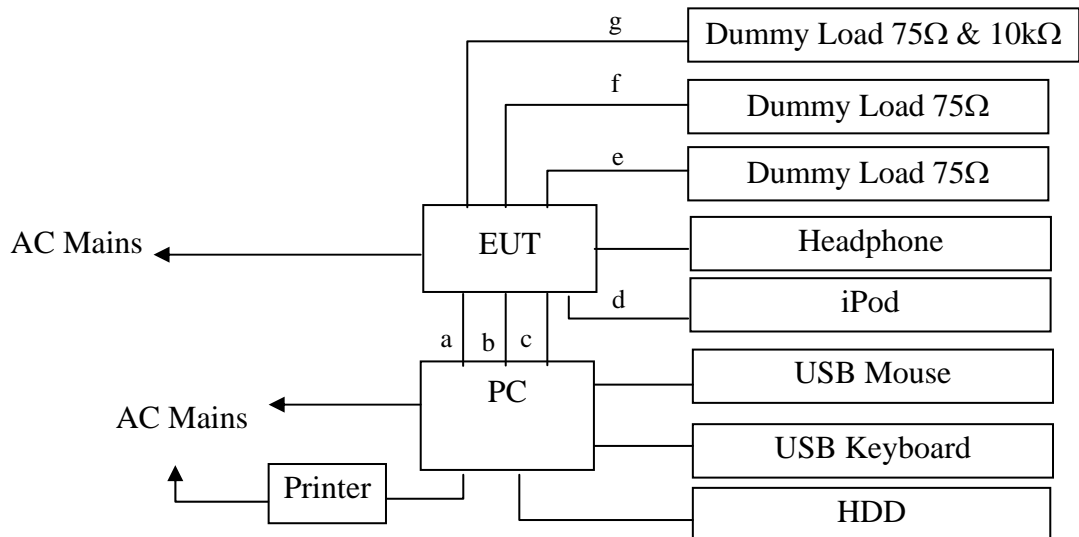
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A	N/A	Dec.05,09	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 10	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 10	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 10	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Dec.14, 09	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 10	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 10	1 Year

#### 4.1.2. For frequency range 1GHz~6GHz

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E7405A	MY45116588	May.08, 10	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 09	1.5 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 10	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08, 10	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 10	1 Year

### 4.2. Block Diagram of Test Setup

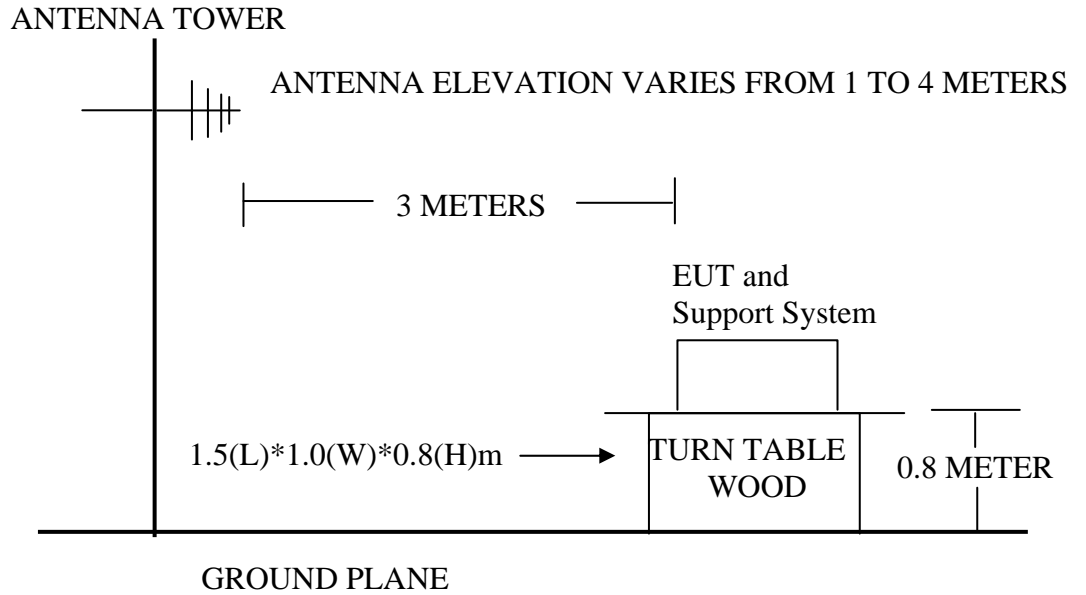
#### 4.2.1. Block diagram of connection between the EUT and simulators



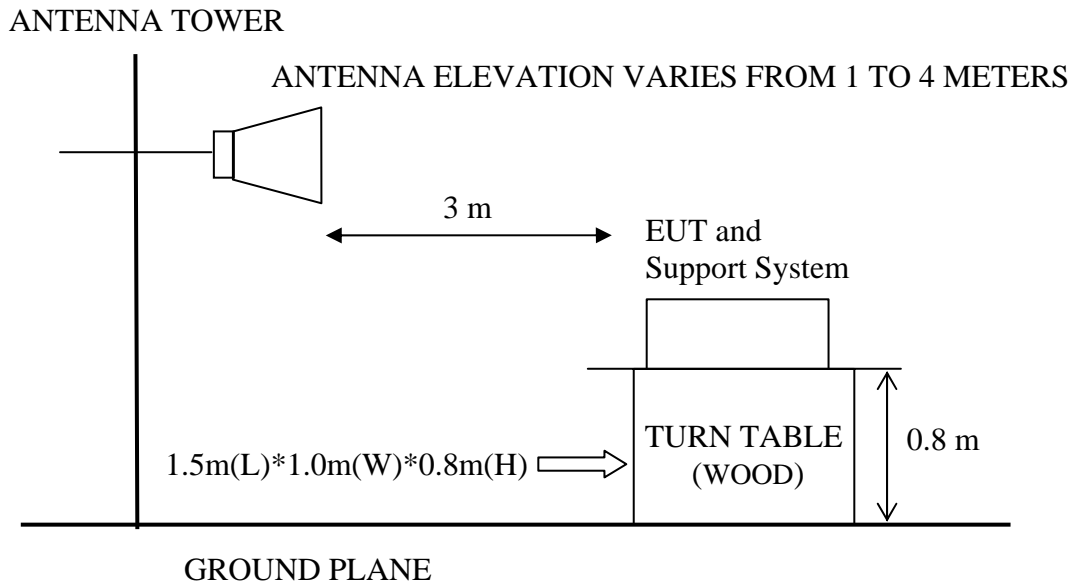
(EUT: LCD TV)

- a: Audio Cable
- b: HDMI
- c: VGA Cable
- d: USB Cable
- e: Coaxial Cable
- f: Y/Pb/Pr Cable
- g: L+R+V Cable

4.2.2. In Anechoic Chamber



4.2.3. In Anechoic (3m) Chamber Test Setup Diagram for 1-6GHz



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 6000	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 following equipment are installed on Radiated Emission Test to meet the commission requirements and operating regulations in a manner that tends to maximize its emission characteristics in normal application.

##### 4.4.1.LCD TV (EUT)

Model Number : L24HDF11TA  
Serial Number : N/A

#### 4.5.Operating Condition of EUT

4.5.1.Setup the EUT as shown in Section 4.2.

4.5.2. Turn on the power of all equipment.

4.5.3.Let the EUT worked in test mode (Running “H” Pattern and 1kHz Playing 640\*480 60Hz/ Running “H” Pattern and 1kHz Playing 800\*600 60Hz / Running “H” Pattern and 1kHz Playing 1024\*768 60Hz / HDMI 1080P), use white letters on a black background, set the contrast control to maximum, set the brightness control to maximum and measure it.

#### 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 C63.4-2003 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.

The frequency range from 30MHz to 6000MHz is checked. The test result are reported on Section 4.7.

#### 4.7. Radiated Disturbance 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 (mode 3 ~ 5) to read Q.P values, all the test results are listed in next pages.

EUT: LCD TV

Model No. : L24HDF11TA

Test Date: Jul.08, 2010

Temperature: 24°C

Humidity: 56%

The details of test modes are as follows :

NO.	Resolution & Frequency	Reference Test Data No.	
		Horizontal	Vertical
1.	VGA 640*480 60Hz	#32	#31
2.	VGA 800*600 60Hz	#30	#29
<b>3.</b>	<b>VGA 1024*768 60Hz</b>	<b>#27</b>	<b>#28</b>
<b>4. ※</b>	<b>HDMI1 1080P</b>	<b>#34</b>	<b>#33</b>
<b>5.</b>	<b>HDMI2 1080P</b>	<b>#35</b>	<b>#36</b>

(※ Worst test mode)

#### **For frequency range 1GHz~6GHz**

The EUT with below test modes 1~3 were measured within Anechoic Chamber and the test results listed in next pages

Test Date: Jul.08, 2010

Temperature: 24°C

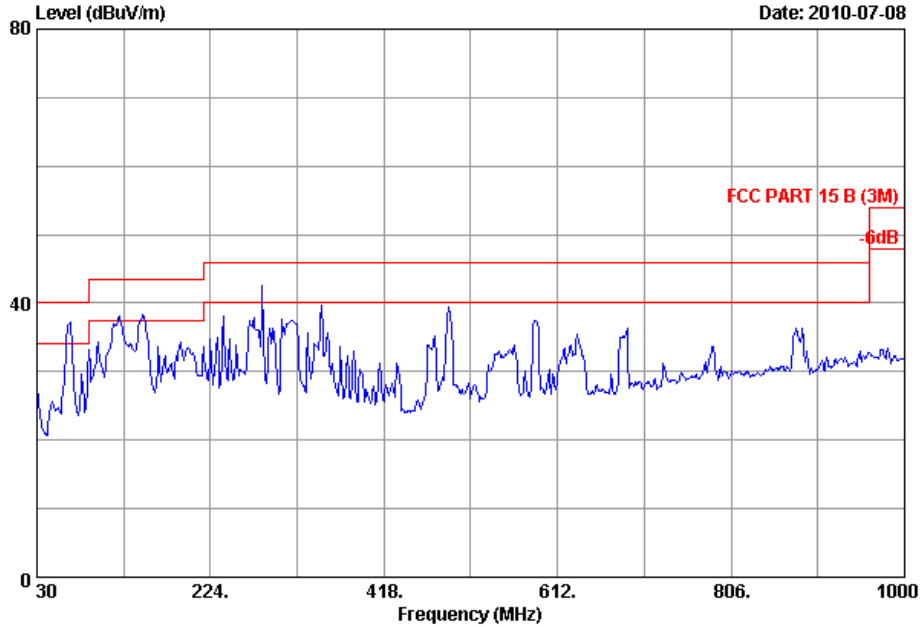
Humidity: 56%

NO.	Resolution & Frequency	Reference Test Data No.	
		Horizontal	Vertical
1.	VGA 1024*768 60Hz	#37, #38	#39, #40
2.	HDMI1 1080P	#43, #44	#41, #42
3.	HDMI2 1080P	#45, #46	#47, #48



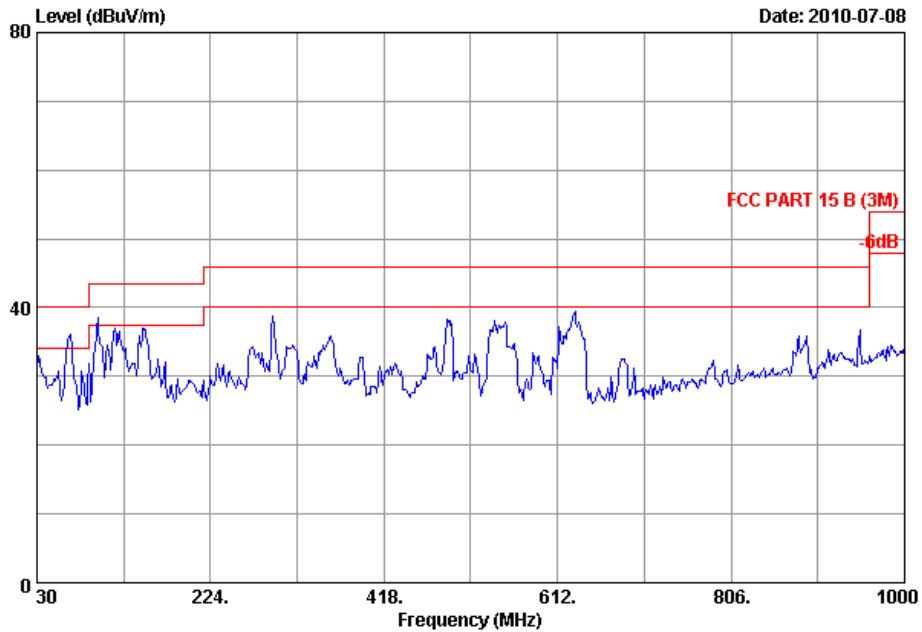
No.6 Ke Feng Road,Block 52,  
ShenZhen Science & Industry Park  
Noutou, ShenZhen, GuangDong, China  
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Fax:+86-755-26632877  
Postcode:518057

Data: 31 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48) Date: 2010-07-08



Site no. : 3m Chamber Data no. : 31  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : VGA:640\*480@60Hz

Data: 32 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48) Date: 2010-07-08

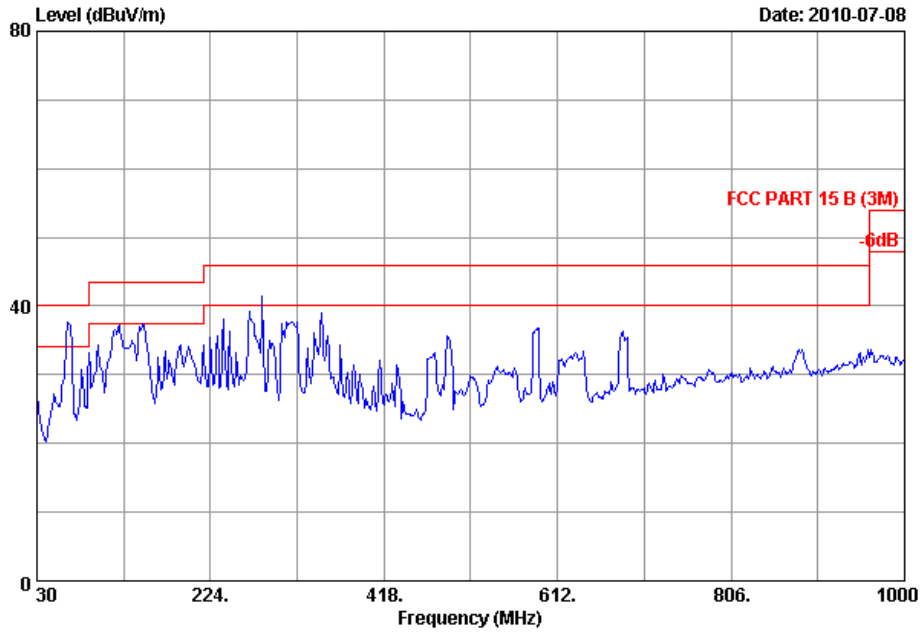


Site no. : 3m Chamber Data no. : 32  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : VGA:640\*480@60Hz



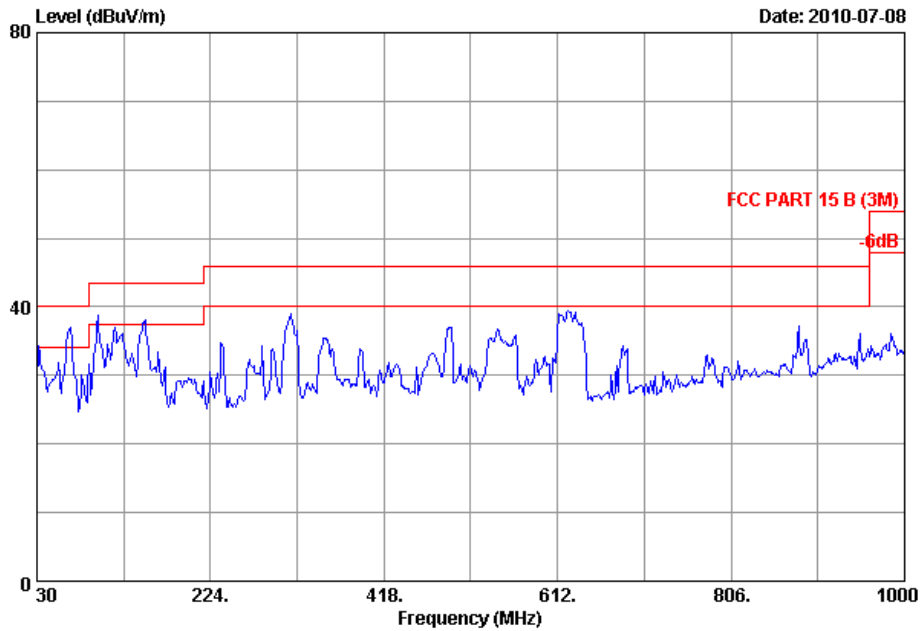
No.6 Ke Feng Road,Block 52,  
ShenZhen Science & Industry Park  
Noutou, ShenZhen, GuangDong, China  
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Postcode:518057

Data: 30 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 30  
Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B (3M)  
Env. / Ins. : 24°C/56% Engineer : Victory  
EUT : LCD TV M/N:L24HDF11TA  
Power rating : AC 120V/60Hz  
Test Mode : Running 'H' Pattern And 1kHz Playing  
: VGA:800\*600@60Hz

Data: 29 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



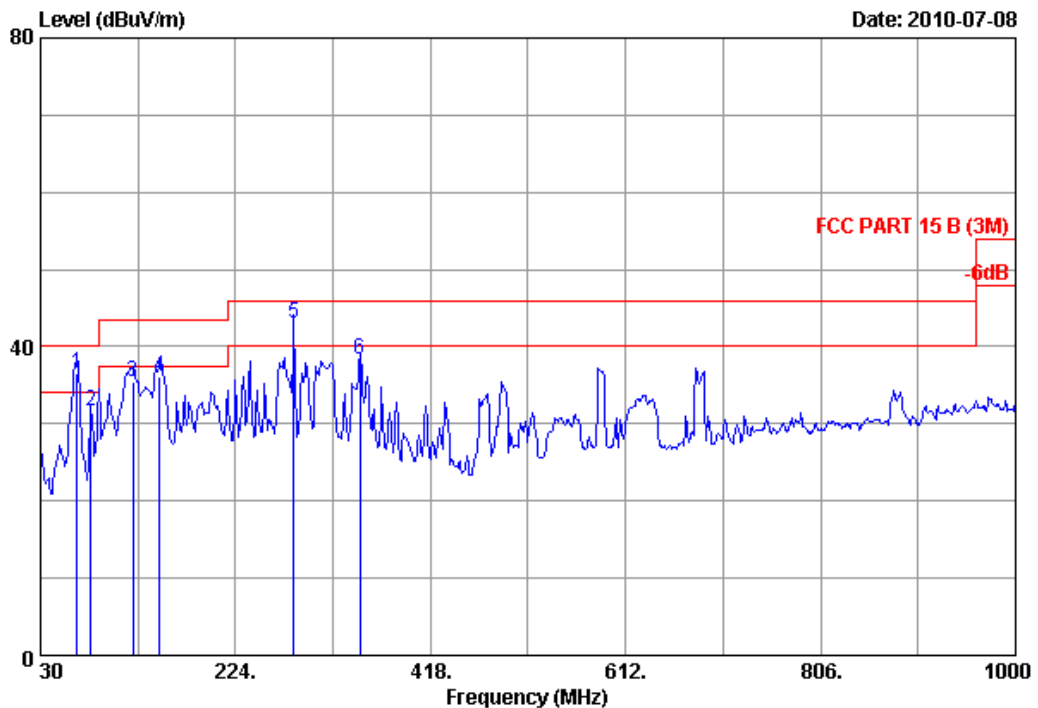
Site no. : 3m Chamber Data no. : 29  
Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL  
Limit : FCC PART 15 B (3M)  
Env. / Ins. : 24°C/56% Engineer : Victory  
EUT : LCD TV M/N:L24HDF11TA  
Power rating : AC 120V/60Hz  
Test Mode : Running 'H' Pattern And 1kHz Playing  
: VGA:800\*600@60Hz





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Data: 27 File: D:\2010 Report Data\TV\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 27  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : VGA:1024\*768@60Hz

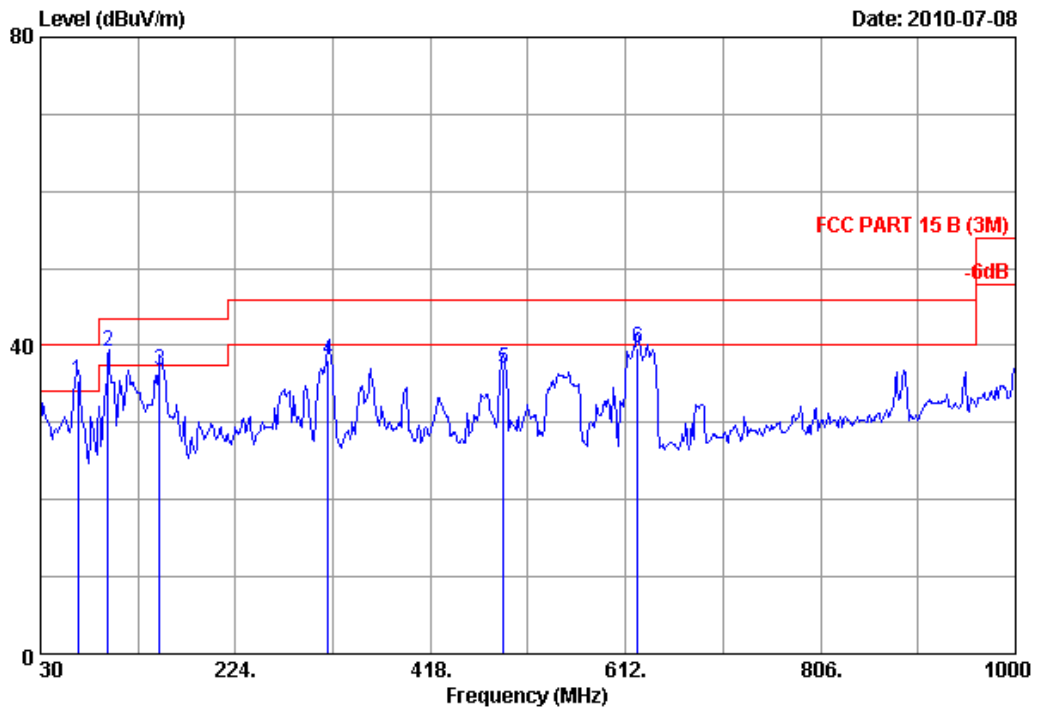
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	66.700	6.24	0.90	29.30	36.44	40.00	3.56	QP
2	80.440	7.80	0.99	22.80	31.59	40.00	8.41	QP
3	122.150	11.98	1.13	22.22	35.33	43.50	8.17	QP
4	148.340	11.72	1.14	23.18	36.04	43.50	7.46	QP
5	281.540	13.24	2.36	27.30	42.90	46.00	3.10	QP
6	348.160	15.04	2.69	20.60	38.33	46.00	7.67	QP

- Remarks:
1. Emission Level= Antenna Factor + Cable Loss + Reading.
  2. The emission levels that are 20dB below the official limit are not reported.
  3. The worst emission was detected at 281.540MHz with corrected signal level of 42.90dBμV/m (Limit is 46.00dBμV/m) when the antenna was at horizontal polarization and at 2.0m high and the turn table was at 211°.
  4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



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Postcode:518057

Data: 28 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 28  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : VGA:1024\*768@60Hz

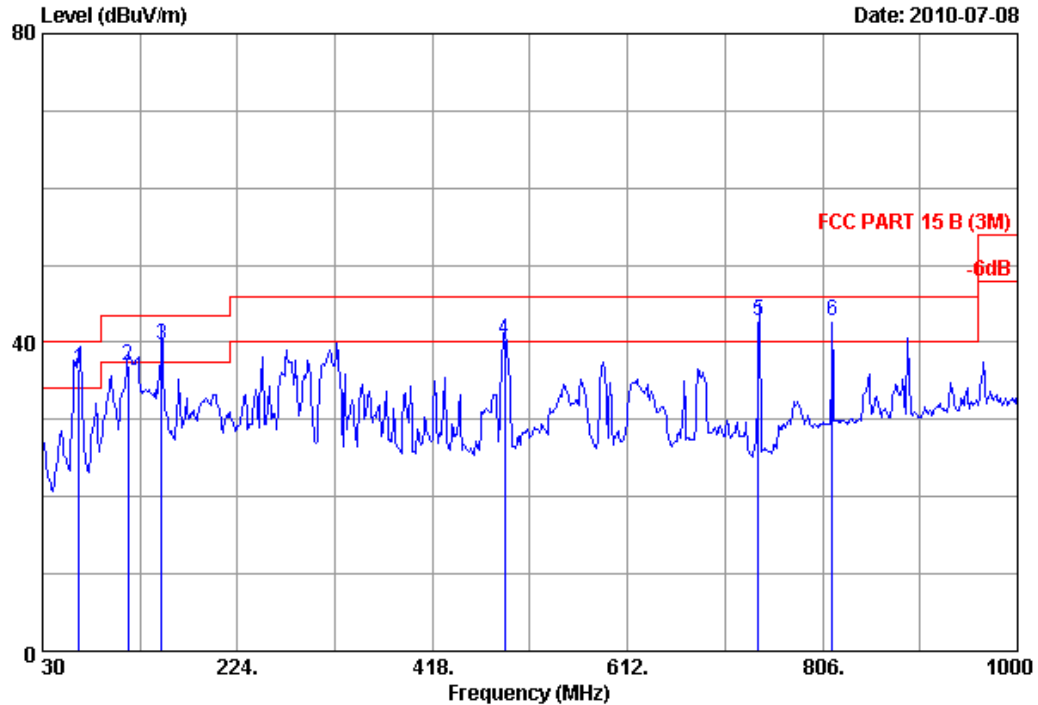
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Emission Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	66.860	6.24	0.90	28.30	35.44	40.00	4.56	QP
2	97.500	10.12	1.11	27.90	39.13	43.50	4.37	QP
3	148.340	11.72	1.14	23.82	36.68	43.50	6.82	QP
4	316.150	14.12	2.55	21.41	38.08	46.00	7.92	QP
5	490.750	18.21	3.49	15.33	37.03	46.00	8.97	QP
6	623.640	20.07	4.21	15.45	39.73	46.00	6.27	QP

- Remarks:
1. Emission Level= Antenna Factor + Cable Loss + Reading.
  2. The emission levels that are 20dB below the official limit are not reported.
  3. The worst emission was detected at 97.500MHz with corrected signal level of 39.13dBμV/m (Limit is 43.50dBμV/m) when the antenna was at vertical polarization and at 2.0m high and the turn table was at 310°.
  4. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.



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Postcode:518057

Data: 34 File: D:\2010 Report Data\TV\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 34  
Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
Limit : FCC PART 15 B (3M)  
Env. / Ins. : 24°C/56% Engineer : Victory  
EUT : LCD TV M/N:L24HDF11TA  
Power rating : AC 120V/60Hz  
Test Mode : Running 'H' Pattern And 1kHz Playing  
: HDMI 1:1080P

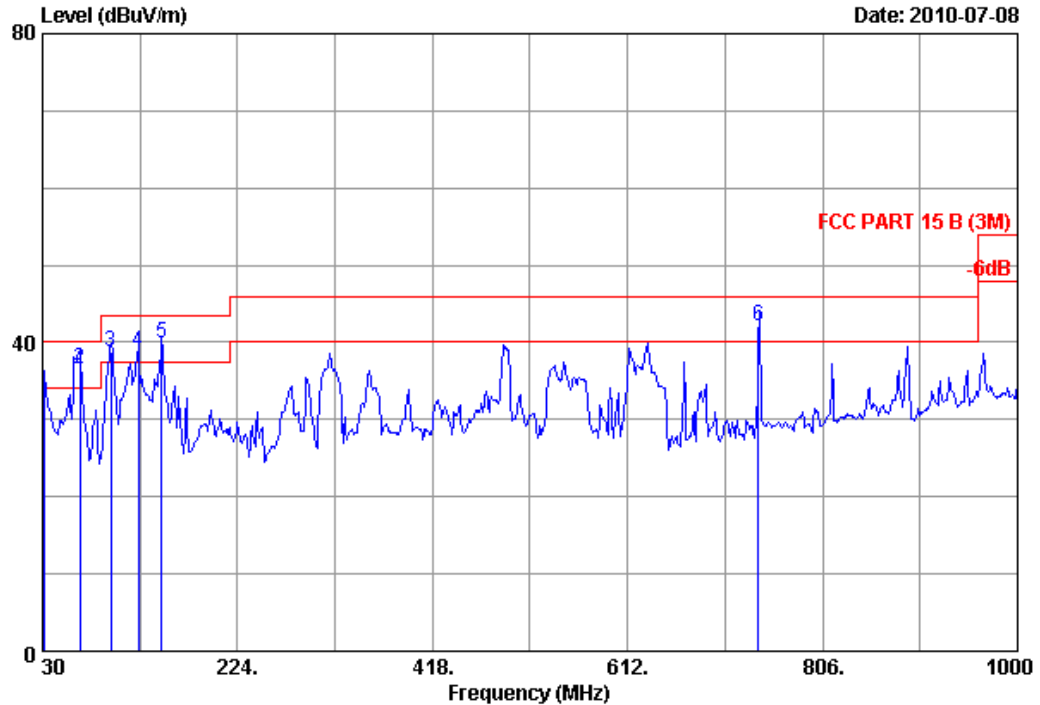
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	66.780	6.24	0.90	29.30	36.44	40.00	3.56	QP
2	115.500	11.70	1.13	24.20	37.03	43.50	6.47	QP
3	148.360	11.72	1.14	26.70	39.56	43.50	3.94	QP
4	490.100	18.20	3.48	18.60	40.28	46.00	5.72	QP
5	741.750	21.84	4.67	16.30	42.81	46.00	3.19	QP
6	815.350	22.12	4.95	15.70	42.77	46.00	3.23	QP

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



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Postcode:518057

Data: 33 File: D:\2010 Report Data\TV\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 33  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : HDMI 1:1080P

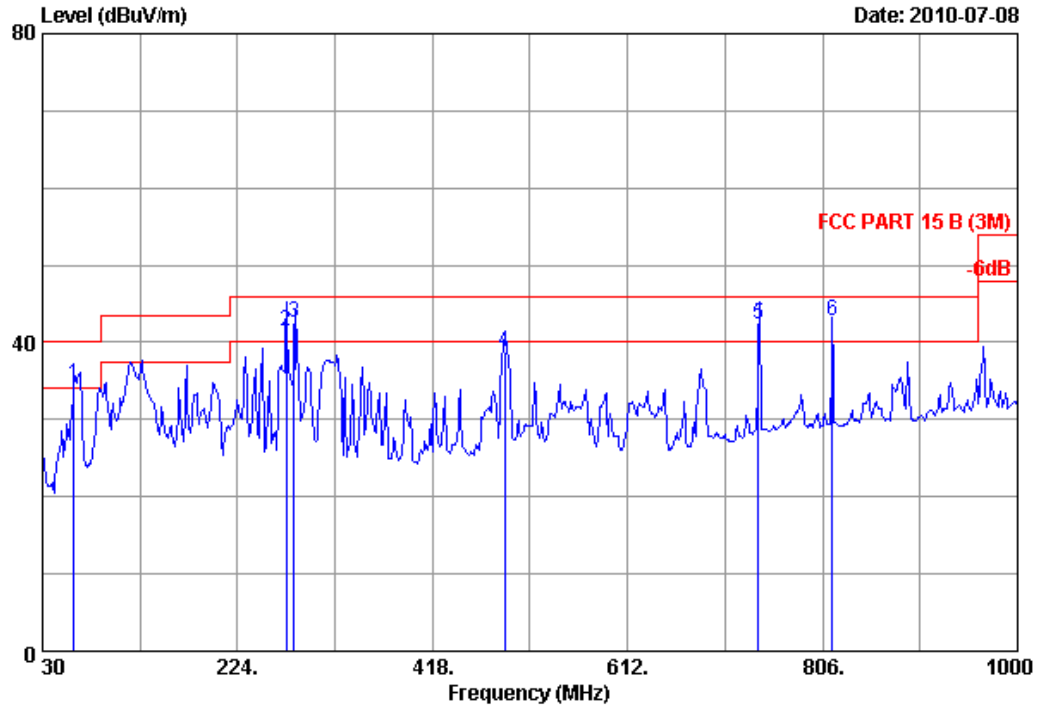
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.900	18.88	0.63	14.20	33.71	40.00	6.29	QP
2	66.890	6.24	0.90	29.30	36.44	40.00	3.56	QP
3	97.700	10.12	1.11	27.60	38.83	43.50	4.67	QP
4	125.100	12.10	1.13	25.50	38.73	43.50	4.77	QP
5	148.300	11.72	1.14	27.10	39.96	43.50	3.54	QP
6	741.770	21.84	4.67	15.70	42.21	46.00	3.79	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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Postcode:518057

Data: 35 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 35  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : HDMI 2:1080P

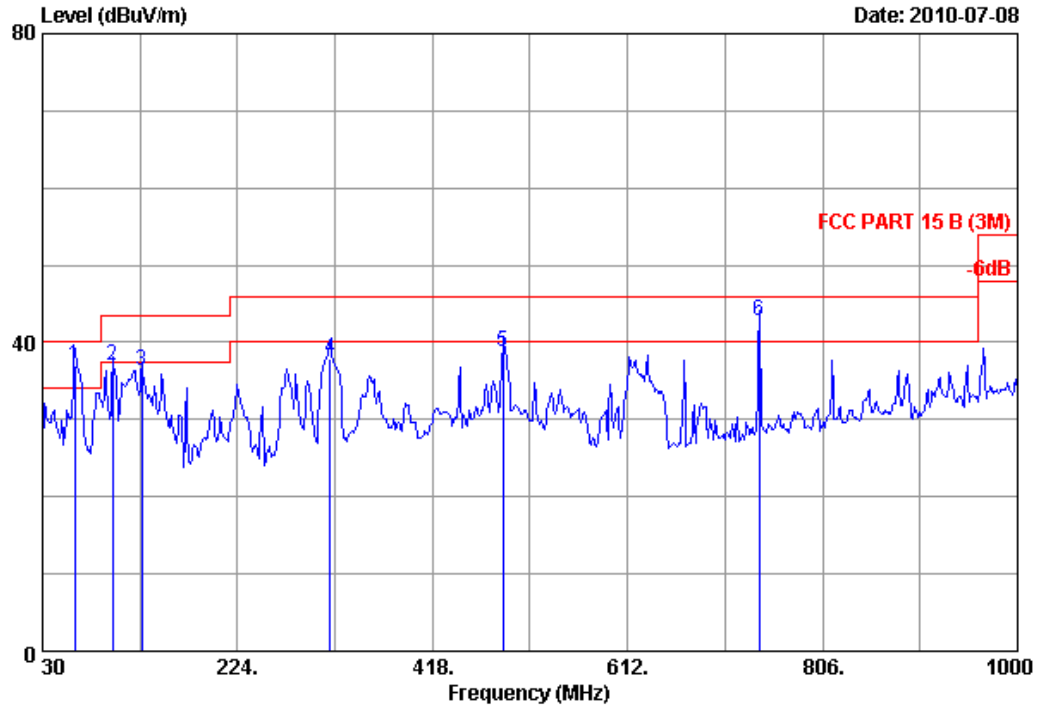
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	61.200	6.00	0.86	27.60	34.46	40.00	5.54	QP
2	272.250	13.25	2.31	26.00	41.56	46.00	4.44	QP
3	280.500	13.20	2.36	26.90	42.46	46.00	3.54	QP
4	489.890	18.20	3.48	17.20	38.88	46.00	7.12	QP
5	741.760	21.84	4.67	15.90	42.41	46.00	3.59	QP
6	815.900	22.12	4.95	15.70	42.77	46.00	3.23	QP

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



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Postcode:518057

Data: 36 File: D:\2010 Report Data\TV\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 36  
 Dis. / Ant. : 3m 2010 CBL6111C Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B (3M)  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 : HDMI 2:1080P

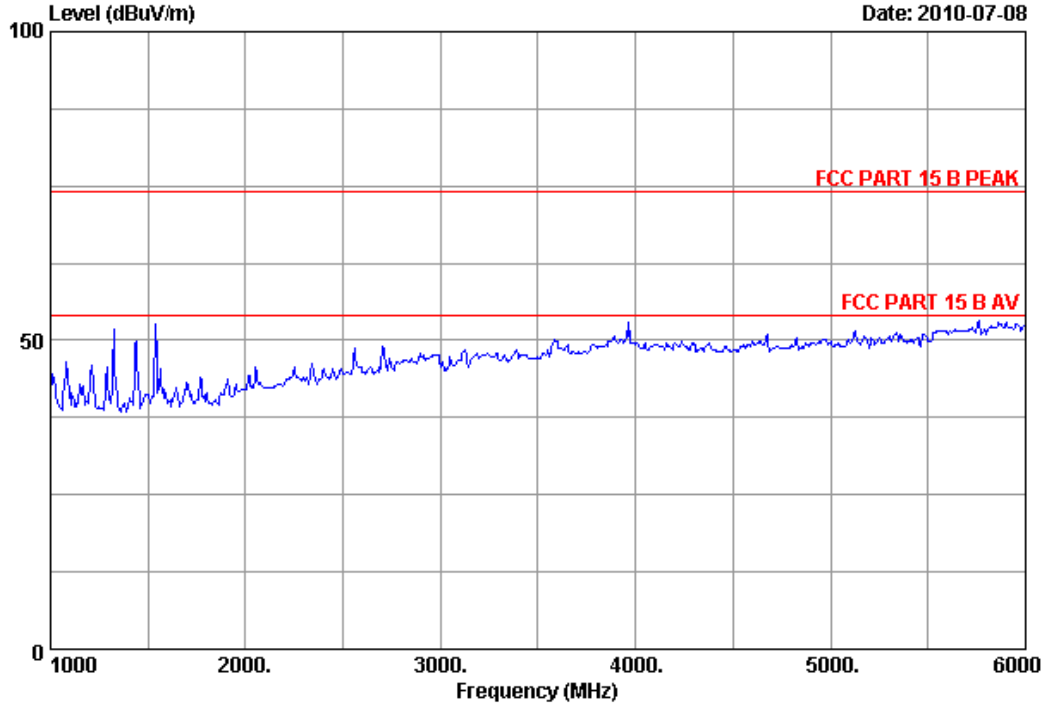
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	62.100	6.00	0.86	30.10	36.96	40.00	3.04	QP
2	99.840	10.40	1.12	25.54	37.06	43.50	6.44	QP
3	128.940	12.18	1.13	23.11	36.42	43.50	7.08	QP
4	316.150	14.12	2.55	21.25	37.92	46.00	8.08	QP
5	487.900	18.18	3.47	17.10	38.75	46.00	7.25	QP
6	742.750	21.86	4.67	16.30	42.83	46.00	3.17	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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Data: 37 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)

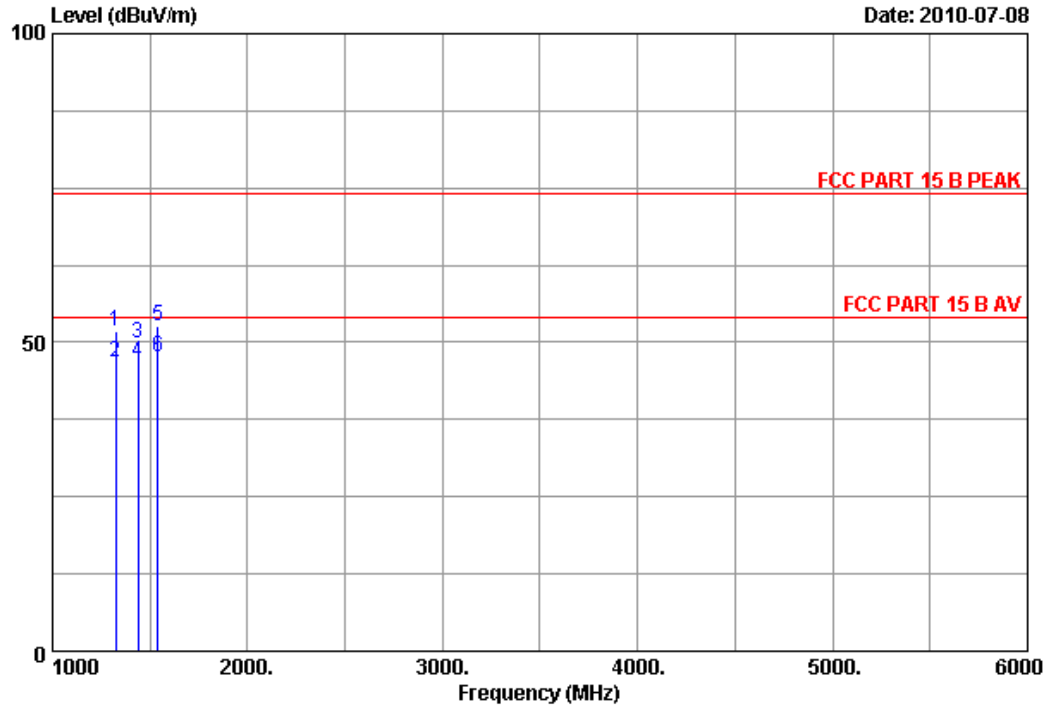


Site no.	: 3m Chamber	Data no.	: 37
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	VGA:1024*768@60Hz		



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Data: 38 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 38  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 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	1325.120	25.27	4.40	35.85	58.11	51.93	74.00	22.07	Peak
2	1325.960	25.27	4.40	35.85	53.11	46.93	54.00	7.07	Average
3	1440.230	25.22	4.56	35.53	55.52	49.77	74.00	24.23	Peak
4	1440.650	25.22	4.56	35.53	52.52	46.77	54.00	7.23	Average
5	1540.630	25.31	4.70	35.27	57.83	52.57	74.00	21.43	Peak
6	1541.010	25.31	4.70	35.27	52.83	47.57	54.00	6.43	Average

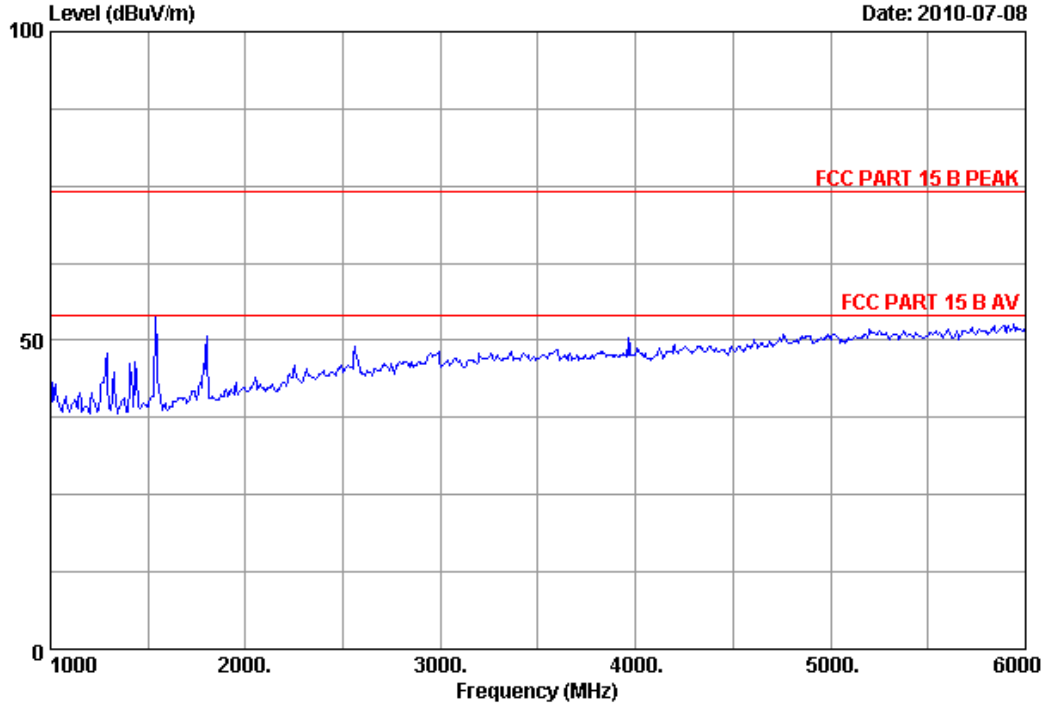
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.





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Data: 39 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)

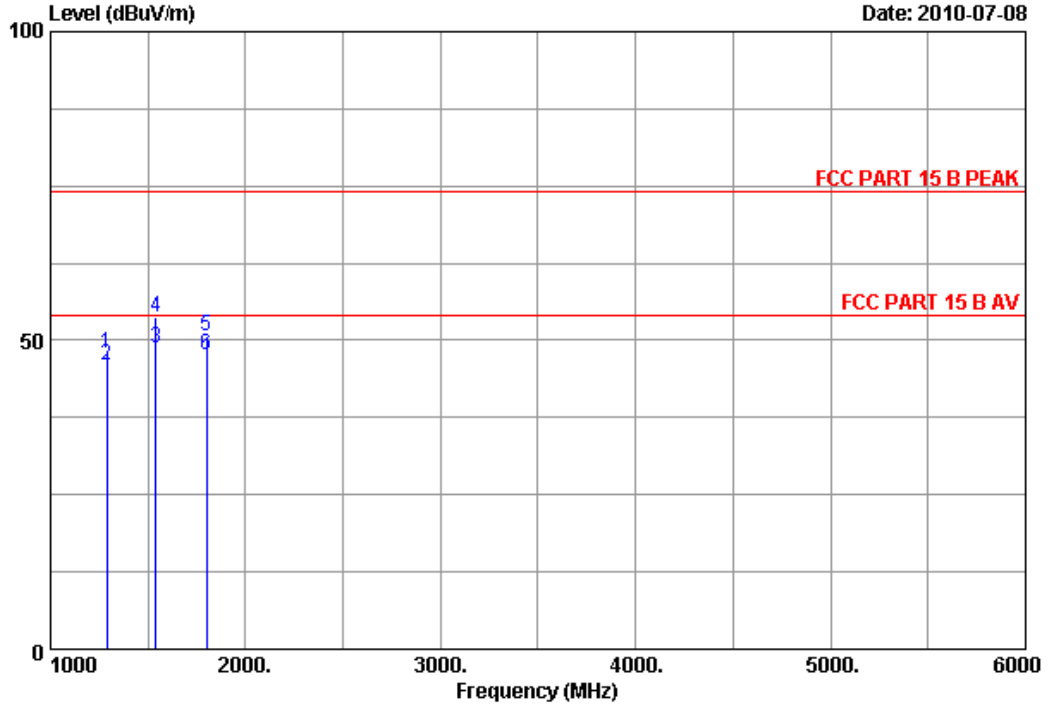


Site no.	: 3m Chamber	Data no.	: 39
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	VGA:1024*768@60Hz		



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Data: 40 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 40  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 VGA:1024\*768@60Hz

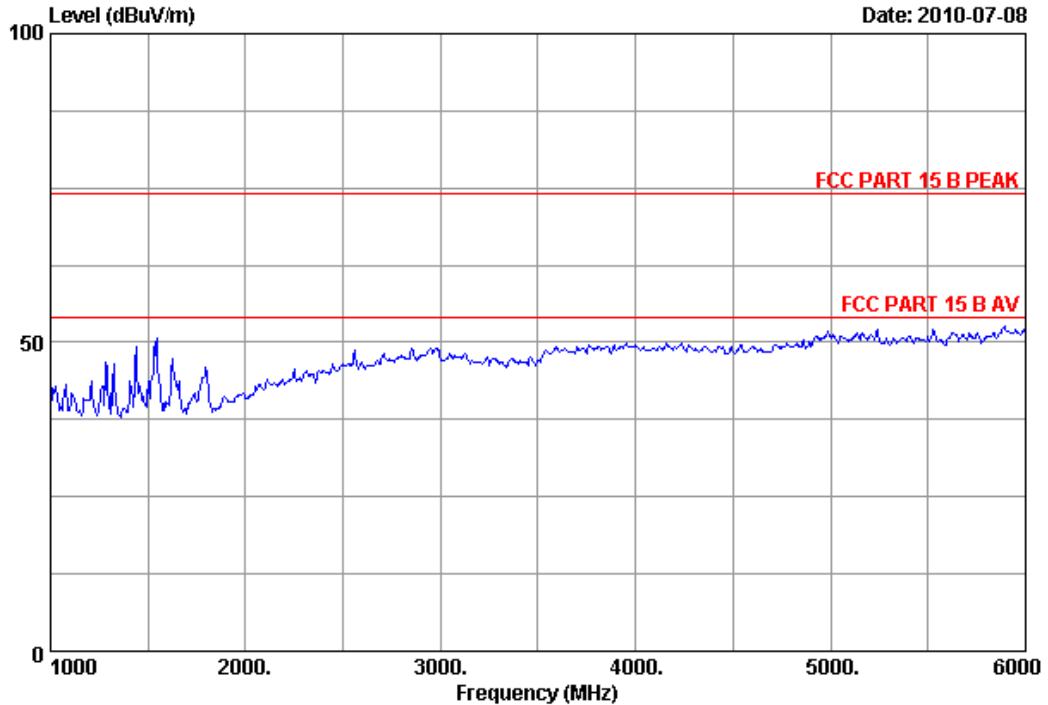
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1290.410	25.28	4.35	35.92	54.31	48.02	74.00	25.98	Peak
2	1290.850	25.28	4.35	35.92	52.31	46.02	54.00	7.98	Average
3	1541.100	25.31	4.70	35.27	53.94	48.68	54.00	5.32	Average
4	1541.320	25.31	4.70	35.27	58.94	53.68	74.00	20.32	Peak
5	1800.670	25.86	5.05	34.62	54.40	50.69	74.00	23.31	Peak
6	1801.100	25.86	5.05	34.62	51.40	47.69	54.00	6.31	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.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.



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Data: 43 File: D:\2010 Report Data\TV\TCL\ACS10Q1143.EM6 (48)

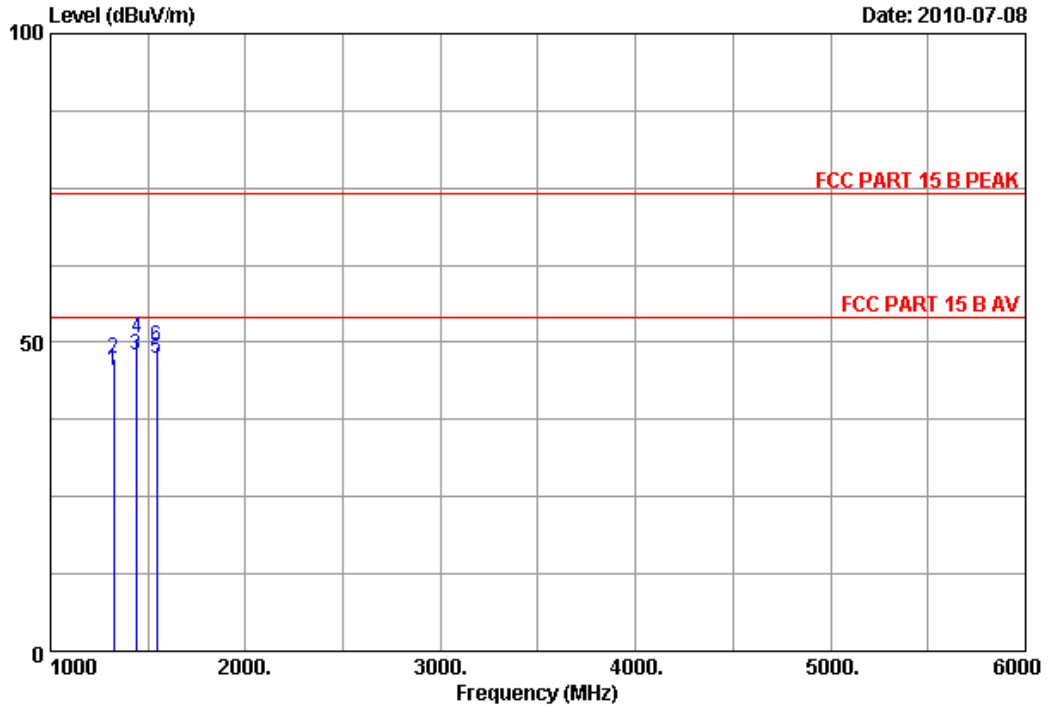


Site no.	: 3m Chamber	Data no.	: 43
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	HDMI 1:1080P		



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Data: 44 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 44  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 HDMI 1:1080P

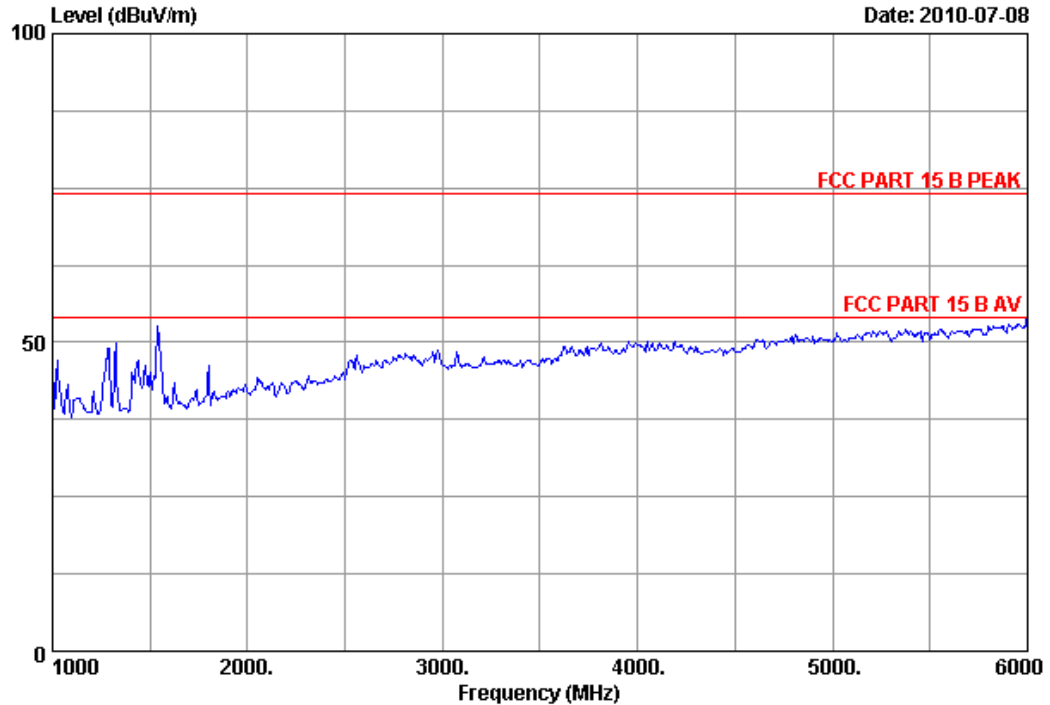
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1325.710	25.27	4.40	35.85	51.67	45.49	54.00	8.51	Average
2	1326.010	25.27	4.40	35.85	53.67	47.49	74.00	26.51	Peak
3	1440.820	25.22	4.56	35.53	53.57	47.82	54.00	6.18	Average
4	1441.190	25.22	4.56	35.53	56.57	50.82	74.00	23.18	Peak
5	1545.210	25.31	4.70	35.27	52.65	47.39	54.00	6.61	Average
6	1545.630	25.31	4.70	35.27	54.65	49.39	74.00	24.61	Peak

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.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.



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Data: 41 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)

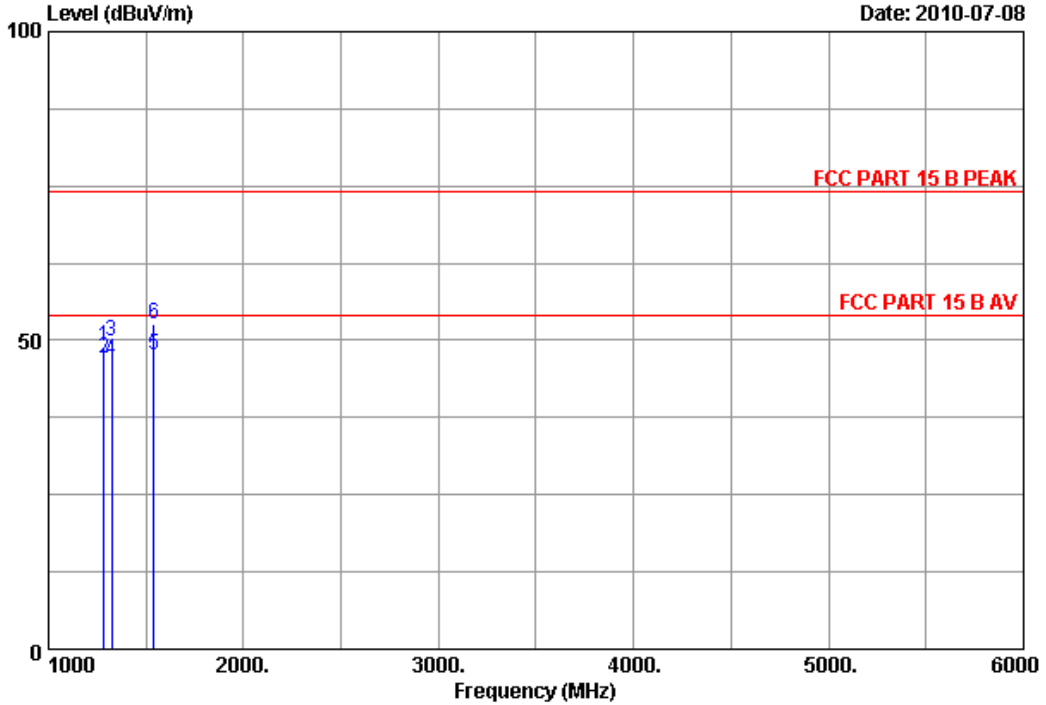


Site no.	: 3m Chamber	Data no.	: 41
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	: HDMI 1:1080P		



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Data: 42 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 42  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 HDMI 1:1080P

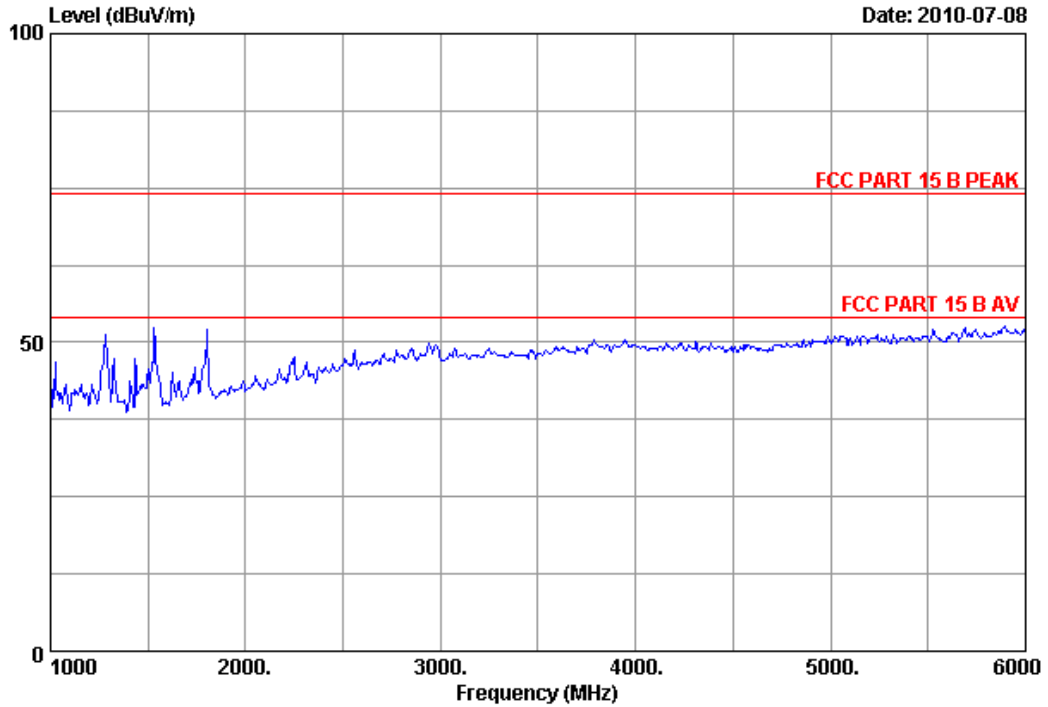
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dBuV)	Reading (dBuV/m)	Emission Level (dBuV/m)	Limits (dB)	Margin (dB)	Remark
1	1285.070	25.28	4.35	35.99	55.49	49.13	74.00	24.87	Peak
2	1285.630	25.28	4.35	35.99	53.49	47.13	54.00	6.87	Average
3	1325.750	25.27	4.40	35.85	55.90	49.72	74.00	24.28	Peak
4	1326.120	25.27	4.40	35.85	52.90	46.72	54.00	7.28	Average
5	1540.650	25.31	4.70	35.27	52.92	47.66	54.00	6.34	Average
6	1541.020	25.31	4.70	35.27	57.92	52.66	74.00	21.34	Peak

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.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.



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Data: 45 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)

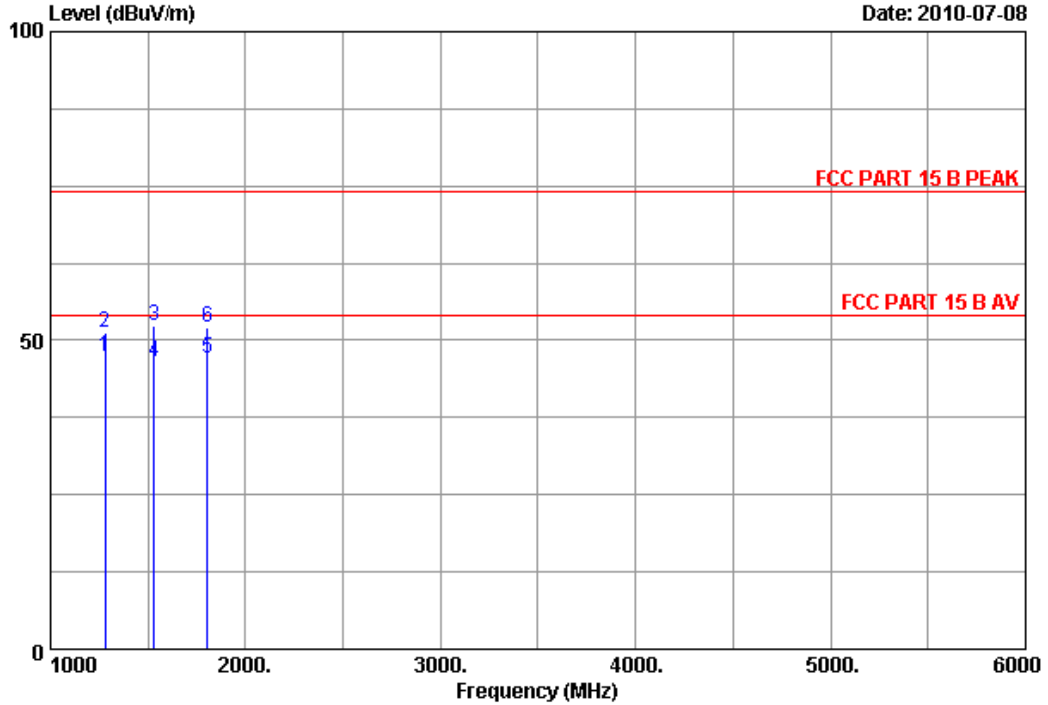


Site no.	: 3m Chamber	Data no.	: 45
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	HDMI 2:1080P		



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Data: 46 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 46  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : HORIZONTAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 HDMI 2:1080P

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	1280.120	25.29	4.33	35.99	53.63	47.26	54.00	6.74	Average
2	1281.060	25.28	4.35	35.99	57.62	51.26	74.00	22.74	Peak
3	1530.770	25.27	4.68	35.33	57.80	52.42	74.00	21.58	Peak
4	1531.200	25.27	4.68	35.33	51.80	46.42	54.00	7.58	Average
5	1805.640	25.86	5.05	34.62	50.73	47.02	54.00	6.98	Average
6	1806.410	25.86	5.05	34.62	55.73	52.02	74.00	21.98	Peak

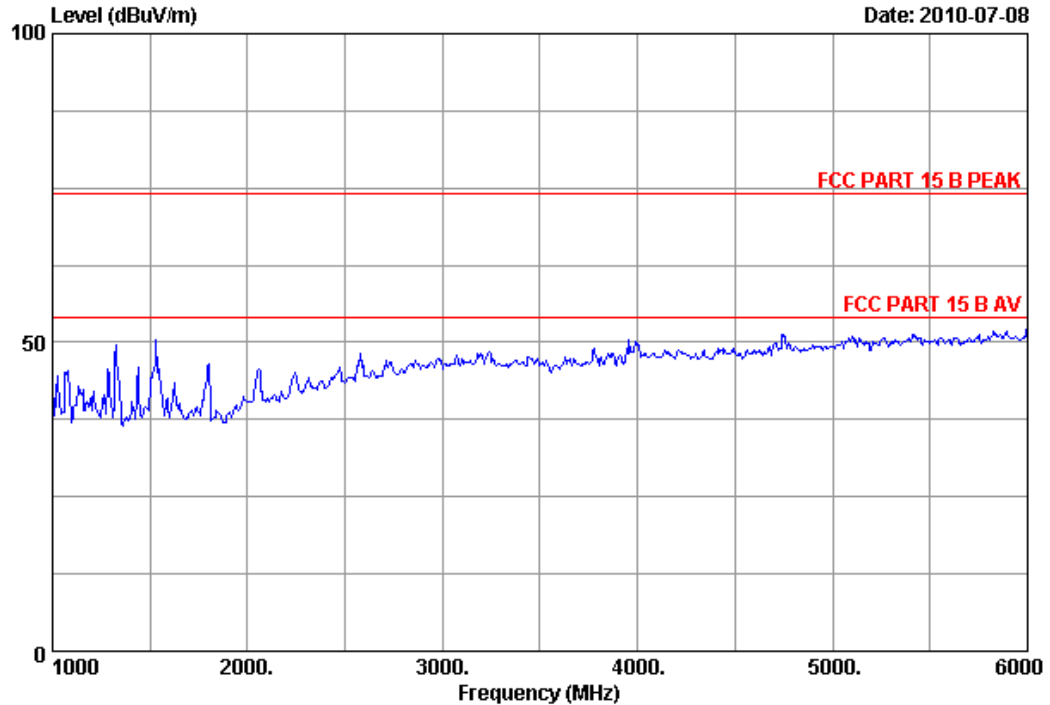
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading - Amp Factor  
 2. The emission levels that are 20dB below the official limit are not reported.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.





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Data: 47 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)

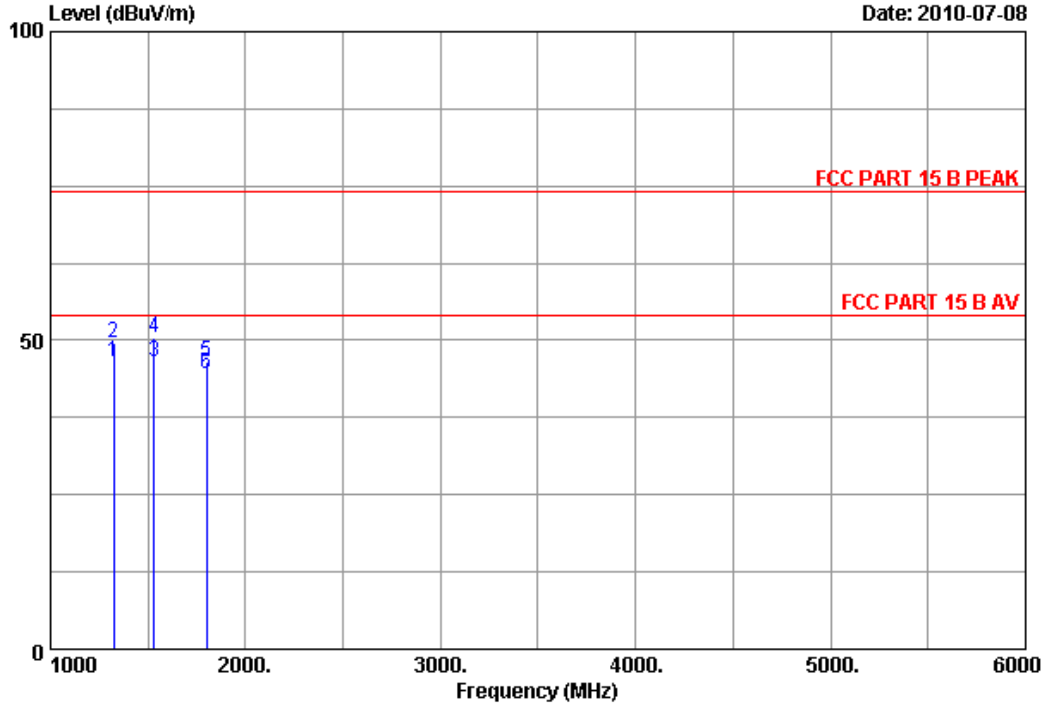


Site no.	: 3m Chamber	Data no.	: 47
Dis. / Ant.	: 3m 2009 3115	Ant. pol.	: VERTICAL
Limit	: FCC PART 15 B PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Victory
EUT	: LCD TV M/N:L24HDF11TA		
Power Rating	: AC 120V/60Hz		
Test Mode	: Running 'H' Pattern And 1kHz Playing		
	: HDMI 2:1080P		



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Data: 48 File: D:\2010 Report Data\T\TCL\ACS10Q1143.EM6 (48)



Site no. : 3m Chamber Data no. : 48  
 Dis. / Ant. : 3m 2009 3115 Ant. pol. : VERTICAL  
 Limit : FCC PART 15 B PEAK  
 Env. / Ins. : 24°C/56% Engineer : Victory  
 EUT : LCD TV M/N:L24HDF11TA  
 Power Rating : AC 120V/60Hz  
 Test Mode : Running 'H' Pattern And 1kHz Playing  
 HDMI 2:1080P

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	1325.050	25.27	4.40	35.85	52.71	46.53	54.00	7.47	Average
2	1326.130	25.27	4.40	35.85	55.71	49.53	74.00	24.47	Peak
3	1530.690	25.27	4.68	35.33	51.80	46.42	54.00	7.58	Average
4	1531.200	25.27	4.68	35.33	55.80	50.42	74.00	23.58	Peak
5	1800.830	25.86	5.05	34.62	50.33	46.62	74.00	27.38	Peak
6	1801.170	25.86	5.05	34.62	48.33	44.62	54.00	9.38	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.  
 3. This device is pulse modulated and duty cycle factor [20log(1/duty cycle)] is 11.5 dB. So Average level is calculate as: PK measured - duty cycle factor.