

FCC 47 CFR PART 15 SUBPART B
CERTIFICATION TEST REPORT

Hisense Electric Co., Ltd.

LED LCD TV

Model No.: 32H3507, 32H3D, 32H3D1, 32H3D2, 32H3C, 32H3D3, 32H320D,
32H330D, 32H350D, 32H360D, 32H3020D, 32H3030D, 32H3050D, 32H3060D

FCC ID:W9HLCDC0041

Trademark: HISENSE

Prepared for : Hisense Electric Co., Ltd.
Address : No. 218 Qianwangang Road, Economy & Technology
Development Zone, Qingdao 266071

Prepared by : EMTEK(SHENZHEN) CO., LTD.
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Report Number : ES170203013E
Date of Test : February 03, 2017 to February 13, 2017
Date of Report : February 13, 2017

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APPENDIX (Photos of EUT)

TEST REPORT DESCRIPTION

APPLICANT : Hisense Electric Co., Ltd.
No. 218 Qianwangang Road, Economy & Technology Development
Zone, Qingdao 266071

MANUFACTURER : Hisense Electric Co., Ltd.
No. 218 Qianwangang Road, Economy & Technology Development
Zone, Qingdao 266071

FACTORY 1 : Guangdong Hisense Electronics Co., Ltd
Zone B, No. 8 Hisense Road, Advanced Manufacturing Jiangsha
Demonstration Park, Jiangmen City, Guangdong Province, PRC

FACTORY 2 : HISENSE ELECTRONICA MEXICO, S.A. DE C.V.
Blvd. Sharp #3510 Parque Industrial Rosarito, C.P. 22710 Playas de
Rosarito, Baja California, Mexico

Trade Mark : HISENSE

EUT : LED LCD TV

Model No. : 32H3507, 32H3D, 32H3D1, 32H3D2, 32H3C, 32H3D3, 32H320D,
32H330D, 32H350D, 32H360D, 32H3020D, 32H3030D, 32H3050D,
32H3060D

Power Supply : AC 120V / 60Hz

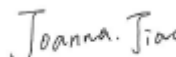
Measurement Procedure Used:


FCC Rules and Regulations Part 15: 2015 Subpart B Class B & FCC / ANSI C63.4-2014


The device described above is tested by EMTEK(SHENZHEN) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK(SHENZHEN) CO., LTD. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC requirements.

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

Date of Test : February 03, 2017 to February 13, 2017

Prepared by : 
Joanna Jiao/Editor

Reviewer : 
Joe Xia/Supervisor

Approved & Authorized Signer : 
Lisa Wang/Manager

Modified Information

Version	Report No.	Revision Data	Summary
Ver.1.0	ES170203013E	/	Original Version

1. SUMMARY OF TEST RESULT

EMISSION		
Description of Test Item	Standard & Limits	Results
Conducted Disturbance at Mains Terminals	FCC Part 15, Subpart B, Class B ANSI C63.4: 2014	Pass
Radiated Disturbance	FCC Part 15, Subpart B, Class B ANSI C63.4: 2014	Pass
Note: N/A is an abbreviation for Not Applicable.		

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT	:	LED LCD TV
Model Number	:	32H3507, 32H3D, 32H3D1, 32H3D2, 32H3C, 32H3D3, 32H320D, 32H330D, 32H350D, 32H360D, 32H3020D, 32H3030D, 32H3050D, 32H3060D (Note: These models are identical in circuitry and electrical, mechanical and physical construction; the only difference is appearance design and model name. We prepare 32H3507 for test, and the worst result recorded in the report.)
Applicant Address	:	Hisense Electric Co., Ltd. No. 218 Qianwangang Road, Economy&Technology Development Zone, Qingdao 266071
Manufacturer Address	:	Hisense Electric Co., Ltd. No. 218 Qianwangang Road, Economy&Technology Development Zone, Qingdao 266071
FACTORY 1	:	Guangdong Hisense Electronics Co., Ltd Zone B, No. 8 Hisense Road, Advanced Manufacturing Jiangsha Demonstration Park, Jiangmen City, Guangdong Province, PRC
FACTORY 2	:	HISENSE ELECTRONICA MEXICO, S.A. DE C.V. Blvd. Sharp #3510 Parque Industrial Rosarito, C.P. 22710 Playas de Rosarito, Baja California, Mexico
Date of Received	:	February 03, 2017
Date of Test	:	February 03, 2017 to February 13, 2017

2.2. Description of Support Device

PC	:	Manufacturer: Lenovo M/N: ThinkCentre 8701 S/N: 8701A53L3BC108 CE, FCC
Keyboard	:	Manufacturer: Lenovo M/N: KB-0225 S/N: 41A5039
Mouse	:	Manufacturer: Lenovo M/N: MO28UOL S/N: 44D2639
Dummy Load	:	Manufacturer: Cultraview M/N: CVNS1200

2.3. Description of Cable

Cables			
No.	Type	Length	Remark
1.	Power Cable	1.5 m	Unshielded
2.	HDMI Cable*3	0.8 m	Unshielded
3.	AV Cable	1.0 m	Unshielded

2.4. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS, 2016.10.24
 The certificate is valid until 2022.10.28
 The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2006 (identical to ISO/IEC 17025:2005)
 The Certificate Registration Number is L2291.

Name of Firm

: EMTEK(SHENZHEN) CO., LTD.

Site Location

: Bldg 69, Majialong Industry Zone,
 Nanshan District, Shenzhen, Guangdong, China

2.5. Measurement Uncertainty

Test Item	Uncertainty
Conducted Emission Uncertainty	: 3.16dB(9k~150kHz Conduction 2#) 2.90dB(150k-30MHz Conduction 2#)
Radiated Emission Uncertainty (3m Chamber)	: 3.78dB (30M~1GHz Polarize: H) 4.27dB (30M~1GHz Polarize: V) 4.46dB (1~6GHz)

3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Power Line Conducted Emission Measurement

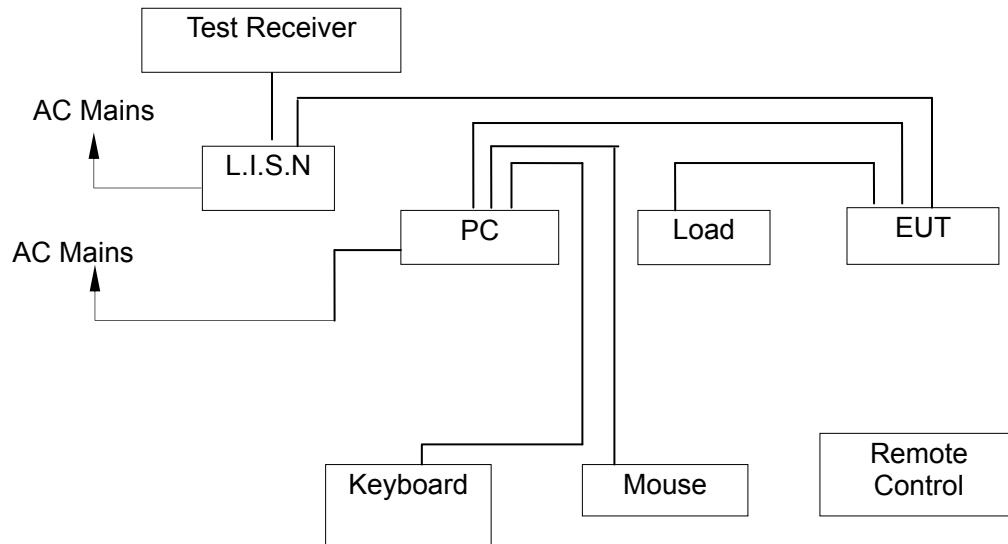
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
<input checked="" type="checkbox"/>	L.I.S.N.	ROHDE & SCHWARZ	ESH3-Z6	100011	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	L.I.S.N.	ROHDE & SCHWARZ	ESH3-Z6	100253	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	50Ω Coaxial Switch	Anritsu	MP59B	M20531	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100006	May 28, 2016	1 Year

3.2. For Radiated Emission Measurement

Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
<input checked="" type="checkbox"/>	EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Pre-Amplifier	HP	8447D	2944A07999	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Bilog Antenna	Schwarzbeck	VULB9163	142	May 28, 2016	1 Year
<input type="checkbox"/>	Loop Antenna	Schwarzbeck	FMZB 1519	012	May 28, 2016	1 Year
<input type="checkbox"/>	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170399	May 28, 2016	1 Year
<input type="checkbox"/>	Horn Antenna	Schwarzbeck	BBHA 9120	D143	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Cable	Schwarzbeck	AK9513	ACRX1	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Cable	Rosenberger	N/A	FP2RX2	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Cable	Schwarzbeck	AK9513	CRPX1	May 28, 2016	1 Year
<input checked="" type="checkbox"/>	Cable	Schwarzbeck	AK9513	CRRX2	May 28, 2016	1 Year
<input type="checkbox"/>	Pre-Amplifier	A.H.	PAM-0126	1415261	May 28, 2016	1 Year

4. POWER LINE CONDUCTED EMISSION MEASUREMENT

4.1. Block Diagram of Test Setup



(EUT: LED LCD TV)

4.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2014

4.3. Power Line Conducted Emission Limits (Class B)

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.4. EUT Configuration on Measurement

The following equipments are installed on Conducted Emission Measurement to meet FCC requirements and operating in a manner which tends to maximize its emission characteristics in a normal application.

EUT : LED LCD TV
Model Number : 32H3507

4.5. Operating Condition of EUT

4.5.1. Setup the EUT as shown on Section 4.1.

4.5.2. Turn on the power of all equipments.

4.5.3. Let the EUT work in measuring mode (HDMI IN1 ARC, HDMI IN 2, HDMI IN 3(PC)) measure it.

4.6. Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the FCC regulations during conducted emission measurement.

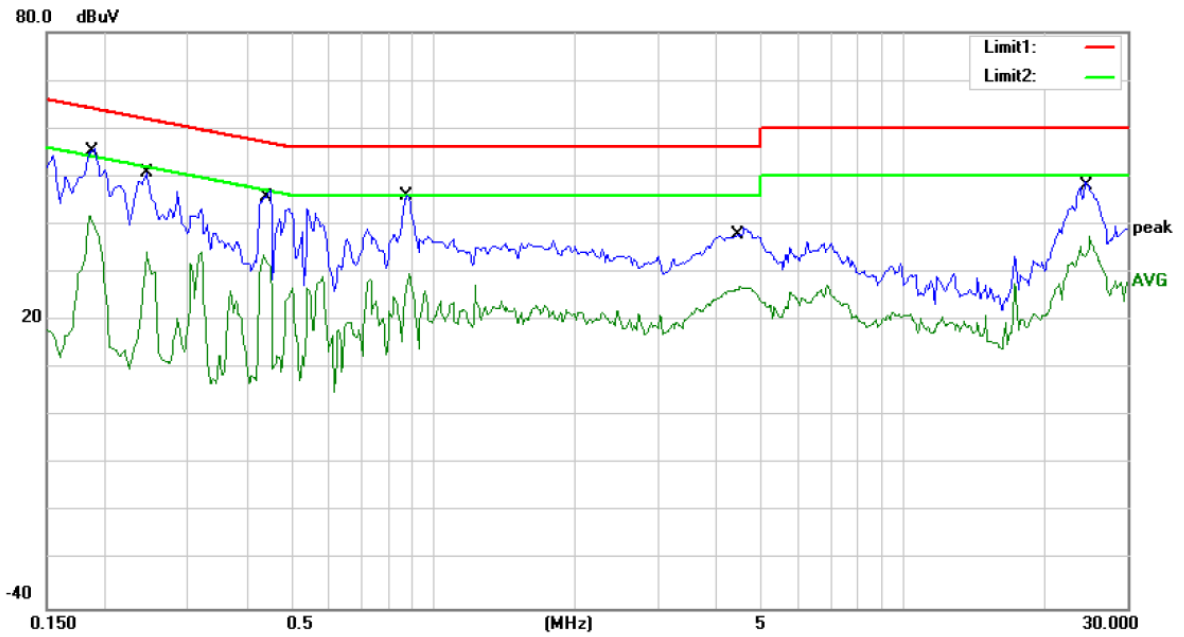
The bandwidth of the field strength meter (R&S Test Receiver ESCS30) is set at 9kHz in 150kHz~30MHz and 200Hz in 9kHz~150kHz.

The frequency range from 150kHz to 30MHz is investigated.
All the scanning waveform is put in the following pages.

4.7. Measuring Results

PASS.

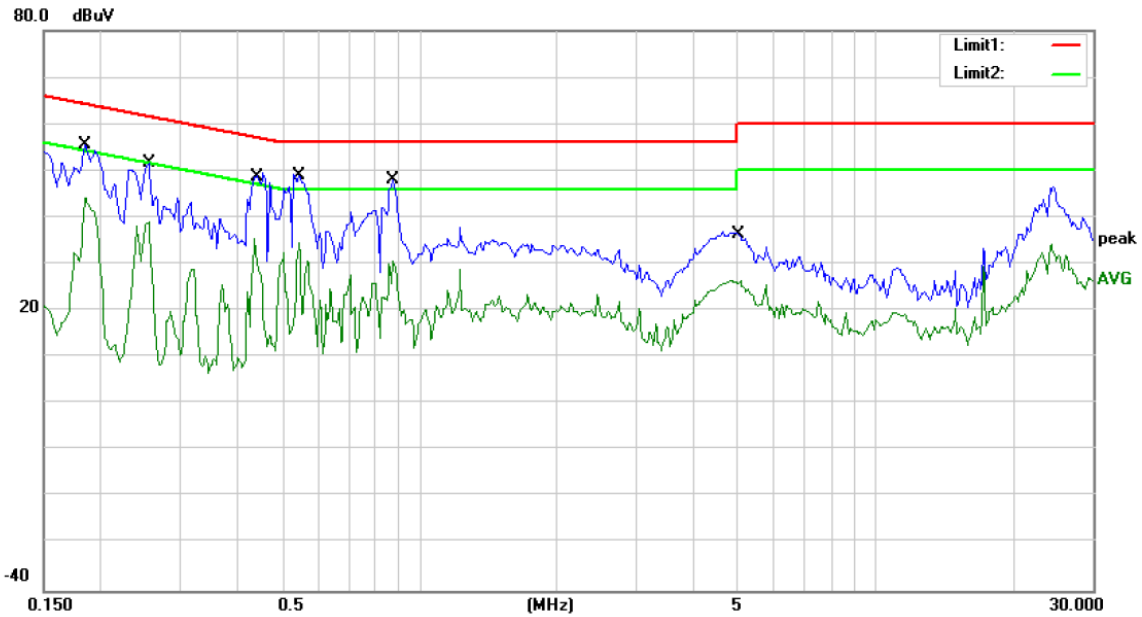
Please refer to following pages.



Site Conduction #1 Phase: **N** Temperature: 22
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 Mode: HDMI 1
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1850	55.76	0.00	55.76	64.26	-8.50	QP	
2		0.1850	41.89	0.00	41.89	54.26	-12.37	AVG	
3		0.2450	50.73	0.00	50.73	61.92	-11.19	QP	
4		0.2450	34.26	0.00	34.26	51.92	-17.66	AVG	
5		0.4350	47.29	0.00	47.29	57.16	-9.87	QP	
6		0.4350	33.71	0.00	33.71	47.16	-13.45	AVG	
7		0.8850	45.84	0.00	45.84	56.00	-10.16	QP	
8		0.8850	29.70	0.00	29.70	46.00	-16.30	AVG	
9		4.4800	39.26	0.00	39.26	56.00	-16.74	QP	
10		4.4800	27.02	0.00	27.02	46.00	-18.98	AVG	
11		25.0000	48.88	0.00	48.88	60.00	-11.12	QP	
12		25.0000	37.66	0.00	37.66	50.00	-12.34	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan



Site Conduction #1

Phase: **L1**

Temperature: 22

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

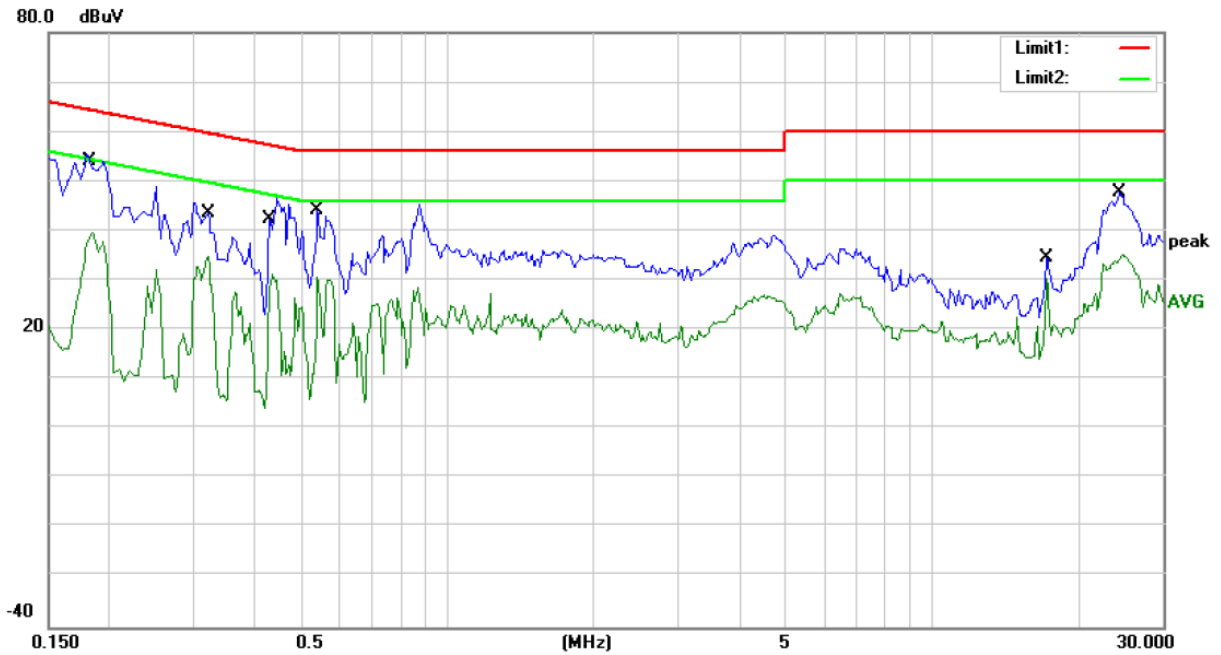
Humidity: 55 %

Mode: HDMI 1

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1850	55.50	0.00	55.50	64.26	-8.76	QP	
2		0.1850	44.29	0.00	44.29	54.26	-9.97	AVG	
3		0.2550	51.60	0.00	51.60	61.59	-9.99	QP	
4		0.2550	39.17	0.00	39.17	51.59	-12.42	AVG	
5		0.4350	49.42	0.00	49.42	57.16	-7.74	QP	
6		0.4350	35.52	0.00	35.52	47.16	-11.64	AVG	
7	*	0.5450	49.19	0.00	49.19	56.00	-6.81	QP	
8		0.5450	34.45	0.00	34.45	46.00	-11.55	AVG	
9		0.8750	48.04	0.00	48.04	56.00	-7.96	QP	
10		0.8750	30.78	0.00	30.78	46.00	-15.22	AVG	
11		5.0600	36.88	0.00	36.88	60.00	-23.12	QP	
12		5.0600	26.41	0.00	26.41	50.00	-23.59	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan



Site Conduction #1

Phase: **N**

Temperature: 22

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

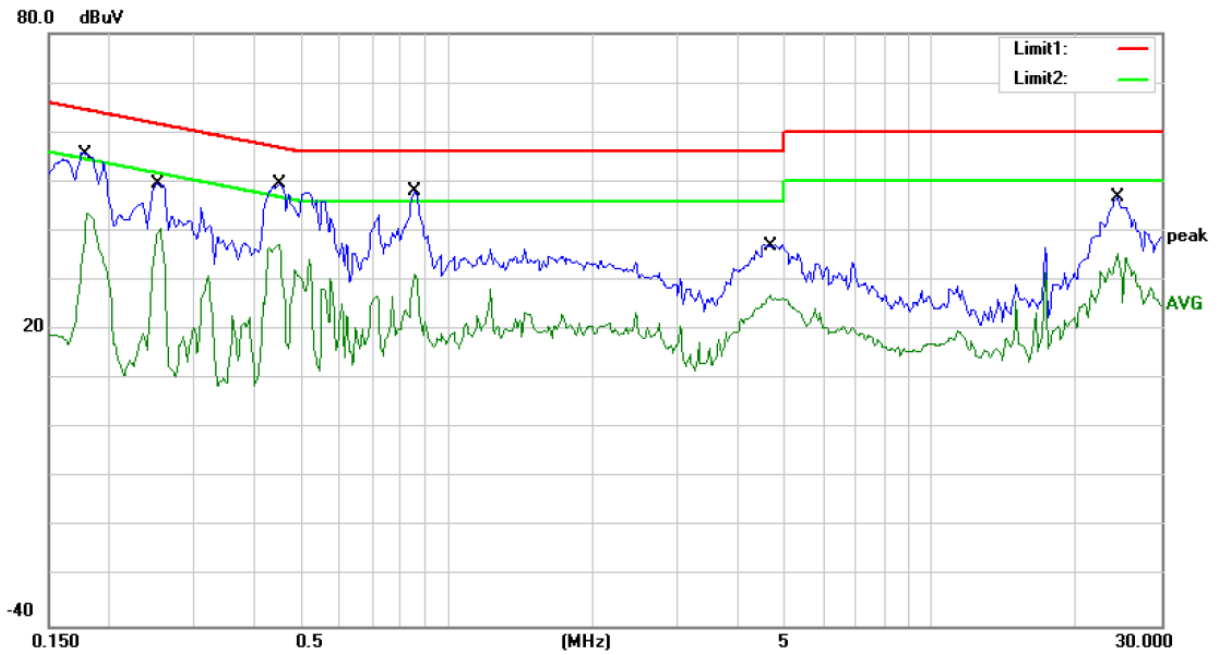
Humidity: 55 %

Mode: HDMI 2

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	*	0.1850	55.45	0.00	55.45	64.26	-8.81	QP	
2		0.1850	39.72	0.00	39.72	54.26	-14.54	AVG	
3		0.3200	45.69	0.00	45.69	59.71	-14.02	QP	
4		0.3200	34.91	0.00	34.91	49.71	-14.80	AVG	
5		0.4350	46.57	0.00	46.57	57.16	-10.59	QP	
6		0.4350	31.27	0.00	31.27	47.16	-15.89	AVG	
7		0.5400	44.25	0.00	44.25	56.00	-11.75	QP	
8		0.5400	30.64	0.00	30.64	46.00	-15.36	AVG	
9		17.2500	34.64	0.00	34.64	60.00	-25.36	QP	
10		17.2500	30.48	0.00	30.48	50.00	-19.52	AVG	
11		24.7750	47.84	0.00	47.84	60.00	-12.16	QP	
12		24.7750	35.24	0.00	35.24	50.00	-14.76	AVG	

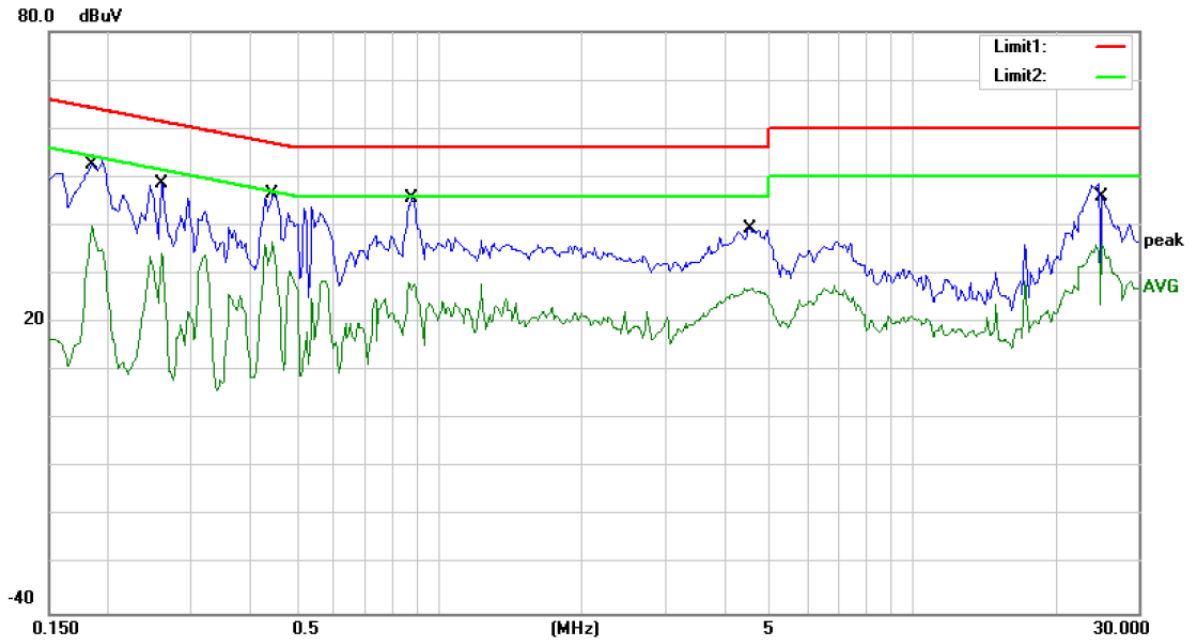
*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan



Site Conduction #1 Phase: **L1** Temperature: 22
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 Mode: HDMI 2
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1800	55.77	0.00	55.77	64.49	-8.72	QP	
2		0.1800	43.57	0.00	43.57	54.49	-10.92	AVG	
3		0.2550	49.83	0.00	49.83	61.59	-11.76	QP	
4		0.2550	40.65	0.00	40.65	51.59	-10.94	AVG	
5	*	0.4500	49.47	0.00	49.47	56.88	-7.41	QP	
6		0.4500	37.36	0.00	37.36	46.88	-9.52	AVG	
7		0.8550	48.14	0.00	48.14	56.00	-7.86	QP	
8		0.8550	31.27	0.00	31.27	46.00	-14.73	AVG	
9		4.6600	37.39	0.00	37.39	56.00	-18.61	QP	
10		4.6600	27.04	0.00	27.04	46.00	-18.96	AVG	
11		24.3000	46.96	0.00	46.96	60.00	-13.04	QP	
12		24.3000	35.58	0.00	35.58	50.00	-14.42	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan



Site Conduction #1

Phase: **N**

Temperature: 22

Limit: (CE)FCC PART 15 class B_QP

Power: AC 120V/60Hz

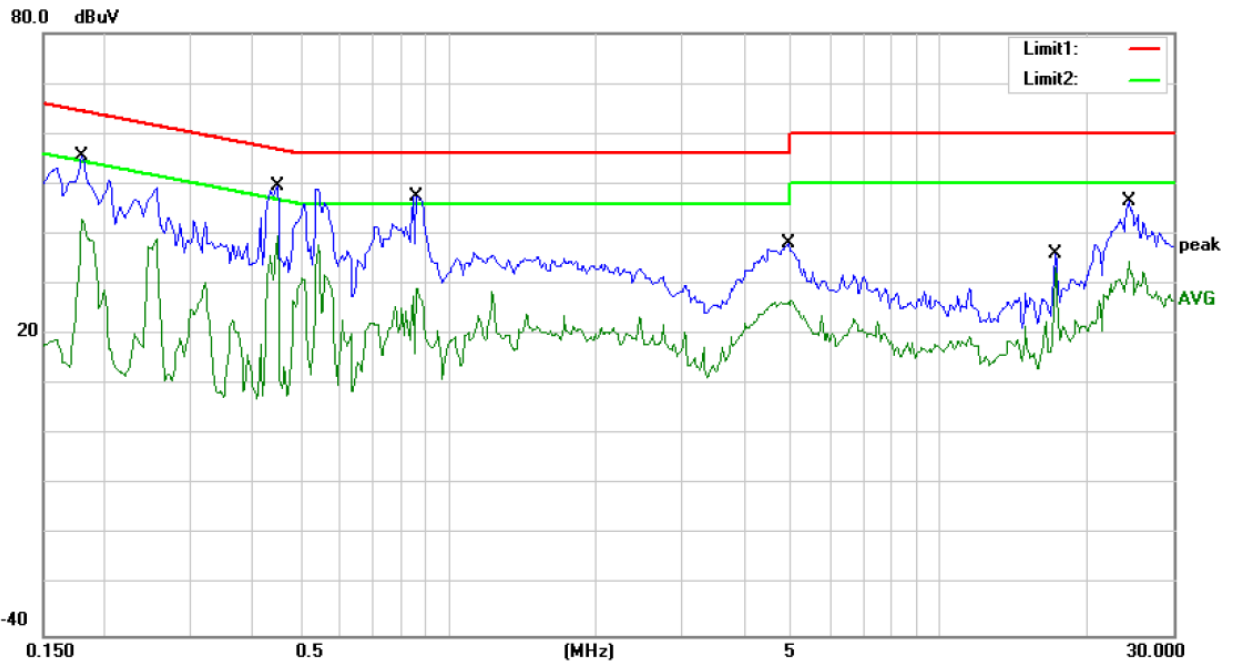
Humidity: 55 %

Mode: HDMI 3

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1850	53.45	0.00	53.45	64.26	-10.81	QP	
2		0.1850	39.80	0.00	39.80	54.26	-14.46	AVG	
3		0.2600	48.64	0.00	48.64	61.43	-12.79	QP	
4		0.2600	34.14	0.00	34.14	51.43	-17.29	AVG	
5		0.4450	46.45	0.00	46.45	56.97	-10.52	QP	
6		0.4450	36.62	0.00	36.62	46.97	-10.35	AVG	
7	*	0.8650	45.66	0.00	45.66	56.00	-10.34	QP	
8		0.8650	28.15	0.00	28.15	46.00	-17.85	AVG	
9		4.5800	39.49	0.00	39.49	56.00	-16.51	QP	
10		4.5800	27.16	0.00	27.16	46.00	-18.84	AVG	
11		25.1000	48.78	0.00	48.78	60.00	-11.22	QP	
12		25.1000	36.13	0.00	36.13	50.00	-13.87	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan



Site Conduction #1 Phase: **L1** Temperature: 22
 Limit: (CE)FCC PART 15 class B_QP Power: AC 120V/60Hz Humidity: 55 %
 Mode: HDMI 3
 Note:

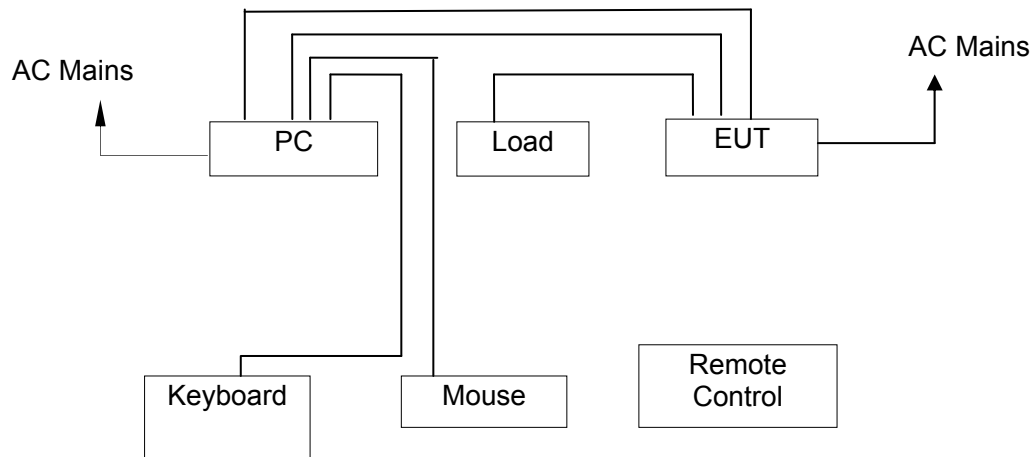
No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.1800	55.55	0.00	55.55	64.49	-8.94	QP	
2	0.1800	43.08	0.00	43.08	54.49	-11.41	AVG	
3	0.4500	49.45	0.00	49.45	56.88	-7.43	QP	
4 *	0.4500	39.67	0.00	39.67	46.88	-7.21	AVG	
5	0.8650	47.48	0.00	47.48	56.00	-8.52	QP	
6	0.8650	29.27	0.00	29.27	46.00	-16.73	AVG	
7	5.0000	38.13	0.00	38.13	56.00	-17.87	QP	
8	5.0000	26.71	0.00	26.71	46.00	-19.29	AVG	
9	17.2500	36.06	0.00	36.06	60.00	-23.94	QP	
10	17.2500	33.35	0.00	33.35	50.00	-16.65	AVG	
11	24.3500	46.52	0.00	46.52	60.00	-13.48	QP	
12	24.3500	34.42	0.00	34.42	50.00	-15.58	AVG	

*:Maximum data x:Over limit !:over margin Comment: Factor build in receiver. Operator: Stan

5. RADIATED EMISSION MEASUREMENT

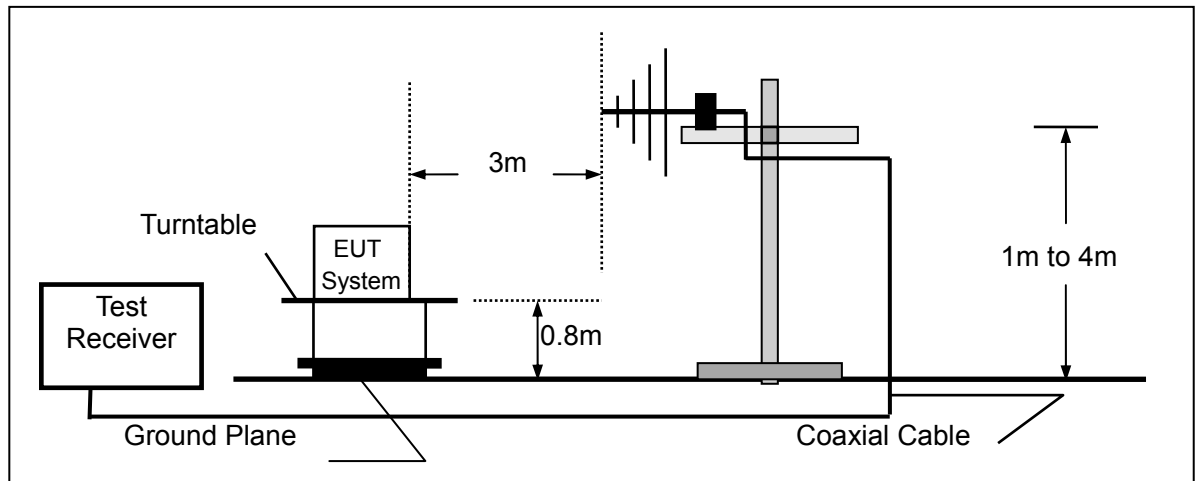
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of EUT System



(EUT: LED LCD TV)

5.1.2. Block diagram of test setup (In chamber)



(EUT: LED LCD TV)

5.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2014

5.3. Radiated Emission Limits (Class B)

Frequency MHz	Distance Meters	Field Strengths Limit	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Remark: (1) Emission level $(\text{dB})\mu\text{V} = 20 \log$ Emission level $\mu\text{V}/\text{m}$
(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.

5.4. EUT Configuration on Measurement

The FCC Class B regulations test method must be used to find the maximum emission during radiated emission measurement.

EUT : LED LCD TV
Model Number : 32H3507

5.5. Operating Condition of EUT

5.5.1. Setup the EUT as shown on Section 5.1.

5.5.2. Turn on the power of all equipments.

5.5.3. Let the EUT work in measuring mode (HDMI IN1 ARC, HDMI IN 2, HDMI IN 3(PC))and measure it.

5.6. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Bilog antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

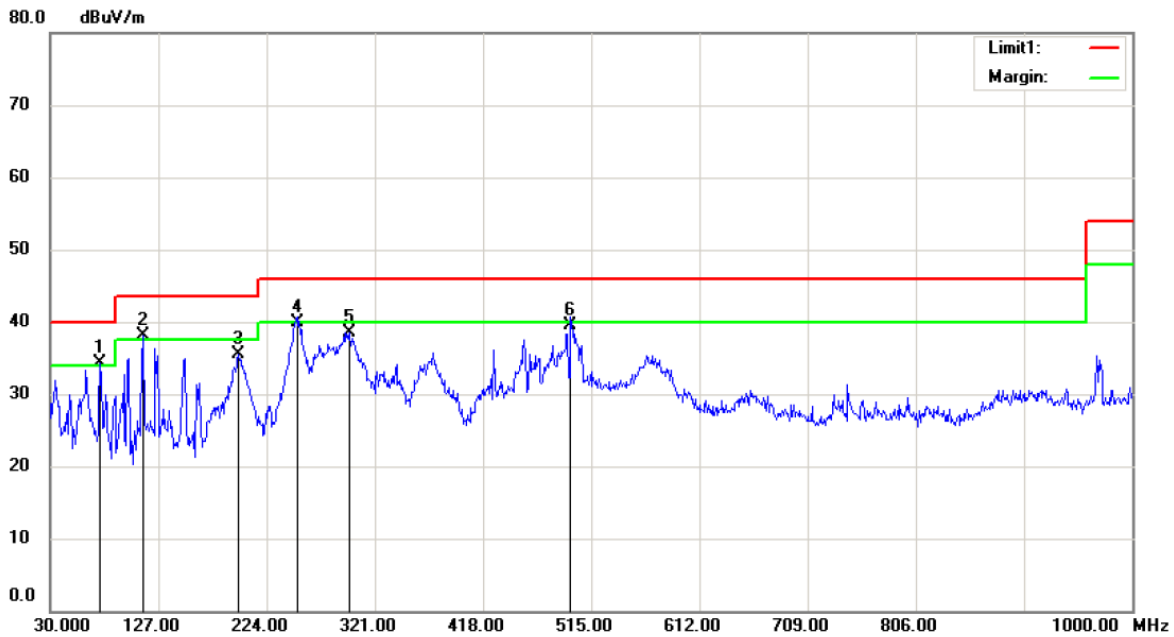
The bandwidth of the Receiver (ESU26) is set at 120kHz.
The worst scanning curves are attached in following pages.

5.7. Measuring Results

PASS.

The frequency range from 30MHz to 6000MHz is investigated.

Please refer to following pages.

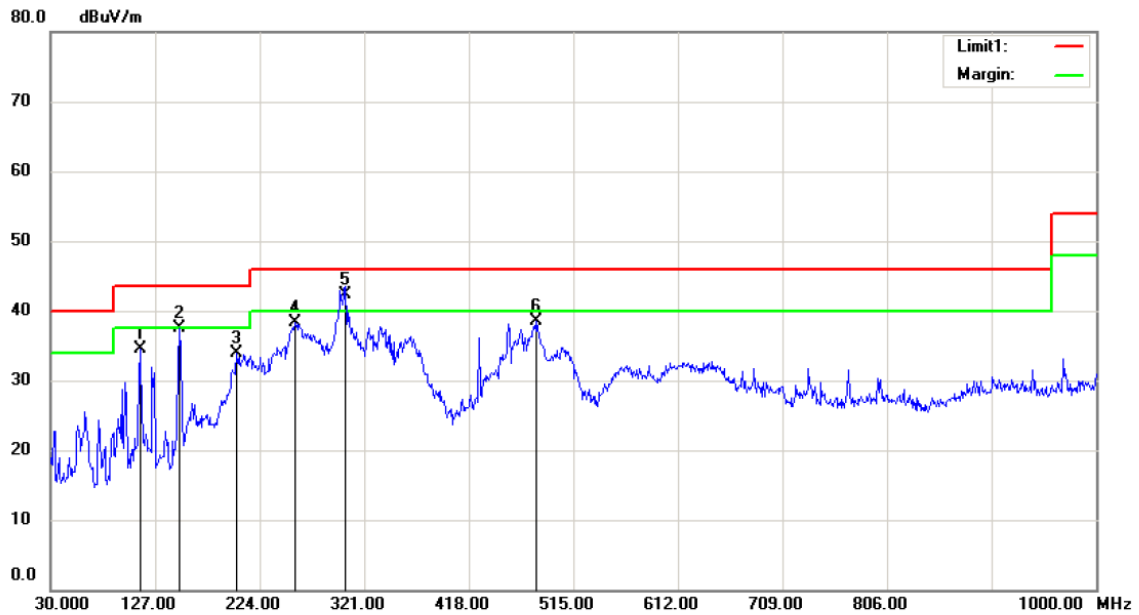


Site 3m Chamber #1 Polarization: **Vertical** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 1
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	!	74.6200	52.26	-18.02	34.24	40.00	-5.76	QP		
2	*	113.4200	51.86	-13.78	38.08	43.50	-5.42	QP		
3		198.7800	48.98	-13.55	35.43	43.50	-8.07	QP		
4		251.1600	51.52	-11.52	40.00	46.00	-6.00	QP		
5		297.7200	48.55	-9.96	38.59	46.00	-7.41	QP		
6		496.5700	46.76	-7.16	39.60	46.00	-6.40	QP		

*:Maximum data x:Over limit !:over margin

Operator: KK

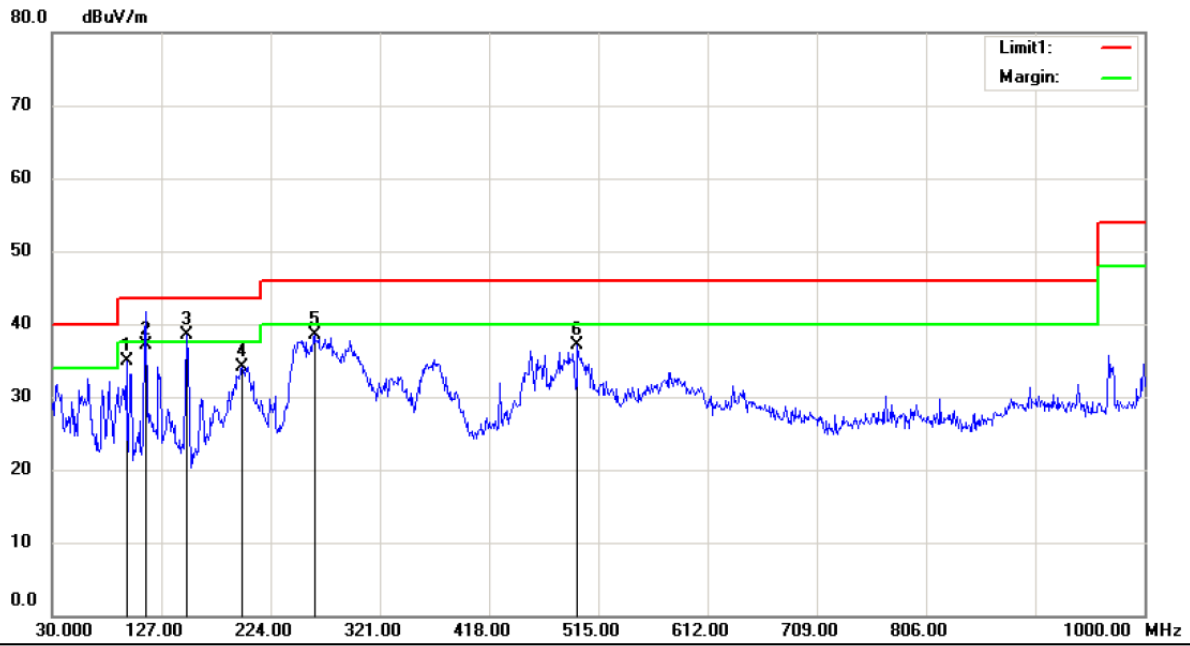


Site: 3m Chamber #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 1
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		113.4200	48.35	-13.78	34.57	43.50	-8.93	QP		
2		149.3100	54.00	-16.59	37.41	43.50	-6.09	QP		
3		202.6600	47.31	-13.39	33.92	43.50	-9.58	QP		
4		256.9800	49.37	-10.97	38.40	46.00	-7.60	QP		
5	*	303.5400	52.32	-10.02	42.30	46.00	-3.70	QP		
6		481.0500	46.08	-7.58	38.50	46.00	-7.50	QP		

*:Maximum data x:Over limit !:over margin

Operator: KK

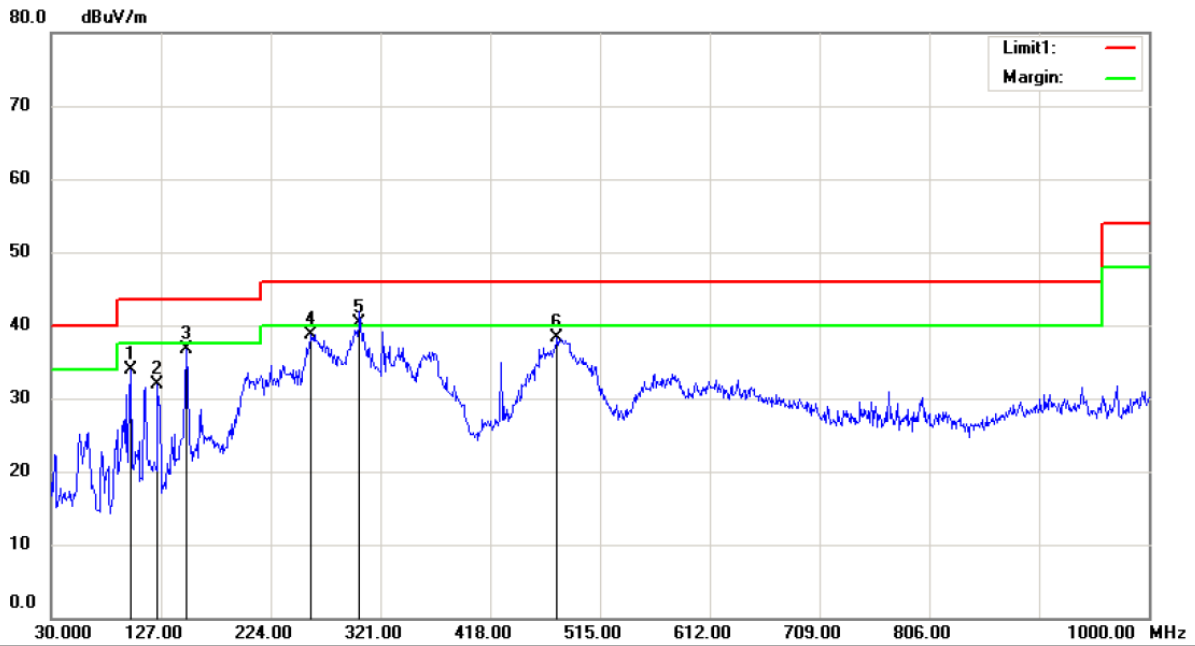


Site 3m Chamber #1 Polarization: **Vertical** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 2
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		95.9600	47.63	-12.67	34.96	43.50	-8.54	QP		
2		113.4200	50.98	-13.78	37.20	43.50	-6.30	QP		
3	*	149.3100	55.01	-16.59	38.42	43.50	-5.08	QP		
4		198.7800	47.69	-13.55	34.14	43.50	-9.36	QP		
5		262.8000	49.49	-11.07	38.42	46.00	-7.58	QP		
6		496.5700	44.19	-7.16	37.03	46.00	-8.97	QP		

*:Maximum data x:Over limit !:over margin

Operator: KK

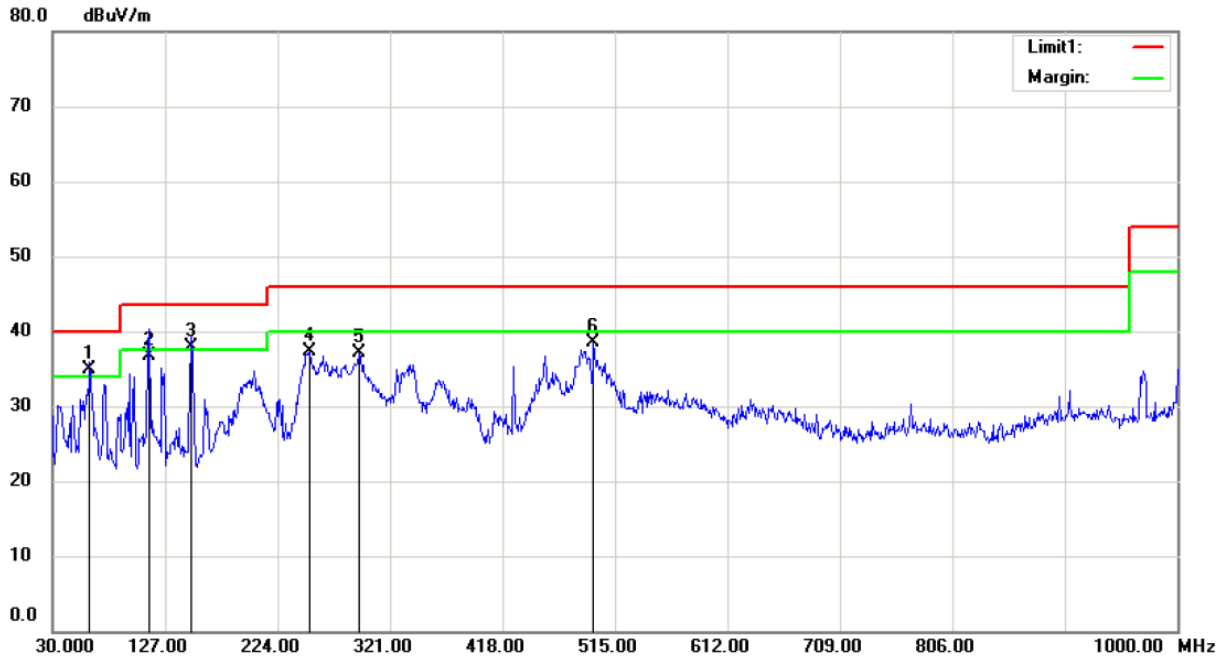


Site: 3m Chamber #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 2
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		100.8100	46.50	-12.52	33.98	43.50	-9.52			QP
2		124.0900	47.97	-16.00	31.97	43.50	-11.53			QP
3		149.3100	53.31	-16.59	36.72	43.50	-6.78			QP
4		259.8900	49.44	-10.65	38.79	46.00	-7.21			QP
5	*	302.5700	50.35	-10.05	40.30	46.00	-5.70			QP
6		477.1700	46.08	-7.73	38.35	46.00	-7.65			QP

*:Maximum data x:Over limit !:over margin

Operator: KK

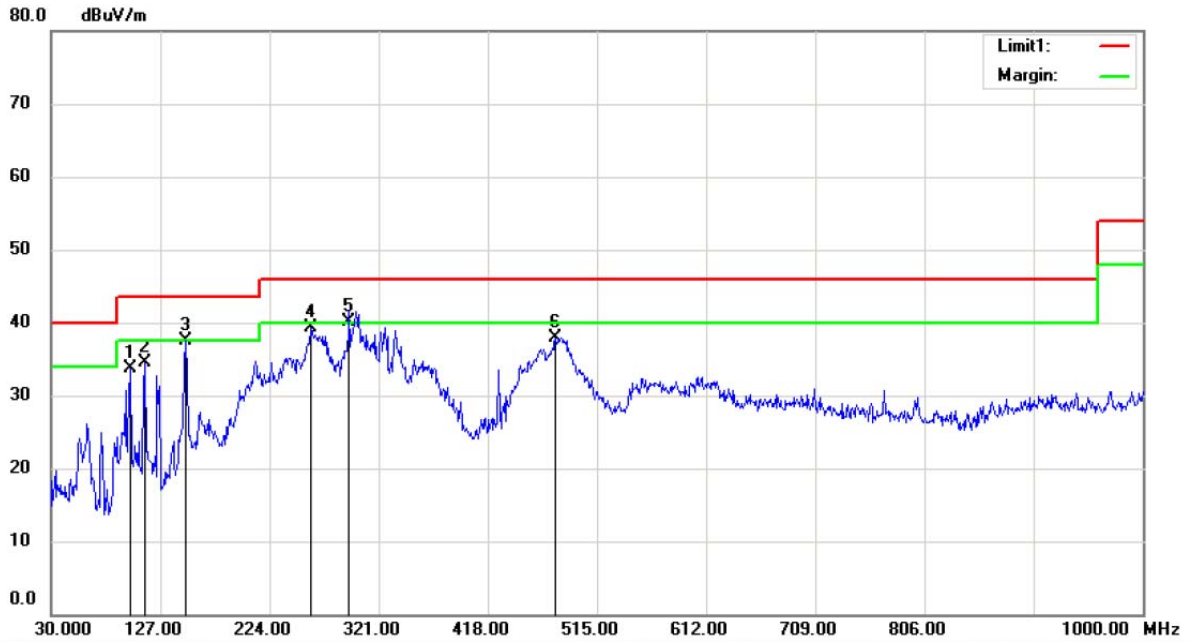


Site 3m Chamber #1 Polarization: **Vertical** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 3
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1	*	62.0100	48.68	-13.78	34.90	40.00	-5.10	QP		
2		113.4200	50.58	-13.78	36.80	43.50	-6.70	QP		
3	!	149.3100	54.59	-16.59	38.00	43.50	-5.50	QP		
4		251.1600	48.81	-11.52	37.29	46.00	-8.71	QP		
5		293.8400	46.99	-9.91	37.08	46.00	-8.92	QP		
6		496.5700	45.70	-7.16	38.54	46.00	-7.46	QP		

*:Maximum data x:Over limit !:over margin

Operator: KK



Site 3m Chamber #1

Polarization: *Horizontal*

Temperature: 22 C

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 50 %

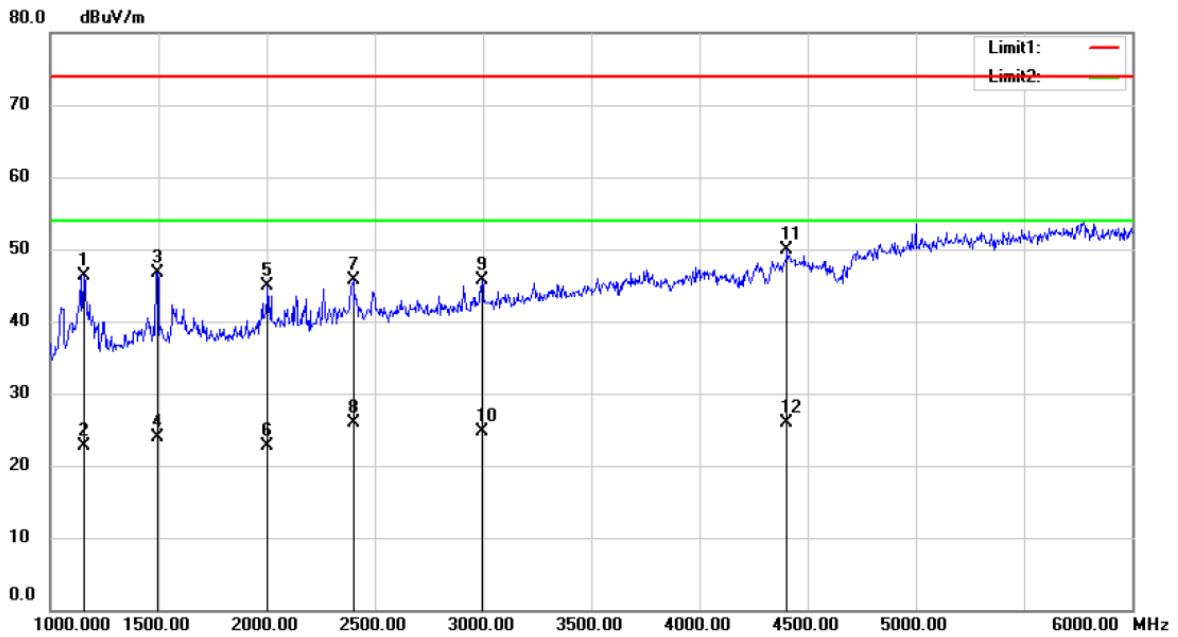
Mode:HDMI 3

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		100.8100	46.25	-12.52	33.73	43.50	-9.77			QP
2		113.4200	48.28	-13.78	34.50	43.50	-9.00			QP
3		149.3100	54.04	-16.59	37.45	43.50	-6.05			QP
4		260.8600	50.11	-10.78	39.33	46.00	-6.67			QP
5	*	294.8100	49.99	-9.79	40.20	46.00	-5.80			QP
6		478.1400	45.60	-7.66	37.94	46.00	-8.06			QP

*:Maximum data x:Over limit !:over margin

Operator: KK



Site 3m Chamber #1

Polarization: **Vertical**

Temperature: 22 C

Limit: (RE)FCC PART 15 CLASS B PEAK

Power: AC 120V/60Hz

Humidity: 50 %

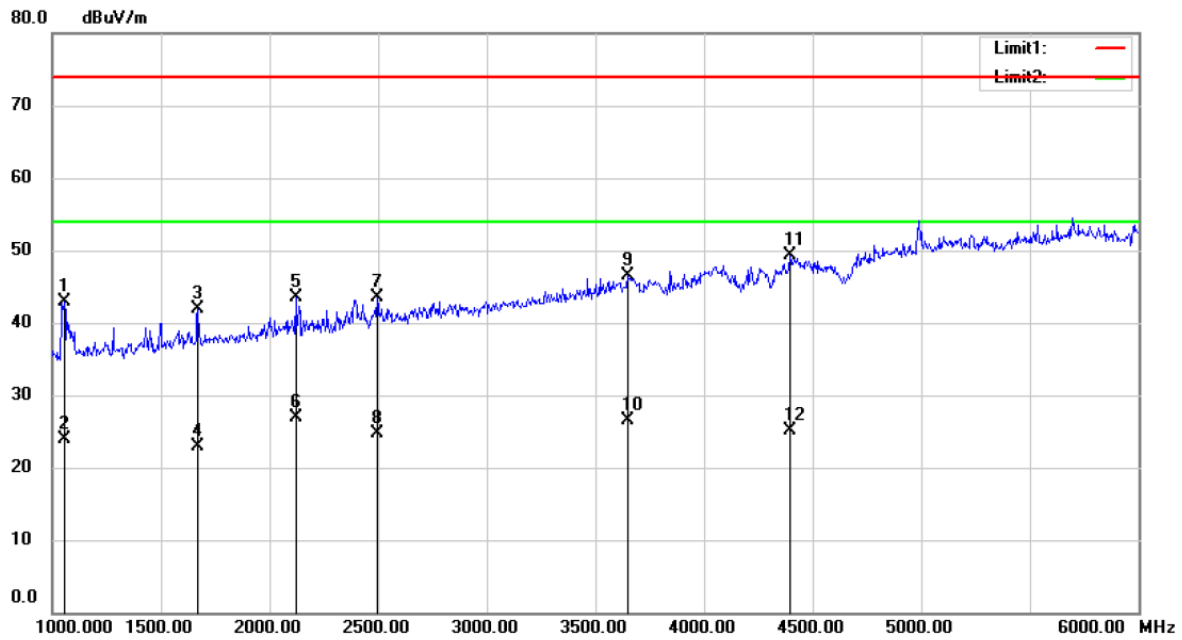
Mode:HDMI 1

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1155.000	58.06	-11.76	46.30	74.00	-27.70			peak
2		1155.000	34.55	-11.76	22.79	54.00	-31.21			AVG
3		1495.000	57.49	-10.73	46.76	74.00	-27.24			peak
4		1495.000	34.73	-10.73	24.00	54.00	-30.00			AVG
5		2005.000	54.18	-9.18	45.00	74.00	-29.00			peak
6		2005.000	31.85	-9.18	22.67	54.00	-31.33			AVG
7		2400.000	53.62	-7.84	45.78	74.00	-28.22			peak
8		2400.000	33.71	-7.84	25.87	54.00	-28.13			AVG
9		2995.000	51.62	-5.82	45.80	74.00	-28.20			peak
10		2995.000	30.49	-5.82	24.67	54.00	-29.33			AVG
11	*	4405.000	51.06	-1.09	49.97	74.00	-24.03			peak
12		4405.000	26.98	-1.09	25.89	54.00	-28.11			AVG

*:Maximum data x:Over limit !:over margin

Operator: KK

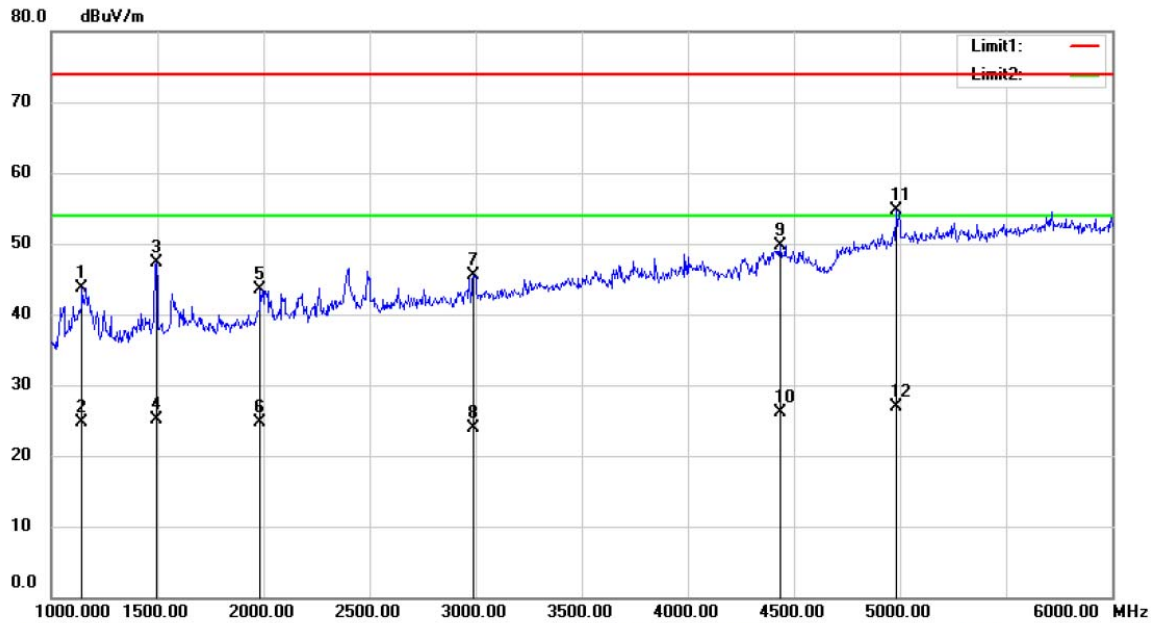


Site 3m Chamber #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 1
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1055.000	55.02	-12.07	42.95	74.00	-31.05			peak
2		1055.000	36.02	-12.07	23.95	54.00	-30.05			AVG
3		1670.000	52.14	-10.20	41.94	74.00	-32.06			peak
4		1670.000	33.06	-10.20	22.86	54.00	-31.14			AVG
5		2120.000	52.29	-8.78	43.51	74.00	-30.49			peak
6		2120.000	35.65	-8.78	26.87	54.00	-27.13			AVG
7		2495.000	51.01	-7.51	43.50	74.00	-30.50			peak
8		2495.000	32.28	-7.51	24.77	54.00	-29.23			AVG
9		3650.000	50.02	-3.45	46.57	74.00	-27.43			peak
10		3650.000	29.99	-3.45	26.54	54.00	-27.46			AVG
11	*	4395.000	50.42	-1.12	49.30	74.00	-24.70			peak
12		4395.000	26.31	-1.12	25.19	54.00	-28.81			AVG

*:Maximum data x:Over limit !:over margin

Operator: KK

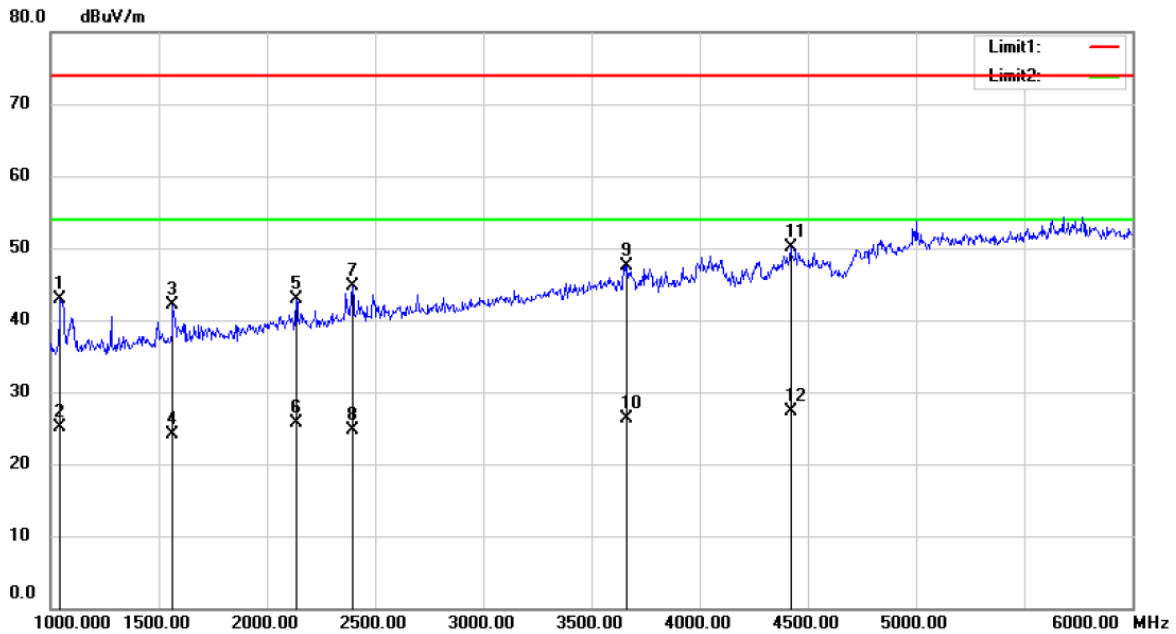


Site 3m Chamber #1 Polarization: **Vertical** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 2
 Note:

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Antenna Height cm	Table Degree	Comment
1	1145.000	55.58	-11.79	43.79	74.00	-30.21	peak			
2	1145.000	36.47	-11.79	24.68	54.00	-29.32	AVG			
3	1495.000	58.13	-10.73	47.40	74.00	-26.60	peak			
4	1495.000	35.83	-10.73	25.10	54.00	-28.90	AVG			
5	1985.000	52.69	-9.23	43.46	74.00	-30.54	peak			
6	1985.000	33.90	-9.23	24.67	54.00	-29.33	AVG			
7	2990.000	51.36	-5.84	45.52	74.00	-28.48	peak			
8	2990.000	29.71	-5.84	23.87	54.00	-30.13	AVG			
9	4435.000	50.81	-1.01	49.80	74.00	-24.20	peak			
10	4435.000	27.09	-1.01	26.08	54.00	-27.92	AVG			
11 *	4985.000	54.30	0.49	54.79	74.00	-19.21	peak			
12	4985.000	26.41	0.49	26.90	54.00	-27.10	AVG			

*:Maximum data x:Over limit !:over margin

Operator: KK

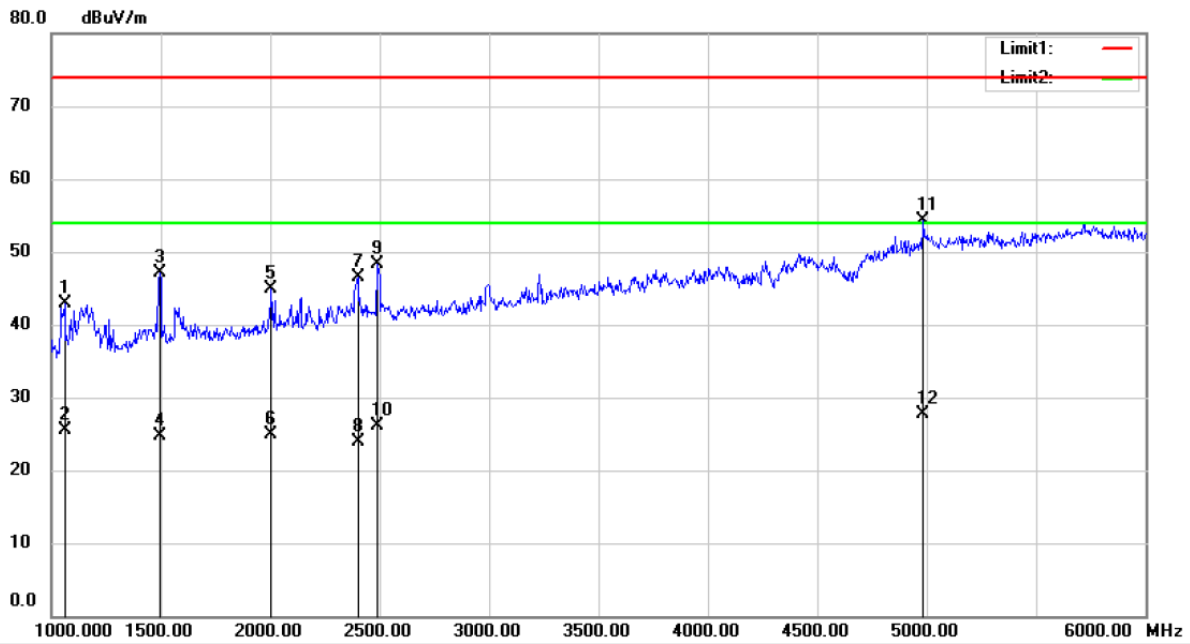


Site 3m Chamber #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 2
 Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		1045.000	55.00	-12.09	42.91	74.00	-31.09			peak
2		1045.000	37.25	-12.09	25.16	54.00	-28.84			AVG
3		1565.000	52.57	-10.52	42.05	74.00	-31.95			peak
4		1565.000	34.65	-10.52	24.13	54.00	-29.87			AVG
5		2135.000	51.66	-8.73	42.93	74.00	-31.07			peak
6		2135.000	34.50	-8.73	25.77	54.00	-28.23			AVG
7		2395.000	52.46	-7.85	44.61	74.00	-29.39			peak
8		2395.000	32.52	-7.85	24.67	54.00	-29.33			AVG
9		3665.000	50.96	-3.40	47.56	74.00	-26.44			peak
10		3665.000	29.66	-3.40	26.26	54.00	-27.74			AVG
11	*	4420.000	51.13	-1.05	50.08	74.00	-23.92			peak
12		4420.000	28.44	-1.05	27.39	54.00	-26.61			AVG

*:Maximum data x:Over limit !:over margin

Operator: KK



Site 3m Chamber #1

Polarization: **Vertical**

Temperature: 22 C

Limit: (RE)FCC PART 15 CLASS B PEAK

Power: AC 120V/60Hz

Humidity: 50 %

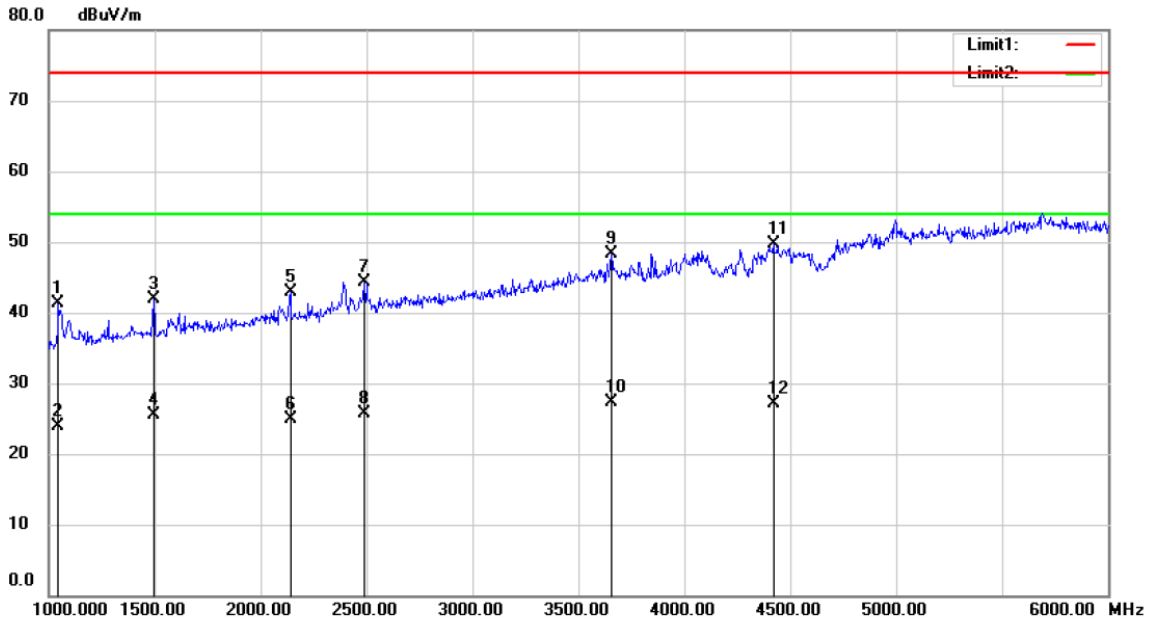
Mode:HDMI 3

Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1060.000	54.91	-12.05	42.86	74.00	-31.14			peak
2		1060.000	37.51	-12.05	25.46	54.00	-28.54			AVG
3		1495.000	57.82	-10.73	47.09	74.00	-26.91			peak
4		1495.000	35.53	-10.73	24.80	54.00	-29.20			AVG
5		2005.000	53.99	-9.18	44.81	74.00	-29.19			peak
6		2005.000	34.05	-9.18	24.87	54.00	-29.13			AVG
7		2400.000	54.39	-7.84	46.55	74.00	-27.45			peak
8		2400.000	31.71	-7.84	23.87	54.00	-30.13			AVG
9		2490.000	55.90	-7.52	48.38	74.00	-25.62			peak
10		2490.000	33.59	-7.52	26.07	54.00	-27.93			AVG
11	*	4985.000	53.89	0.49	54.38	74.00	-19.62			peak
12		4985.000	27.21	0.49	27.70	54.00	-26.30			AVG

*:Maximum data x:Over limit !:over margin

Operator: KK



Site 3m Chamber #1 Polarization: **Horizontal** Temperature: 22 C
 Limit: (RE)FCC PART 15 CLASS B PEAK Power: AC 120V/60Hz Humidity: 50 %
 Mode:HDMI 3
 Note:

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		1045.000	53.42	-12.09	41.33	74.00	-32.67			peak
2		1045.000	36.05	-12.09	23.96	54.00	-30.04			AVG
3		1495.000	52.58	-10.73	41.85	74.00	-32.15			peak
4		1495.000	36.33	-10.73	25.60	54.00	-28.40			AVG
5		2140.000	51.69	-8.72	42.97	74.00	-31.03			peak
6		2140.000	33.69	-8.72	24.97	54.00	-29.03			AVG
7		2490.000	51.88	-7.52	44.36	74.00	-29.64			peak
8		2490.000	33.29	-7.52	25.77	54.00	-28.23			AVG
9		3655.000	51.68	-3.44	48.24	74.00	-25.76			peak
10		3655.000	30.69	-3.44	27.25	54.00	-26.75			AVG
11	*	4420.000	50.77	-1.05	49.72	74.00	-24.28			peak
12		4420.000	28.24	-1.05	27.19	54.00	-26.81			AVG

*:Maximum data x:Over limit !:over margin

Operator: KK

-----THE END-----