

EMC TEST REPORT  
For

Shenzhen Beacon Display Technology Co., Ltd.,

LCD Monitor

Model No.: C22WT\*\*\*, C22WP\*\*\*, C22W\*\*\*

FCC ID: Z5QC22WTC22WPC22W

Prepared for : Shenzhen Beacon Display Technology Co., Ltd.,  
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Report Number : ES120518092F  
Date of Test : May 18, 2012 to Jun 8, 2012  
Date of Report : Jun 11, 2012

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## TEST REPORT DESCRIPTION

Applicant : Shenzhen Beacon Display Technology Co., Ltd.,  
Manufacturer : Shenzhen Beacon Display Technology Co., Ltd.,  
Trade Mark : INSIGNIA  
EUT : LCD Monitor  
Model No. : C22WT\*\*\*, C22WP\*\*\*, C22W\*\*\*("\*"stands for "A-Z",  
"0-9"or"blank", indicate different colours of appearance and different  
designation of model, and not influential with the products' feature of  
safety and EMC, There are two displays of the EUT in the report, All  
the model has been test.)  
Power Supply : AC 120V/60HZ

Measurement Procedure Used:

FCC Rules and Regulations Part 15: 2011 Subpart B Class B & FCC / ANSI C63.4-2009

The device described above is tested by SHENZHEN EMTEK 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 SHENZHEN EMTEK 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 SHENZHEN EMTEK CO., LTD.

Date of Test : May 18, 2012 to Jun 8, 2012

Prepared by : Lesley Zhang  
Lesley Zhang/Editor

Reviewer : Frank Liu  
Frank Liu/Supervisor

Approved & Authorized Signer : Lisa Wang  
Lisa Wang/Manager



## 1. SUMMARY OF TEST RESULT

<b>Emission</b>		
Description of Test Item	Standard & Limits	Results
Conducted Disturbance at Mains Terminals	FCC Part 15, Subpart B, Class B ANSI C63.4: 2009	Pass
Disturbance Voltage at the Antenna Terminal	FCC Part 15, Subpart B, Class B ANSI C63.4: 2009	N/A
Radiated Disturbance	FCC Part 15, Subpart B, Class B ANSI C63.4: 2009	Pass
Note: N/A is an abbreviation for Not Applicable.		

## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

EUT	:	LCD Monitor
Model Number	:	C22WT***, C22WP***, C22W*** (“*” stands for “A-Z”, “0-9” or “blank”, indicate different colours of appearance and different designation of model, and not influential with the products’ feature of safety and EMC. All models have the same constructions, circuit diagram and PCB layout. We take C22WT to test, There are two displays of the EUT in the report, All the model has been test.)
Adapter	:	Model: SSA-0601D-12 Input: AC 100-240V, 50/60Hz, 2A Output: DC 12V, 5A, 60W Max
Working Freq.	:	150MHz Max
Test Voltage	:	AC 120V/60Hz
Operating mode	:	DP, VGA, DVI
Applicant	:	Shenzhen Beacon Display Technology Co., Ltd.,
Address	:	Room 201, Incubator Bld, CASTD, High-tech South 1st Street, Nanshan District, Shenzhen 518057, China
Manufacturer	:	Shenzhen Beacon Display Technology Co., Ltd.,
Address	:	Room 201, Incubator Bld, CASTD, High-tech South 1st Street, Nanshan District, Shenzhen 518057, China
Date of Received	:	May 18, 2012
Date of Test	:	May 18, 2012 to Jun 8, 2012

## 2.2. Description of Support Device

PC (For EMI test)	: Manufacturer: Lenovo M/N: ThinkCentre 8701 S/N: 8701A53L3BC108 CE, FCC: DOC
Mouse	: Manufacturer: HP M/N: M-S48a S/N: LZE14823966AW CE, FCC: DOC
Keyboard	: Manufacturer: HP M/N: SK-2502C S/N: C0111141546 CE, FCC: DOC
Printer	: Manufacturer: HP M/N: C89520 S/N: CN25S182N6 CE, FCC: DOC

## 2.3. Description of Test Facility

### Site Description

EMC Lab. : Accredited by CNAS, 2010.10.29  
The certificate is valid until 2013.10.28  
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.

Accredited by TUV Rheinland Shenzhen 2010.5.25  
The Laboratory has been assessed according to the requirements ISO/IEC 17025.

Accredited by FCC, October 28, 2010  
The Certificate Registration Number is 406365.

Accredited by Industry Canada, March 5, 2010  
The Certificate Registration Number is 46405-4480.

Name of Firm	: SHENZHEN EMTEK CO., LTD
Site Location	: Bldg 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China

## 2.4. Measurement Uncertainty

Conducted Emission Uncertainty : 2.8dB

Radiated Emission Uncertainty	: 3.3dB (30M~1GHz Polarize: H)
	3.2dB (30M~1GHz Polarize: V)
	3.7dB (1~18GHz Polarize: H)
	3.6dB (1~18GHz Polarize: V)



### 3. MEASURING DEVICE AND TEST EQUIPMENT

#### 3.1. For Power Line Conducted Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	100162	May 29, 2012	1 Year
2.	L.I.S.N.	Rohde & Schwarz	ENV216	101161	May 29, 2012	1 Year
3.	50Ω Coaxial Switch	Anritsu	MP59B	6100214550	N/A	N/A
4.	Voltage Probe	Rohde & Schwarz	TK9416	N/A	May 29, 2012	1 Year
5.	I.S.N	Teseq GmbH	ISN T800	30327	May 29, 2012	1 Year
6.	LCL adaoter	Teseq GmbH	ADT800-Cat.5	30327.01	May 29, 2012	1 Year
7.	LCL adaoter	Teseq GmbH	ADT800-Cat.3	30327.02	May 29, 2012	1 Year
8.	LCL adaoter	Teseq GmbH	ADT800-R	30327.02	May 29, 2012	1 Year

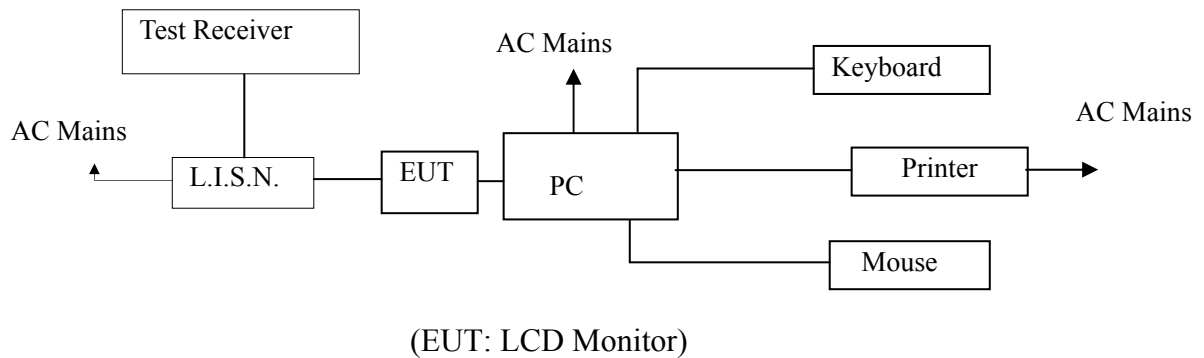
#### 3.2. For Radiated Emission Measurement

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	EMI Test Receiver	Rohde & Schwarz	ESU	1302.6005.26	May 29, 2012	1 Year
2.	Pre-Amplifier	HP	8447D	2944A07999	May 29, 2012	1 Year
3.	Bilog Antenna	Schwarzbeck	VULB9163	142	May 29, 2012	1 Year
4.	Loop Antenna	ARA	PLA-1030/B	1029	May 29, 2012	1 Year
5.	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA91703 99	May 29, 2012	1 Year
6.	Horn Antenna	Schwarzbeck	BBHA 9120	D143	May 29, 2012	1 Year
7.	Cable	Schwarzbeck	AK9513	ACRX1	May 29, 2012	1 Year
8.	Cable	Rosenberger	N/A	FP2RX2	May 29, 2012	1 Year
9.	Cable	Schwarzbeck	AK9513	CRPX1	May 29, 2012	1 Year
10.	Cable	Schwarzbeck	AK9513	CRRX2	May 29, 2012	1 Year



## 4. POWER LINE CONDUCTED EMISSION MEASUREMENT

### 4.1. Block Diagram of Test Setup



### 4.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2009

### 4.3. Power Line Conducted Emission Limits (Class B)

Frequency (MHz)	Limit (dB $\mu$ 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. Configuration of EUT 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 : LCD Monitor  
Model Number : C22WT

### 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 (DP, DVI, VGA) and 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.

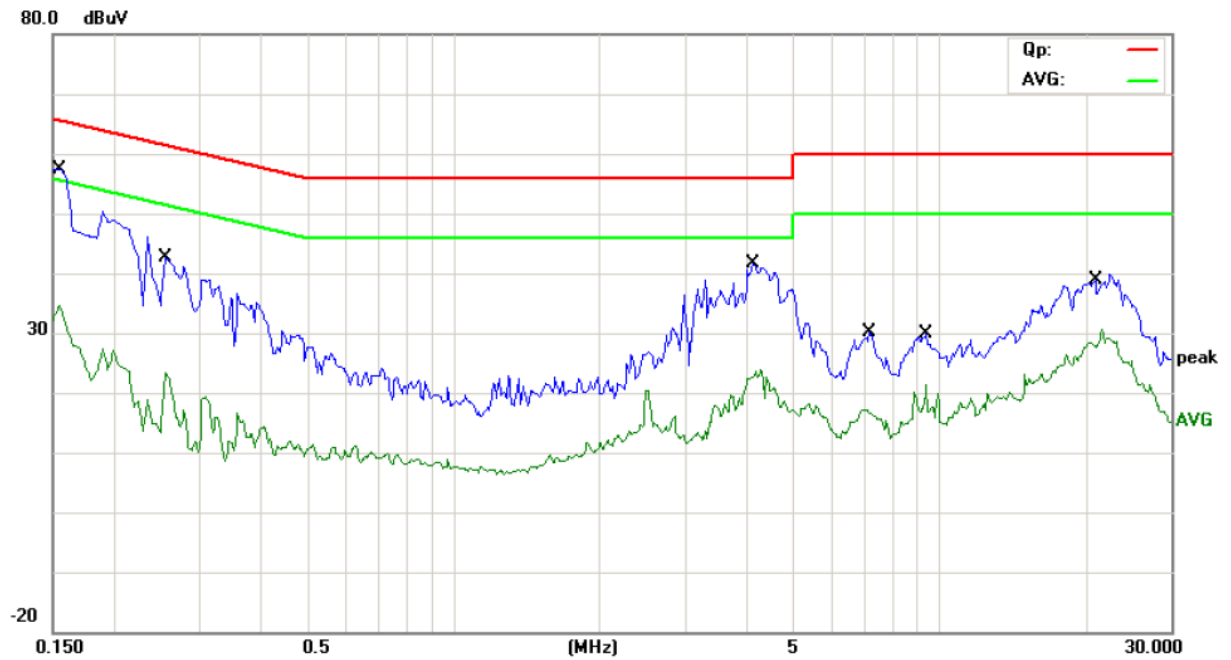
The frequency range from 150kHz to 30MHz is investigated

The worst (DP 1366\*768, DVI 1366\*768, VGA 1920\*1080) scanning waveforms in below a few pages.

#### 4.7. Measuring Results

**PASS.**

Please refer to below a few pages.



Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

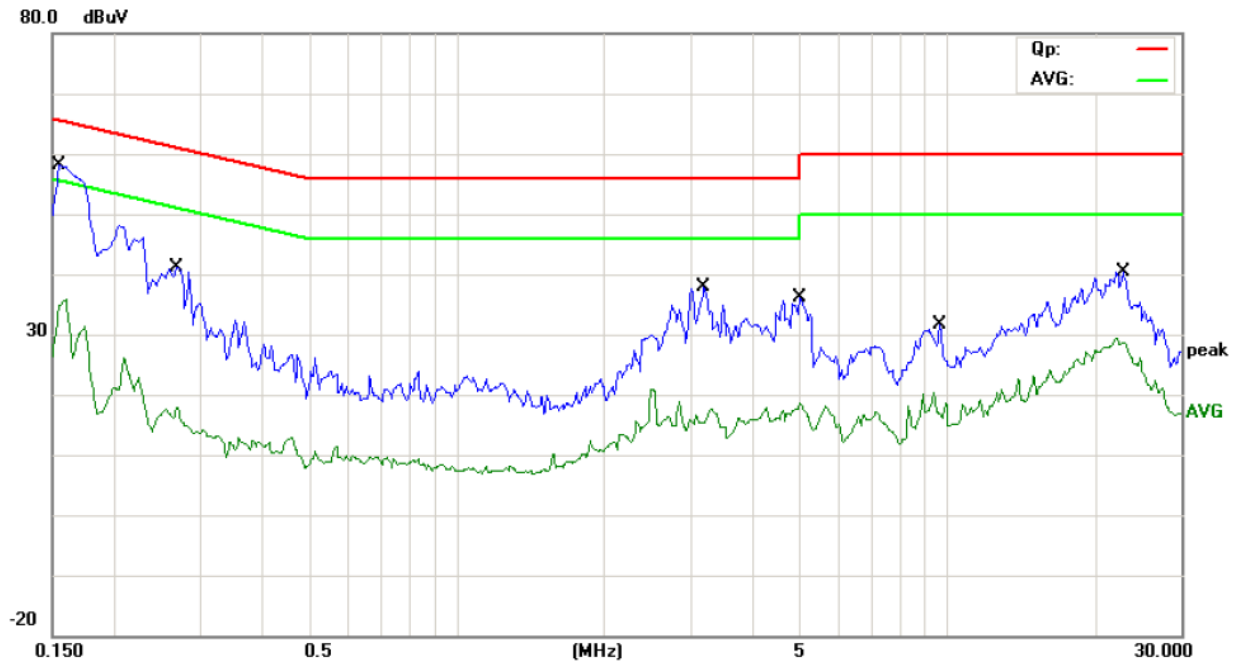
Humidity: 60 %

Mode: DP MODE(1366\*768)

Note: M215HW02 (AUO)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1550	57.50	0.00	57.50	65.73	-8.23	QP	
2		0.1550	34.75	0.00	34.75	55.73	-20.98	AVG	
3		0.2550	42.62	0.00	42.62	61.59	-18.97	QP	
4		0.2550	23.40	0.00	23.40	51.59	-28.19	AVG	
5		4.1400	41.61	0.00	41.61	56.00	-14.39	QP	
6		4.1400	23.82	0.00	23.82	46.00	-22.18	AVG	
7		7.2000	30.05	0.00	30.05	60.00	-29.95	QP	
8		7.2000	17.24	0.00	17.24	50.00	-32.76	AVG	
9		9.4100	29.85	0.00	29.85	60.00	-30.15	QP	
10		9.4100	21.27	0.00	21.27	50.00	-28.73	AVG	
11		20.9500	38.81	0.00	38.81	60.00	-21.19	QP	
12		20.9500	30.71	0.00	30.71	50.00	-19.29	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

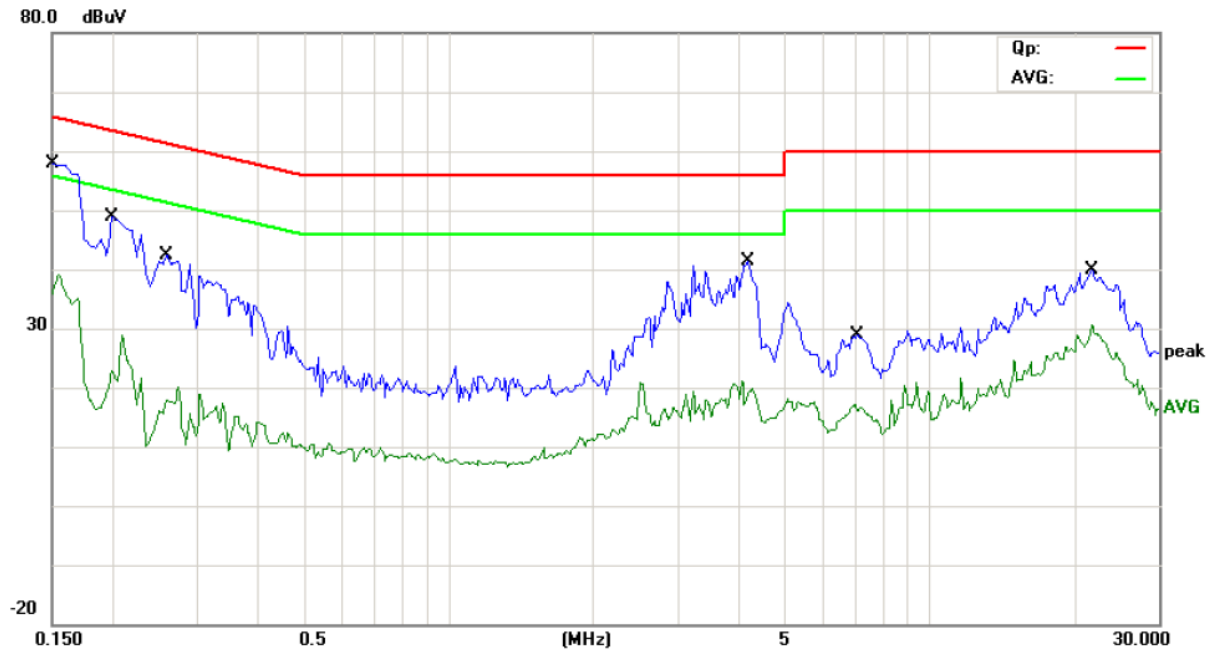
Humidity: 60 %

Mode: DP MODE(1366\*768)

Note: M215HW02 (AUO)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1550	58.08	0.00	58.08	65.73	-7.65	QP	
2		0.1550	35.95	0.00	35.95	55.73	-19.78	AVG	
3		0.2700	41.11	0.00	41.11	61.12	-20.01	QP	
4		0.2700	17.99	0.00	17.99	51.12	-33.13	AVG	
5		3.2000	38.00	0.00	38.00	56.00	-18.00	QP	
6		3.2000	17.55	0.00	17.55	46.00	-28.45	AVG	
7		5.0100	36.24	0.00	36.24	60.00	-23.76	QP	
8		5.0100	18.61	0.00	18.61	50.00	-31.39	AVG	
9		9.6900	31.65	0.00	31.65	60.00	-28.35	QP	
10		9.6900	20.35	0.00	20.35	50.00	-29.65	AVG	
11		22.8000	40.37	0.00	40.37	60.00	-19.63	QP	
12		22.8000	29.36	0.00	29.36	50.00	-20.64	AVG	

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



Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

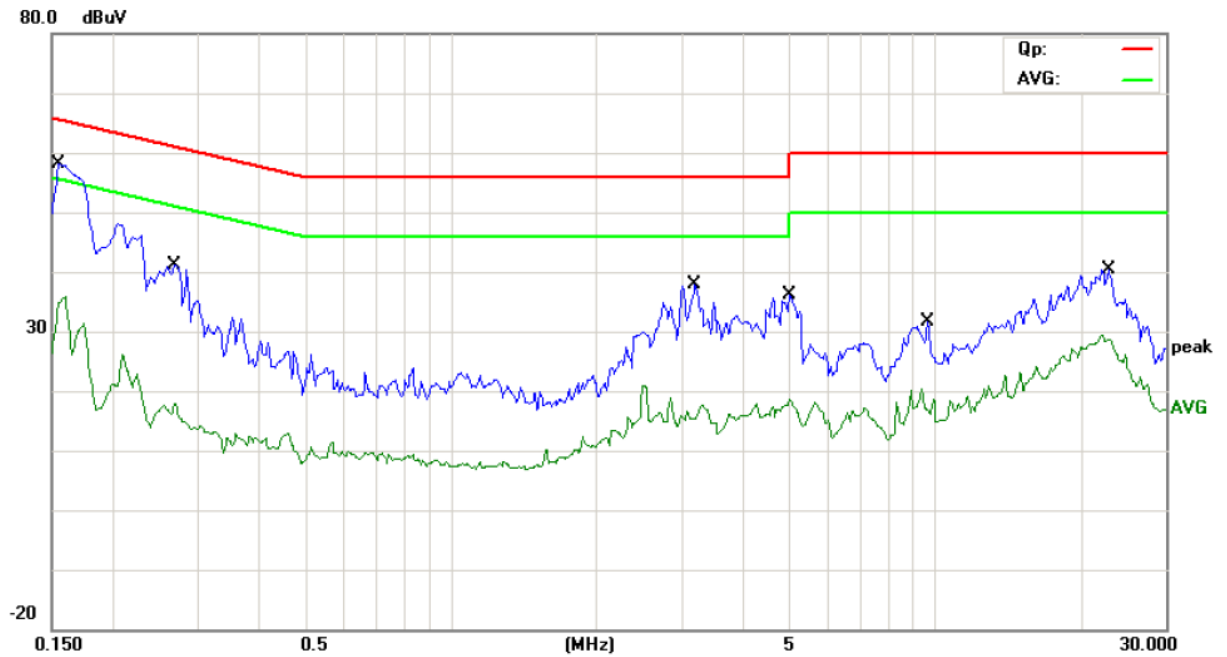
Humidity: 60 %

Mode: DP MODE(1366\*768)

Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1	*	0.1500	57.81	0.00	57.81	66.00	-8.19	QP	
2		0.1500	39.21	0.00	39.21	56.00	-16.79	AVG	
3		0.2000	48.85	0.00	48.85	63.61	-14.76	QP	
4		0.2000	28.92	0.00	28.92	53.61	-24.69	AVG	
5		0.2600	42.40	0.00	42.40	61.43	-19.03	QP	
6		0.2600	20.23	0.00	20.23	51.43	-31.20	AVG	
7		4.2000	41.30	0.00	41.30	56.00	-14.70	QP	
8		4.2000	21.02	0.00	21.02	46.00	-24.98	AVG	
9		7.0900	28.90	0.00	28.90	60.00	-31.10	QP	
10		7.0900	17.14	0.00	17.14	50.00	-32.86	AVG	
11		21.7750	39.78	0.00	39.78	60.00	-20.22	QP	
12		21.7750	30.54	0.00	30.54	50.00	-19.46	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

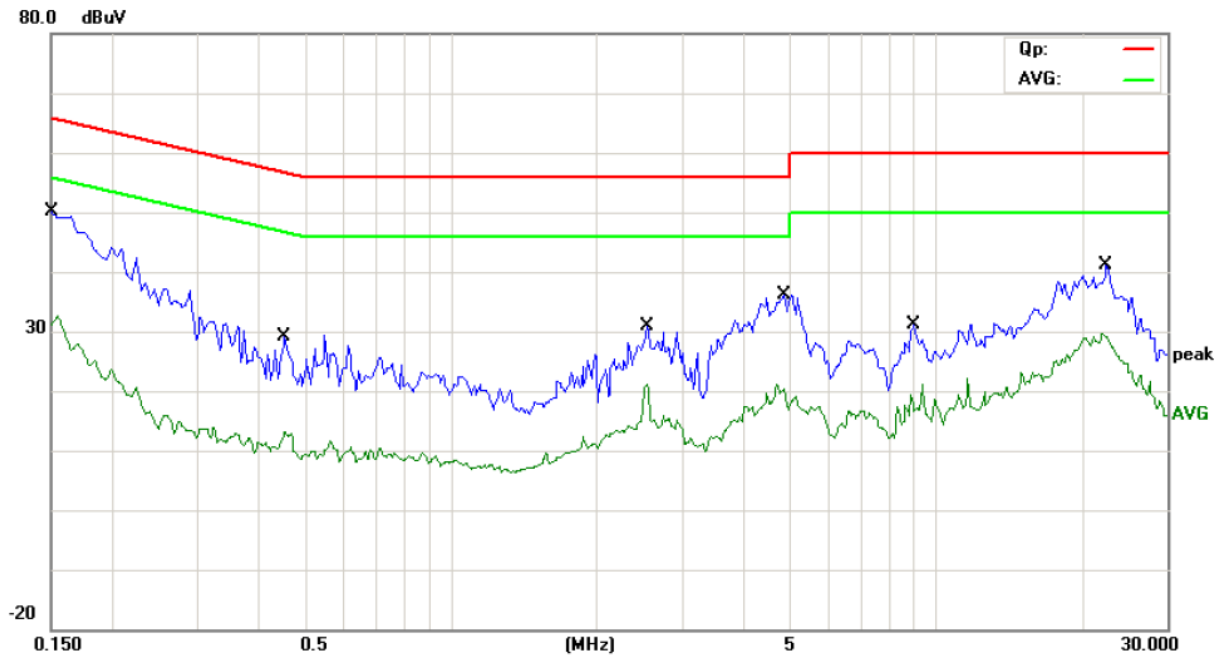
Humidity: 60 %

Mode: DP MODE(1366\*768)

Note: LM215WF3 (LG)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1550	58.08	0.00	58.08	65.73	-7.65	QP	
2		0.1550	35.95	0.00	35.95	55.73	-19.78	AVG	
3		0.2700	41.11	0.00	41.11	61.12	-20.01	QP	
4		0.2700	17.99	0.00	17.99	51.12	-33.13	AVG	
5		3.2000	38.00	0.00	38.00	56.00	-18.00	QP	
6		3.2000	17.55	0.00	17.55	46.00	-28.45	AVG	
7		5.0100	36.24	0.00	36.24	60.00	-23.76	QP	
8		5.0100	18.61	0.00	18.61	50.00	-31.39	AVG	
9		9.6900	31.65	0.00	31.65	60.00	-28.35	QP	
10		9.6900	20.35	0.00	20.35	50.00	-29.65	AVG	
11		22.8000	40.37	0.00	40.37	60.00	-19.63	QP	
12		22.8000	29.36	0.00	29.36	50.00	-20.64	AVG	

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



Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

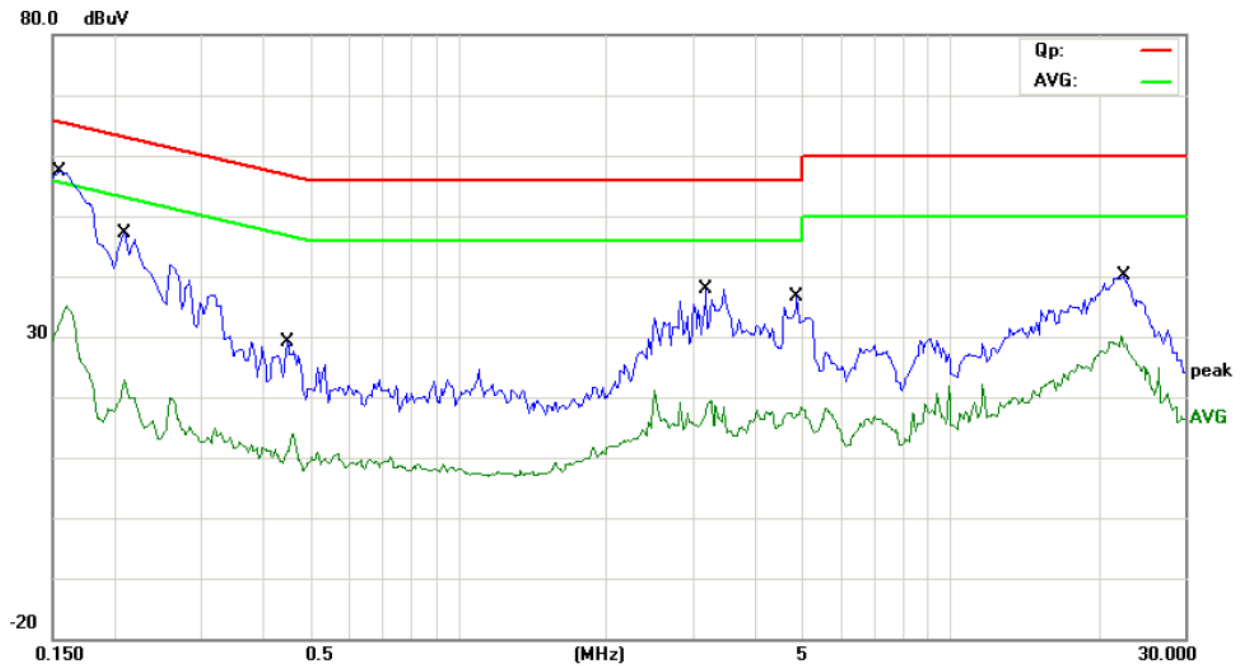
Humidity: 60 %

Mode: DVI MODE(1366\*768)

Note: M215HW02 (AUO)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	50.07	0.00	50.07	66.00	-15.93	QP	
2		0.1500	32.66	0.00	32.66	56.00	-23.34	AVG	
3		0.4550	29.25	0.00	29.25	56.78	-27.53	QP	
4		0.4550	13.13	0.00	13.13	46.78	-33.65	AVG	
5		2.5500	30.87	0.00	30.87	56.00	-25.13	QP	
6		2.5500	21.01	0.00	21.01	46.00	-24.99	AVG	
7		4.8700	36.23	0.00	36.23	56.00	-19.77	QP	
8		4.8700	21.16	0.00	21.16	46.00	-24.84	AVG	
9		9.0300	31.03	0.00	31.03	60.00	-28.97	QP	
10		9.0300	21.09	0.00	21.09	50.00	-28.91	AVG	
11		22.5250	41.05	0.00	41.05	60.00	-18.95	QP	
12		22.5250	29.73	0.00	29.73	50.00	-20.27	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

Humidity: 60 %

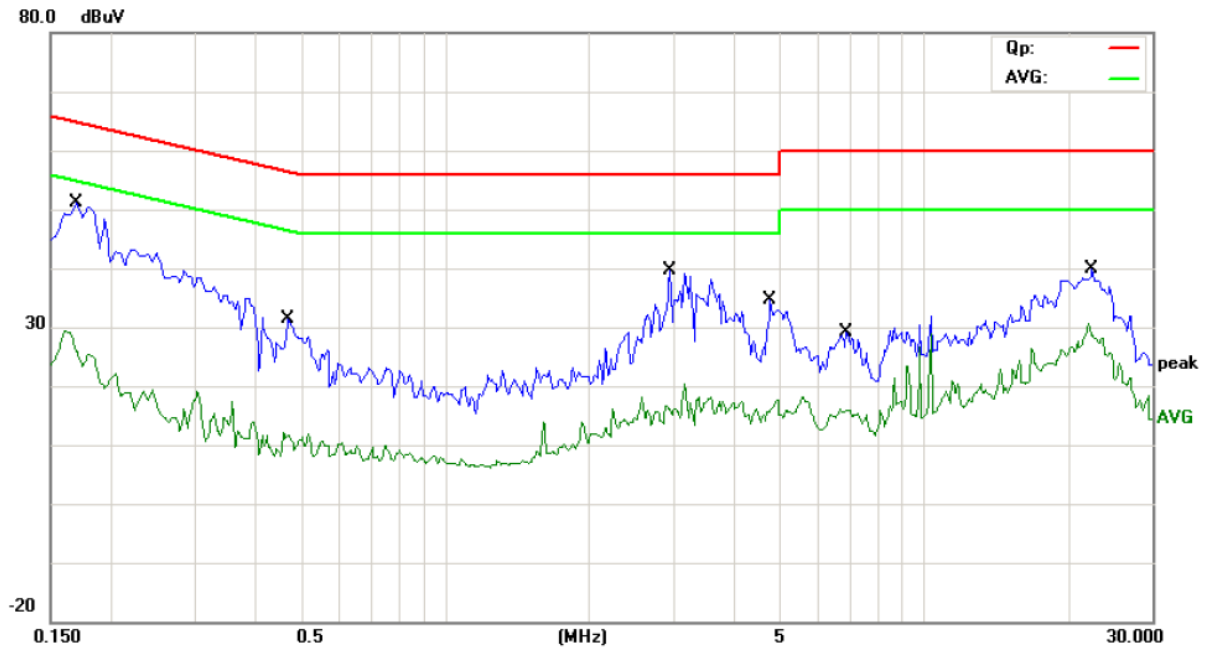
Mode: DVI MODE(1366\*768)

Note: M215HW02 (AUO)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1550	57.46	0.00	57.46	65.73	-8.27	QP	
2		0.1550	35.21	0.00	35.21	55.73	-20.52	AVG	
3		0.2100	47.20	0.00	47.20	63.21	-16.01	QP	
4		0.2100	22.77	0.00	22.77	53.21	-30.44	AVG	
5		0.4500	29.02	0.00	29.02	56.88	-27.86	QP	
6		0.4500	13.97	0.00	13.97	46.88	-32.91	AVG	
7		3.1900	37.98	0.00	37.98	56.00	-18.02	QP	
8		3.1900	19.43	0.00	19.43	46.00	-26.57	AVG	
9		4.8800	36.57	0.00	36.57	56.00	-19.43	QP	
10		4.8800	18.35	0.00	18.35	46.00	-27.65	AVG	
11		22.5500	40.16	0.00	40.16	60.00	-19.84	QP	
12		22.5500	30.09	0.00	30.09	50.00	-19.91	AVG	

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





Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

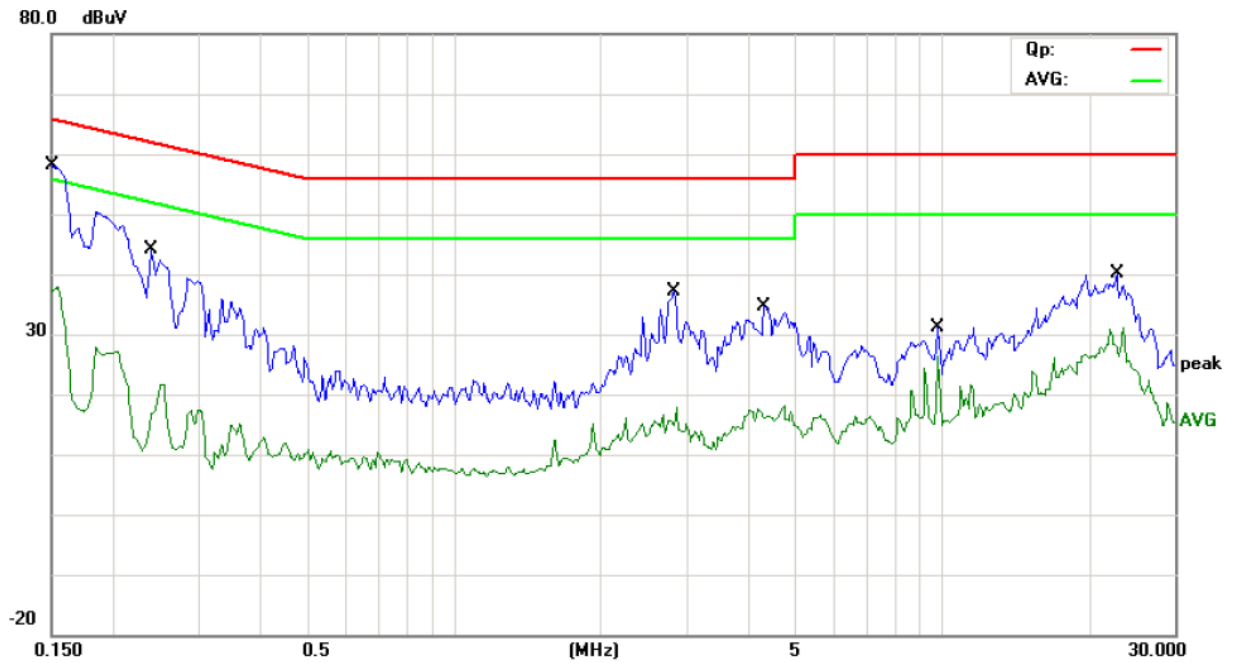
Humidity: 60 %

Mode: DVI MODE(1366\*768)

Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1700	51.10	0.00	51.10	64.96	-13.86	QP	
2		0.1700	29.33	0.00	29.33	54.96	-25.63	AVG	
3		0.4700	31.29	0.00	31.29	56.51	-25.22	QP	
4		0.4700	12.03	0.00	12.03	46.51	-34.48	AVG	
5		2.9500	39.51	0.00	39.51	56.00	-16.49	QP	
6		2.9500	20.36	0.00	20.36	46.00	-25.64	AVG	
7		4.7800	34.64	0.00	34.64	56.00	-21.36	QP	
8		4.7800	18.06	0.00	18.06	46.00	-27.94	AVG	
9		6.9000	29.06	0.00	29.06	60.00	-30.94	QP	
10		6.9000	16.02	0.00	16.02	50.00	-33.98	AVG	
11		22.4250	39.77	0.00	39.77	60.00	-20.23	QP	
12		22.4250	30.65	0.00	30.65	50.00	-19.35	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

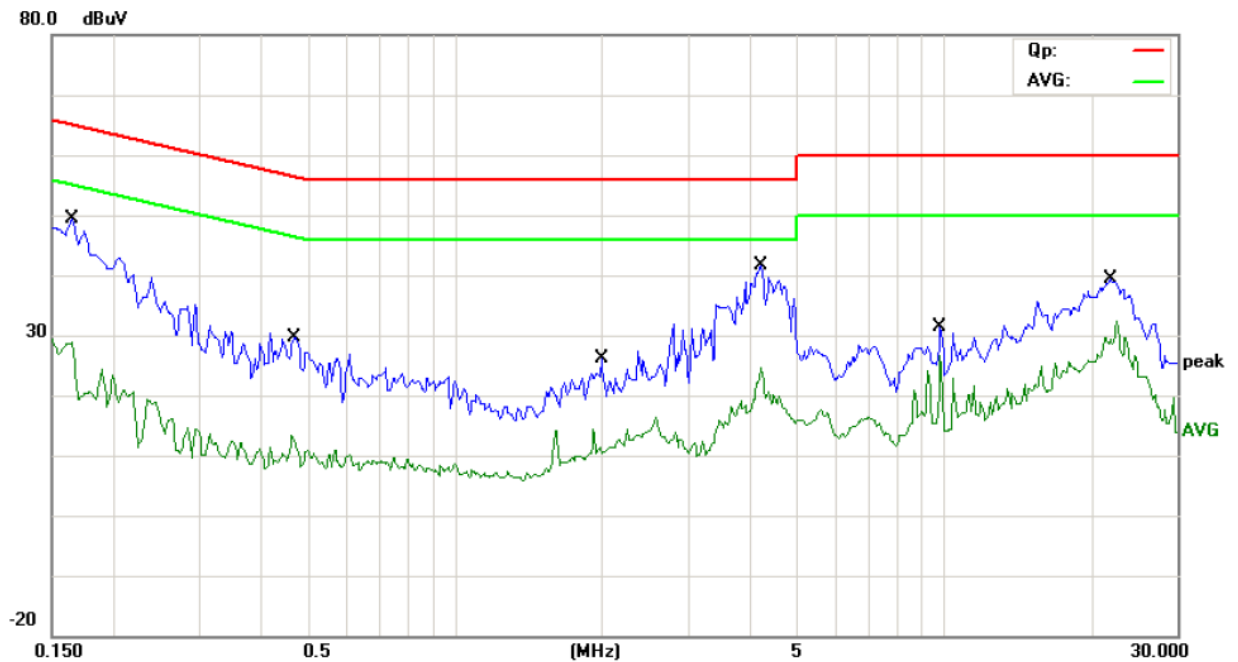
Humidity: 60 %

Mode: DVI MODE(1366\*768)

Note: LM215WF3 (LG)

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1 *	0.1500	58.03	0.00	58.03	66.00	-7.97	QP	
2	0.1500	37.96	0.00	37.96	56.00	-18.04	AVG	
3	0.2400	44.21	0.00	44.21	62.10	-17.89	QP	
4	0.2400	21.57	0.00	21.57	52.10	-30.53	AVG	
5	2.8300	37.25	0.00	37.25	56.00	-18.75	QP	
6	2.8300	17.93	0.00	17.93	46.00	-28.07	AVG	
7	4.3300	34.60	0.00	34.60	56.00	-21.40	QP	
8	4.3300	18.11	0.00	18.11	46.00	-27.89	AVG	
9	9.8000	31.24	0.00	31.24	60.00	-28.76	QP	
10	9.8000	26.46	0.00	26.46	50.00	-23.54	AVG	
11	22.8250	40.15	0.00	40.15	60.00	-19.85	QP	
12	22.8250	31.14	0.00	31.14	50.00	-18.86	AVG	

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



Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

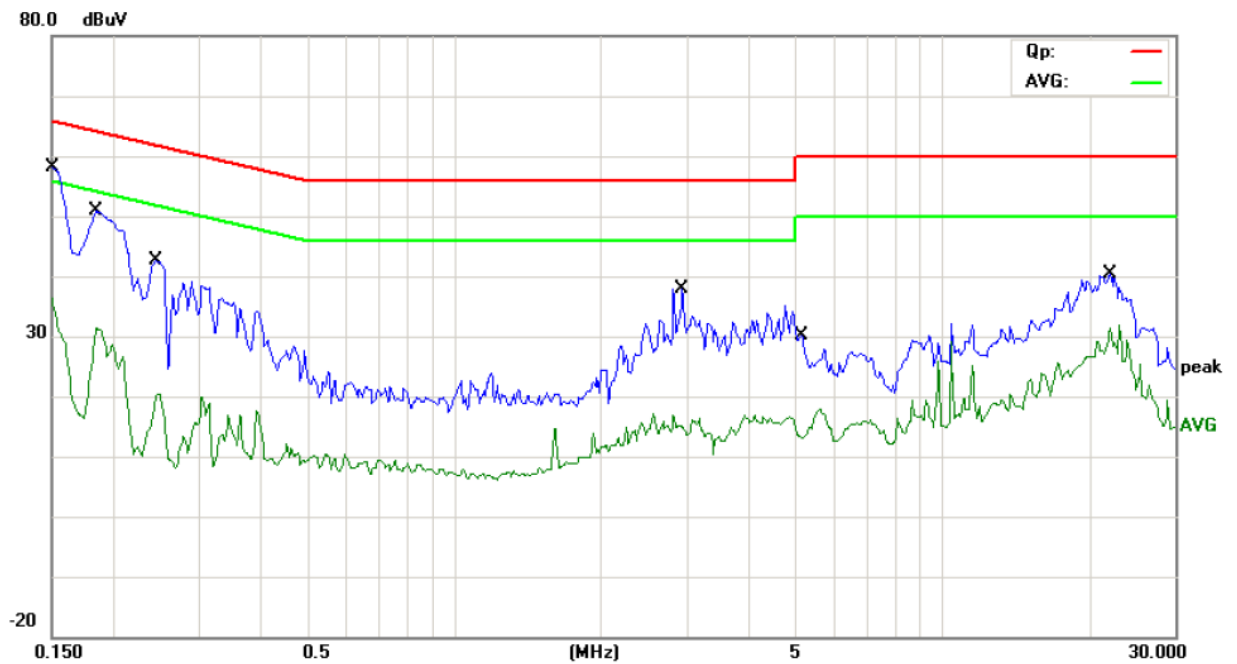
Humidity: 60 %

Mode: VGA MODE(1920\*1080)

Note: M215HW02 (AUO)

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1650	49.42	0.00	49.42	65.21	-15.79	QP	
2	0.1650	28.80	0.00	28.80	55.21	-26.41	AVG	
3	0.4700	29.73	0.00	29.73	56.51	-26.78	QP	
4	0.4700	13.28	0.00	13.28	46.51	-33.23	AVG	
5	1.9950	26.07	0.00	26.07	56.00	-29.93	QP	
6	1.9950	14.43	0.00	14.43	46.00	-31.57	AVG	
7 *	4.2300	41.60	0.00	41.60	56.00	-14.40	QP	
8	4.2300	24.56	0.00	24.56	46.00	-21.44	AVG	
9	9.8400	31.38	0.00	31.38	60.00	-28.62	QP	
10	9.8400	26.72	0.00	26.72	50.00	-23.28	AVG	
11	21.9000	39.41	0.00	39.41	60.00	-20.59	QP	
12	21.9000	32.38	0.00	32.38	50.00	-17.62	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

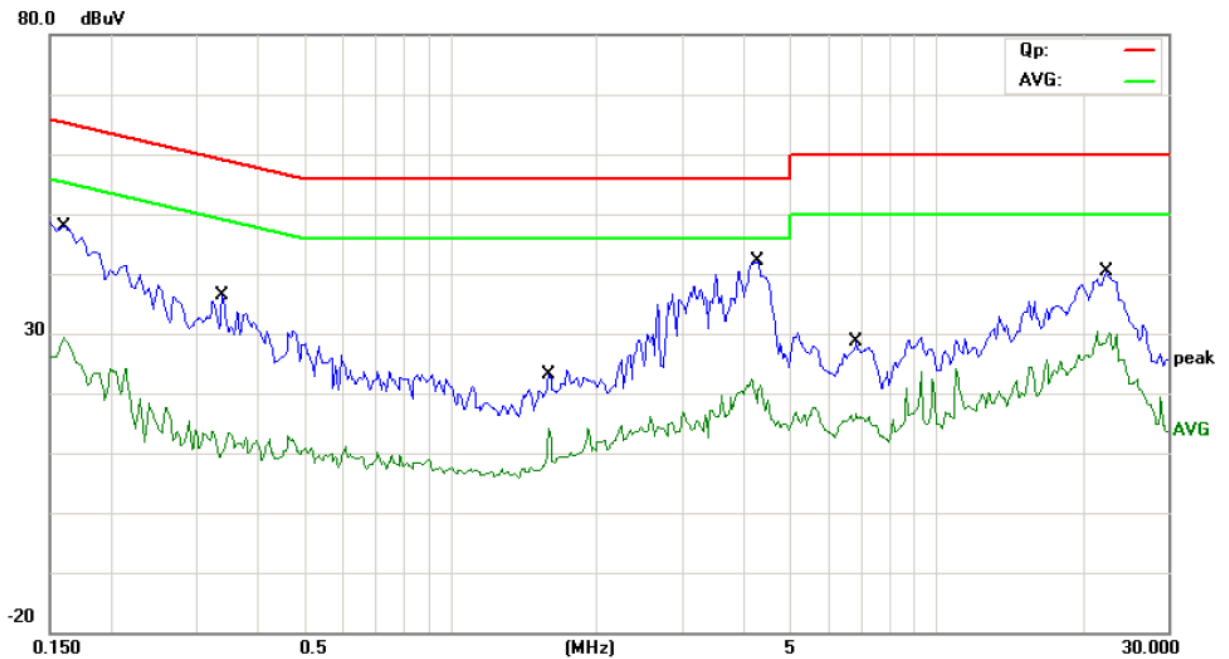
Humidity: 60 %

Mode: VGA MODE(1920\*1080)

Note: M215HW02 (AUO)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	58.23	0.00	58.23	66.00	-7.77	QP	
2		0.1500	36.44	0.00	36.44	56.00	-19.56	AVG	
3		0.1850	50.78	0.00	50.78	64.26	-13.48	QP	
4		0.1850	31.36	0.00	31.36	54.26	-22.90	AVG	
5		0.2450	42.55	0.00	42.55	61.92	-19.37	QP	
6		0.2450	20.43	0.00	20.43	51.92	-31.49	AVG	
7		2.9400	37.90	0.00	37.90	56.00	-18.10	QP	
8		2.9400	16.86	0.00	16.86	46.00	-29.14	AVG	
9		5.1600	30.14	0.00	30.14	60.00	-29.86	QP	
10		5.1600	17.93	0.00	17.93	50.00	-32.07	AVG	
11		22.0750	40.28	0.00	40.28	60.00	-19.72	QP	
12		22.0750	31.84	0.00	31.84	50.00	-18.16	AVG	

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



Site Conduction #1

Phase: **L1**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

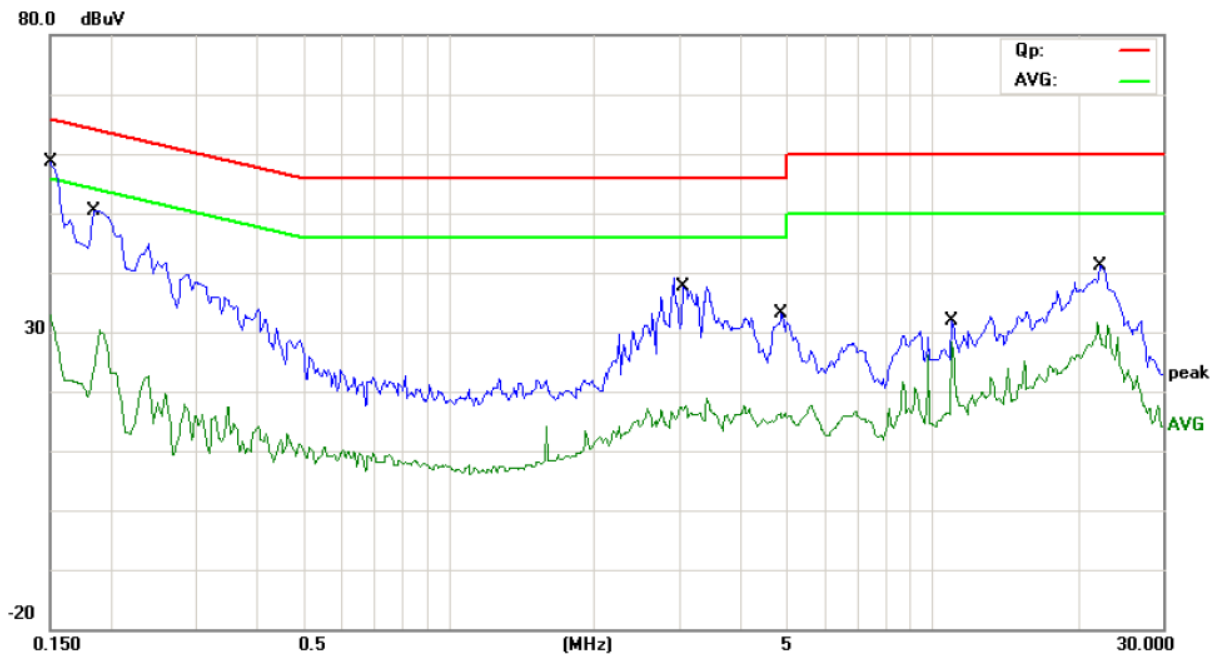
Humidity: 60 %

Mode: VGA MODE(1920\*1080)

Note: LM215WF3 (LG)

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1600	47.95	0.00	47.95	65.46	-17.51	QP	
2	0.1600	29.41	0.00	29.41	55.46	-26.05	AVG	
3	0.3400	36.26	0.00	36.26	59.20	-22.94	QP	
4	0.3400	13.73	0.00	13.73	49.20	-35.47	AVG	
5	1.6000	23.02	0.00	23.02	56.00	-32.98	QP	
6	1.6000	14.11	0.00	14.11	46.00	-31.89	AVG	
7 *	4.3100	42.25	0.00	42.25	56.00	-13.75	QP	
8	4.3100	22.40	0.00	22.40	46.00	-23.60	AVG	
9	6.8700	28.56	0.00	28.56	60.00	-31.44	QP	
10	6.8700	16.55	0.00	16.55	50.00	-33.45	AVG	
11	22.3750	40.39	0.00	40.39	60.00	-19.61	QP	
12	22.3750	30.38	0.00	30.38	50.00	-19.62	AVG	

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



Site Conduction #1

Phase: **N**

Temperature: 26

Limit: (CE)FCC PART 15 class B\_QP

Power: AC 120V/60Hz

Humidity: 60 %

Mode: VGA MODE(1920\*1080)

Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1	*	0.1500	58.65	0.00	58.65	66.00	-7.35	QP	
2		0.1500	32.97	0.00	32.97	56.00	-23.03	AVG	
3		0.1850	50.48	0.00	50.48	64.26	-13.78	QP	
4		0.1850	30.28	0.00	30.28	54.26	-23.98	AVG	
5		3.0500	37.52	0.00	37.52	56.00	-18.48	QP	
6		3.0500	17.58	0.00	17.58	46.00	-28.42	AVG	
7		4.8900	33.20	0.00	33.20	56.00	-22.80	QP	
8		4.8900	16.46	0.00	16.46	46.00	-29.54	AVG	
9		10.9750	31.80	0.00	31.80	60.00	-28.20	QP	
10		10.9750	28.46	0.00	28.46	50.00	-21.54	AVG	
11		22.2750	41.17	0.00	41.17	60.00	-18.83	QP	
12		22.2750	31.64	0.00	31.64	50.00	-18.36	AVG	

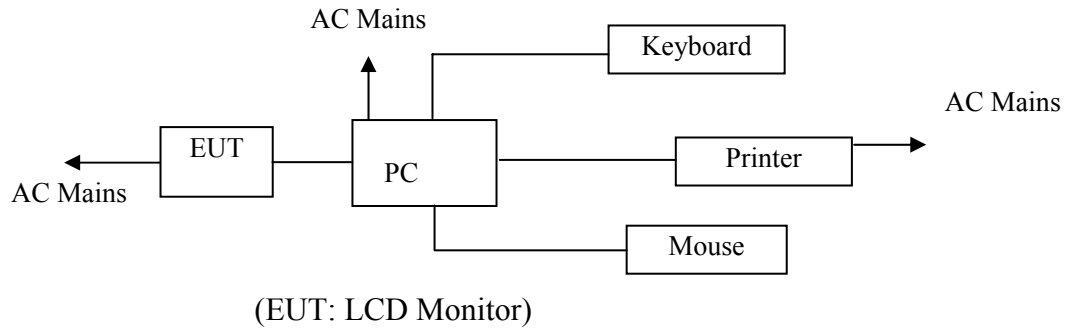
\*:Maximum data    x:Over limit    !:over margin    Comment: Factor build in receiver.    Operator: XY



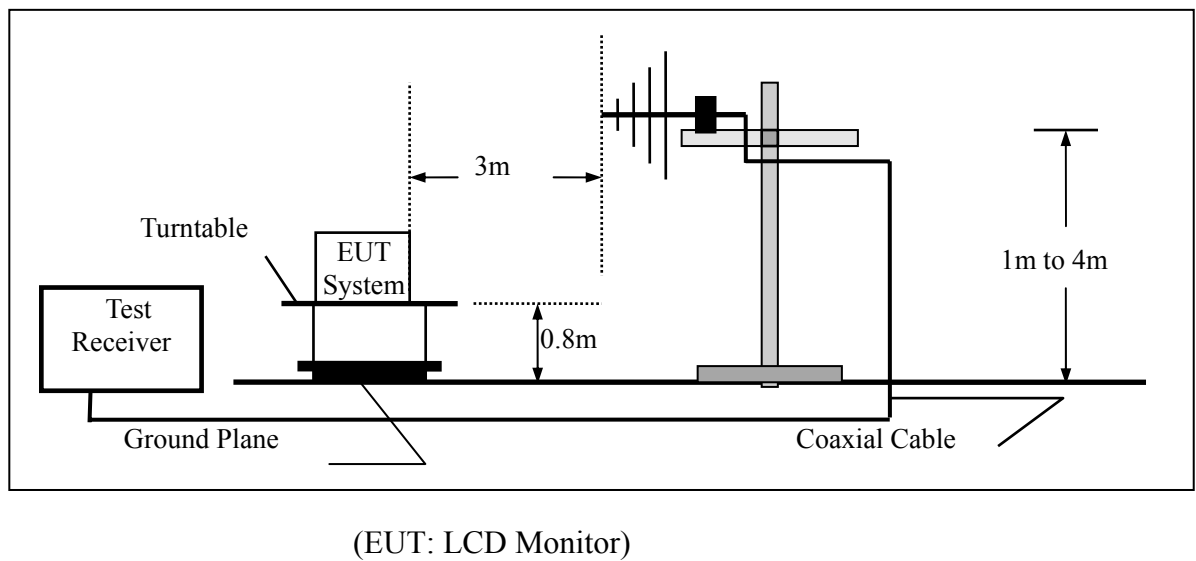
## 5. RADIATED EMISSION MEASUREMENT

### 5.1. Block Diagram of Test Setup

#### 5.1.1. Block diagram of EUT System



#### 5.1.2. Block diagram of test setup (In chamber)



### 5.2. Measuring Standard

FCC Part 15, Subpart B, Class B ANSI C63.4: 2009



### 5.3. Radiated Emission Limits (class B)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0

Frequency (GHz)	Distance (Meters)	Field Strengths Limit	
		Average ( $\text{dB}\mu\text{V/m}$ )	Peak ( $\text{dB}\mu\text{V/m}$ )
1~6	3	54	74

- Remark:
- (1) Emission level ( $\text{dB}\mu\text{V}$ ) =  $20 \log$  Emission level  $\mu\text{V/m}$
  - (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. Configuration of EUT on Measurement

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

EUT : LCD Monitor  
Model Number : C22WT

### 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 (DP, DVI, VGA) 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) or horn antenna is used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the Receiver (ESU26) is set at 120kHz.

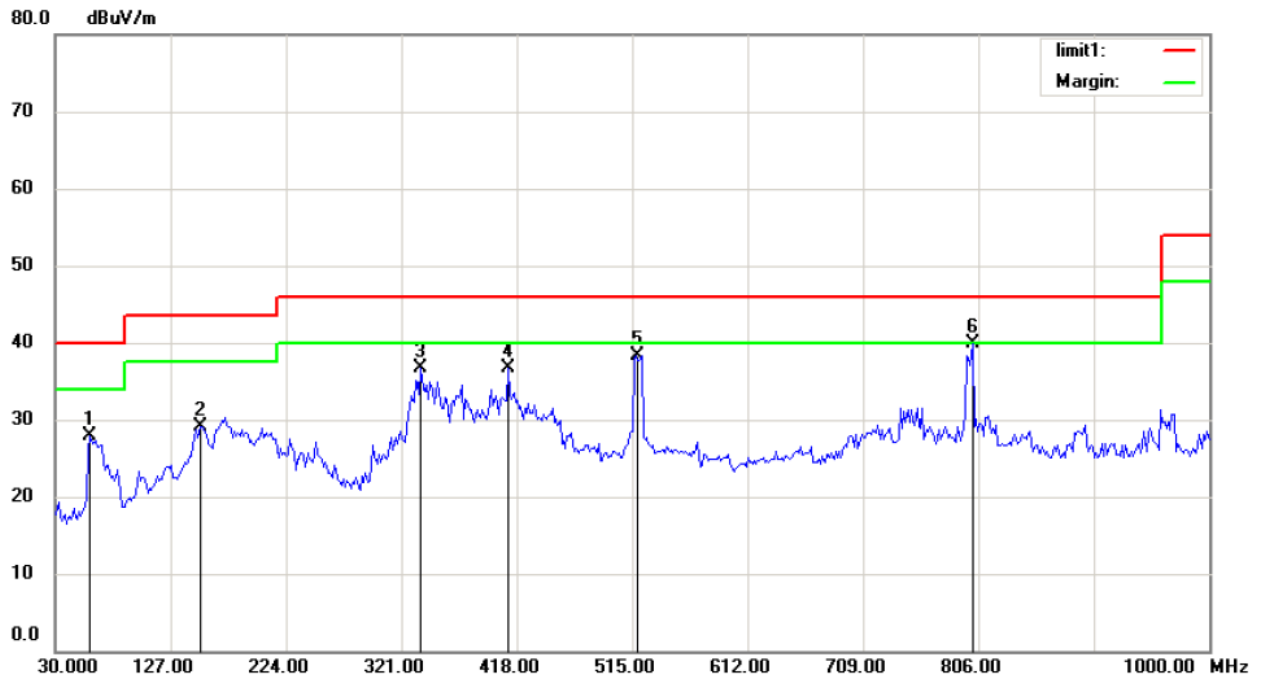
The worst(DP 1920\*1080, DVI 1920\*1080, VGA 1920\*1080) scanning curves in below a few pages.

## 5.7.Measuring Results

**PASS.**

The frequency range from 30MHz to 2GHz is investigated.

Please refer to below a few pages.

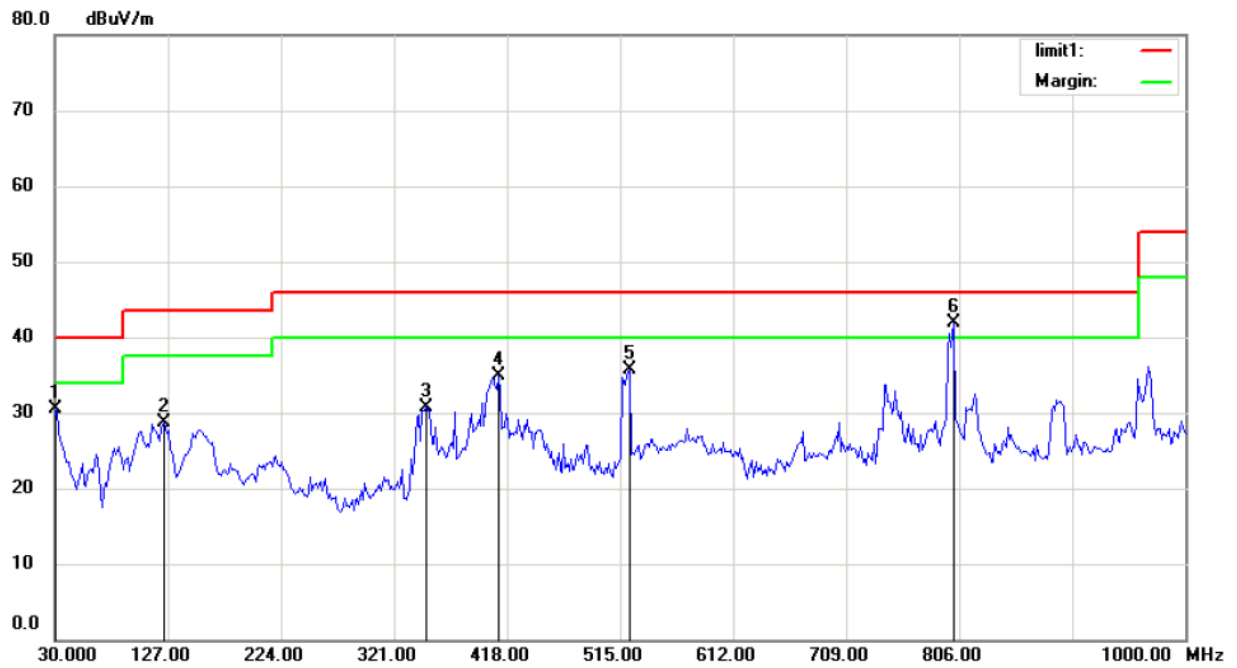


Site site #1 Polarization: **Horizontal** Temperature: 26  
Limit: (RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 60 %  
Mode:DP(1920\*1080)  
Note: M215HW02 (AUO)

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		59.5352	14.79	13.19	27.98	40.00	-12.02	QP			
2		152.8043	19.96	9.10	29.06	43.50	-14.44	QP			
3		337.7884	21.03	15.72	36.75	46.00	-9.25	QP			
4		410.8493	18.16	18.52	36.68	46.00	-9.32	QP			
5		518.1090	19.04	19.27	38.31	46.00	-7.69	QP			
6	*	801.0256	16.69	23.18	39.87	46.00	-6.13	QP			

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

Operator: YU



Site site #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

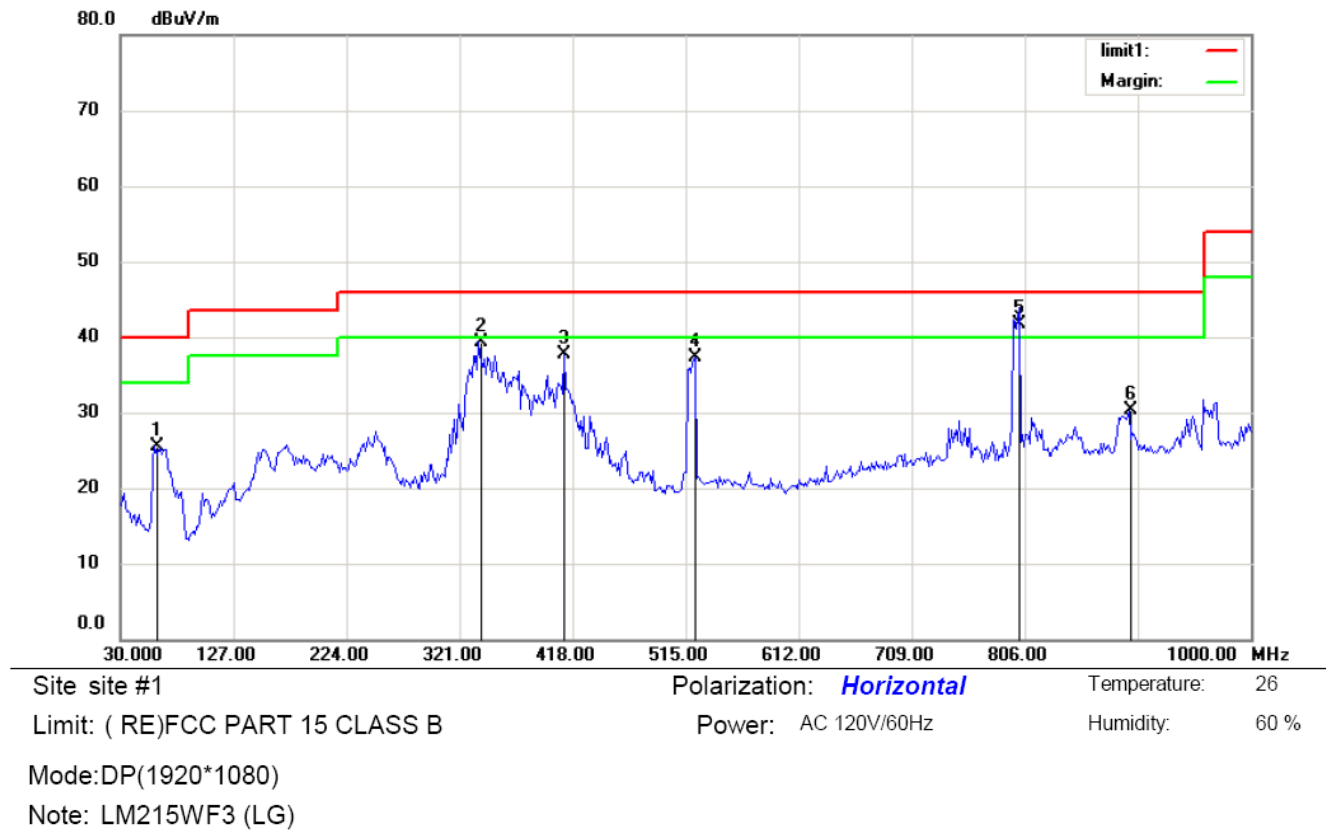
Mode:DP(1920\*1080)

Note: M215HW02 (AUO)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		31.5544	16.44	14.02	30.46	40.00	-9.54	QP		
2		123.2690	16.91	11.87	28.78	43.50	-14.72	QP		
3		348.6698	15.14	15.66	30.80	46.00	-15.20	QP		
4		410.8493	17.63	17.25	34.88	46.00	-11.12	QP		
5		522.7722	16.34	19.39	35.73	46.00	-10.27	QP		
6	*	801.0256	19.40	22.47	41.87	46.00	-4.13	QP		

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

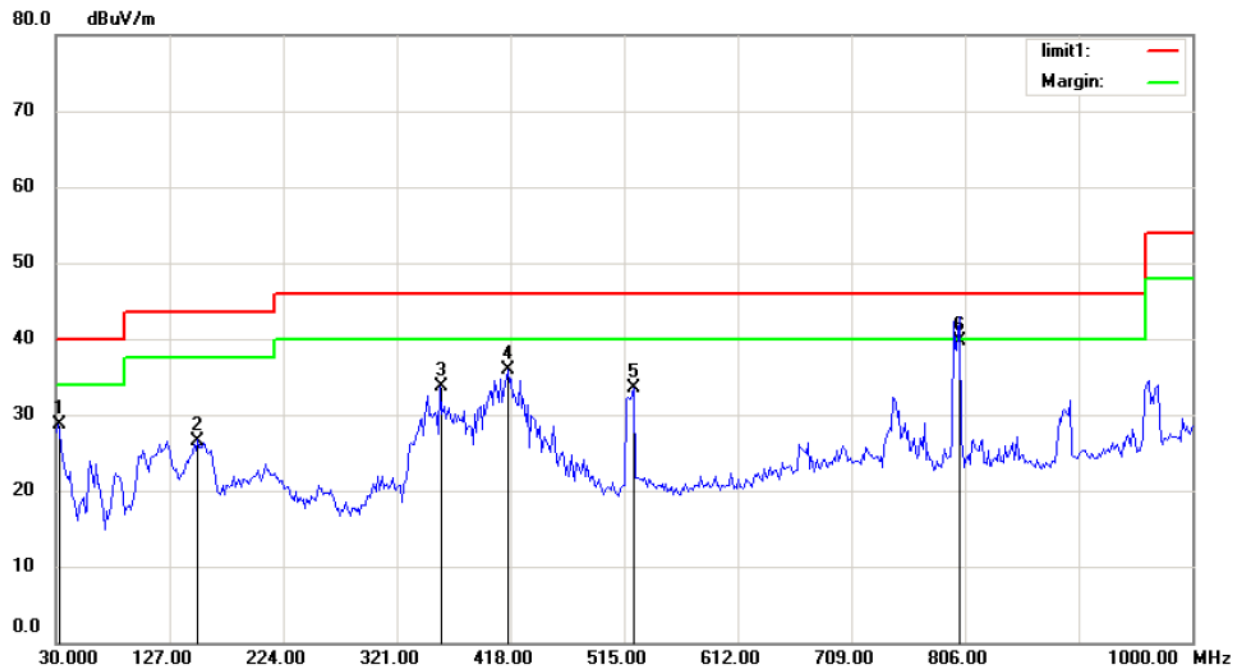
Operator: YU



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 degree	Comment
1		59.5353	12.29	13.19	25.48	40.00	-14.52	QP			
2		337.7885	23.53	15.72	39.25	46.00	-6.75	QP			
3		410.8493	19.16	18.52	37.68	46.00	-8.32	QP			
4		522.7723	17.83	19.39	37.22	46.00	-8.78	QP			
5	*	801.0256	18.50	23.18	41.68	46.00	-4.32	QP			
6		895.8494	6.65	23.69	30.34	46.00	-15.66	QP			

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

Operator: YU

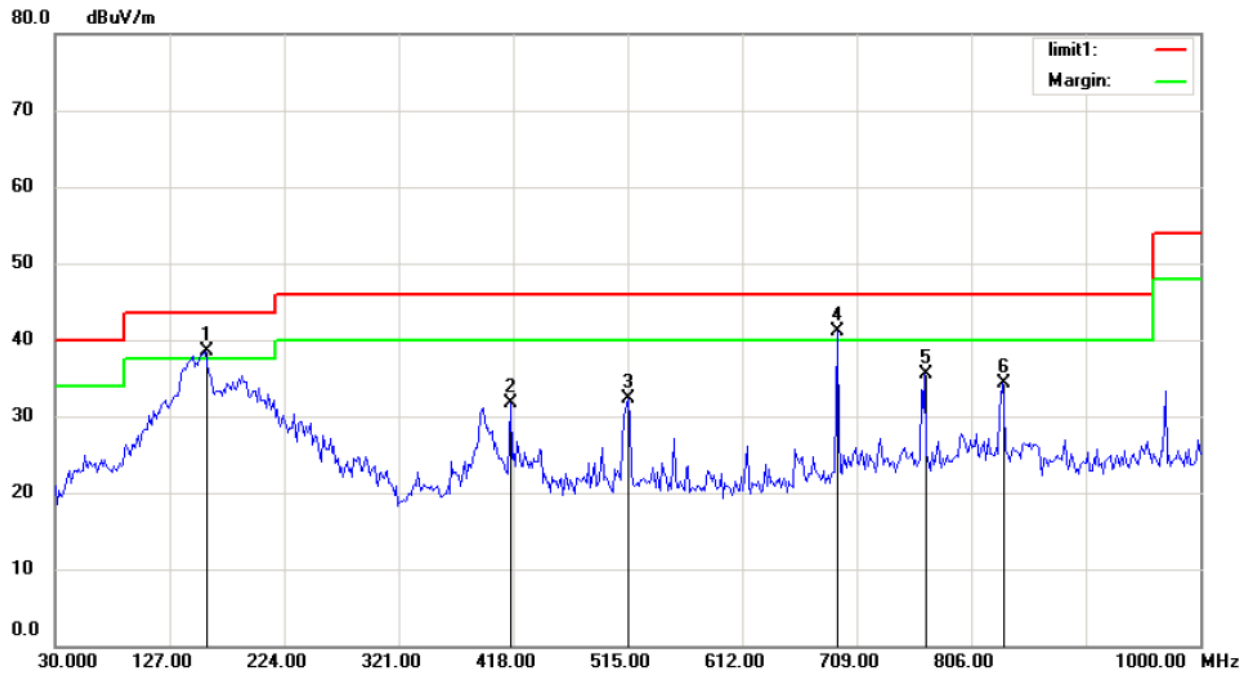


Site site #1 Polarization: **Vertical** Temperature: 26  
Limit: ( RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 60 %  
Mode:DPi(1920\*1080)  
Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		31.5545	14.72	14.02	28.74	40.00	-11.26	QP		
2		151.2500	17.54	9.06	26.60	43.50	-16.90	QP		
3		357.9968	17.26	16.36	33.62	46.00	-12.38	QP		
4		415.5128	18.64	17.33	35.97	46.00	-10.03	QP		
5		522.7723	14.16	19.39	33.55	46.00	-12.45	QP		
6	*	801.0256	17.30	22.47	39.77	46.00	-6.23	QP		

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

Operator: YU



Site site #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

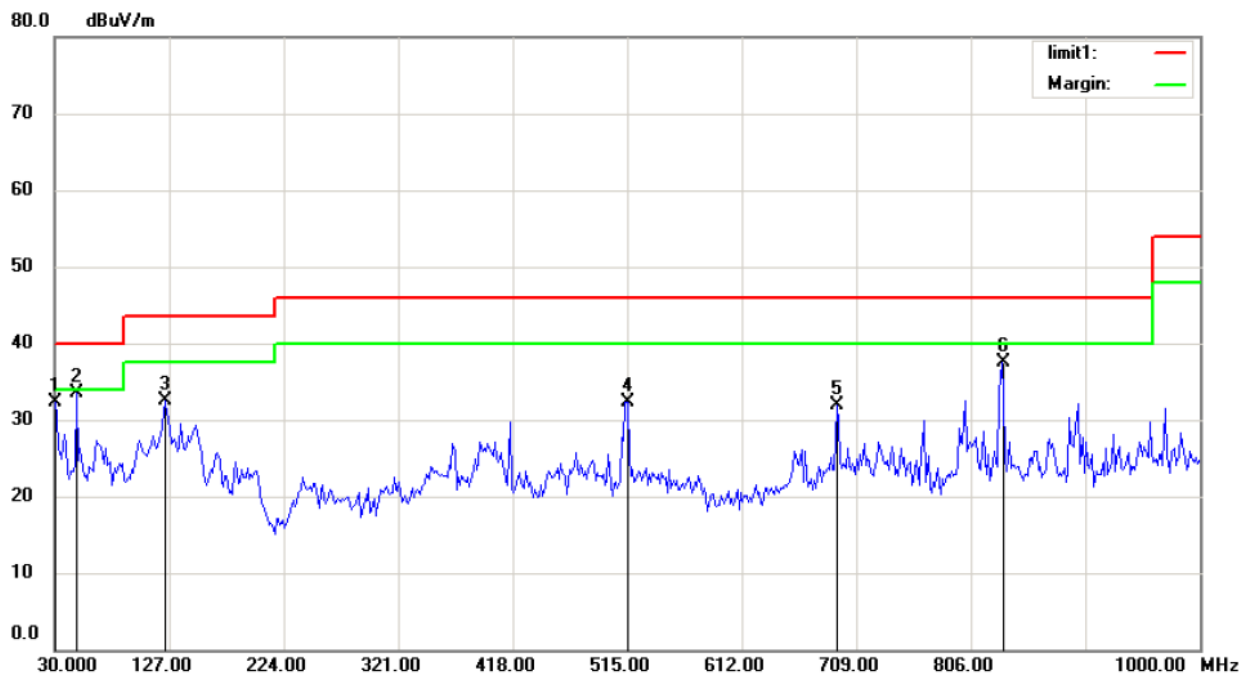
Mode:DVI(1920\*1080)

Note:M215HW02 (AUO)

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	!	157.4680	29.25	9.21	38.46	43.50	-5.04	QP		
2		415.5128	13.19	18.52	31.71	46.00	-14.29	QP		
3		515.0000	13.05	19.19	32.24	46.00	-13.76	QP		
4	*	692.2115	18.62	22.55	41.17	46.00	-4.83	QP		
5		766.8270	12.38	23.04	35.42	46.00	-10.58	QP		
6		832.1154	10.56	23.65	34.21	46.00	-11.79	QP		

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

Operator: YU



Site site #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

Mode:DVI(1920\*1080)

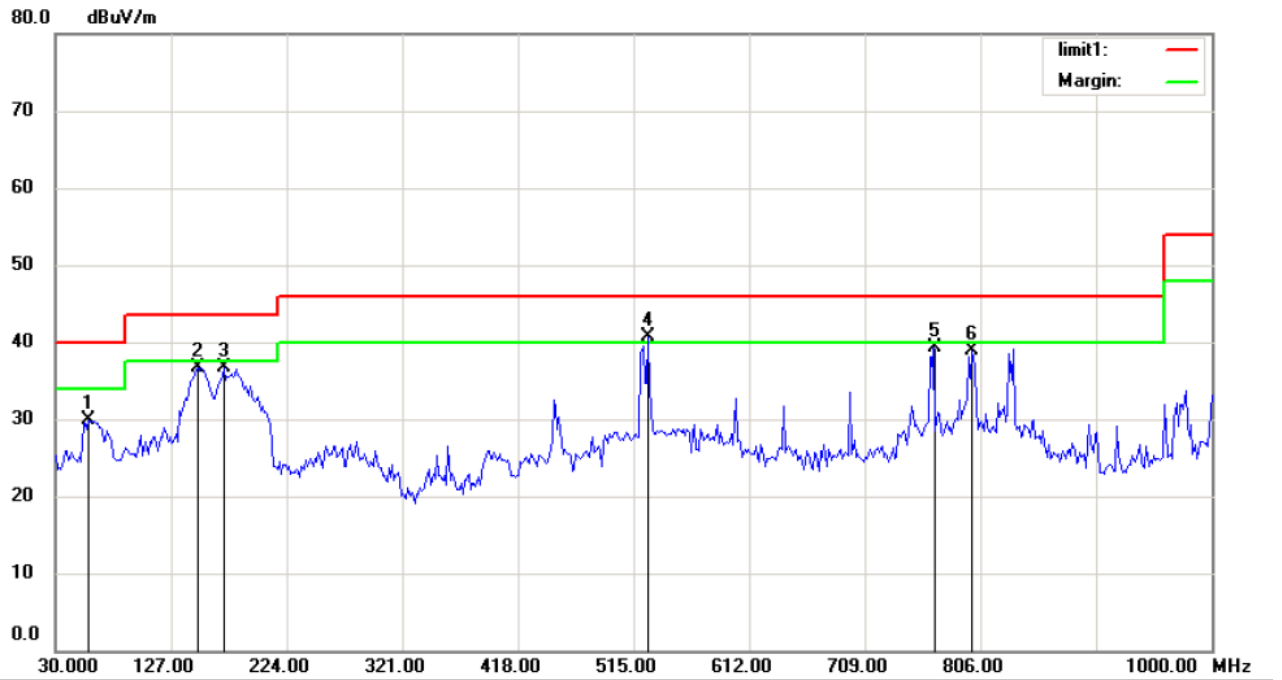
Note: M215HW02 (AUO)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1		30.0000	18.31	13.93	32.24	40.00	-7.76	QP		
2	*	48.6538	19.64	13.83	33.47	40.00	-6.53	QP		
3		123.2692	20.58	11.87	32.45	43.50	-11.05	QP		
4		515.0000	13.16	19.19	32.35	46.00	-13.65	QP		
5		692.2115	8.11	23.73	31.84	46.00	-14.16	QP		
6		832.1154	14.79	22.79	37.58	46.00	-8.42	QP		

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

Operator: YU



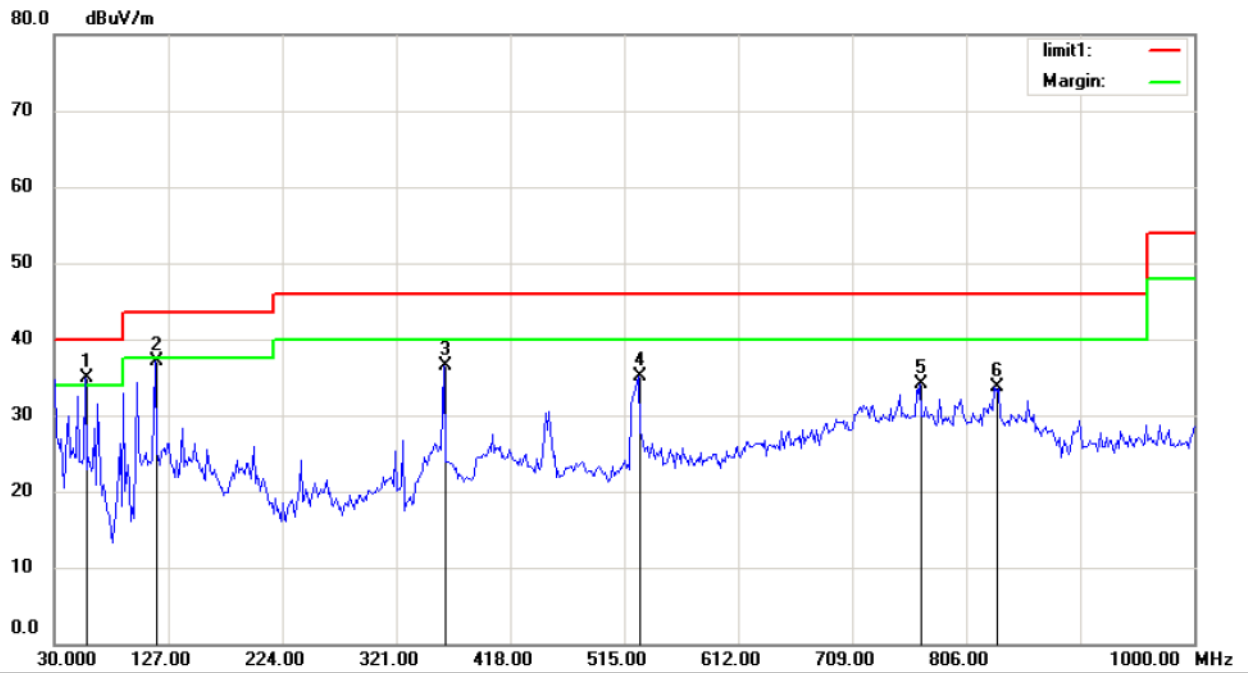


Site site #1 Polarization: **Horizontal** Temperature: 26  
Limit: ( RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 60 %  
Mode:DVI (1920\*1080)  
Note: LM215WF3 (LG)

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		57.9807	16.61	13.28	29.89	40.00	-10.11	QP			
2		149.6954	27.67	9.02	36.69	43.50	-6.81	QP			
3		171.4583	26.78	9.85	36.63	43.50	-6.87	QP			
4	*	527.4358	21.24	19.52	40.76	46.00	-5.24	QP			
5		766.8270	16.34	23.04	39.38	46.00	-6.62	QP			
6		799.4711	15.70	23.16	38.86	46.00	-7.14	QP			

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

Operator: YU

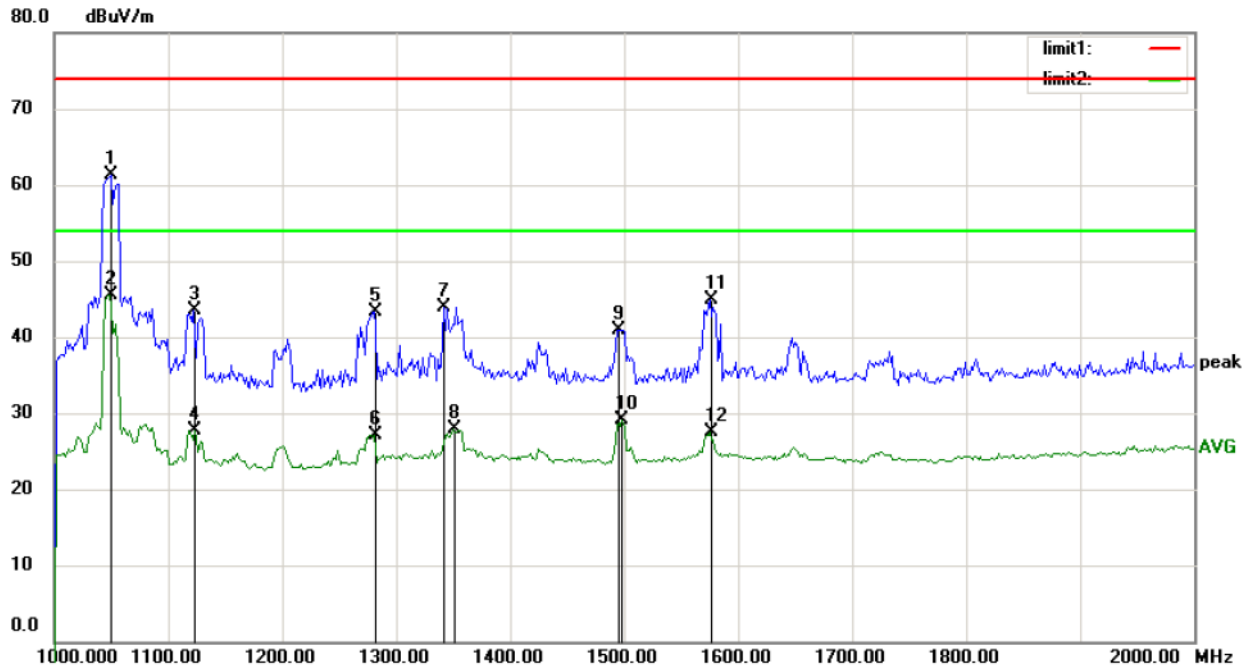


Site site #1 Polarization: **Vertical** Temperature: 26  
Limit: ( RE)FCC PART 15 CLASS B Power: AC 120V/60Hz Humidity: 60 %  
Mode:DVI(1920\*1080)  
Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	Comment
1	*	56.4263	21.46	13.36	34.82	40.00	-5.18	QP		
2		115.4968	24.46	12.68	37.14	43.50	-6.36	QP		
3		361.1058	20.03	16.45	36.48	46.00	-9.52	QP		
4		527.4360	15.59	19.52	35.11	46.00	-10.89	QP		
5		766.8270	11.70	22.31	34.01	46.00	-11.99	QP		
6		830.5610	10.98	22.77	33.75	46.00	-12.25	QP		

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

Operator: YU



Site site #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

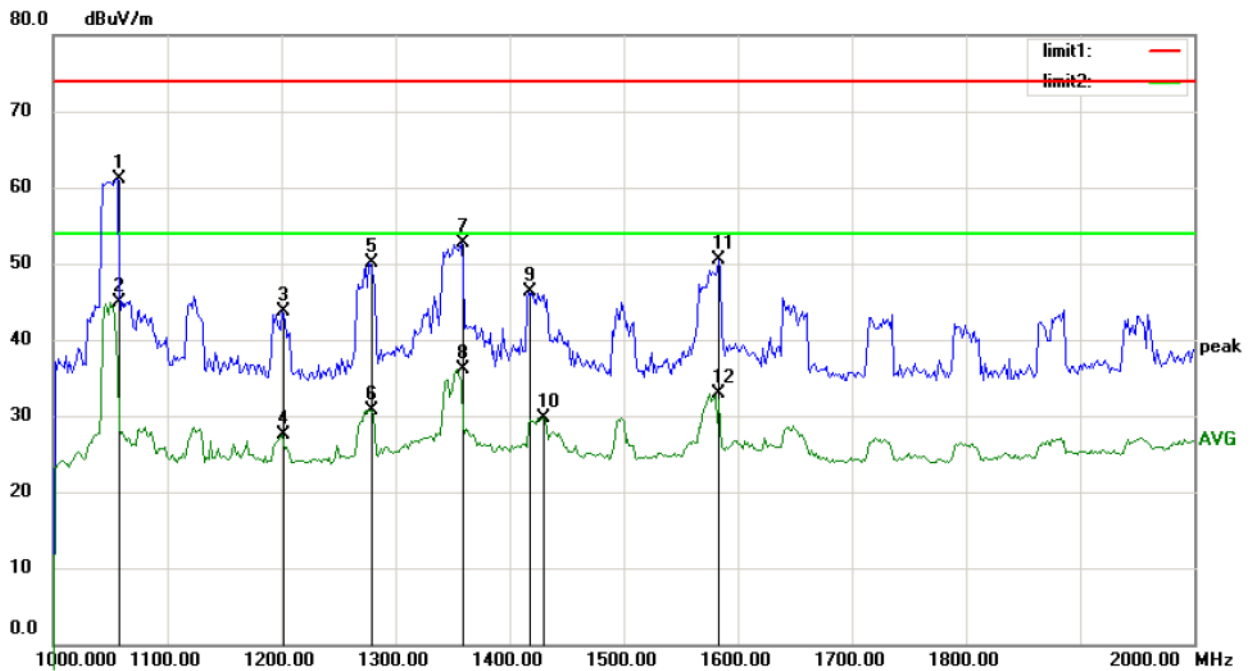
Mode:VGA(1920\*1080)

Note: M215HW02 (AUO)

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		1049.679	74.74	-13.53	61.21	74.00	-12.79	peak		
2	*	1049.679	59.10	-13.53	45.57	54.00	-8.43	AVG		
3		1121.795	56.81	-13.37	43.44	74.00	-30.56	peak		
4		1123.397	41.04	-13.36	27.68	54.00	-26.32	AVG		
5		1280.449	55.72	-12.42	43.30	74.00	-30.70	peak		
6		1280.449	39.48	-12.42	27.06	54.00	-26.94	AVG		
7		1341.346	56.15	-12.21	43.94	74.00	-30.06	peak		
8		1349.359	40.07	-12.21	27.86	54.00	-26.14	AVG		
9		1495.192	53.23	-12.27	40.96	74.00	-33.04	peak		
10		1498.397	41.40	-12.27	29.13	54.00	-24.87	AVG		
11		1575.321	57.12	-12.24	44.88	74.00	-29.12	peak		
12		1575.321	39.77	-12.24	27.53	54.00	-26.47	AVG		

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

Operator: YU



Site site #1

Polarization: **Vertical**

Temperature: 26

Limit: ( RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

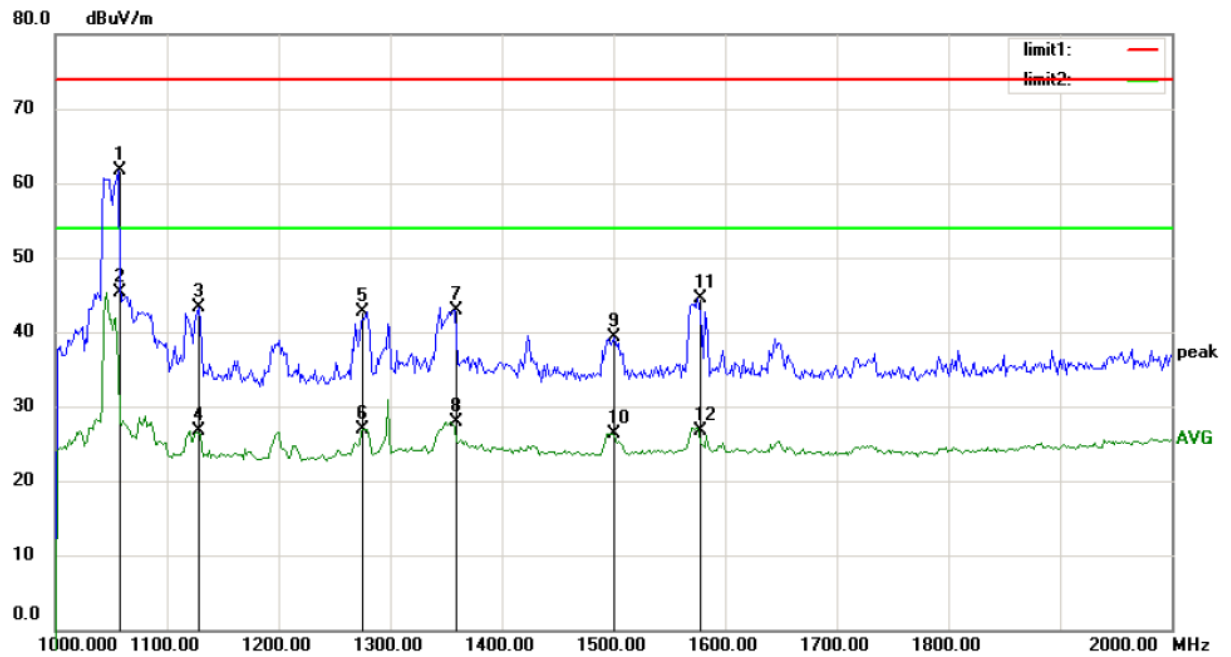
Mode:VGA(1920\*1080)

Note: M215HW02 (AUO)

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		1056.090	74.70	-13.52	61.18	74.00	-12.82			peak
2	*	1056.090	58.42	-13.52	44.90	54.00	-9.10			AVG
3		1200.321	56.63	-13.02	43.61	74.00	-30.39			peak
4		1200.321	40.52	-13.02	27.50	54.00	-26.50			AVG
5		1277.244	62.59	-12.45	50.14	74.00	-23.86			peak
6		1277.244	43.18	-12.45	30.73	54.00	-23.27			AVG
7		1357.372	64.90	-12.20	52.70	74.00	-21.30			peak
8		1357.372	48.23	-12.20	36.03	54.00	-17.97			AVG
9		1416.667	58.40	-12.14	46.26	74.00	-27.74			peak
10		1429.487	41.83	-12.16	29.67	54.00	-24.33			AVG
11		1583.333	62.78	-12.24	50.54	74.00	-23.46			peak
12		1583.333	45.19	-12.24	32.95	54.00	-21.05			AVG

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

Operator: YU



Site site #1

Polarization: **Horizontal**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

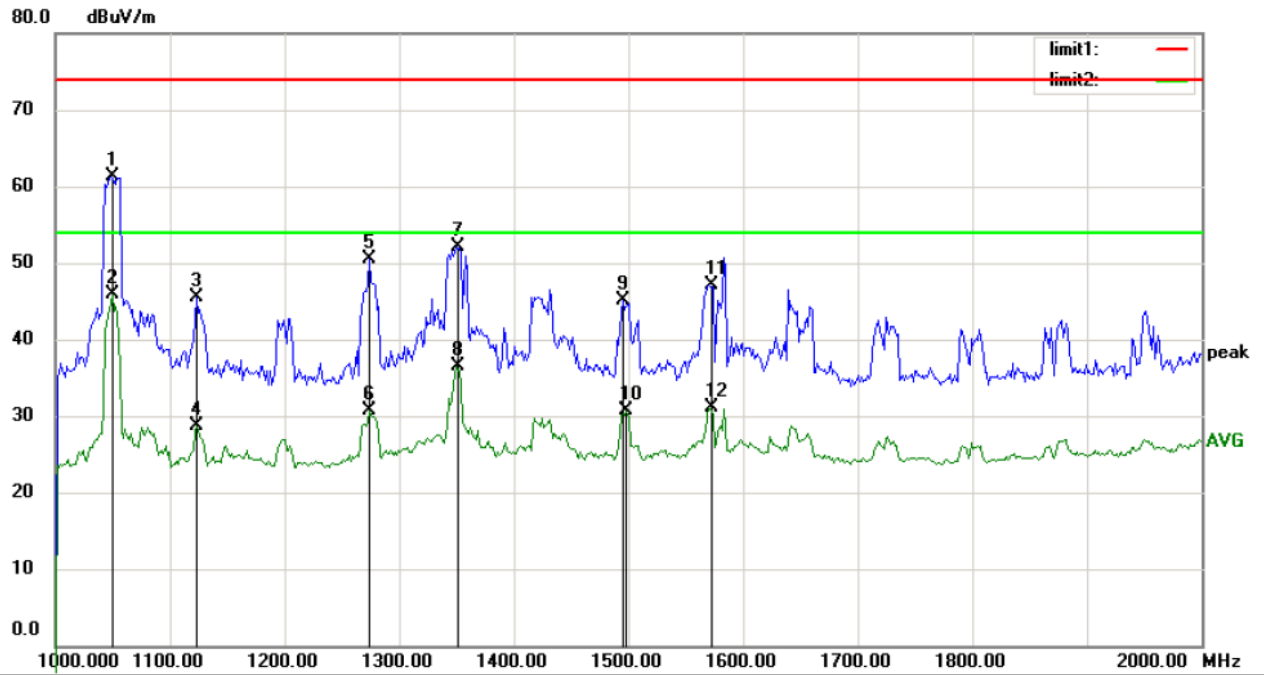
Mode:VGA(1920\*1080)

Note: LM215WF3 (LG)

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	dBuV	Factor	ment			Height	Degree	
					dBuV/m	dBuV/m		cm	degree	Comment
1		1056.090	75.28	-13.52	61.76	74.00	-12.24	peak		
2	*	1056.090	58.83	-13.52	45.31	54.00	-8.69	AVG		
3		1128.205	56.71	-13.33	43.38	74.00	-30.62	peak		
4		1128.205	39.95	-13.33	26.62	54.00	-27.38	AVG		
5		1275.641	55.10	-12.47	42.63	74.00	-31.37	peak		
6		1275.641	39.41	-12.47	26.94	54.00	-27.06	AVG		
7		1357.372	55.09	-12.20	42.89	74.00	-31.11	peak		
8		1357.372	40.08	-12.20	27.88	54.00	-26.12	AVG		
9		1500.000	51.49	-12.27	39.22	74.00	-34.78	peak		
10		1500.000	38.65	-12.27	26.38	54.00	-27.62	AVG		
11		1577.321	56.82	-12.24	44.58	74.00	-29.42	peak		
12		1577.321	38.94	-12.24	26.70	54.00	-27.30	AVG		

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

Operator: YU



Site site #1

Polarization: **Vertical**

Temperature: 26

Limit: (RE)FCC PART 15 CLASS B

Power: AC 120V/60Hz

Humidity: 60 %

Mode:VGA(1920\*1080)

Note: LM215WF3 (LG)

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		1048.077	74.74	-13.53	61.21	74.00	-12.79			peak
2	*	1049.679	59.34	-13.53	45.81	54.00	-8.19			AVG
3		1123.397	58.83	-13.36	45.47	74.00	-28.53			peak
4		1123.397	42.10	-13.36	28.74	54.00	-25.26			AVG
5		1274.038	63.00	-12.48	50.52	74.00	-23.48			peak
6		1274.038	43.22	-12.48	30.74	54.00	-23.26			AVG
7		1349.359	64.29	-12.21	52.08	74.00	-21.92			peak
8		1349.359	48.67	-12.21	36.46	54.00	-17.54			AVG
9		1495.192	57.36	-12.27	45.09	74.00	-28.91			peak
10		1498.397	42.99	-12.27	30.72	54.00	-23.28			AVG
11		1570.513	59.28	-12.25	47.03	74.00	-26.97			peak
12		1570.513	43.26	-12.25	31.01	54.00	-22.99			AVG

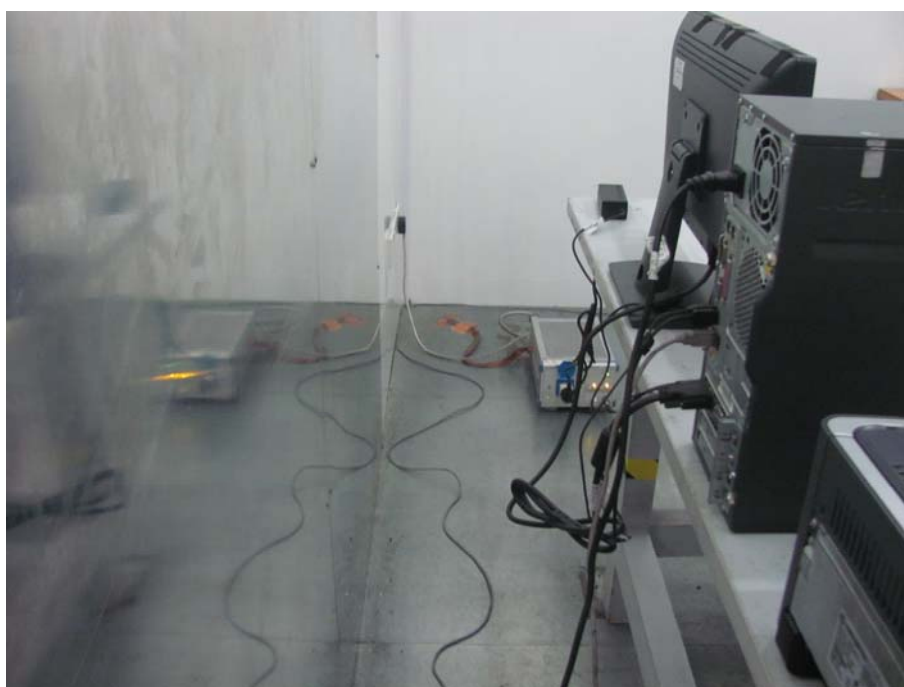
\*:Maximum data    x:Over limit    !:over margin

Operator: YU



## 6. PHOTOGRAPHS

### 6.1.Photo of Power line Conducted Emission Measurement





## 6.2.Photo of Radiation Emission Measurement

