



FCC PART 15 SUBPART B

Test Report

Applicant: Shenyang Torch-Bigtide Digital Technology Co., Ltd.

Address: No. 18-6B, Yaoyang Road, Huishan Economic Development Area, Shenbei New District, Shenyang, China. 110164

Product Name: 19"LCD Monitor

Model Name: HL1928M-R, HL1928M-L

Brand Name: N/A

FCC ID: W65LCDHL1928M

Date of Issue: Jul. 06, 2012

Issued by: Most Technology Service Co., Ltd.

Address: No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China

Tel: 86-755-86170306

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1. VERIFICATION OF CONFORMITY

Equipment under test: 19"LCD Monitor

Brand Name: N/A

Model Number: HL1928M-R

Series Number: HL1928M-L

Remark: Two models are different in model name with the same functions.

FCC ID: W65LCDHL1928M

Applicant: Shenyang Torch-Bigtide Digital Technology Co., Ltd.
No. 18-6B, Yaoyang Road, Huishan Economic Development Area,
Shenbei New District, Shenyang, China. 110164

Manufacturer: Shenyang Torch-Bigtide Digital Technology Co., Ltd.
No. 18-6B, Yaoyang Road, Huishan Economic Development Area,
Shenbei New District, Shenyang, China. 110164

Technical Standards: FCC Part 15 Subpart B

File Number: MTE/CLY/D12060889

Date of test: Jul. 04, 2012

Deviation: None

Condition of Test Sample: Normal

Test Result: PASS

The above equipment was tested by Most for compliance with the requirements set forth in FCC Rules and the Technical Standards mentioned above. This said equipment in the configuration described in this report shows the maximum emission levels emanating from equipment and the level of the immunity endurance of the equipment are within the compliance requirements.

The test results of this report relate only to the tested sample identified in the report.

Prepared by:  (Carol Yin)

Reviewed by:  (Elva Wong)

Approved by:  (Yvette Zhou)



2. GENERAL INFORMATION

2.1 Product Information

Motherboard BP011AX2140

Chip GM5621

NOTE: Please refer to the photographs of the EUT. For more detailed features description about the EUT, please refer to User's Manual.

2.2. Objective

The objective of the report is to perform tests according to FCC Part 15 Subpart B for the EUT:

NO.	Identity	Document Title
1	FCC PART15 Subpart B	Class B personal computers and peripherals.....

2.3 Test standards And Results

Test items and the results are as bellow:

NO.	Section	Description	Result	Date of test
1	15.107	Conducted	Pass	2012-07-04
2	15.109	Radiated emission	Pass	2012-07-04

2.4 Measurement Uncertainty

No.	Item	Uncertainty
1.	Uncertainty for Conducted Disturbance Test	2.75dB
2.	Uncertainty for Radiated Disturbance Test	3.15dB

2.5 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

- Temperature: 15-35 °C
- Humidity: 30-60%
- Atmospheric pressure: 86-106kPa

3. TEST FACILITY

3.1 Test Facility

Test Site:	Most Technology Service Co., Ltd
Location:	No.5, Nangshan 2 nd Rd., North Hi-tech Industrial Park, Shenzhen, Guangdong, China.
Description:	There is one 3m semi-anechoic an area test sites and two line conducted labs for final test. The Open Area Test sites and the line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4-2003and CISPR 16 requirements. The FCC Registration Number is 490827
Site Filing:	The site description is on file with the Federal Communications Commission ,7435 Oakland Mills Road, Columbia , MD 21046
Instrument Tolerance:	All measuring equipment is in accord with ANSI C63.4 and CISPR 16 requirements that Meet industry regulatory agency and accreditation agency requirement.
Ground Plane:	Two conductive reference ground planes were used during the Line Conducted emission, One in vertical and the other in horizontal. The dimensions of these ground planes are as below. The vertical ground plane was placed distancing 40cm to the rear of the wooden test table on where the EUT and the support equipment were placed during test. The horizontal ground plane projected 50 cm beyond the footprint of the EUT system and distanced 80 cm to the wooden test table. For Radiated Emission Test, one horizontal conductive ground plane extended at least 1m beyond the periphery of the EUT and the largest measuring antenna, and covered the entire area between the EUT and the antenna .It has no holes or gaps having longitudinal dimensions larger than one-tenth of a wavelength at the highest frequency of measurement up to 1GHz.

3.2 General Test Procedures

Test mode:	The following data show only with the worst case setup		
Conducted Emissions:	The EUT is placed on the test table, which is 0.8 m above ground plane. According to the requirements Section 13.1.4.1 of ANSI C63.4. Conducted emissions from the EUT measured in the frequency range between 0.15MHz and 30MHz using CISPR Quasi-peak and average detector modes.		
Radiated Emissions:	The EUT is placed on a turntable, which is 0.8m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which Varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by Changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum Emissions, exploratory radiated emission measurements were made according to the requirements in section 13.1.4.1 of ANSI C63.4.		
Setting :	9KHZ~150KHZ	RBW 200HZ	VBW1KHZ
	150KHZ~30MHZ	RBW 9KHZ	VBW 30KHZ
	30MHZ~1GHZ	RBW 120KHZ	VBW 300KHZ
	Above 1GHZ	RBW 1MHZ	VBW 3MHZ

4. SETUP OF EQUIPMENT UNDER TEST

4.1 Support Equipment

Description	Manufacturer	Model	Serial number
Computer	Dell DOC	DCSM	5P3842X
Mouse	Dell DOC	D PPID	MS111-L
Keyboard	Dell DOC	L100	U01C
USB flash drive	Kingston DOC	DT101 G2	5276930
VGA cable	Lenovo	shield	140cm
DVI cable	Lenovo	shield	140cm

4.2 Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100492	Mar. 06, 2012	1 Year
LISN	ROHDE&SCHWARZ	ENV216	100093	Mar. 06, 2012	1 Year
EMI Test Receiver	ROHDE&SCHWARZ	ESPI	101202	Mar. 06, 2012	1 Year
Spectrum Analyzer	ANRITSU	MS2651B	6200238316	Mar. 06, 2012	1 Year
50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar. 06, 2012	1 Year
Bilog Antenna	Sunol	JB3	A121206	Mar. 06, 2012	1 Year
Horn Antenna	EMCO	3115	640201028-06	Mar. 06, 2012	1 Year
50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Mar. 06, 2012	1 Year
Cable	Resenberger	N/A	NO.1	Mar. 06, 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Mar. 06, 2012	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Mar. 06, 2012	1 Year
DC Power Filter	Duoji	DL2X30B	N/A	Mar. 06, 2012	1 Year
Single phase power Line filter	Duoji	FNF 202B30	N/A	Mar. 06, 2012	1 Year
3 phase power line filter	Duoji	FNF 402B30	N/A	Mar. 06, 2012	1 Year
Impedance matching Pad	Rohde&schwarz	SCA-Comp	N/A	Mar. 06, 2012	1 Year
Coaxial switch	Anritsu Corp	MP59B	6200283933	Mar. 06, 2012	1 Year
AC power source	KIKUSUI	AC40MA	LM003232	Mar. 06, 2012	1 Year
AMN	Rohde&schwarz	ESH3-Z5	100229	Mar. 06, 2012	1 Year
Spectrum analyzer	Agilent	E4408B	MY41440460	Mar. 06, 2012	1 Year
ATV generator	Philips	PM5418 TNS	609114	Mar. 13.2012	1 Year
DTV generator	Televue	DTA110T	4110576337	Mar. 13.2012	1 Year

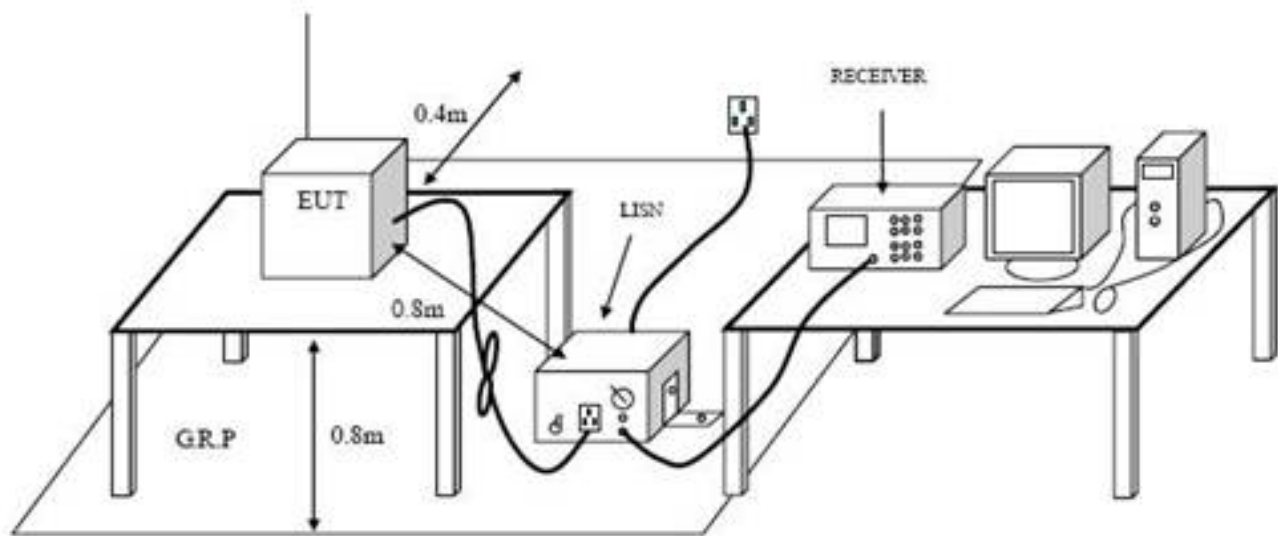
5. TEST REQUIREMENTS

5.1 Limits Of Line Conducted Emission Test

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* the limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz. The lower limit shall apply at the transition frequency

5.2 Block Diagram Of Test Setup



5.3 Preliminary Procedure Of Line Conducted Emission Test

- 1) The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height 0.8 meters is used and is placed on the ground plane as per FCC 15 (see Test Facility for the dimensions of the ground plane non-conductive covering to insulate the EUT from the ground plane).
- 2) Support equipment, if needed, was placed as per FCC Part 15.
- 3) All I/O Cables were positioned to simulate typical actual usage as per FCC Part 15.
- 4) The EUT received AC 120V/60Hz power through a Line Impedance Stabilization network (LISN) which supplied power source and was grounded to the ground plane.
- 5) All support equipments received power from a second LISN supplying power of AC 120V/60Hz, if any.
- 6) The EUT Test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer/Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer/Receiver.
- 7) Analyzer / Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes. 8) During the above scans, the emissions were maximized by cable manipulation.

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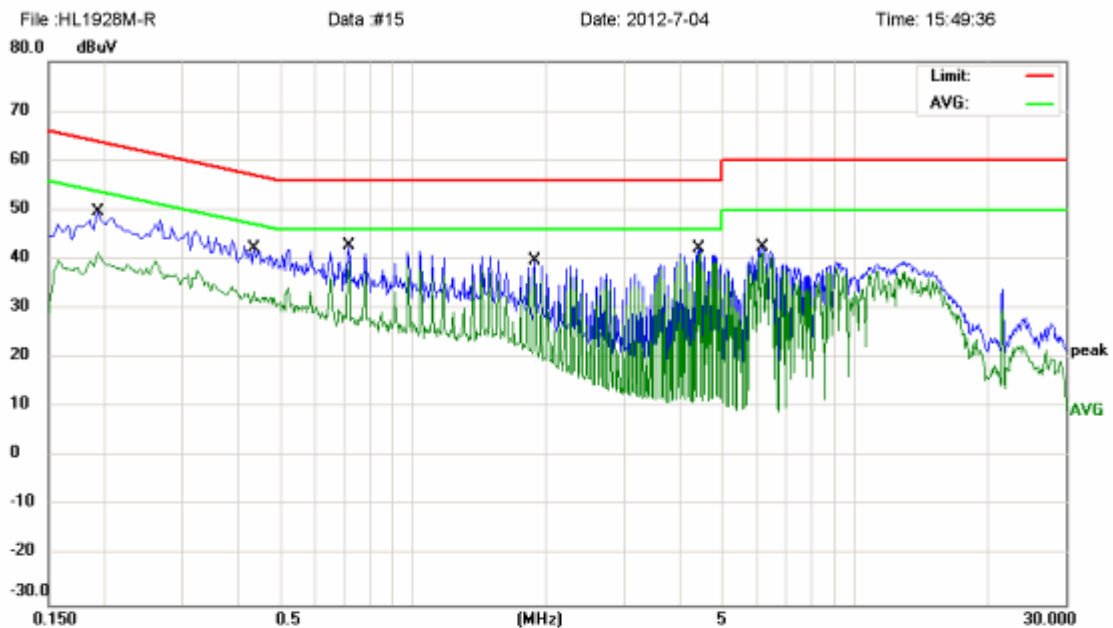
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing

5.4 Test Result Of Line Conducted Emission Test



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement



Site Chamber #1
Limit: FCC Part15 B Class B QP
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1280*1024@60Hz

Phase: **N**
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1940	38.02	11.64	49.66	63.86	-14.20	QP	
2	0.4380	31.73	10.41	42.14	57.10	-14.96	QP	
3 *	0.7180	32.83	10.00	42.83	56.00	-13.17	QP	
4	1.8900	30.64	9.11	39.75	56.00	-16.25	QP	
5	4.4339	30.74	11.43	42.17	56.00	-13.83	QP	
6	6.1898	31.31	11.29	42.60	60.00	-17.40	QP	

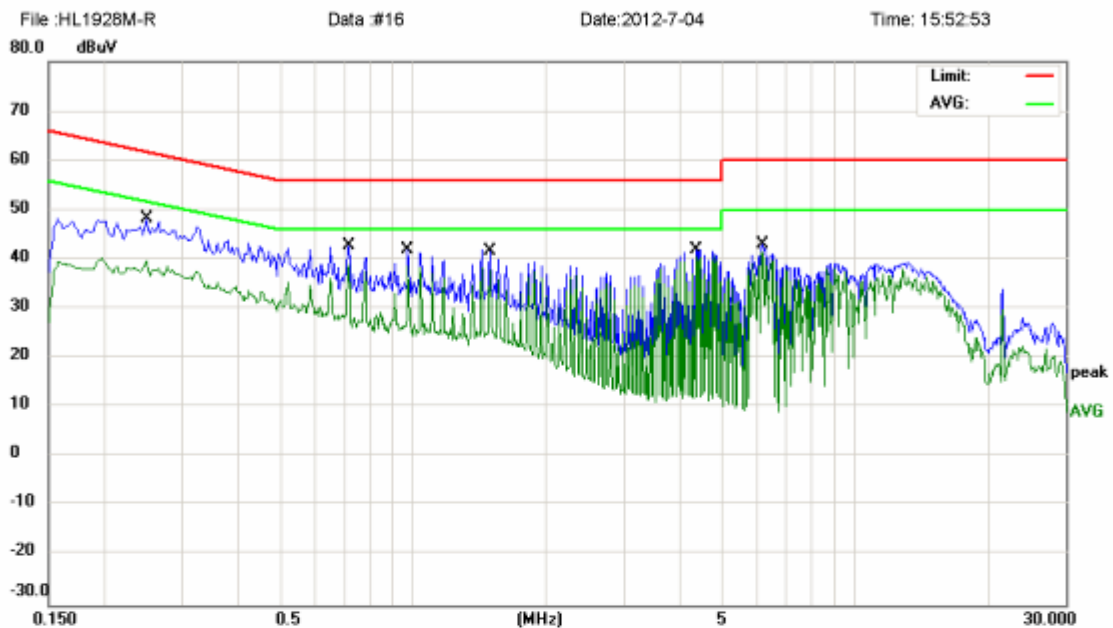
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Conducted Emission Measurement



Site Chamber #1
Limit: FCC Part15 B Class B QP
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1280*1024@60Hz

Phase: L1
Power: AC 120V/60Hz

Temperature: 26
Humidity: 60 %

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2500	36.51	11.67	48.18	61.75	-13.57	QP	
2	*	0.7180	32.83	10.00	42.83	56.00	-13.17	QP	
3		0.9780	31.97	10.00	41.97	56.00	-14.03	QP	
4		1.4979	32.26	9.50	41.76	56.00	-14.24	QP	
5		4.3658	30.53	11.37	41.90	56.00	-14.10	QP	
6		6.1898	31.70	11.29	42.99	60.00	-17.01	QP	

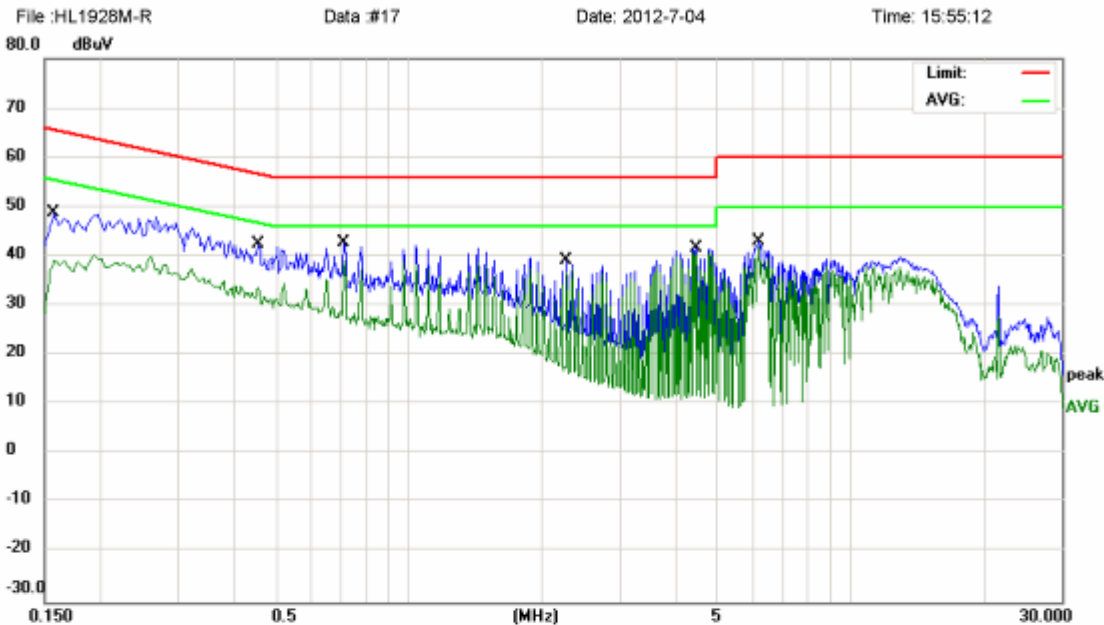
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Conducted Emission Measurement



Site Chamber #1 Phase: **L1** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1024*768@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1580	39.24	9.49	48.73	65.56	-16.83	QP	
2		0.4580	32.13	10.28	42.41	56.73	-14.32	QP	
3	*	0.7140	32.74	10.00	42.74	56.00	-13.26	QP	
4		2.2820	29.75	9.28	39.03	56.00	-16.97	QP	
5		4.4939	30.27	11.49	41.76	56.00	-14.24	QP	
6		6.1898	31.61	11.29	42.90	60.00	-17.10	QP	

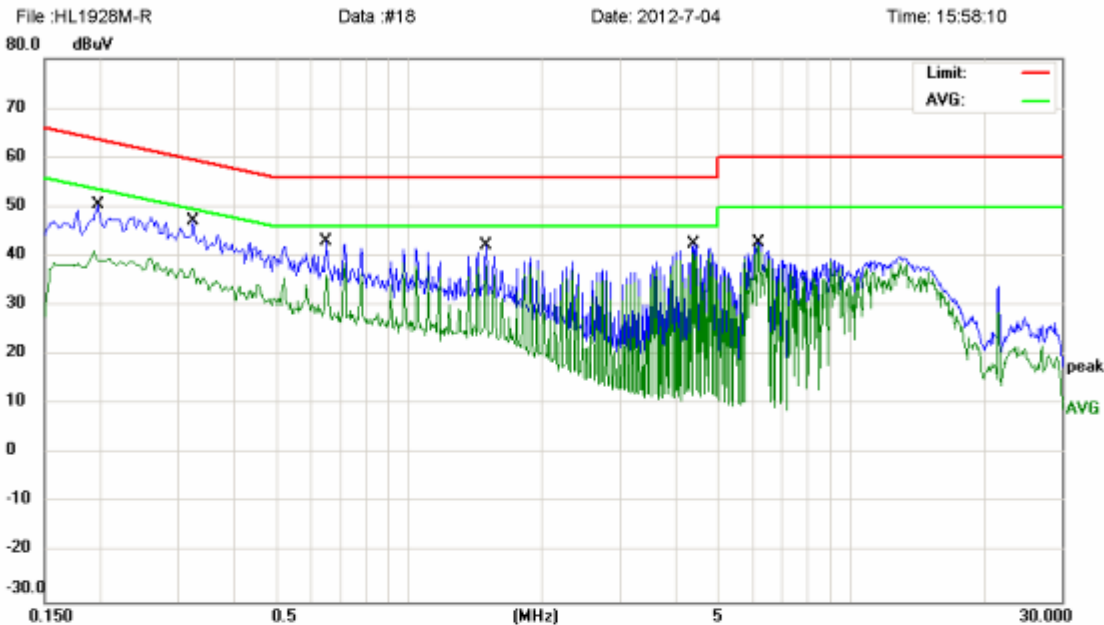
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Conducted Emission Measurement



Site Chamber #1 Phase: **N** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1024*768@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	38.46	11.88	50.34	63.69	-13.35	QP	
2	*	0.3260	35.86	11.16	47.02	59.55	-12.53	QP	
3		0.6500	32.92	10.00	42.92	56.00	-13.08	QP	
4		1.4979	32.69	9.50	42.19	56.00	-13.81	QP	
5		4.4298	31.09	11.43	42.52	56.00	-13.48	QP	
6		6.1898	31.54	11.29	42.83	60.00	-17.17	QP	

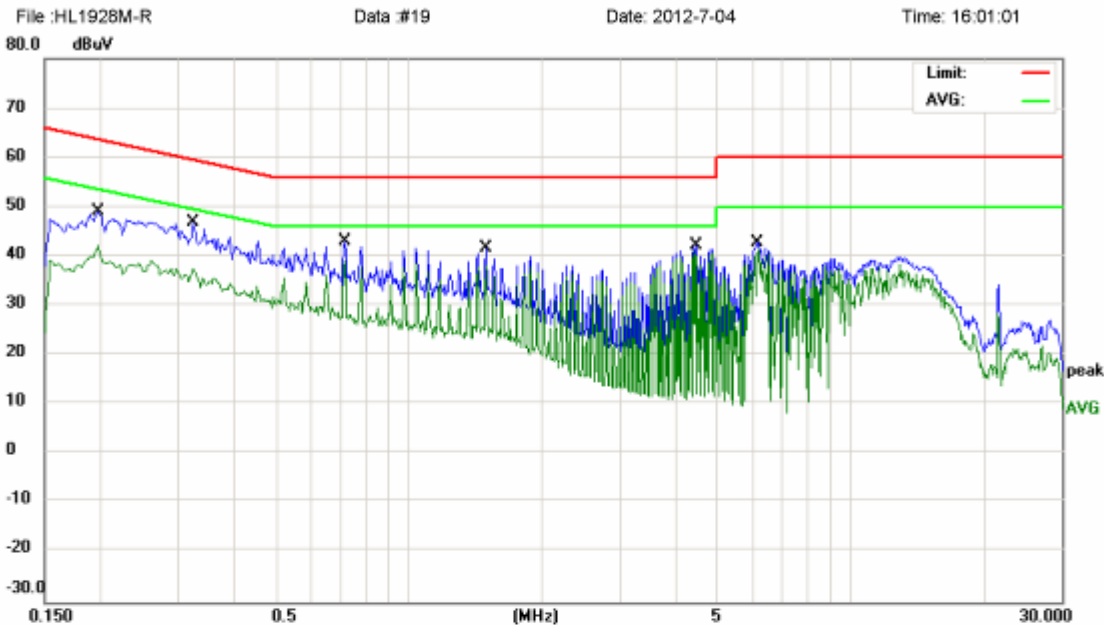
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Conducted Emission Measurement



Site Chamber #1 Phase: **N** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:800*600@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	37.11	11.88	48.99	63.69	-14.70	QP	
2	*	0.3260	35.79	11.16	46.95	59.55	-12.60	QP	
3		0.7180	32.95	10.00	42.95	56.00	-13.05	QP	
4		1.4979	32.04	9.50	41.54	56.00	-14.46	QP	
5		4.4939	30.78	11.49	42.27	56.00	-13.73	QP	
6		6.1219	31.33	11.33	42.66	60.00	-17.34	QP	

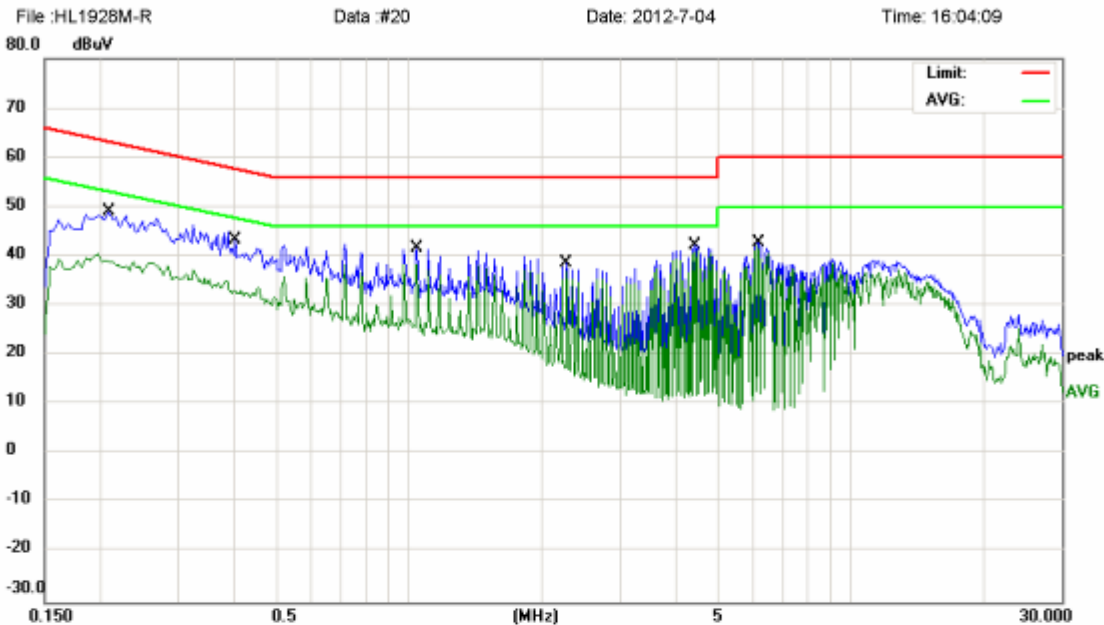
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Conducted Emission Measurement



Site Chamber #1 Phase: **L1** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:800*600@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2100	37.00	11.93	48.93	63.20	-14.27	QP	
2		0.4060	32.60	10.63	43.23	57.73	-14.50	QP	
3		1.0460	31.59	9.95	41.54	56.00	-14.46	QP	
4		2.2820	29.34	9.28	38.62	56.00	-17.38	QP	
5	*	4.4339	30.77	11.43	42.20	56.00	-13.80	QP	
6		6.1939	31.44	11.28	42.72	60.00	-17.28	QP	

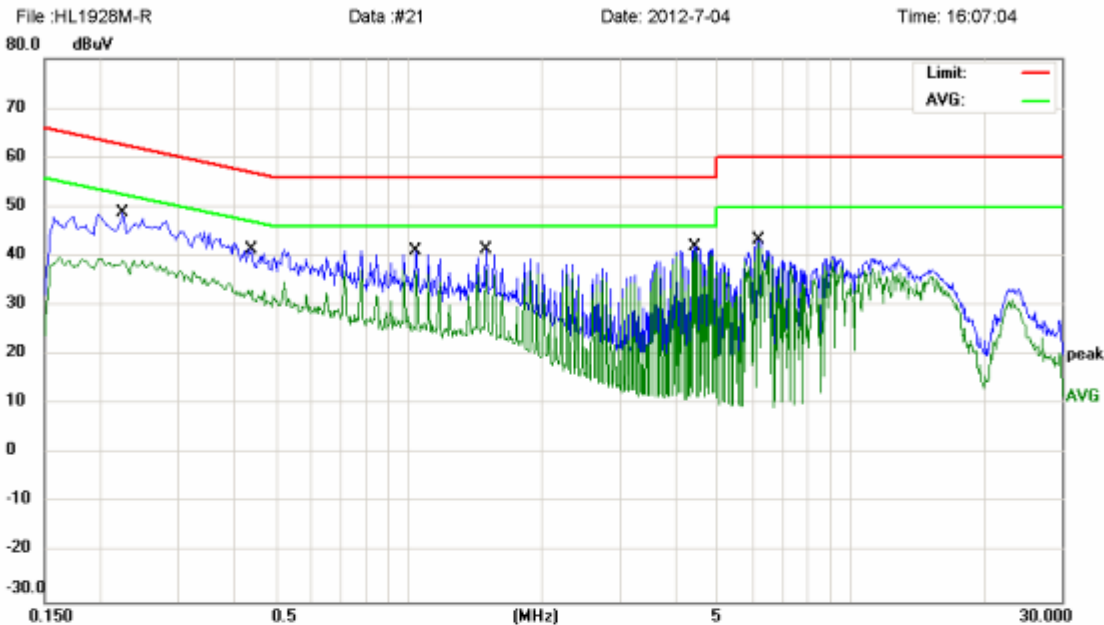
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Conducted Emission Measurement



Site Chamber #1 Phase: **L1** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:1280*1024@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.2260	36.90	11.83	48.73	62.59	-13.86	QP	
2		0.4420	31.01	10.39	41.40	57.02	-15.62	QP	
3		1.0420	30.99	9.96	40.95	56.00	-15.05	QP	
4		1.4979	31.86	9.50	41.36	56.00	-14.64	QP	
5		4.4339	30.53	11.43	41.96	56.00	-14.04	QP	
6		6.1939	31.93	11.28	43.21	60.00	-16.79	QP	

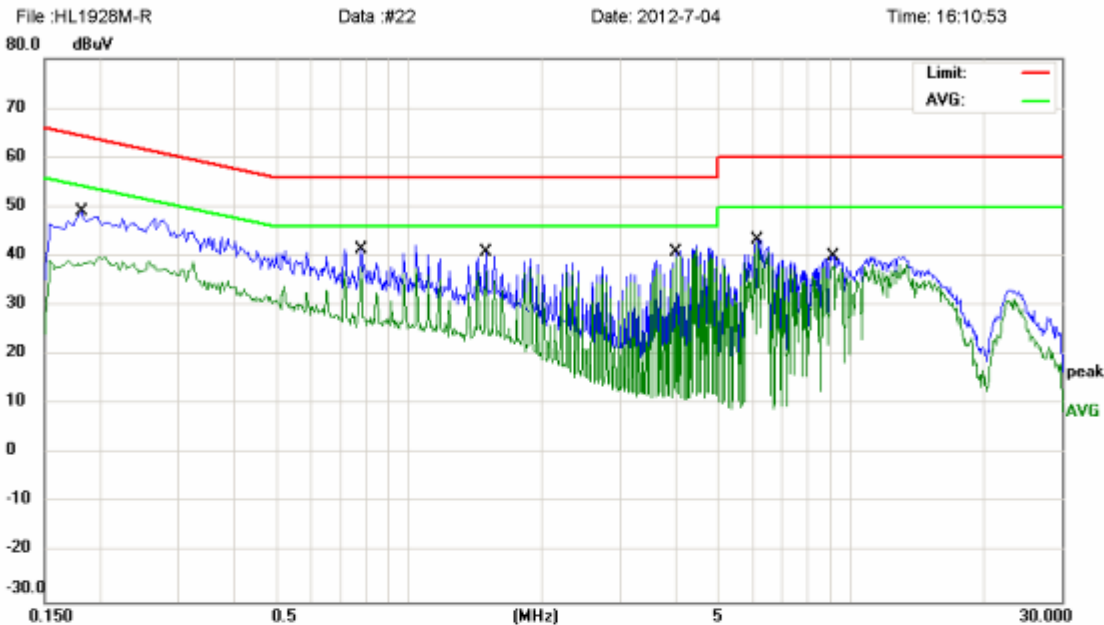
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Conducted Emission Measurement



Site Chamber #1 Phase: **N** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:1280*1024@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1819	38.05	10.92	48.97	64.39	-15.42	QP	
2	*	0.7820	31.37	10.00	41.37	56.00	-14.63	QP	
3		1.4979	31.40	9.50	40.90	56.00	-15.10	QP	
4		4.0419	29.69	11.04	40.73	56.00	-15.27	QP	
5		6.1259	31.90	11.32	43.22	60.00	-16.78	QP	
6		9.1257	30.43	9.52	39.95	60.00	-20.05	QP	

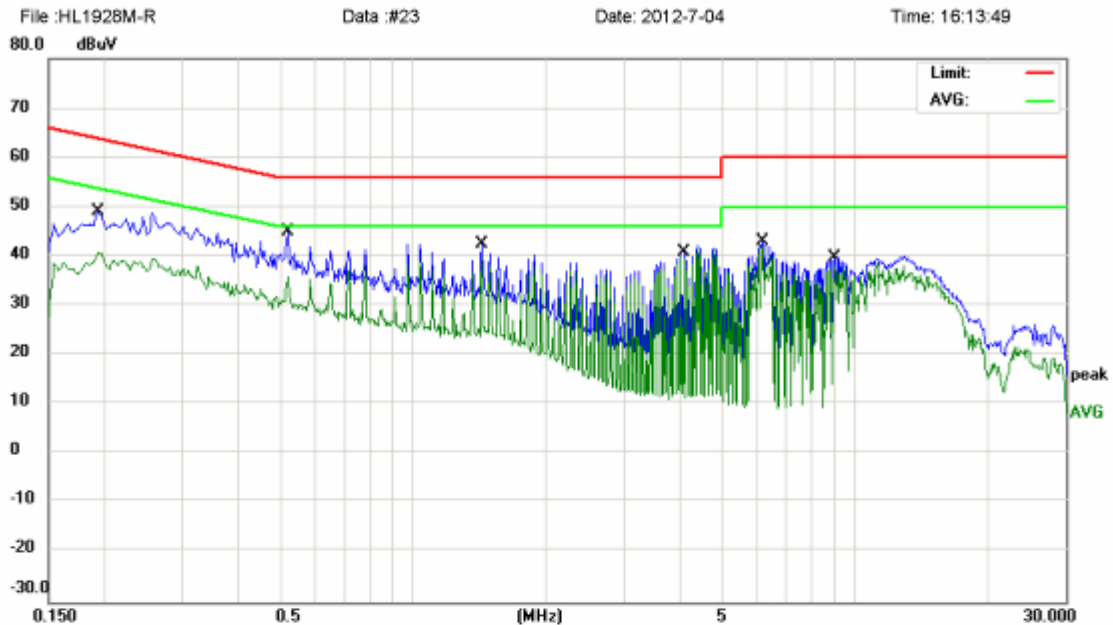
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Conducted Emission Measurement



Site Chamber #1

Phase: **N**

Temperature: 26

Limit: FCC Part15 B Class B QP

Power: AC 120V/60Hz

Humidity: 60 %

EUT: 19"LCD Monitor

M/N: HL1928M-R

Mode: Running "H" Partten

Note: DVI:1024*768@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1940	37.51	11.64	49.15	63.86	-14.71	QP	
2	*	0.5220	34.99	10.00	44.99	56.00	-11.01	QP	
3		1.4340	32.84	9.57	42.41	56.00	-13.59	QP	
4		4.1059	29.57	11.11	40.68	56.00	-15.32	QP	
5		6.1898	31.70	11.29	42.99	60.00	-17.01	QP	
6		8.9938	30.03	9.60	39.63	60.00	-20.37	QP	

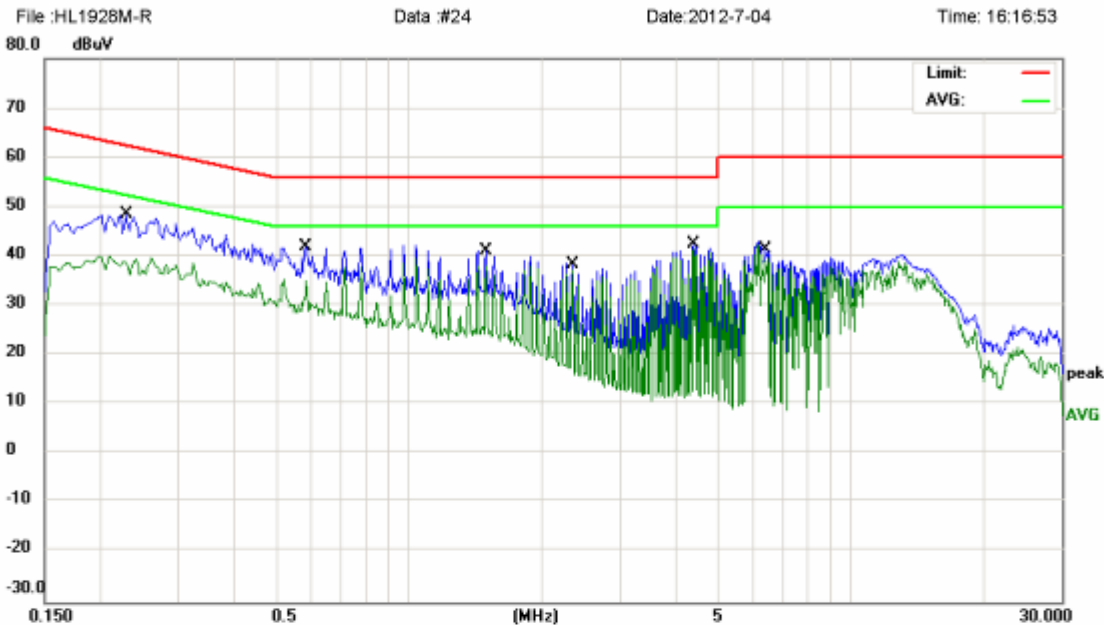
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Conducted Emission Measurement



Site Chamber #1 Phase: **L1** Temperature: 26

Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %

EUT: 19"LCD Monitor

M/N: HL1928M-R

Mode: Running "H" Partten

Note: DVI:1024*768@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2300	36.62	11.80	48.42	62.45	-14.03	QP	
2		0.5860	31.90	10.00	41.90	56.00	-14.10	QP	
3		1.4979	31.59	9.50	41.09	56.00	-14.91	QP	
4		2.3460	29.05	9.35	38.40	56.00	-17.60	QP	
5	*	4.4298	30.90	11.43	42.33	56.00	-13.67	QP	
6		6.4499	30.29	11.13	41.42	60.00	-18.58	QP	

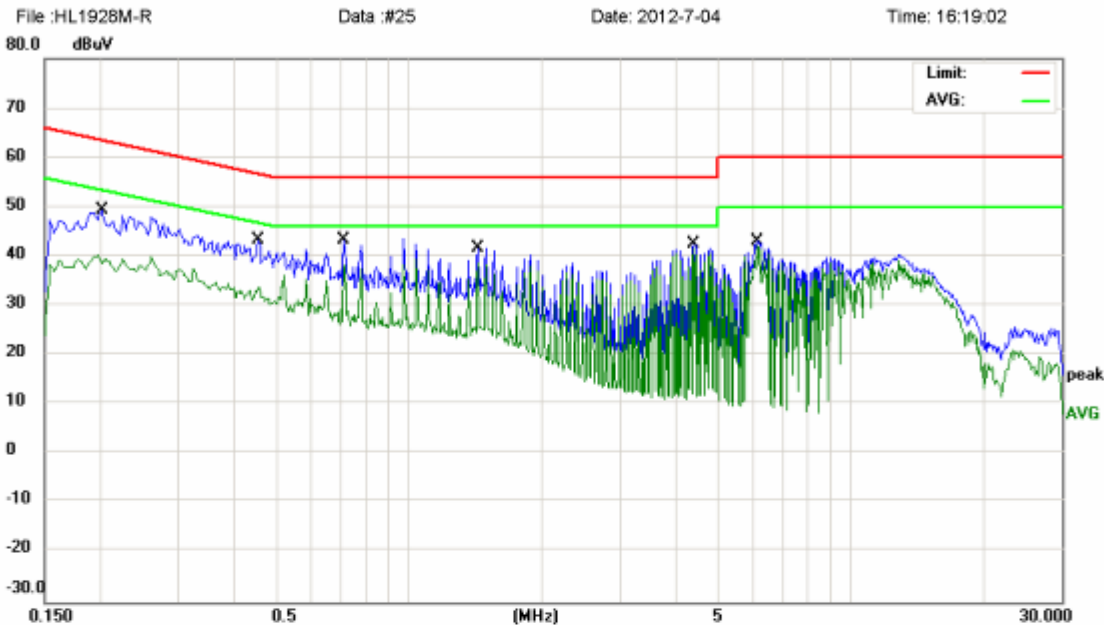
*:Maximum data x:Over limit !:over margin

Engineer Signature: Sky



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement



Site Chamber #1 Phase: **L1** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:800*600@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.2020	37.45	11.99	49.44	63.52	-14.08	QP	
2		0.4580	33.01	10.28	43.29	56.73	-13.44	QP	
3	*	0.7140	33.18	10.00	43.18	56.00	-12.82	QP	
4		1.4340	32.10	9.57	41.67	56.00	-14.33	QP	
5		4.4298	31.08	11.43	42.51	56.00	-13.49	QP	
6		6.1219	31.76	11.33	43.09	60.00	-16.91	QP	

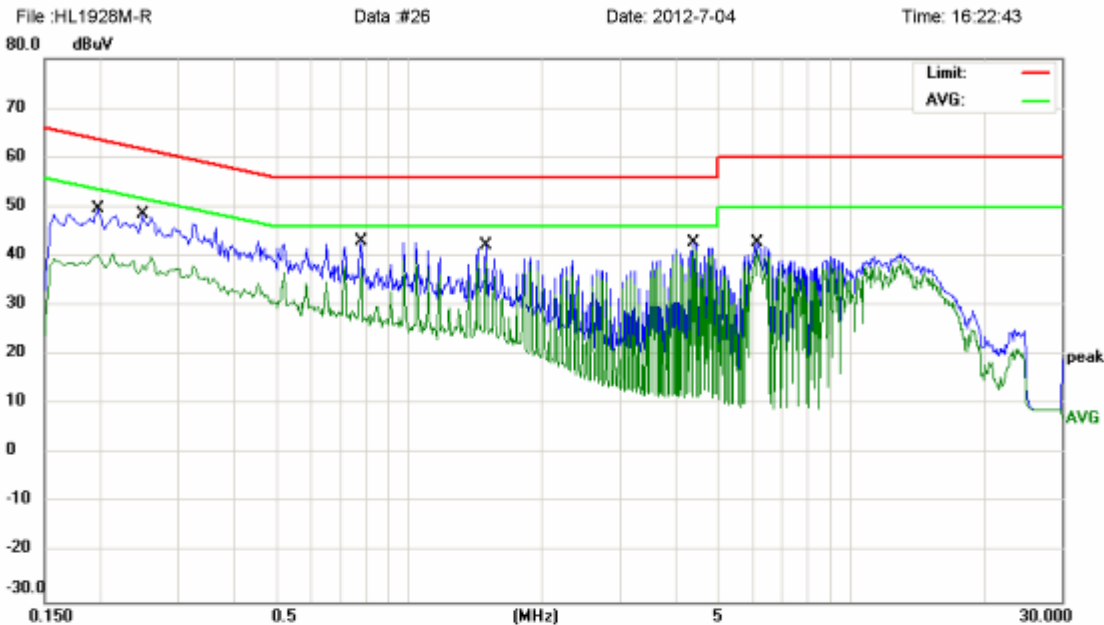
*:Maximum data x:Over limit !:over margin

Engineer Signature: Sky



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Conducted Emission Measurement



Site Chamber #1 Phase: **N** Temperature: 26
Limit: FCC Part15 B Class B QP Power: AC 120V/60Hz Humidity: 60 %
EUT: 19"LCD Monitor
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:800*600@60Hz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1980	37.66	11.88	49.54	63.69	-14.15	QP	
2		0.2500	36.97	11.67	48.64	61.75	-13.11	QP	
3	*	0.7820	32.98	10.00	42.98	56.00	-13.02	QP	
4		1.4979	32.75	9.50	42.25	56.00	-13.75	QP	
5		4.4298	31.29	11.43	42.72	56.00	-13.28	QP	
6		6.1219	31.39	11.33	42.72	60.00	-17.28	QP	

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

Engineer Signature: Sky

6. TEST RADIATED EMISSION REQUIREMENT

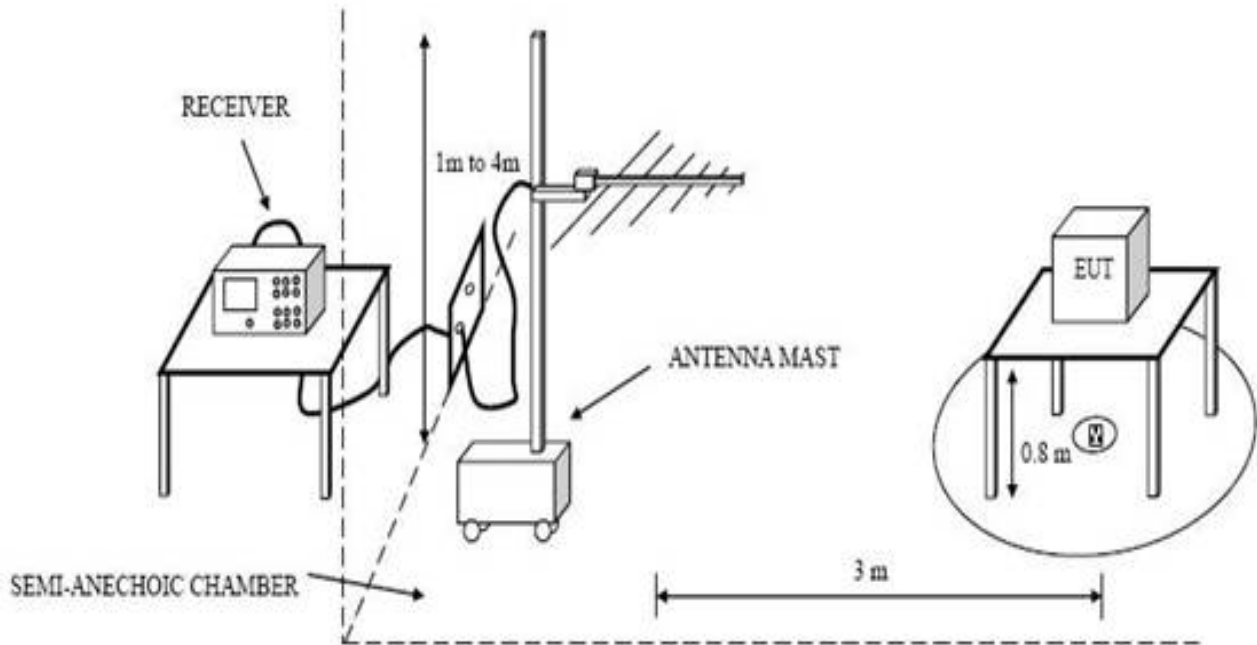
6.1 Limits Of Radiated Disturbances At 3m Distances For Class B

Frequency MHz	Field Strength uV/m	Field Strength dBuV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

Note: Adjust the brightness and contrast to maximum

Emissions attenuated more than 20 dB below the permissible value are not reported.

6.2: Block Of Radiation Interference



6.3 Preliminary Radiated Emission Test

In the frequency range above 30MHz, Bi-log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength. The emission levels at both horizontal and vertical polarizations should be tested.

Preliminary Radiated Emission Test			
Frequency Range Investigated		30MHz to 5000MHz	
Mode of operation	Details	Phase	Date#
VGA Display	800*600	H/V	
	1024*768	H/V	
	1280*1024	H/V	
DVI Display	800*600	H/V	
	1024*768	H/V	
	1280*1024	H/V	
BNC Signal Line	>3m	H/V	

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing

6.4 Test Result Of Radiation Emission Test



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
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Radiated Emission Measurement

File : HL1928M-R Data : #15 Date: 2012-7-04 Time: 11:10:23



Site Chamber #1 Polarization: **Vertical** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1280*1024@60Hz

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	*	41.6400	18.22	15.75	33.97	40.00	-6.03	QP		
2		189.0800	18.45	16.60	35.05	43.50	-8.45	QP		
3		242.4300	16.74	17.30	34.04	46.00	-11.96	QP		
4		351.0699	16.58	17.89	34.47	46.00	-11.53	QP		
5		502.3900	12.10	21.40	33.50	46.00	-12.50	QP		
6		699.3000	10.77	24.68	35.45	46.00	-10.55	QP		

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

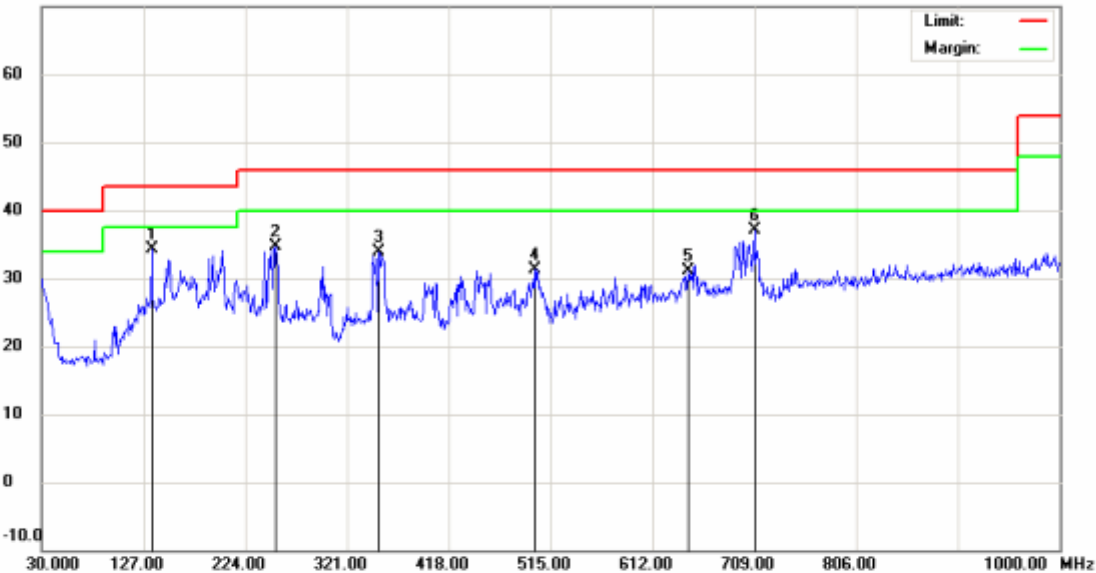
Engineer Signature: Allen



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
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Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : HL1928M-R Data : #16 Date: 2012-7-04 Time: 11:13:54



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA:1280*1024@60Hz

No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	Antenna	Table	
		MHz	Level	Factor	ment			Height	Degree	Comment
			dBuV	dB	dBuV/m	dBuV/m	dB	cm	degree	
1		134.7600	16.77	17.46	34.23	43.50	-9.27	QP		
2		253.1000	17.31	17.40	34.71	46.00	-11.29	QP		
3		351.0699	16.08	17.89	33.97	46.00	-12.03	QP		
4		499.4800	9.96	21.41	31.37	46.00	-14.63	QP		
5		645.9500	6.98	24.06	31.04	46.00	-14.96	QP		
6	*	709.0000	12.44	24.69	37.13	46.00	-8.87	QP		

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

Engineer Signature: Allen



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

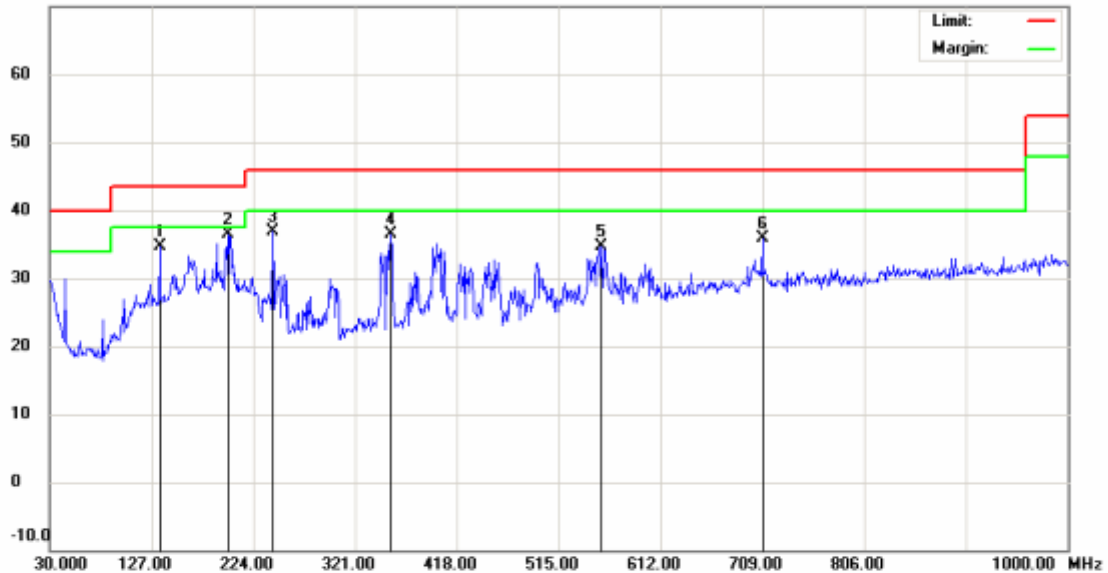
File: HL1928M-R

Data: #17

Date: 2012-7-04

Time: 11:16:48

70.0 dBuV/m



Site Chamber #1

Polarization: **Horizontal**

Temperature: 26

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 61 %

EUT: 19"LCD Monitor

Distance:

M/N: HL1928M-R

Mode: Running "H" Partten

Note: VGA:1024*768@60Hz

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		134.7600	17.20	17.46	34.66	43.50	-8.84	QP		
2	*	199.7500	19.05	17.38	36.43	43.50	-7.07	QP		
3		242.4300	19.68	17.30	36.98	46.00	-9.02	QP		
4		354.9499	18.30	18.20	36.50	46.00	-9.50	QP		
5		555.7400	12.08	22.70	34.78	46.00	-11.22	QP		
6		709.0000	11.13	24.69	35.82	46.00	-10.18	QP		

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

Engineer Signature:

Allen



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Radiated Emission Measurement

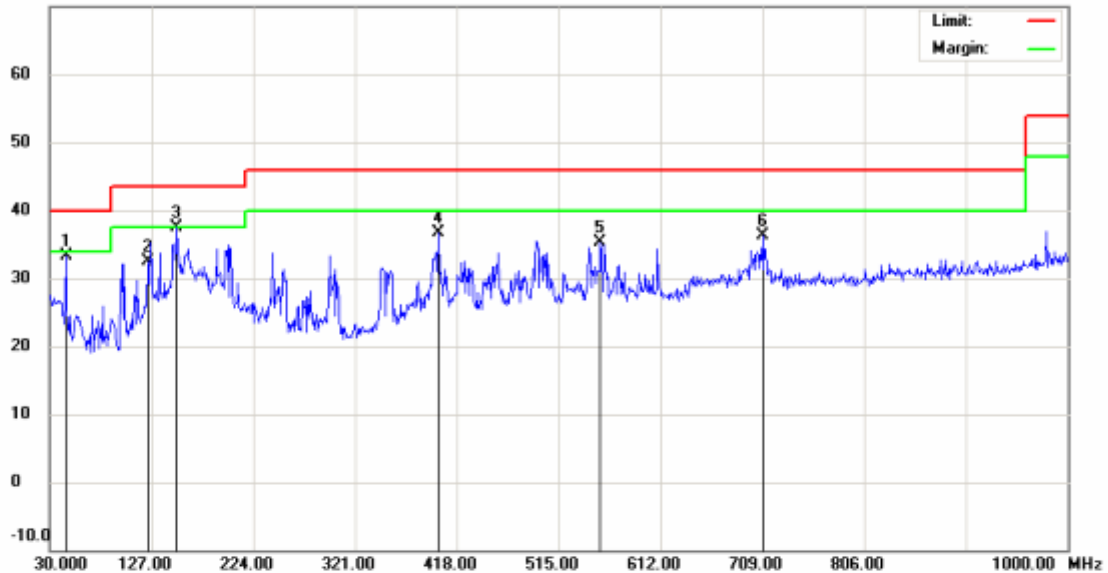
File: HL1928M-R

Data: #18

Date: 2012-7-04

Time: 11:19:17

70.0 dBuV/m



Site Chamber #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 61 %

EUT: 19"LCD Monitor

Distance:

M/N: HL1928M-R

Mode: Running "H" Partten

Note: VGA:1024*768@60Hz

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		45.5200	20.04	13.36	33.40	40.00	-6.60	QP		
2		124.0900	14.89	17.66	32.55	43.50	-10.95	QP		
3	*	151.2500	20.87	16.58	37.45	43.50	-6.05	QP		
4		400.5400	18.02	18.71	36.73	46.00	-9.27	QP		
5		554.7698	12.52	22.69	35.21	46.00	-10.79	QP		
6		709.0000	11.58	24.69	36.27	46.00	-9.73	QP		

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

Engineer Signature:

Allen



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Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

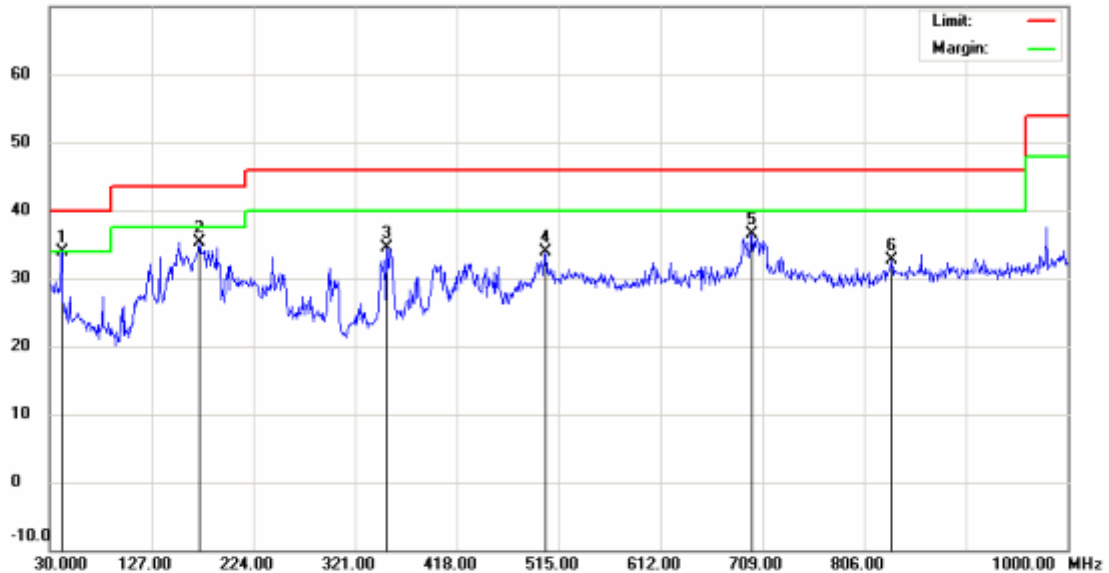
File: HL1928M-R

Data: #19

Date: 2012-7-04

Time: 11:22:46

70.0 dBuV/m



Site Chamber #1

Polarization: **Vertical**

Temperature: 26

Limit: FCC Part15 B 3M Radiation

Power: AC 120V/60Hz

Humidity: 61 %

EUT: 19"LCD Monitor

Distance:

M/N: HL1928M-R

Mode: Running "H" Partten

Note: VGA: 800*600@60Hz

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	*	41.6400	18.22	15.75	33.97	40.00	-6.03	QP		
2		172.5900	18.31	17.07	35.38	43.50	-8.12	QP		
3		351.0699	16.58	17.89	34.47	46.00	-11.53	QP		
4		502.3900	12.60	21.40	34.00	46.00	-12.00	QP		
5		699.3000	11.77	24.68	36.45	46.00	-9.55	QP		
6		832.1900	5.70	27.04	32.74	46.00	-13.26	QP		

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

Engineer Signature:

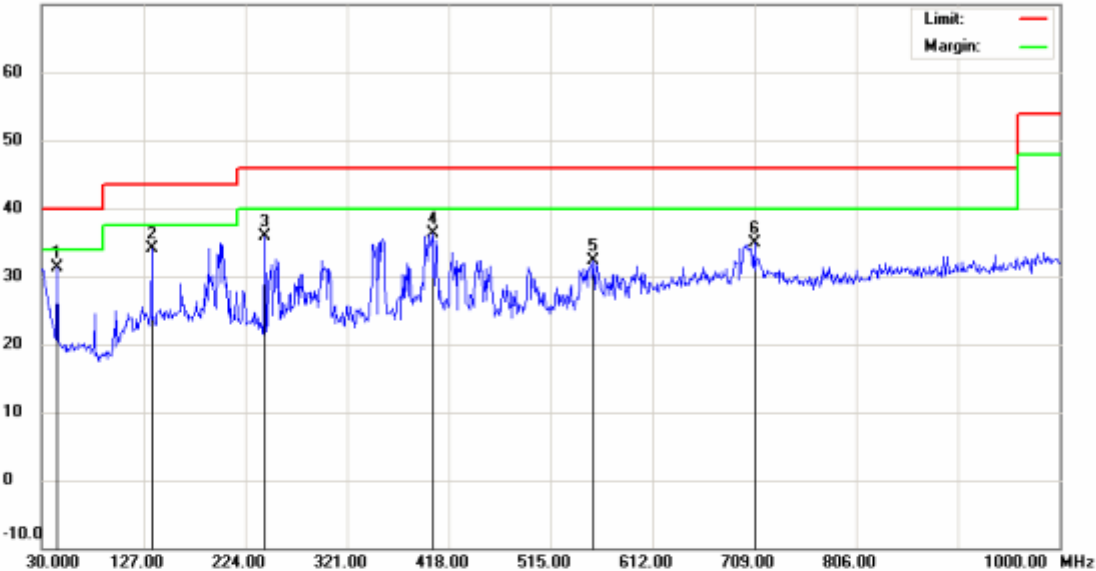
Allen



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Radiated Emission Measurement

File : HL1928M-R Data : #20 Date: 2012-7-04 Time: 11:25:34



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: VGA: 800*600@60Hz

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	*	44.5500	17.51	13.89	31.40	40.00	-8.60	QP		
2		134.7600	16.70	17.46	34.16	43.50	-9.34	QP		
3		242.4300	18.68	17.30	35.98	46.00	-10.02	QP		
4		402.4800	17.52	18.75	36.27	46.00	-9.73	QP		
5		555.7400	9.58	22.70	32.28	46.00	-13.72	QP		
6		709.0000	10.13	24.69	34.82	46.00	-11.18	QP		

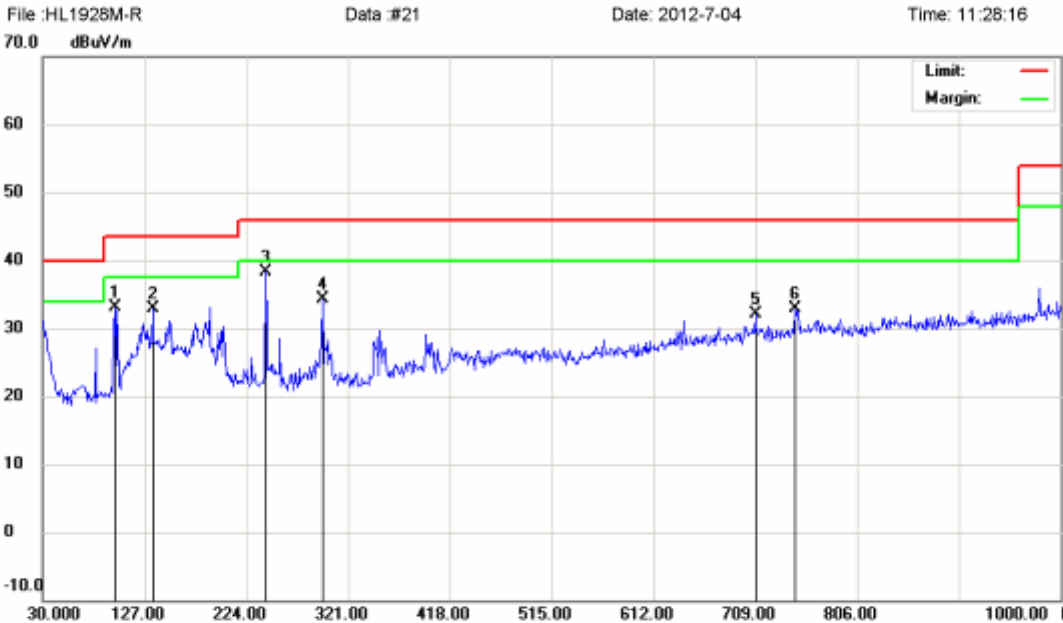
*:Maximum data x:Over limit !:over margin

Engineer Signature: Allen



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Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement



Site Chamber #1	Polarization: Horizontal	Temperature: 26
Limit: FCC Part15 B 3M Radiation	Power: AC 120V/60Hz	Humidity: 61 %
EUT: 19"LCD Monitor	Distance:	
M/N: HL1928M-R		
Mode: Running "H" Partten		
Note: DVI :1280*1024@60Hz		

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		98.8700	20.21	12.94	33.15	43.50	-10.35	QP		
2		134.7599	15.40	17.46	32.86	43.50	-10.64	QP		
3	*	242.4300	21.09	17.30	38.39	46.00	-7.61	QP		
4		296.7500	14.99	19.30	34.29	46.00	-11.71	QP		
5		709.0000	7.48	24.69	32.17	46.00	-13.83	QP		
6		746.8300	7.13	25.80	32.93	46.00	-13.07	QP		

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

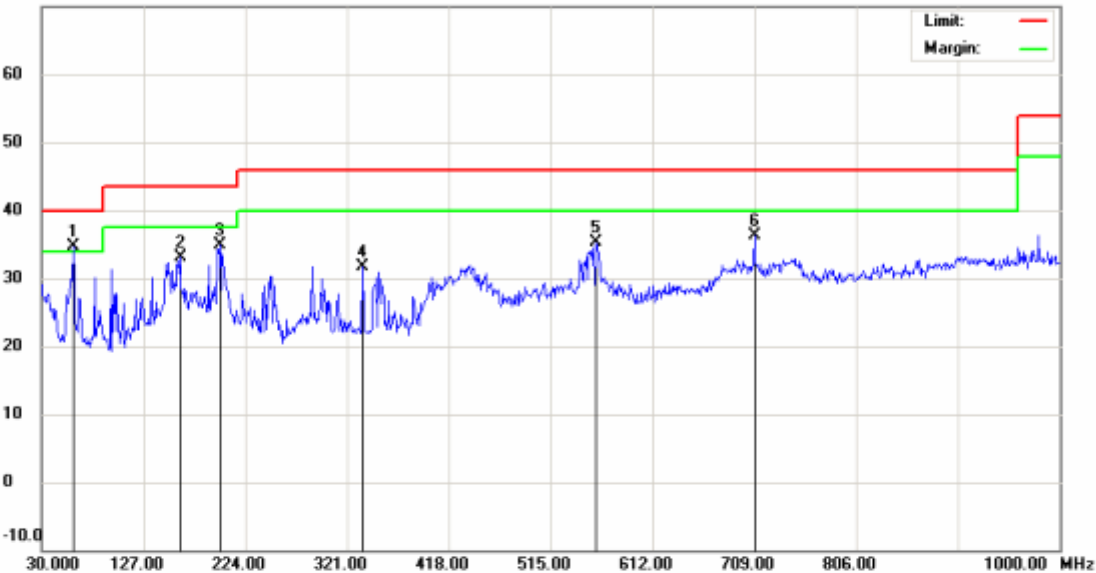
Engineer Signature: Allen



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Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : HL1928M-R Data : #22 Date: 2012-7-04 Time: 11:31:28



Site Chamber #1 Polarization: **Vertical** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI :1280*1024@60Hz

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	*	60.0700	23.91	10.81	34.72	40.00	-5.28	QP		
2		161.9199	15.89	17.26	33.15	43.50	-10.35	QP		
3		199.7500	17.56	17.37	34.93	43.50	-8.57	QP		
4		335.5500	14.57	17.06	31.63	46.00	-14.37	QP		
5		558.6499	12.54	22.70	35.24	46.00	-10.76	QP		
6		709.0000	11.61	24.69	36.30	46.00	-9.70	QP		

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

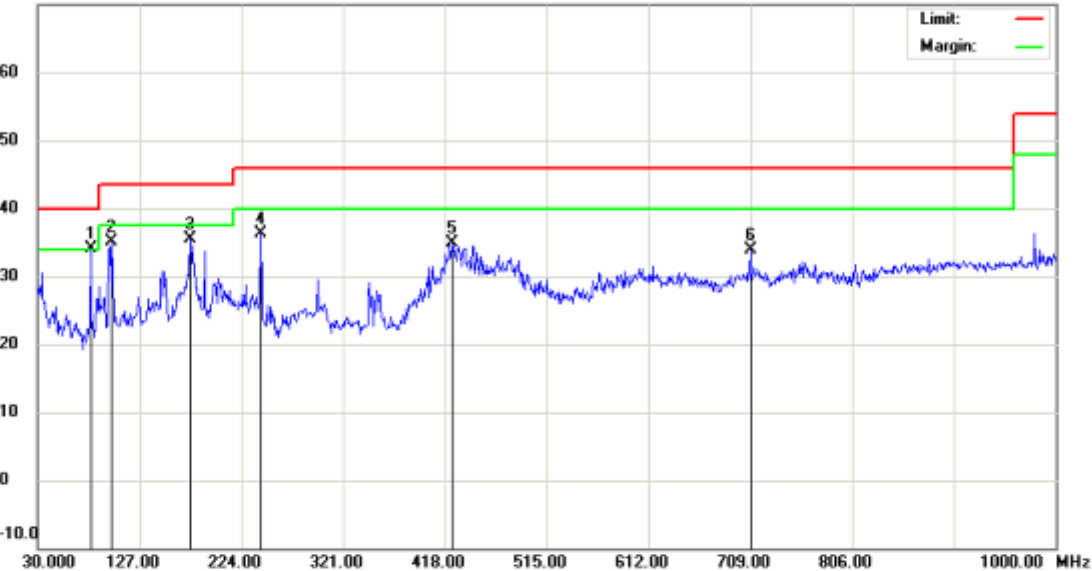
Engineer Signature: Allen



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Radiated Emission Measurement

File : HL1928M-R Data : #23 Date: 2012-7-04 Time: 11:35:51



Site Chamber #1 Polarization: **Vertical** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI :1024*768@60Hz

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	*	80.4399	22.74	11.39	34.13	40.00	-5.87	QP		
2		100.8100	21.70	13.44	35.14	43.50	-8.36	QP		
3		175.5000	18.50	16.92	35.42	43.50	-8.08	QP		
4		242.4300	19.03	17.30	36.33	46.00	-9.67	QP		
5		424.7900	14.63	20.29	34.92	46.00	-11.08	QP		
6		709.0000	9.25	24.69	33.94	46.00	-12.06	QP		

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

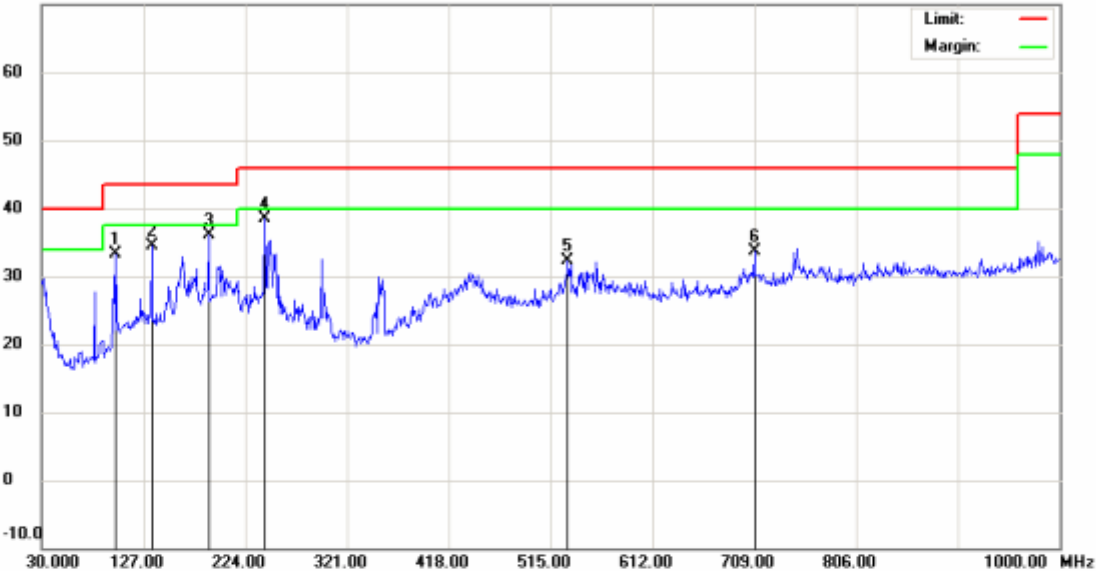
Engineer Signature: Allen



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Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : HL1928M-R Data : #24 Date: 2012-7-04 Time: 11:38:43



Site Chamber #1 Polarization: **Horizontal** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI :1024*768@60Hz

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		100.8100	19.93	13.44	33.37	43.50	-10.13	QP		
2		134.7599	16.97	17.46	34.43	43.50	-9.07	QP		
3	*	189.0800	19.43	16.60	36.03	43.50	-7.47	QP		
4		242.4300	21.14	17.30	38.44	46.00	-7.56	QP		
5		531.4900	10.12	22.14	32.26	46.00	-13.74	QP		
6		709.0000	9.09	24.69	33.78	46.00	-12.22	QP		

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

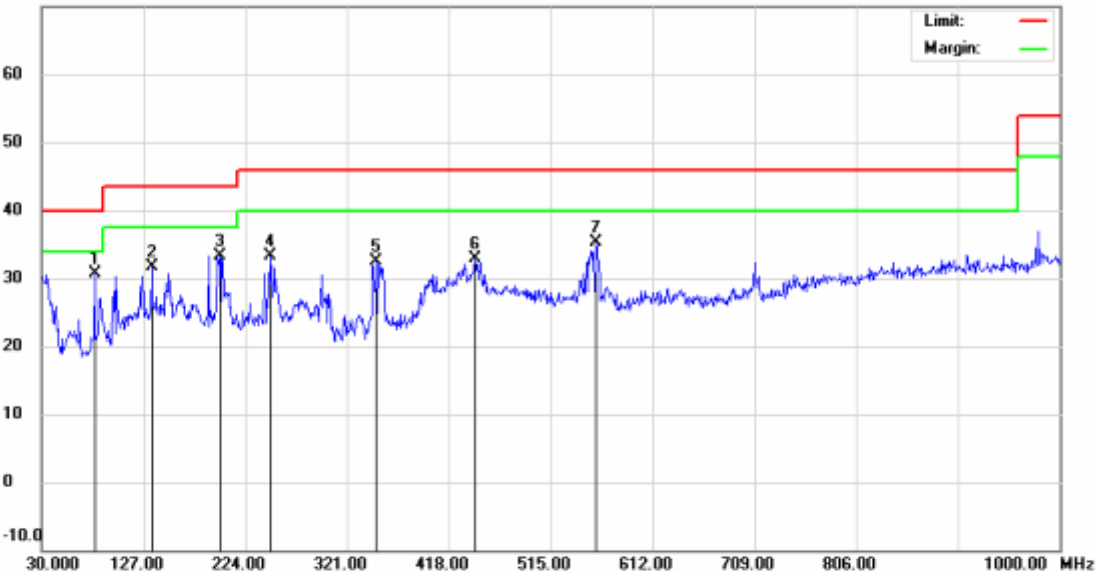
Engineer Signature: Allen



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
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Radiated Emission Measurement

File : HL1928M-R Data : #25 Date: 2012-7-04 Time: 11:41:30



Site Chamber #1 Polarization: **Vertical** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:800*600@60Hz

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	*	80.4399	19.38	11.39	30.77	40.00	-9.23	QP		
2		134.7599	14.30	17.46	31.76	43.50	-11.74	QP		
3		199.7500	16.01	17.37	33.38	43.50	-10.12	QP		
4		247.2800	15.81	17.40	33.21	46.00	-12.79	QP		
5		349.1298	14.83	17.73	32.56	46.00	-13.44	QP		
6		443.2200	12.60	20.24	32.84	46.00	-13.16	QP		
7		558.6499	12.54	22.70	35.24	46.00	-10.76	QP		

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

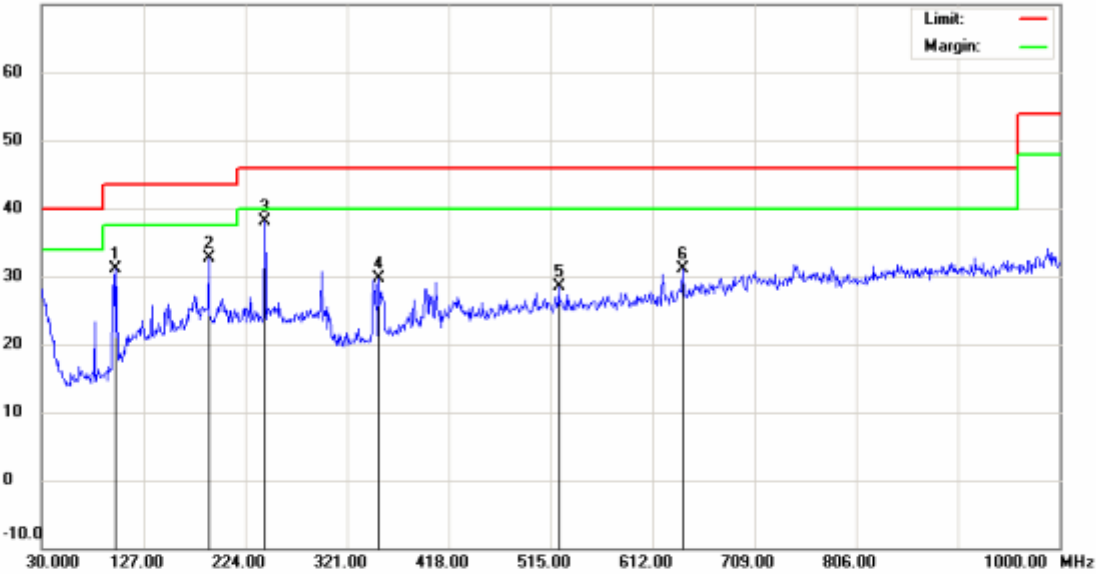
Engineer Signature: Allen



Address: No. 5, Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong, China
Tel: 0755-86170306 Fax: 0755-86170310

Radiated Emission Measurement

File : HL1928M-R Data : #26 Date: 2012-7-04 Time: 11:44:41

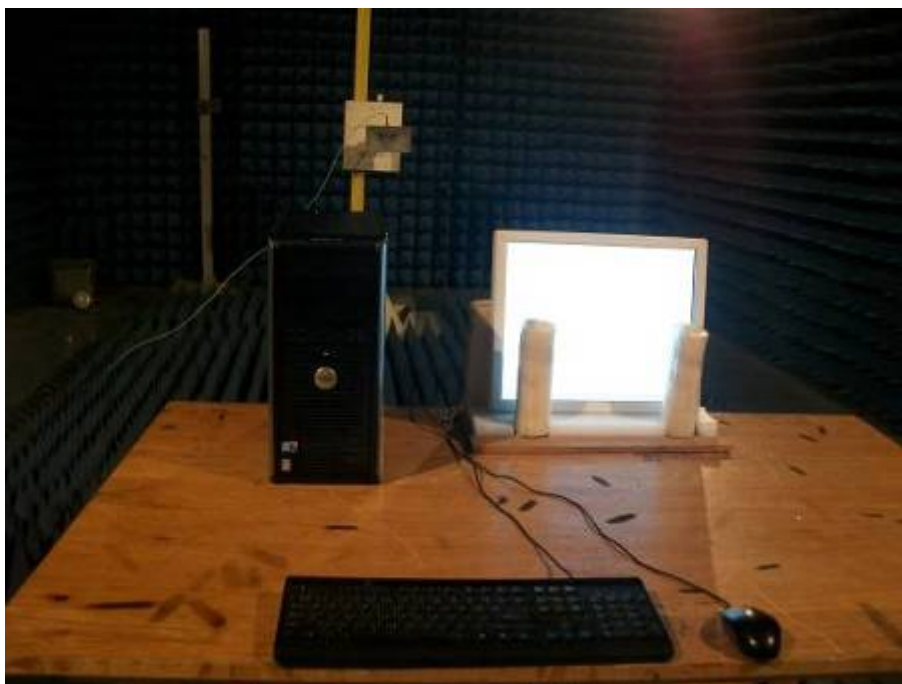


Site Chamber #1 Polarization: **Horizontal** Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD Monitor Distance:
M/N: HL1928M-R
Mode: Running "H" Partten
Note: DVI:800*600@60Hz

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		100.8100	17.58	13.44	31.02	43.50	-12.48	QP		
2		189.0800	16.12	16.60	32.72	43.50	-10.78	QP		
3	*	242.4300	20.74	17.30	38.04	46.00	-7.96	QP		
4		351.0699	11.75	17.89	29.64	46.00	-16.36	QP		
5		522.7599	6.48	21.94	28.42	46.00	-17.58	QP		
6		641.1000	7.13	24.01	31.14	46.00	-14.86	QP		

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

Engineer Signature: Allen



Test photo of radiated emission (1000MHz-5000MHz)



Test photo of radiated emission (30MHz-1000MHz)



Test photo of Conducted emission

--End of Report--