FCC 47 CFR PART 15 SUBPART B

TEST REPORT

For

Applicant:	**Shenyang Torch-Bigtide Digital Technology Co., Ltd**
Address:	**No. 18-6B, Yaoyang Road, Huishan Economic Development Area, Shenbei New District, Shenyang**
Product Name:	**19” LCD Monitor**
Model Number:	**HL1916SM, HL1916, HL1916AMT-L, HL1916AMT-R**
Brand Name:	**N/A**
FCC ID:	**W6519LCD1916SM**
Report No.:	**MTE/SAL/F14060620**
Date of Issue:	**Jun. 18, 2014**

Issued by:	**Most Technology Service Co., Ltd.**
Address:	**No.5, Langshan 2nd Rd., North Hi-Tech Industrial park, Nanshan, Shenzhen, Guangdong, China**
Tel:	**86-755-86026850**
Fax:	**86-755-26013350**

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1. VERIFICATION OF CONFORMITY

Equipment Under Test:	19” LCD Monitor
Brand Name:	N/A
Model Number:	HL1916SM, HL1916, HL1916AMT-R
Series Number:	HL1916AMT-L
FCC ID:	W6519LCD1916SM
Applicant:	Shenyang Torch-Bigtide Digital Technology Co., Ltd NO. 18-6B ,Yaoyang Road , Huishan Economic Development Area, Shenbei New District, Shenyang
Manufacturer:	Shenyang Torch-Bigtide Digital Technology Co., Ltd NO. 18-6B ,Yaoyang Road , Huishan Economic Development Area, Shenbei New District, Shenyang
Technical Standards:	FCC Part 15 B
File Number:	MTE/SAL/F14060620
Date of test:	May 30-June 04. 2014
Deviation:	None
Condition of Test Sample:	Normal

The above equipment was tested by MOST for compliance with the requirements set forth in FCC Part 15 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 this report.

Tested by (+ signature): _____

Sophia Liu May 30, 2014

Review by (+ signature): _____

Henry Chen Jun. 18, 2014

MOST TECHNOLOGY SERVICE CO., LTD. APPROVED EMC & SAFETY

Approved by (+ signature): _____

Yvetter Zhou(Manager) Jun. 18, 2014

2. GENERAL INFORMATION

2.1 PRODUCT INFORMATION

Description:	19” LCD Monitor
Model Name:	HL1916SM, HL1916, HL1916AMT-R
Series Number:	HL1916AMT-L
Model Difference description:	HL1916AMT-R with screen-touch; HL1916AMT-L without screen-touch; HL1916 without screen-touch and USB port; HL1916SM with different PCB location.
Power Supply:	AC 100V-240V, 50/60Hz
Temperature Range:	-20°C ~ +50°C

NOTE:

1. For a more detailed features description about the EUT, please refer to User’s Manual.

2.2 OBJECTIVE

Perform FCC Part 15 Subpart B tests for FCC Marking.

2.3 TEST STANDARDS AND RESULTS

Test items and the results are as bellow:

EMISSION			
Standard	**Item**	**Result**	**Remarks**
FCC 47 CFR Part 15 Subpart B	Conducted	PASS	Meet Class B limit
	Radiated	PASS	Meet Class B limit

Note: 1. The test result judgment is decided by the limit of measurement standard
2. The information of measurement uncertainty is available upon the customer's request.

2.4 ENVIRONMENTAL CONDITIONS

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

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

2.5 MEASUREMENT UNCERTAINTY

The uncertainty is calculated using the methods suggested in the "Guide to the Expression of Uncertainty in Measurement" (GUM) published by ISO.

The report uncertainty of measurement y±U, where expended uncertainly U is based on a standard uncertainty multiplied by a coverage factor of k=2,Providing a level of confidence of approximately 95%

- Uncertainty of Conducted Emission, Uc = ±1.8dB
- Uncertainty of Radiated Emission, Uc = ±3.2dB

3. TEST METHODOLOGY

3. 1TEST FACILITY

Test Site:	Most Technology Service Co., Ltd.
Location:	No.5, Langshan 2nd Rd, North Hi-Tech Industrial park, Nanshan, 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 C63.4:2009 and CISPR 16 requirements. The FCC Registration Number is **490827.** The **CNAS** Registration Number is **CNAS L3573.**
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 C63.4:2009 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 40 cm 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

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4:2009,Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m 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 C63.4:2009.

3.3 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41			

[1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2] Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

4 SETUP OF EQUIPMENT UNDER TEST

4.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

4.2 EUT configuration

Interface cables:

Interface cable	Length [m]	Type	Line shielded	unshielded	Line termination
Power cord	1.5	three wires	☐	☒	PC
Power cord	1.5	three wires	☐	☒	Printer
DVI Cord	1.8	Video type	☐	☒	PC
VGA Cord	1.8	Video type	☐	☒	PC
USB Cord	1.8	Video type	☐	☒	PC

Peripheral devices:

List out all peripheral not inclued with EuT used during the test

Kind of equipment	Manufacturer	Model no.
Mouse	Lenovo	M-UAE96
Keyboard	HP	SK-2880
PC	Lenovo	SS05750640
Printer	Canon	L11121E

Remark:

All the equipment/cables were placed in the worst-case [-configuration to maximize the emission during the test.

Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use

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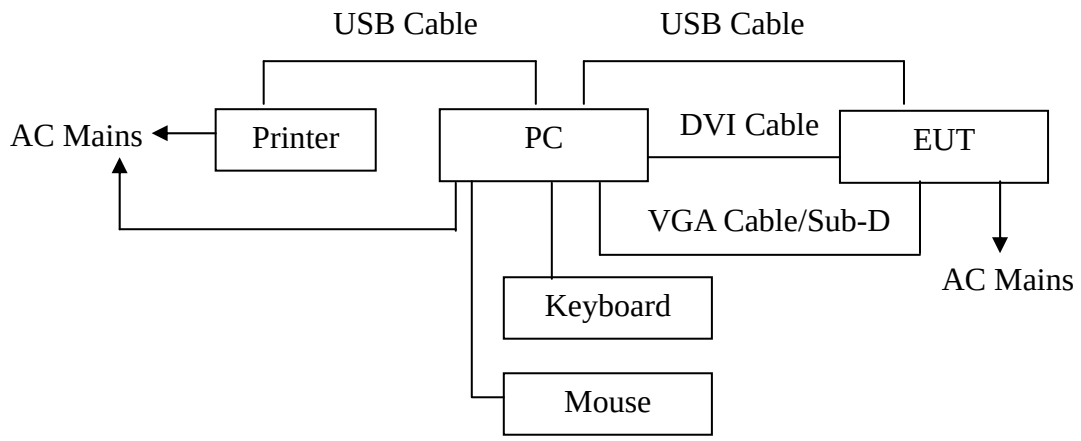
4.3 Block Diagram of connection between EUT and simulation



4. 3 TEST EQUIPMENT LIST

Instrumentation: The following list contains equipment used at MOST for testing. The equipment conforms to the CISPR 16-1 / ANSI C63.2 Specifications for Electromagnetic Interference and Field Strength Instrumentation from 10 kHz to 1.0 GHz or above.

No.	Equipment	Manufacturer	Model No.	S/N	Calibration due date
1	Test Receiver	Rohde & Schwarz	ESCI	100492	2015/03/10
2	L.I.S.N.	Rohde & Schwarz	ENV216	100093	2015/03/10
3	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2015/03/07
4	Terminator	Hubersuhner	50Ω	No.1	2015/03/07
5	RF Cable	SchwarzBeck	N/A	No.1	2015/03/07
6	Test Receiver	Rohde & Schwarz	ESPI	101202	2015/03/10
7	Bilog Antenna	Sunol	JB3	A121206	2015/03/14
8	Test Antenna - Horn	SCHWARZBECK	BBHA9120D	756	2015/03/14
9	Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	--	2015/03/14
10	Cable	Resenberger	N/A	NO.1	2015/03/07
11	Cable	SchwarzBeck	N/A	NO.2	2015/03/07
12	Cable	SchwarzBeck	N/A	NO.3	2015/03/07
13	DC Power Filter	DuoJi	DL2×30B	N/A	2015/03/07
14	Single Phase Power Line Filter	DuoJi	FNF 202B30	N/A	2015/03/07
15	3 Phase Power Line Filter	DuoJi	FNF 402B30	N/A	2015/03/07
16	Test Receiver	Rohde & Schwarz	ESCI	100492	2015/03/10
17	Absorbing Clamp	Luthi	MDS21	3635	2015/03/14
18	Coaxial Switch	Anritsu Corp	MP59B	6200283933	2015/03/07
19	AC Power Source	Kikusui	AC40MA	LM003232	2015/03/10
20	Test Analyzer	Kikusui	KHA1000	LM003720	2015/03/10
21	Line Impendence Network	Kikusui	LIN40MA-PCR-L	LM002352	2015/03/10
22	ESD Tester	Kikusui	KES4021	LM003537	2015/03/07
23	EMCPRO System	EM Test	UCS-500-M4	V0648102026	2015/03/10
24	Signal Generator	IFR	2032	203002/100	2015/03/10
25	Amplifier	A&R	150W1000	301584	2015/03/14
26	CDN	FCC	FCC-801-M2-25	47	2015/03/10
27	CDN	FCC	FCC-801-M3-25	107	2015/03/10
28	EM Injection Clamp	FCC	F-203I-23mm	403	2015/03/10
29	RF Cable	MIYAZAKI	N/A	No.1/No.2	2015/03/10
30	Universal Radio Communication Tester	ROHDE&SCHWARZ	CMU200	0304789	2015/03/10
31	Telecommunication Antenna	European Antennas	PSA 75301R/170	0304213	2015/03/10

NOTE: *Equipments listed above have been calibrated and are in the period of validation.*

5. 47 CFR PART 15B REQUIREMENTS

5.1 GENERAL INFORMATION

The field strength of radiation emission was measured in the following position: EUT stand-up position (Y axis), lie-down position (X, Z axis).

The following data show only with the worst case setup.

The worst case of X axis was reported.

Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report.

EUT Test Procedure:

1. Put EUT on the test table.
2. Power on the EUT.
3. Make sure the EUT operates normally during the test.

Mode 1: Running H Pattern

During the measurement, A Communication link was established by EUT between two ports. The EUT was playing the data exchange function.

The EUT configuration of the emission test was **PC+ Mouse + Keyboard + Printer + EUT.**

6. LINE CONDUCTED EMISSION TEST

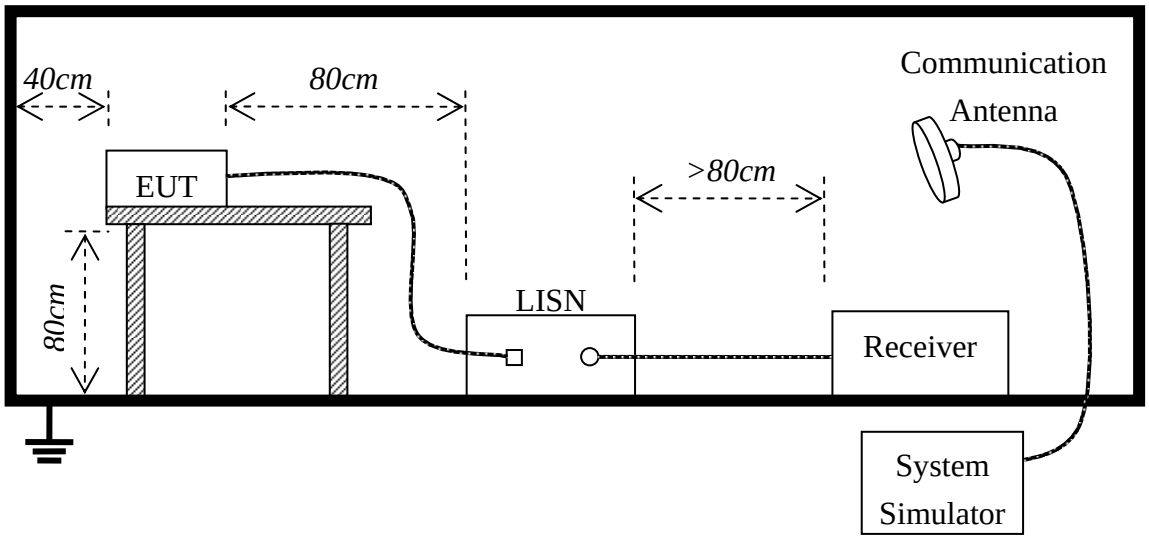
6.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P.(dBuV)	Average(dBuV)
150kHz-500kHz	66-56	56-46
500kHz-5MHz	56	46
5MHz-30MHz	60	50

***Note:** *1. the lower limit shall apply at the transition frequency.*

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz

6.2. BLOCK DIAGRAM OF TEST SETUP



6.3. 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 of 0.8 meters is used and is placed on the ground plane as per FCC Part 15 (see Test Facility for the dimensions of the ground plane used). When the EUT is floor-standing equipment, it is placed on the ground plane which has a 3-12 mm 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 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 150 kHz to 30 MHz for emissions in each of the test modes.
8) During the above scans, the emissions were maximized by cable manipulation.
9) The following test mode(s) were scanned during the preliminary test:

Preliminary Conducted Emission Test				
Frequency Range Investigated		150KHz TO 30 MHz		
Mode of operation	Date	Report No.	Data#	Worst Mode
Running H Pattern	2014-05-30	MTE/SAL/F14060620	HL1916SM_1_(L, N)	☒

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

6.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

EUT and support equipment was set up on the test bench as per step 9 of the preliminary test.
A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions.
Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –20dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.

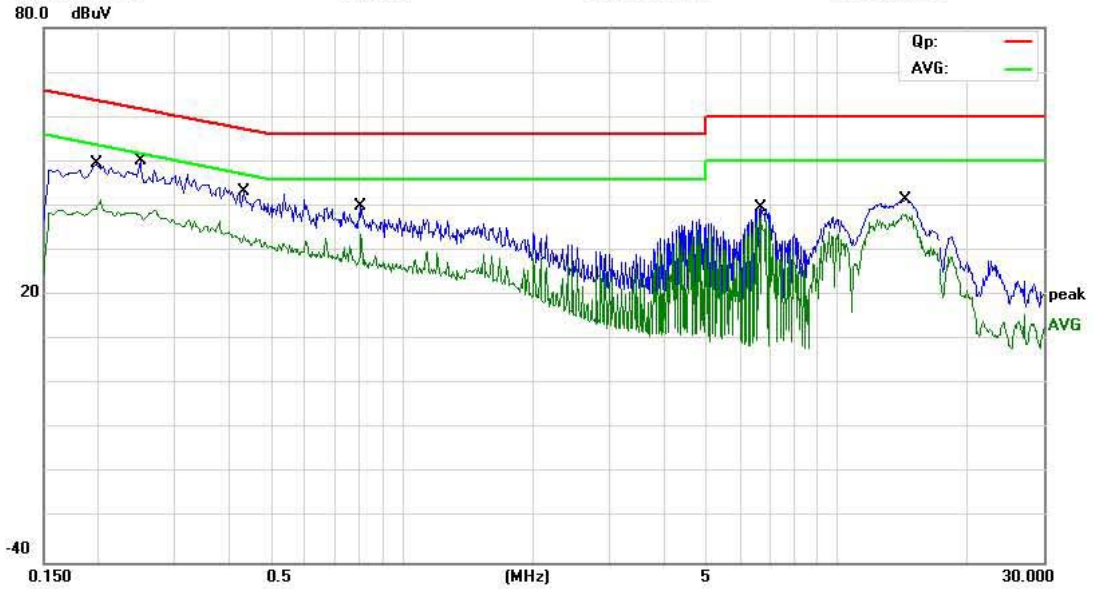
The test modes were carried out for all operation modes, The worst data was shown as the follow.

6.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Compliance Laboratory
Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong ,China
Tel: 0755-86026850 Fax: 0755-26013350

Conducted Emission Measurement

File :HL1916SM Data :#1 Date: 14/05/30/ Time: 16/43/40



Site MOST #1 Phase: L1 Temperature: 26
Limit: FCC Part 15B Class B Power: AC 120V/60Hz Humidity: 60 %
EUT: 19" LCD Monitor
M/N: HL1916SM
Mode: Running H Pattern
Note: DVI 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.4373	27.03	10.42	37.45	57.11	-19.66	QP	
2		0.4373	21.67	10.42	32.09	47.11	-15.02	AVG	
3		6.7191	28.47	10.97	39.44	60.00	-20.56	QP	
4		6.7191	26.44	10.97	37.41	50.00	-12.59	AVG	
5		0.2518	31.18	11.65	42.83	61.70	-18.87	QP	
6		0.2518	25.81	11.65	37.46	51.70	-14.24	AVG	
7		0.8008	22.90	10.00	32.90	56.00	-23.10	QP	
8		0.8008	18.61	10.00	28.61	46.00	-17.39	AVG	
9		14.2964	34.86	9.00	43.86	60.00	-16.14	QP	
10	*	14.2964	31.29	9.00	40.29	50.00	-9.71	AVG	
11		0.1978	32.41	11.87	44.28	63.70	-19.42	QP	
12		0.1978	26.88	11.87	38.75	53.70	-14.95	AVG	

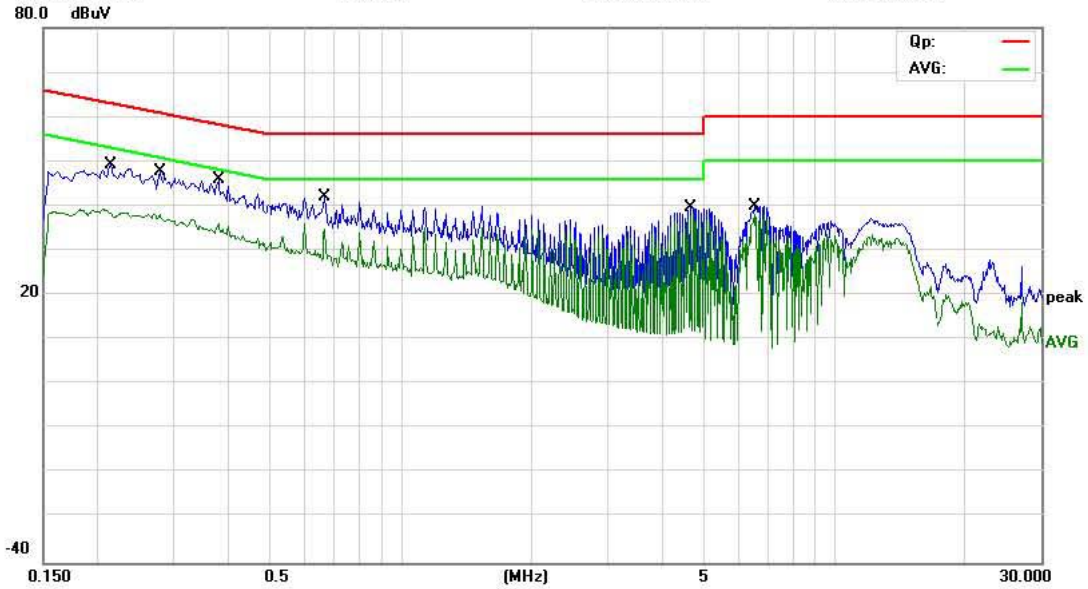
*:Maximum data x:Over limit !:over margin

Engineer Signature: John

Compliance Laboratory
Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong ,China
Tel: 0755-86026850 Fax: 0755-26013350

Conducted Emission Measurement

File :HL1916SM Data :#2 Date: 14/05/30/ Time: 16/49/50



Site MOST #1 Phase: N Temperature: 26
Limit: FCC Part 15B Class B Power: AC 120V/60Hz Humidity: 60 %
EUT: 19" LCD Monitor
M/N: HL1916SM
Mode: Running H Pattern
Note: DVI 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2170	31.70	11.89	43.59	62.93	-19.34	QP	
2		0.2170	26.25	11.89	38.14	52.93	-14.79	AVG	
3		0.2787	30.84	11.48	42.32	60.85	-18.53	QP	
4		0.2787	25.31	11.48	36.79	50.85	-14.06	AVG	
5		0.3812	29.47	10.79	40.26	58.25	-17.99	QP	
6		0.3812	24.29	10.79	35.08	48.25	-13.17	AVG	
7		0.6660	23.54	10.00	33.54	56.00	-22.46	QP	
8		0.6660	18.32	10.00	28.32	46.00	-17.68	AVG	
9		4.6764	28.94	11.68	40.62	56.00	-15.38	QP	
10	*	4.6764	27.29	11.68	38.97	46.00	-7.03	AVG	
11		6.5193	30.56	11.09	41.65	60.00	-18.35	QP	
12		6.5193	28.90	11.09	39.99	50.00	-10.01	AVG	

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

Engineer Signature: John

7. RADIATED EMISSION TEST

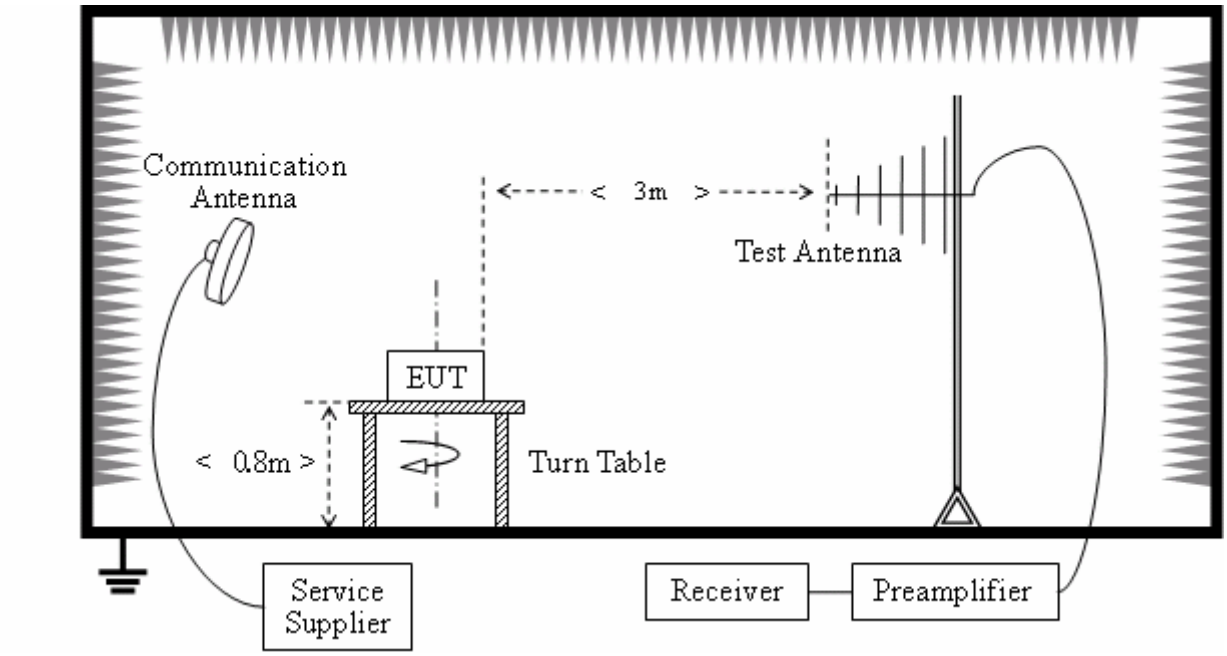
7.1. LIMITS OF RADIATED DISTURBANCES AT 3M DISTANCES FOR CLASS B

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

As shown in FCC section 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector. When average radiated emission measurements are specified in this part, including emission measurements below 1000MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules.

7.2 TEST DESCRIPTION



(1) The EUT was palced on a turntable with 0.8 meter above ground.

(2) The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

(3) The table was rotated 360 degrees to determine the position of the highest radiation.

(4) The antenna is a Bi-Log antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.

(5) For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1m to 4m) and turntable(from 0 degree to 360 degrees) to find the maximum reading.

(6) Set the test-receiver system to Peak Detect Function and specified bandwidth with maximum hold mode.

(7) If the emission level of the EUT in peak mode was 3dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.

(8) Emission level(dBuV/m)=20 log Emission level(uv/m).

(9) Corrected reading: Antenna Factor + cable loss + read level - Preamp Factor = level

7.3 TEST RESULT

Preliminary Radiated Emission Test				
Frequency Range Investigated			30 MHz TO 1000 MHz	
Mode of operation	Date	Report No.	Data#	Worst Mode
Running H Pattern	2014-06-04	MTE/SAL/F14060620	HL1916SM_1_(H, V)	☒

Note:

The test modes were carried out for all operation modes, The worst data was shown as the follow.

Below 1GHz

Compliance Laboratory
Address:No.5,Langshan 2nd Rd., North Hi-Tech Industrial park
Guangdong ,China
Tel: 0755-86026850 Fax: 0755-26013350

Radiated Emission Measurement

File :HL1916SM Data :#2 Date: 2014-6-4 Time: 17:56:48

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: HL1916SM
Mode: Running H Pattern
Note: DP 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		88.3421	9.04	11.40	20.44	43.50	-23.06	QP			
2		136.4598	9.22	17.37	26.59	43.50	-16.91	QP			
3		166.0680	14.92	17.24	32.16	43.50	-11.34	QP			
4		217.5443	20.52	16.20	36.72	46.00	-9.28	QP			
5	*	377.2591	21.38	18.12	39.50	46.00	-6.50	QP			
6		758.0408	10.36	25.64	36.00	46.00	-10.00	QP			

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

Engineer Signature:Lidegan

Compliance Laboratory
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Radiated Emission Measurement

File :HL1916SM Data :#1 Date: 2014-6-4 Time: 17:36:05

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: HL1916SM
Mode: Running H Pattern
Note: DP 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		31.3992	7.42	22.20	29.62	40.00	-10.38	QP			
2		51.6616	17.18	10.39	27.57	40.00	-12.43	QP			
3		127.6645	16.42	17.65	34.07	43.50	-9.43	QP			
4		184.4898	18.77	16.65	35.42	43.50	-8.08	QP			
5	!	377.2591	22.05	18.12	40.17	46.00	-5.83	QP			
6	*	487.3151	18.95	21.70	40.65	46.00	-5.35	QP			

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

Engineer Signature:Lidegan

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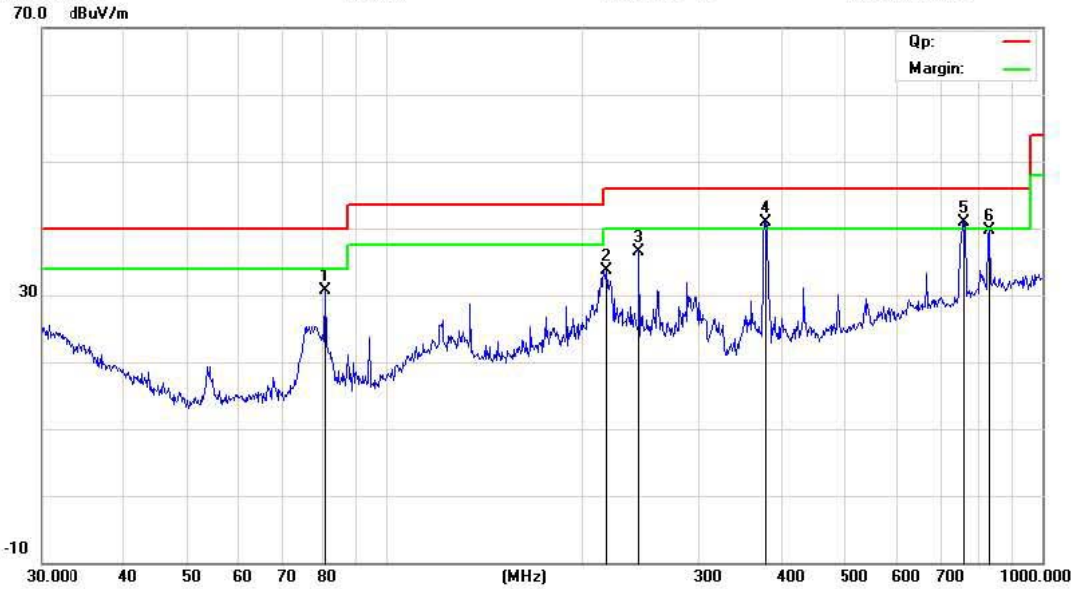
Radiated Emission Measurement

File :HL1916 Data :#7 Date: 2014-6-4 Time: 17:08:40



Site MOST #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD monitor Distance:
M/N: HL1916
Mode: Running H Pattern
Note: VGA 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		80.9274	19.38	11.40	30.78	40.00	-9.22	QP		0	
2		217.5443	17.60	16.20	33.80	46.00	-12.20	QP		0	
3		243.3771	19.33	17.27	36.60	46.00	-9.40	QP		0	
4	!	378.5843	22.78	18.12	40.90	46.00	-5.10	QP		0	
5	*	760.7035	15.36	25.62	40.98	46.00	-5.02	QP		0	
6		830.4001	12.67	27.00	39.67	46.00	-6.33	QP		0	

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

Engineer Signature: Allen

Compliance Laboratory
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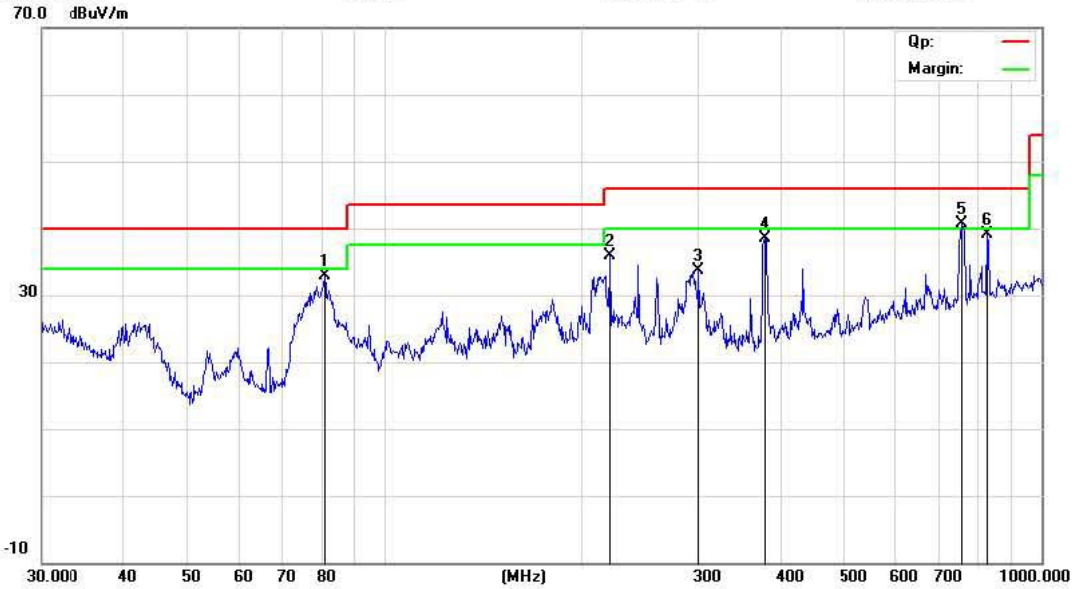
Radiated Emission Measurement

File :HL1916 Data :#8 Date: 2014-6-4 Time: 17:20:04



Site MOST #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD monitor Distance:
M/N: HL1916
Mode: Running H Pattern
Note: VGA 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		80.9274	21.59	11.40	32.99	40.00	-7.01	QP		0	
2		220.6171	19.67	16.31	35.98	46.00	-10.02	QP		0	
3		300.3672	14.56	19.20	33.76	46.00	-12.24	QP		0	
4		378.5843	20.30	18.12	38.42	46.00	-7.58	QP		0	
5	*	758.0408	15.12	25.64	40.76	46.00	-5.24	QP		0	
6		827.4934	12.20	26.87	39.07	46.00	-6.93	QP		0	

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

Engineer Signature: Allen

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Radiated Emission Measurement

File :HL1916AMT-R Data :#10 Date: 2014-6-4 Time: 17:34:36

Site MOST #1 Polarization: *Horizontal* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD monitor Distance:
M/N: HL1916AMT-R
Mode: Running H Pattern
Note: DVI 1280*1024

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		82.6480	12.21	11.40	23.61	40.00	-16.39	QP		0	
2		119.0180	8.17	17.36	25.53	43.50	-17.97	QP		0	
3		181.2834	14.26	16.69	30.95	43.50	-12.55	QP		0	
4		216.7828	20.50	16.18	36.68	46.00	-9.32	QP		0	
5		435.5898	15.04	20.30	35.34	46.00	-10.66	QP		0	
6	*	900.1474	12.51	27.40	39.91	46.00	-6.09	QP		0	

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

Engineer Signature: Allen

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

File :HL1916AMT-R Data :#9 Date: 2014-6-4 Time: 17:22:55

Site MOST #1 Polarization: *Vertical* Temperature: 26
Limit: FCC Part15 B 3M Radiation Power: AC 120V/60Hz Humidity: 61 %
EUT: 19"LCD monitor Distance:
M/N: HL1916AMT-R
Mode: Running H Pattern
Note: DVI 1280*1024

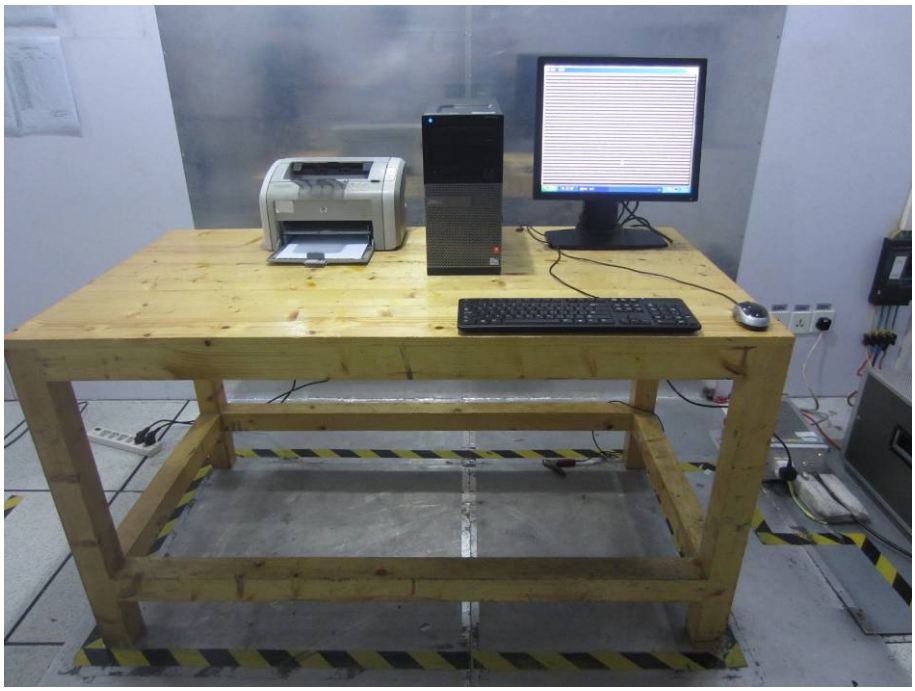
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		82.9384	20.63	11.40	32.03	40.00	-7.97	QP		0	
2		121.9755	12.51	17.54	30.05	43.50	-13.45	QP		0	
3		180.6488	18.51	16.69	35.20	43.50	-8.30	QP		0	
4		219.8448	18.01	16.30	34.31	46.00	-11.69	QP		0	
5	*	437.1200	20.50	20.30	40.80	46.00	-5.20	QP		0	
6		763.3757	13.60	25.70	39.30	46.00	-6.70	QP		0	

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

Engineer Signature: Allen

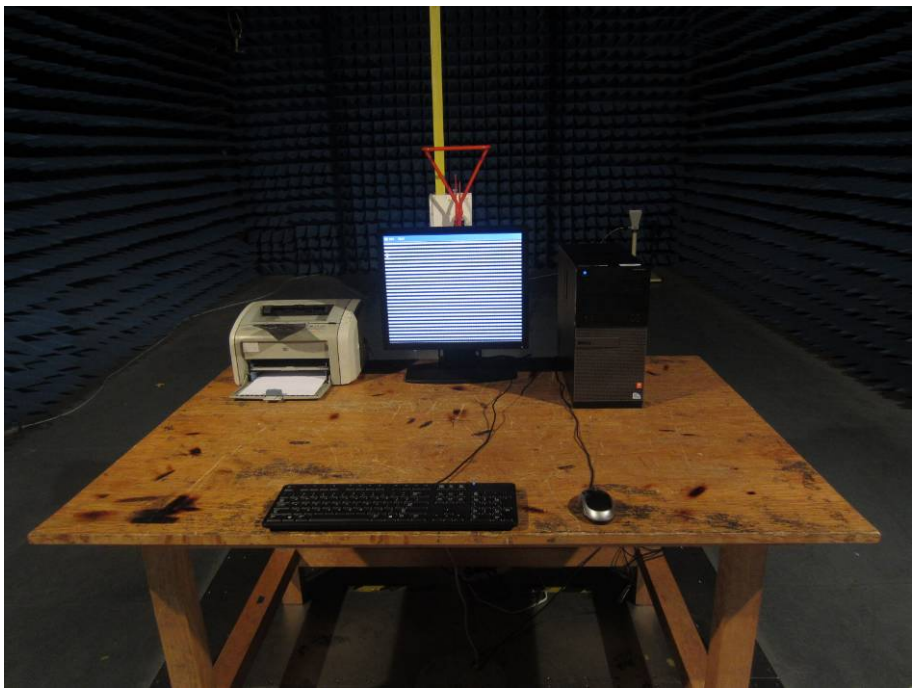
APPENDIX 1
PHOTOGRAPHS OF TEST SETUP

CE TEST SETUP OF HL1916SM-1

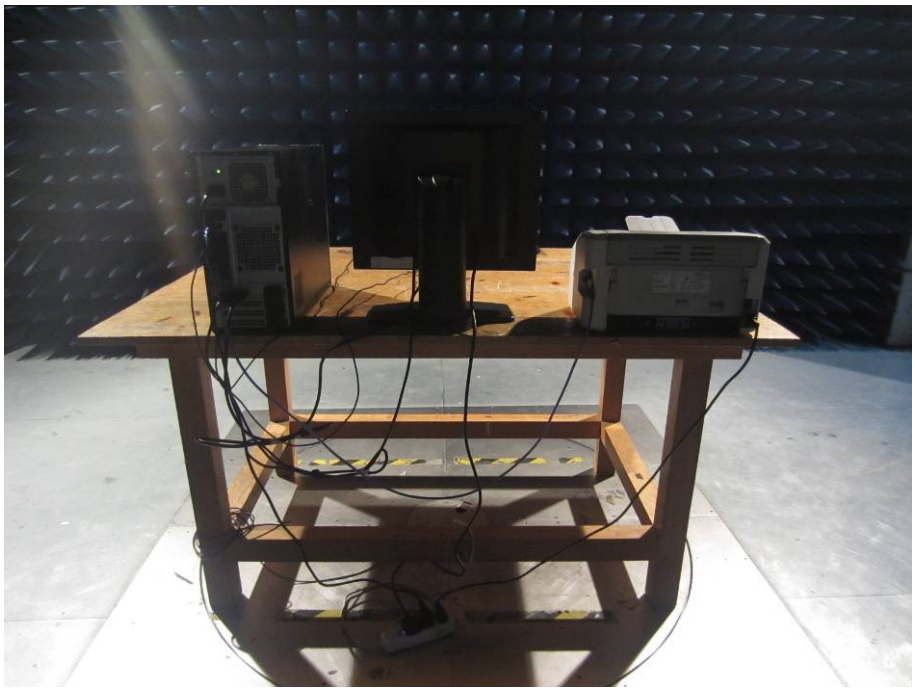


CE TEST SETUP OF HL1916SM-2

RE TEST SETUP OF HL1916SM-3



RE TEST SETUP OF HL1916SM-4



CE TEST SETUP OF F HL1916-1

CE TEST SETUP OF F HL1916-2

RE TEST SETUP OF HL1916-3

RE TEST SETUP OF HL1916-4

------END OF REPORT------