

Technical Compliance Statement

CE EMC Test Report

For the following information**Ref. File No.: C1M1601189**

Product : LCD Monitor
Model Number : (1)I2475PX** (2)238LM000**
Test Model Number : I2475PXQU
Brand : AOC
Applicant : Taiwan BOE Vision-electronic
Manufacturer : Taiwan BOE Vision-electronic
Factory : K Tronics (Suzhou) Technology Co., Ltd.
Standards :
Emission: EN 55022:2010 +AC: 2011, Class B
AS/NZS CISPR 22:2009 +A1:2010
EN 61000-3-2:2014 and EN 61000-3-3:2013
Immunity: EN 55024:2010
(IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2012,
IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009,
IEC 61000-4-11:2004)

We hereby certify that the above product has been tested by us with the listed standards and found in compliance with the council EMC directive 2004/108/EC. The test data & results are issued on the EMC test report no. **EM-E160084**.

Signature


Alex Deng/Deputy Manager

Date: 2016. 02. 01

Test Laboratory:
AUDIX Technology Corporation, EMC Department
TAF Accreditation No.: 1724
Web Site: www.audixtech.com



The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.



CERTIFICATE OF CONFORMITY

For the following information

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Test Report Number	EM-E160084
Standards	EN 55022:2010 +AC: 2011, Class B AS/NZS CISPR 22:2009 +A1:2010 EN 61000-3-2:2014 and EN 61000-3-3:2013 EN 55024:2010 (IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2012, IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009, IEC 61000-4-11:2004)

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EMC TEST REPORT
for
Taiwan BOE Vision-electronic
LCD Monitor
Model No.: (1)I2475PX** (2)238LM000**
Test Model No.: I2475PXQU
Brand : AOC

Prepared for : Taiwan BOE Vision-electronic
7F, No.2, Rei Kung Road., Nei Hu,
Taipei, Taiwan, ROC

Prepared By : AUDIX Technology Corporation
EMC Department
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File Number : C1M1601189
Report Number : EM-E160084
Date of Test : 2016. 01. 29 ~ 02. 01
Date of Report : 2016. 02. 01

TABLE OF CONTENTS

Description	Page
TEST REPORT VERIFICATION.....	4
1. DESCRIPTION OF VERSION.....	5
2. SUMMARY OF STANDARDS AND RESULTS.....	6
2.1. Description of Standards and Results.....	6
2.2. Description of Performance Criteria.....	7
3. GENERAL INFORMATION.....	8
3.1. Description of Device.....	8
3.2. Description of Tested Supporting Unit and Cable.....	11
3.3. Description of Test Facility.....	13
3.4. Measurement Uncertainty.....	13
4. CONDUCTED DISTURBANCE MEASUREMENT.....	14
4.1. Test Equipment.....	14
4.2. Block Diagram of Test Setup.....	14
4.3. Limits for Conducted Disturbance.....	14
4.4. Operating Condition of EUT.....	15
4.5. Test Procedure.....	15
4.6. Conducted Disturbance Measurement Results.....	16
5. RADIATED DISTURBANCE MEASUREMENT.....	19
5.1. Test Equipment.....	19
5.2. Block Diagram of Test Setup.....	19
5.3. Limits for Radiated Disturbance.....	21
5.4. Operating Condition of EUT.....	21
5.5. Test Procedure.....	21
5.6. Radiated Disturbance Measurement Results.....	23
6. POWER HARMONIC & FLICKER MEASUREMENT.....	28
6.1. Test Equipment.....	28
6.2. Block Diagram of Test Setup.....	28
6.3. Test Standard.....	28
6.4. Operating Condition of EUT.....	29
6.5. Test Results.....	29
7. ELECTROSTATIC DISCHARGE IMMUNITY TEST.....	33
7.1. Test Equipment.....	33
7.2. Block Diagram of Test Setup.....	33
7.3. Test Standard.....	34
7.4. Severity Levels and Performance Criterion.....	34
7.5. Operating Condition of EUT.....	34
7.6. Test Procedure.....	35
7.7. Test Results.....	35
8. RF FIELD STRENGTH IMMUNITY TEST.....	37
8.1. Test Equipment.....	37
8.2. Block Diagram of Test Setup.....	37
8.3. Test Standard.....	38
8.4. Severity Levels and Performance Criterion.....	38
8.5. Operating Condition of EUT.....	38
8.6. Test Procedure.....	39
8.7. Test Results.....	39
9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST.....	41

9.1. Test Equipment.....	41
9.2. Block Diagram of Test Setup.....	41
9.3. Test Standard	41
9.4. Severity Levels and Performance Criterion	42
9.5. Operating Condition of EUT	42
9.6. Test Procedure	43
9.7. Test Results.....	43
10. SURGE IMMUNITY TEST.....	45
10.1. Test Equipment.....	45
10.2. Block Diagram of Test Setup.....	45
10.3. Test Standard	45
10.4. Severity Levels and Performance Criterion	46
10.5. Operating Condition of EUT	46
10.6. Test Procedure	46
10.7. Test Results.....	47
11. CONDUCTED DISTURBANCE IMMUNITY TEST.....	49
11.1. Test Equipment.....	49
11.2. Block Diagram of Test Setup.....	49
11.3. Test Standard	49
11.4. Severity Levels and Performance Criterion	50
11.5. Operating Condition of EUT	50
11.6. Test Procedure	50
11.7. Test Results.....	51
12. POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST	53
12.1. Test Equipment.....	53
12.2. Block Diagram of Test Setup.....	53
12.3. Test Standard	53
12.4. Severity Levels and Performance Criterion	54
12.5. Operating Condition of EUT	54
12.6. Test Procedure	54
12.7. Test Results.....	54
13. VOLTAGE DIPS AND INTERRUPTIONS IMMUNITY TEST	56
13.1. Test Equipment.....	56
13.2. Block Diagram of Test Setup.....	56
13.3. Test Standard	56
13.4. Severity Levels and Performance Criterion	57
13.5. Operating Condition of EUT	57
13.6. Test Procedure	58
13.7. Test Results.....	58
14. PHOTOGRAPHS.....	60
14.1. Photos of Conducted Disturbance Measurement.....	60
14.2. Photos of Radiated Disturbance Measurement at Open Area Test Site (30-1000MHz).....	61
14.3. Photos of Radiated Emission Measurement at Semi-Anechoic Chamber (Above 1GHz)	62
14.4. Photos of Harmonic & Flicker Measurement	63
14.5. Photos of Electrostatic Discharge Immunity Test	64
14.6. Photos of RF Strength Immunity Test.....	70
14.7. Photos of Electrical Fast Transient/Burst Immunity Test.....	71
14.8. Photos of Surge Immunity Test	71
14.9. Photos of Injected Currents Immunity Test.....	72
14.10. Photos of Power Frequency Magnetic Field Immunity Test.....	72
14.11. Photos of Voltage Dips and Interruptions Immunity Test	73

APPENDIX (Photos of EUT)

TEST REPORT VERIFICATION

Applicant : Taiwan BOE Vision-electronic
 Manufacturer : Taiwan BOE Vision-electronic
 Factory : K Tronics (Suzhou) Technology Co., Ltd.
 EUT Description : LCD Monitor
 (A) Model No. : (1)I2475PX** (2)238LM000**
 (B) Test Model No. : I2475PXQU
 (C) Serial No. : N/A
 (D) Brand Name : AOC
 (E) Power Supply : AC 100-240V, 50/60Hz
 (F) Test Voltage : AC 230V, 50Hz

Measurement Procedure Used:

Emission: EN 55022:2010 +AC: 2011, Class B
 AS/NZS CISPR 22:2009 +A1:2010
 EN 61000-3-2:2014 and EN 61000-3-3:2013

Immunity: EN 55024:2010
 (IEC 61000-4-2:2008, IEC 61000-4-3:2010, IEC 61000-4-4:2012,
 IEC 61000-4-5:2014, IEC 61000-4-6:2013, IEC 61000-4-8:2009,
 IEC 61000-4-11:2004)

(Note: The EN 55022 emission measurement results are deemed satisfactory evidence of compliance with AS/NZS CISPR 22 regulations)

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device, its ensured severity levels, and performance criterion. This test report contains the measurement results, and AUDIX Technology Corporation assumes full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is technically compliance with the requirements of EN 55022(CISPR 22 & AS/NZS CISPR 22) · EN 61000-3-2, -3 and EN 55024 standards.

This report applies to above tested sample only and shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test : 2016. 01. 29 ~ 02. 01

Date of Report : 2016. 02. 01

Producer :



 (Kitty Ni/Administrator)

Signatory :



 (Alex Deng/Deputy Manager)

1. DESCRIPTION OF VERSION

Edition No.	Date of Revision	Revision Summary	Report Number
0	2016. 02. 01	Original Report.	EM-E160084

2. SUMMARY OF STANDARDS AND RESULTS

2.1. Description of Standards and Results

The EUT has been tested according to the applicable standards as referenced below.

EMISSION			
Description of Test Item	Standard	Limits	Results
Conducted disturbance at main terminal	EN 55022:2010 +AC: 2011	Class B	PASS
Conducted common mode disturbance at telecommunication port	EN 55022:2010 +AC: 2011	Class B	N/A
Radiated disturbance	EN 55022:2010 +AC: 2011	Class B	PASS
Harmonic current emissions	EN 61000-3-2:2014	Class D	PASS
Voltage fluctuations & flicker	EN 61000-3-3:2013	Section 5	PASS
IMMUNITY (EN 55024:2010)			
Description of Test Item	Basic Standard	Performance Criteria	Results
Electrostatic discharge (ESD)	IEC 61000-4-2:2008	B	PASS
Radio-frequency, Continuous radiated disturbance	IEC 61000-4-3:2010	A	PASS
Electrical fast transient (EFT)	IEC 61000-4-4:2012	B	PASS
Surge (Input a.c. power ports)	IEC 61000-4-5:2014	B	PASS
Surge (Telecommunication ports)		C	N/A
Radio-frequency, Continuous conducted disturbance	IEC 61000-4-6:2013	A	PASS
Power frequency magnetic field	IEC 61000-4-8:2009	A	PASS
Voltage dips, >95% reduction	IEC 61000-4-11:2004	B	PASS
Voltage dips, 30% reduction		C	PASS
Voltage interruptions		C	PASS
N/A is an abbreviation for Not Applicable.			

2.2. Description of Performance Criteria

2.2.1. Performance criterion A

During the test, when seen from the normal viewing distance, the EUT shall operate with no change beyond the manufacturer's specification, in flicker, colour, focus and jitter (except for the power frequency magnetic field test).

Power frequency magnetic field test

For CRT monitors, the following also applies:

The jitter shall be measured when the CRT monitor is immersed in a continuous magnetic field of 1 A/m (r.m.s.) at one of the power frequencies of 50 Hz or 60 Hz.

For displays with pixels having continuous luminance distributions only, jitter may be measured using a measuring microscope of at least 20 power. The movement is determined by visual alignment of the microscope cursor or comparator reticle with the extreme positions of the centroid or edge of a character or test object during the observation period.

For any display type, a special display-measuring device may be used. This device shall determine, on a scan-by-scan basis, the relative location of a character or test object. If a device is used that determines movement along the horizontal and vertical axes only, the extent of the jitter shall be defined as the square root of the sum of the squares of the maximum horizontal and vertical differences.

Observations shall extend for periods of at least 4 s. Measuring devices that sample scans shall accumulate a number of scans equivalent to at least 4 s of continuous observation.

The maximum jitter permitted is given by:

$$J \leq \frac{(C + 0,3) \times 2,5}{33,3}$$

where

J is the jitter (in mm);

C is the character height (in mm).

Alternatively, a field of 50 A/m may be applied, and a transparent graduated mask used to assess the jitter. In this case, the jitter shall not exceed 50 times the value in the above formula.

The EUT shall be tested in two positions, both perpendicular to the magnetic field.

2.2.2. Performance criterion B

Screen disturbances during the application of the test are permissible if they self-recover after removal of the external disturbance.

2.2.3. Performance criterion C

Failures during the test that cannot self-recover after removal of the external disturbance, but which can be recovered after the test to normal operation by reset or reboot are permissible.

3. GENERAL INFORMATION

3.1. Description of Device

Description	:	LCD Monitor
Model Number	:	(1)I2475PX** (2)238LM000** (* = alphameric or blank) The difference of above models is in sales marketing.
Test Model Number	:	I2475PXQU
Serial Number	:	N/A
Brand Name	:	AOC
Applicant	:	Taiwan BOE Vision-electronic 7F, No.2, Rei Kung Road., Nei Hu, Taipei, Taiwan, ROC
Manufacturer	:	Taiwan BOE Vision-electronic 7F, No.2, Rei Kung Road., Nei Hu, Taipei, Taiwan, ROC
Factory	:	K Tronics (Suzhou) Technology Co., Ltd. No. 1700, Zhongshan North Road, Economic and Technological Development Zone, Wujiang District, Suzhou, Jiangsu Province, PRC
Max. Resolution	:	1920*1080/60Hz

D-Sub Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
DVI Cable	:	Shielded, Detachable, 1.8m Bonded two ferrite cores
DP Cable	:	Shielded, Detachable, 1.8m
USB Cable	:	Shielded, Detachable, 1.8m
Audio Cable	:	Unshielded, Detachable, 1.8m
AC Power Cord	:	Unshielded, Detachable, 1.5m (3C)
Date of Receipt of Sample	:	2016. 01. 27
Date of Test	:	2016. 01. 29 ~ 02. 01

Remark 1:

The EUT is a LCD Monitor which input/output ports provided as follows:

Back View:

- (1) One AC Input Port
- (2) One DP Port
- (3) One DVI Port
- (4) One HDMI Port
- (5) One D-Sub Port
- (6) One Audio Port
- (7) One Earphone Port
- (8) Three USB Ports

Side View:

- (9) Two USB Ports

Remark 2:

The EUT with the following test modes were pre-scanned.

Test Item	Input Port	Panel Angle	Display, Resolution/Frequency
Conducted Disturbance	DP	0°	“H” Pattern, 1920*1080/60Hz
	DVI		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1920*1080/60Hz
	D-Sub		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1280*1024/75Hz
	HDMI	“H” Pattern, 640*480/60Hz	
Radiated Disturbance (30-1000MHz)	DP	0°	“H” Pattern, 1920*1080/60Hz
	DVI		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1920*1080/60Hz
	D-Sub		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1280*1024/75Hz
	HDMI	“H” Pattern, 640*480/60Hz	
Radiated Disturbance (Above 1GHz)	DP	0°	“H” Pattern, 1920*1080/60Hz
	DVI		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1920*1080/60Hz
	D-Sub		“H” Pattern, 1920*1080/60Hz
	DVI		“H” Pattern, 1280*1024/75Hz
	DVI	90°	“H” Pattern, 1080*1920/60Hz
H & V	DVI	0°	“H” Pattern, 1920*1080/60Hz
All EMS test	DP	0°	“H” Pattern, 1920*1080/60Hz
	DVI		“H” Pattern, 1920*1080/60Hz
	HDMI		“H” Pattern, 1920*1080/60Hz
	D-Sub		“H” Pattern, 1920*1080/60Hz
	HDMI	90°	“H” Pattern, 1080*1920/60Hz

Finally, the under worse test modes were demonstrated compliance with the standards in the report.

Test Item	Input Port	Panel Angle	Display, Resolution/Frequency
Conducted Disturbance	HDMI	0°	“H” Pattern, 1920*1080/60Hz
Radiated Disturbance (30-1000MHz)	HDMI	0°	“H” Pattern, 1920*1080/60Hz
Radiated Disturbance (Above 1GHz)	DVI	0°	“H” Pattern, 1920*1080/60Hz
H & V	DVI	0°	“H” Pattern, 1920*1080/60Hz
All EMS test	HDMI	0°	“H” Pattern, 1920*1080/60Hz

3.2. Description of Tested Supporting Unit and Cable

3.2.1. Support Peripheral Unit

No.	Product	Brand	Model No.	Serial No.	Approval
For Conducted, Radiated Disturbance Measurements Tests Used					
1.	PC System	DELL	D09M	8BLJYBX	By DoC
2.	Printer	HP	VCVRA-1004	CQXD35G6H23D0	By DoC
3.	USB Keyboard	DELL	KB212-B	CN-05V23T-71581-28R-000U	By DoC
4.	USB Mouse	DELL	MS111-T	CN-0KW2YH-71616-28K-0PXW	By DoC
5.	I-POD Earphone	APPLE	N/A	N/A	N/A
6.	External Hard Drive #1	SONY	HD-E1	0CDL0A154182E2F	By DoC
7.	External Hard Drive #2	SONY	HD-E1	0CDL0A154181855	By DoC
8.	USB Storage Media #1	pqi	U273	N/A	By DoC
9.	USB Storage Media #2	pqi	U273	N/A	By DoC
10.	USB Storage Media #3	pqi	U273	N/A	By DoC
For Harmonic, Flicker Measurements and EMS Immunity Tests Used					
1.	PC System	Lenovo	MT-M 2697-AH5	PB5TXNE	By DoC
2.	USB Keyboard	Lenovo	KU-0225	3630	By DoC
3.	USB Mouse	Lenovo	M-U0025-0	N/A	By DoC
4.	I-POD Earphone	APPLE	N/A	N/A	N/A
5.	External Hard Drive #1	WD	WDBUZG5000ABK-05	WX41E34WJ602	By DoC
6.	External Hard Drive #2	WD	WDBUZG5000ABK-05	WXD1EB3CYSE6	By DoC
7.	External Hard Drive #3	WD	WDBUZG5000ABK-05	WX41E34AV368	By DoC
8.	External Hard Drive #4	WD	WDBUZG5000ABK-05	WX41A4484556	By DoC

3.2.2. Cable List

No.	Cable Description Of The Above Support Units
For Conducted, Radiated Disturbance Measurements Tests Used	
1.	HDMI Cable: Shielded, Detachable, 1.8m AC Power Cord: Unshielded, Detachable, 1.8m
2.	USB Cable: Shielded, Detachable, 1.8m AC Power Cord: Unshielded, Detachable, 1.8m
3.	USB Cable: Shielded, Undetachable, 1.8m
4.	USB Cable: Shielded, Undetachable, 1.8m
5.	Earphone Cable: Unshielded, Undetachable, 0.9m
6.	USB Cable: Shielded, Detachable, 0.5m
7.	USB Cable: Shielded, Detachable, 0.5m
8.	USB Cable: Shielded, Detachable, 1.0m
9.	USB Cable: Shielded, Detachable, 1.0m
10.	USB Cable: Shielded, Detachable, 1.0m
For Harmonic, Flicker Measurements and EMS Immunity Tests Used	
1.	HDMI Cable: Shielded, Detachable, 1.8m AC Power Cord: Unshielded, Detachable, 1.8m
2.	USB Cable: Shielded, Undetachable, 1.8m
3.	USB Cable: Shielded, Undetachable, 1.8m
4.	Earphone Cable: Unshielded, Undetachable, 0.9m
5.	USB Cable: Shielded, Detachable, 0.5m
6.	USB Cable: Shielded, Detachable, 0.5m
7.	USB Cable: Shielded, Detachable, 0.5m
8.	USB Cable: Shielded, Detachable, 0.5m

3.3. Description of Test Facility

Name of Firm	:	AUDIX Technology Corporation EMC Department No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
Test Facility & Location	:	No. 5 Shielded Room & No. 5 Open Area Test Site & No. 2 Semi-Anechoic Chamber No. 67-4, Dingfu, Linkou Dist., New Taipei City 244, Taiwan Immunity Test Site No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
NVLAP Lab. Code	:	200077-0
TAF Accreditation No	:	1724

3.4. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty (dB)
Conduction Test	150kHz~30MHz	±3.5dB
Radiation Test	30MHz~1000MHz	±4.3dB
	1GHz~6GHz	±4.8dB
	6GHz~18GHz	±4.8dB
RF Field Strength Susceptibility Test	80MHz ~ 200MHz	±1.7dB
	200MHz ~ 1000MHz	±1.8dB
	Above 1GHz	±1.7dB

Remark : Uncertainty = $ku_c(y)$

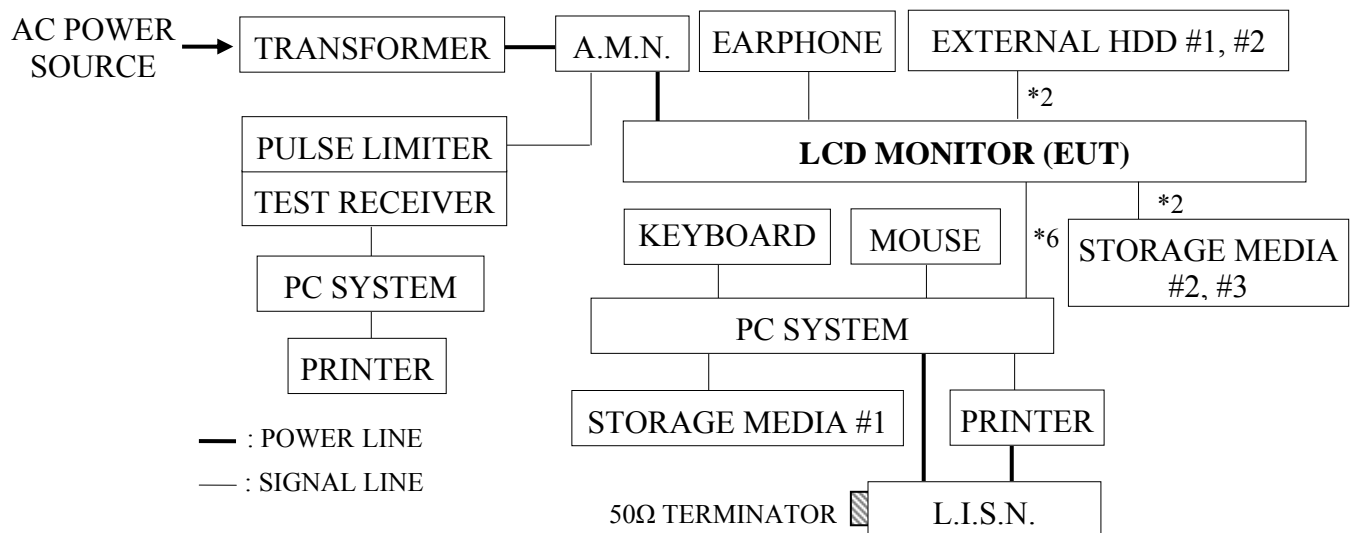
4. CONDUCTED DISTURBANCE MEASUREMENT

4.1. Test Equipment

The following test equipment were used during the powerline conducted disturbance measurement : (No. 5 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	101773	2015. 02. 11	1 Year
2.	A.M.N.	R&S	ENV4200	100003	2015. 06. 08	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-1539-2	2016. 01. 07	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	100355	2016. 01. 17	1 Year

4.2. Block Diagram of Test Setup



4.3. Limits for Conducted Disturbance

(EN 55022、AS/NZS CISPR 22, Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dB μ V	56 ~ 46 dB μ V
500kHz ~ 5MHz	56 dB μ V	46 dB μ V
5MHz ~ 30MHz	60 dB μ V	50 dB μ V

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2.: The lower limit applies at the band edges.

4.4. Operating Condition of EUT

- 4.4.1. Set up the **LCD Monitor (EUT)** and simulator as shown on 4.2.
- 4.4.2. To turn on the power of all equipment.
- 4.4.3. The PC system read data from disk.
- 4.4.4. The PC system was running the self-test program “Hwin” by Windows 7 and sending “H” characters to the EUT via HDMI input, the screen was filling with “H” pattern by EUT’s resolution.
- 4.4.5. The PC system was reading & wrote data into External HDD and USB Storage Media via USB port of EUT.
- 4.4.6. The PC system was running the program “Windows Media Player” and sending sounds to Earphone.
- 4.4.7. The other peripheral devices were driven and operated in turn during all testing.

4.5. Test Procedure

The EUT was put on table which was above the ground by 80cm and its power cord was connected to the AC mains through an Artificial Mains Network (A.M.N.). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)

Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed according to EN 55022 Class B regulations during conducted emission measurement.

The bandwidth of the R&S Test Receiver ESR3 was set at 9kHz.

The frequency range from 150kHz to 30MHz was pre-scanned with a peak detector.

The all final readings from test receiver were measured with Quasi-Peak detector and Average detector. (Remark : If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

4.6. Conducted Disturbance Measurement Results

PASSED. All emissions not reported are below too low against the prescribed limits.

The EUT with following the worst test mode was performed during this section testing and to read Q.P and Average value, and the test data are listed in next pages.

EUT : LCD Monitor Model No. : I2475PXQU

Test Date : 2016. 01. 29 Temperature : 22°C Humidity : 60%

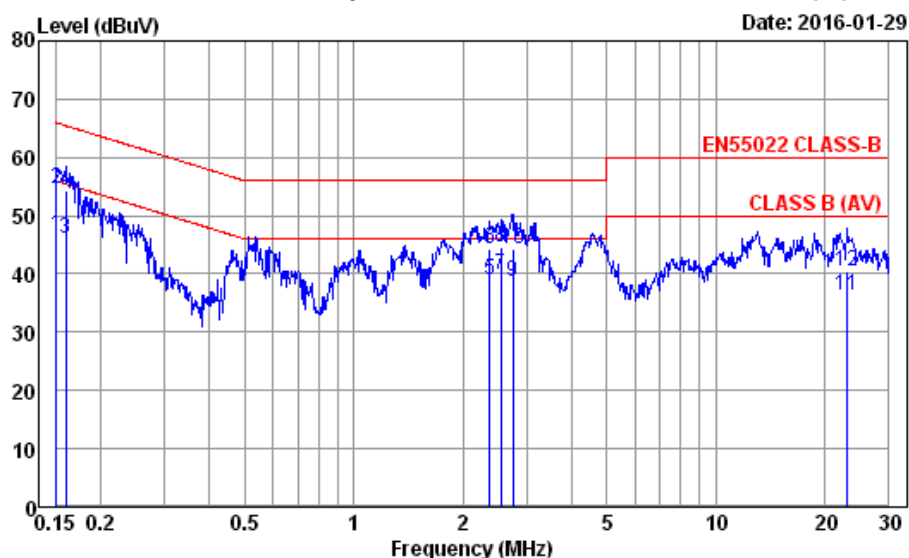
The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency	Reference Test Data No.	
				Neutral	Line
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz	# 16	# 15



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Data: 16 File: D:\test-data\Report\2016\C1M1601XXX\C1M1601189-C-D.EM6 (42)



Site no. : No.5 Shielded Room Data no. : 16
 Condition : ENV4200 100003 LISN Phase : NEUTRAL
 Limit : EN55022 CLASS-B
 Env. / Ins. : 22°C/60% ESR3 (101773) Engineer : EDWARD
 EUT : I2475PXQU
 Power Rating : 230Vac / 50Hz
 Test Mode : 1920*1080/60Hz HDMI

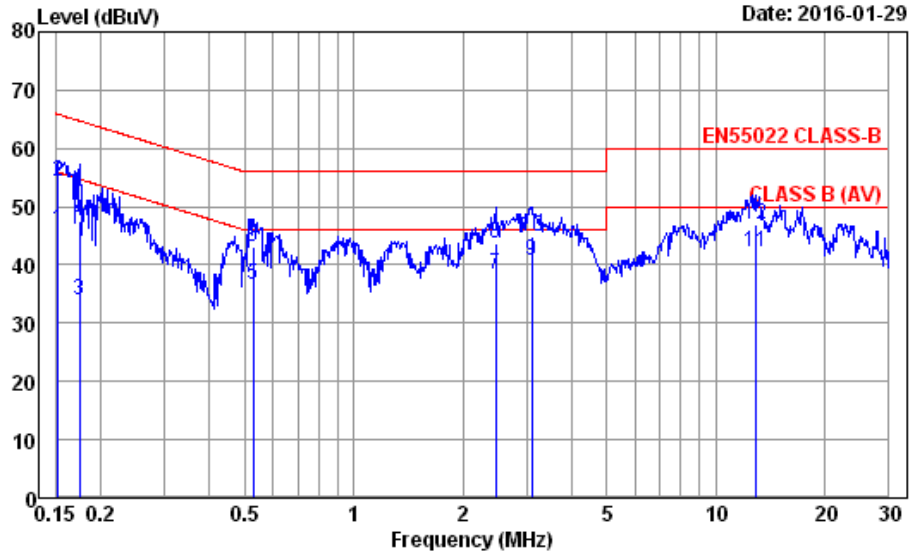
	AMN	Cable	Pulse	Emission					
	Freq.	Factor	Loss	Att.	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB)	(dB)	(dB)	(dB μ V)	(dB μ V)	(dB μ V)	(dB)	
1	0.151	10.20	0.03	9.86	26.58	46.67	55.96	9.29	Average
2	0.151	10.20	0.03	9.86	34.50	54.59	65.96	11.37	QP
3	0.160	10.19	0.03	9.86	25.99	46.07	55.47	9.40	Average
4	0.160	10.19	0.03	9.86	34.32	54.40	65.47	11.07	QP
5	2.371	10.04	0.06	9.86	19.06	39.02	46.00	6.98	Average
6	2.371	10.04	0.06	9.86	24.19	44.15	56.00	11.85	QP
7	2.554	10.05	0.07	9.86	19.89	39.87	46.00	6.13	Average
8	2.554	10.05	0.07	9.86	24.67	44.65	56.00	11.35	QP
9	2.750	10.06	0.07	9.86	18.82	38.81	46.00	7.19	Average
10	2.750	10.06	0.07	9.86	24.15	44.14	56.00	11.86	QP
11	23.018	13.43	0.21	9.96	12.62	36.22	50.00	13.78	Average
12	23.018	13.43	0.21	9.96	16.75	40.35	60.00	19.65	QP

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



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Data: 15 File: D:\test-data\Report\2016\C1M1601XXX\C1M1601189-C-D.EM6 (42)



Date: 2016-01-29

Site no. : No.5 Shielded Room Data no. : 15
 Condition : ENV4200 100003 LISN Phase : LINE
 Limit : EN55022 CLASS-B
 Env. / Ins. : 22°C/60% ESR3 (101773) Engineer : EDWARD
 EUT : I2475PXQU
 Power Rating : 230Vac / 50Hz
 Test Mode : 1920*1080/60Hz HDMI

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.152	10.21	0.03	9.86	25.84	45.94	55.87	9.93	Average
2	0.152	10.21	0.03	9.86	34.31	54.41	65.87	11.46	QP
3	0.175	10.18	0.03	9.86	14.01	34.08	54.72	20.64	Average
4	0.175	10.18	0.03	9.86	27.55	47.62	64.72	17.10	QP
5	0.527	10.03	0.03	9.86	16.73	36.65	46.00	9.35	Average
6	0.527	10.03	0.03	9.86	23.14	43.06	56.00	12.94	QP
7	2.461	10.11	0.07	9.86	18.47	38.51	46.00	7.49	Average
8	2.461	10.11	0.07	9.86	23.63	43.67	56.00	12.33	QP
9	3.107	10.17	0.07	9.86	20.55	40.65	46.00	5.35	Average
10	3.107	10.17	0.07	9.86	24.78	44.88	56.00	11.12	QP
11	12.852	11.88	0.16	9.90	20.17	42.11	50.00	7.89	Average
12	12.852	11.88	0.16	9.90	25.08	47.02	60.00	12.98	QP

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

5. RADIATED DISTURBANCE MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

5.1.1. For 30MHz-1000MHz Frequency (At No. 5 Open Area Test Site)

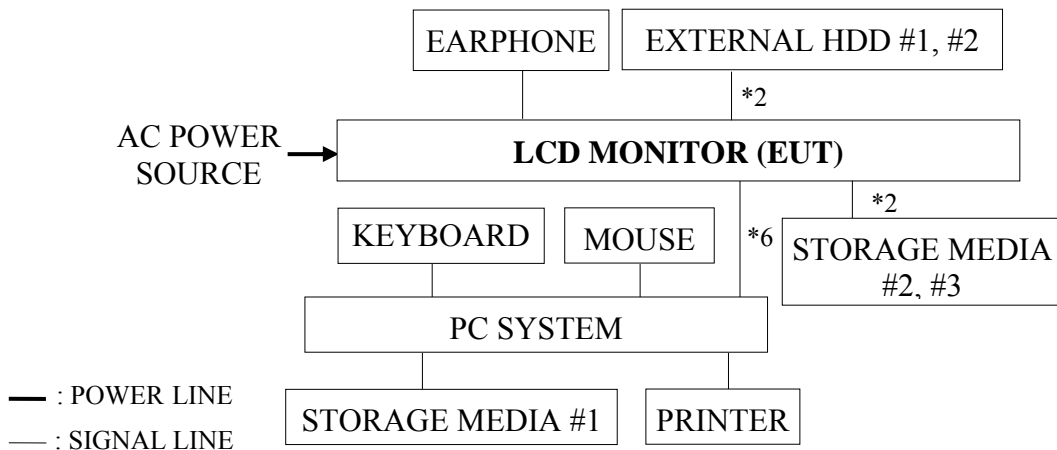
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Due Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-503	MY54430212	2015. 11. 30	1 Year
2.	Test Receiver	R&S	ESCS30	100337	2015. 04. 28	1 Year
3.	Amplifier	HP	8447D	2944A07185	NCR	NCR
4.	Log Periodic Antenna	CHASE	UPA6109	1061	2015. 02. 27	1 Year
5.	Biconical Antenna	CHASE	VBA6106A	1262	2015. 02. 27	1 Year

5.1.2. For Above 1GHz Frequency (At No.2 Semi-Anechoic Chamber)

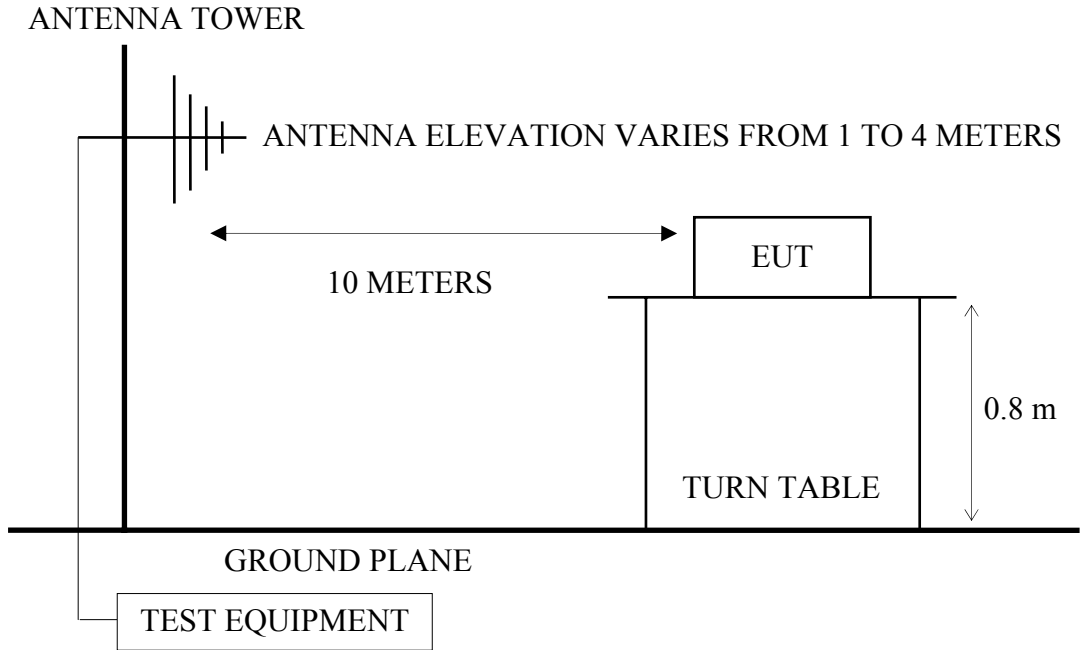
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY48031076	2015. 09. 24	1 Year
2.	Amplifier	HP	8447D	2944A07178	2015. 05. 05	1 Year
3.	Horn Antenna	EMCO	3115	9112-3775	2015. 05. 11	1 Year

5.2. Block Diagram of Test Setup

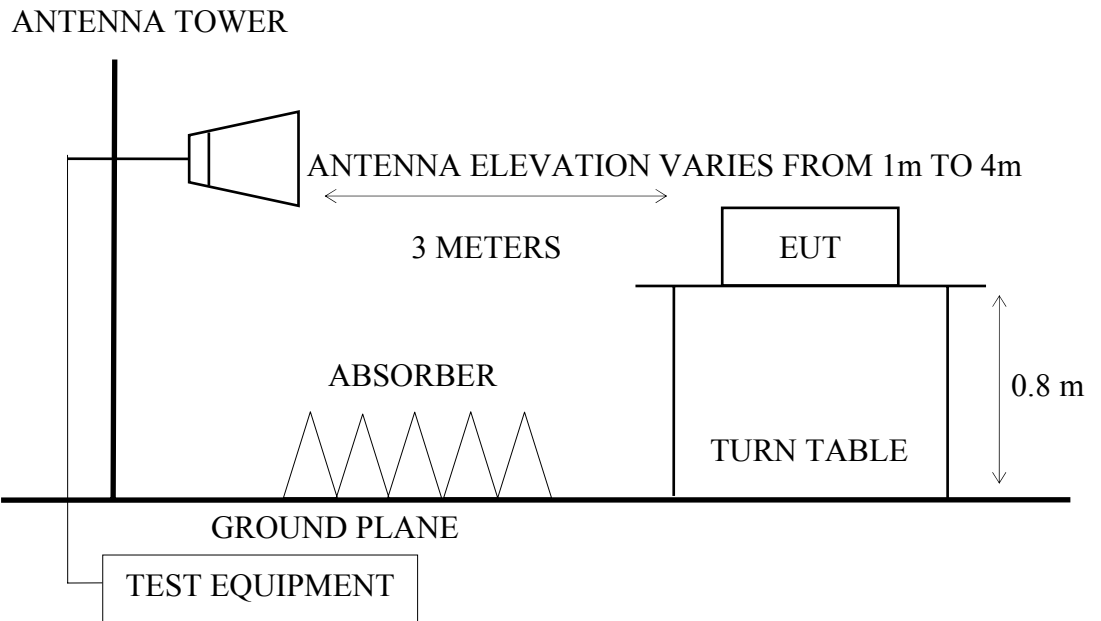
5.2.1. Block Diagram of connection between EUT and simulators



5.2.2. Open Area Test Site (10m) Setup Diagram for 30-1000MHz



5.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



5.3. Limits for Radiated Disturbance

(EN 55022, AS/NZS CISPR 22, Class B)

5.3.1. Limit below 1GHz

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dB μ V/m)
30 ~ 230	10	30
230 ~ 1000	10	37

Notes: (1) The tighter limit applies at the edge between two frequency bands.
 (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the E.U.T.

5.3.2. Limit above 1GHz

Frequency (GHz)	Distance (Meters)	Average Limits (dB μ V/m)	Peak Limits (dB μ V/m)
1 ~ 3	3	50	70
3 ~ 6	3	54	74

Note : (1) The lower limit applies at the transition frequency.
 (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the E.U.T.

5.4. Operating Condition of EUT

Same as conducted measurement which is listed in 4.4.
 except the test set up replaced by section 5.2.

5.5. Test Procedure

5.5.1. For Frequency Range was 30MHz-1000MHz which measurement distance was 10m at Open Area Test Site:

The EUT was placed on a turn table which was 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 10 meters away from the receiving antenna which is mounted on an antenna tower. The antenna could be moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to EN55022 Class B requirements.

The bandwidth of the R&S Test Receiver ESCS30 was set at 120 kHz.

The frequency range from 30MHz to 1000MHz was pre-scanned with Peak detector and all the final readings of measurement were with Quasi-Peak detector.

- 5.5.2. For Frequency Range was above 1GHz which measurement distance was 3m at Semi-Anechoic Chamber:

The EUT and its simulators were placed on a turn table which was 0.8 meter above ground. The portion of the test volume that was obstructed by absorber placed on the floor (30cm maximum). The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set to 3 meters away from the receiving antenna which was mounted on an antenna tower. The antenna could be moved up and down between 1 to 4 meters to find out the maximum emission level. A calibrated Horn Antenna was used as a receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement, and both average and peak emission level were recorded from spectrum analyzer. In order to find the maximum emission level, all the interface cables were manipulated according to EN 55022 Class B on radiated measurement.

The resolution bandwidth of Agilent Spectrum Analyzer N9010A-526 was set at 1MHz.

The frequency range above 1GHz was checked and all final readings of measurement were with Peak and Average detector.

In chapter 7.6.6.1 the standard EN 55016-2-3:2010 requires to include the values of w in the test report:

“ w ” The dimension of the line tangent to the EUT formed by θ_{3dB} at the measurement distance d . Equation shall be used to calculate w for each actual antenna and measurement distance used. The values of w shall be included in the test report. This calculation may be based on the manufacturer-provided receive-antenna beamwidth specifications:

$$w = 2 \times d \times \tan (0,5 \times \theta_{3dB})$$

Frequency GHz	3115 Horn	
	d = 3m	
	$\theta_{3dB} \text{ (min)}$ (°)	$w \text{ (min)}$ (m)
1.00	66	3.90
2.00	54	2.42
4.00	50	2.07
6.00	34	1.83

The values of w . are greater than chapter 7.6.6.1 of Table 3, the minimum dimension of w . ($w \text{ min}$) requirements.

5.6. Radiated Disturbance Measurement Results

PASSED. All emissions not reported are below too low against the prescribed limits.

For 30MHz-1000MHz frequency range:

The EUT with following the worst test mode was performed during this section testing and all the test results are listed in section 5.6.1.

EUT : LCD Monitor Model No. : I2475PXQU

Test Date : 2016. 01. 30 Temperature : 20°C Humidity : 62%

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency	Reference Test Data No.	
				Horizontal	Vertical
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz	# 16	# 15

For above 1GHz frequency range:

The EUT with following the worst test mode was performed during this section testing and all the test results are listed in section 5.6.2.

EUT : LCD Monitor Model No. : I2475PXQU

Test Date : 2016. 01. 29 Temperature : 26°C Humidity : 53%

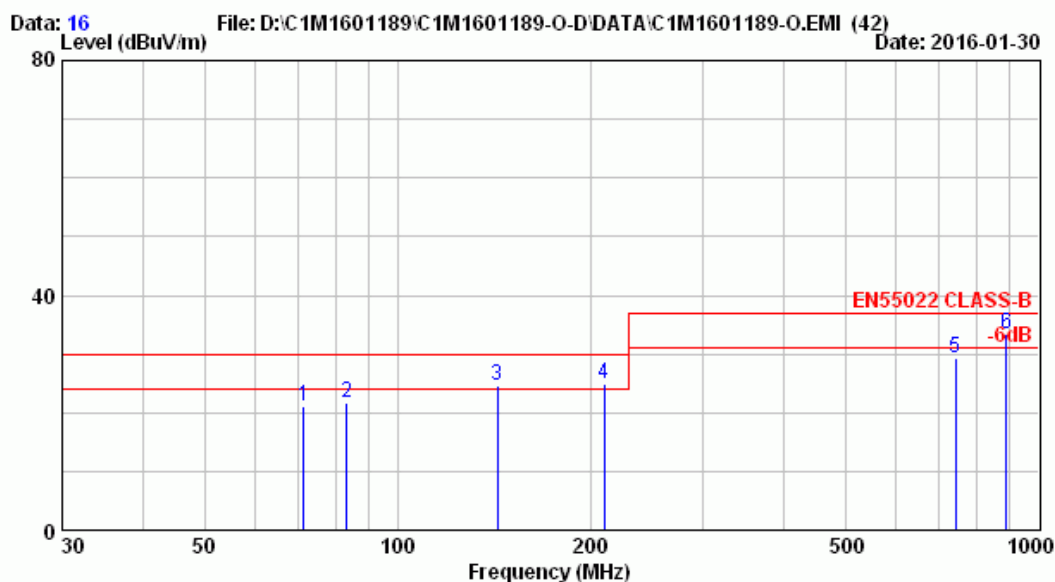
The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency	Reference Test Data No.	
				Horizontal	Vertical
1	DVI	0°	“H” Pattern, 1920*1080/60Hz	# 2	# 1

5.6.1. 30 - 1000MHz Frequency Range Radiated Disturbance Measurement Results at Open Area Test Site



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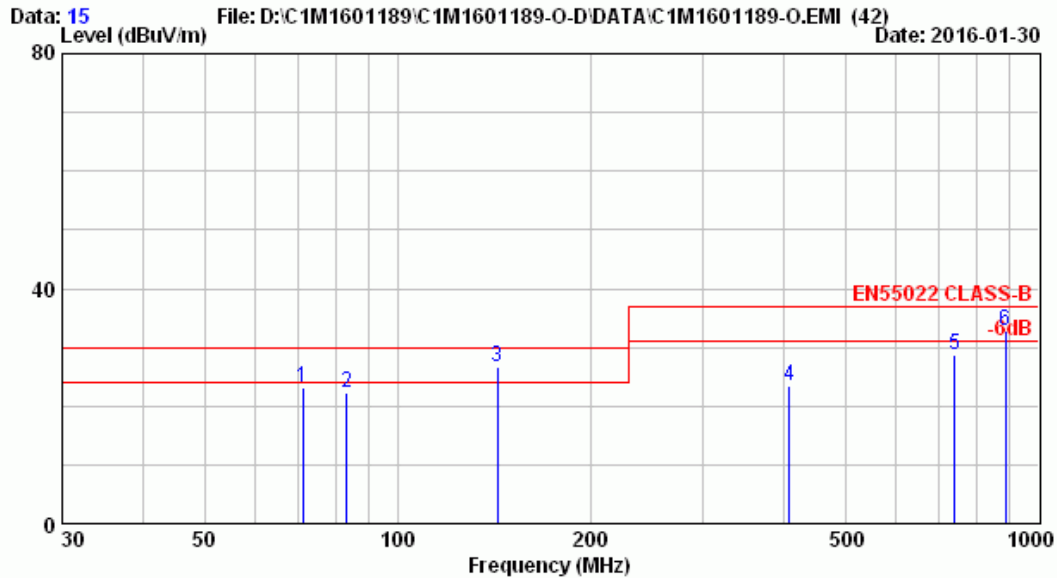
Site no. : OATS NO.5 Data no. : 16
 Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : HORIZONTAL
 Limit : EN55022 CLASS-B
 Env. / Ins. : 20°C / 62% ESCS 30 (337) Engineer : Edward
 EUT : I2475PXQU
 Power Rating : 230Vac / 50Hz
 Test Mode : 1920*1080/60Hz HDMI

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dB μ V)	Emission Level (dB μ V/m)	Limits (dB μ V/m)	Margin (dB)	Remark
1	71.380	12.64	1.34	7.20	21.18	30.00	8.82 QP
2	83.450	14.25	1.46	6.10	21.80	30.00	8.20 QP
3	143.140	20.28	1.96	2.50	24.74	30.00	5.26 QP
4	210.110	21.89	2.42	0.60	24.91	30.00	5.09 QP
5	741.113	23.14	5.08	1.10	29.31	37.00	7.69 QP
6	890.210	25.04	5.68	2.70	33.42	37.00	3.58 QP *

- Remarks:
1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. The worst emission was detected at 890.210MHz with corrected signal level of 33.42dB μ V/m (limit is 37.0dB μ V/m) when the antenna was at horizontal polarization and was at 1.5m high and the turn table was at 90°.
 4. 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.



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Site no. : OATS NO.5 Data no. : 15
 Dis. / Ant. : 10m VBA6106A/UPA6109 Ant. pol. : VERTICAL
 Limit : EN55022 CLASS-B
 Env. / Ins. : 20°C / 62% ESCS 30 (337) Engineer : Edward
 EUT : I2475PXQU
 Power Rating : 230Vac / 50Hz
 Test Mode : 1920*1080/60Hz HDMI

Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	71.190	12.61	1.34	9.30	23.25	30.00	6.75 QP
2	83.470	14.25	1.46	6.60	22.30	30.00	7.70 QP
3	143.091	20.28	1.96	4.30	26.54	30.00	3.46 QP*
4	408.120	16.98	3.54	3.00	23.52	37.00	13.48 QP
5	740.610	23.11	5.07	0.62	28.79	37.00	8.21 QP
6	888.960	25.00	5.67	2.10	32.76	37.00	4.24 QP

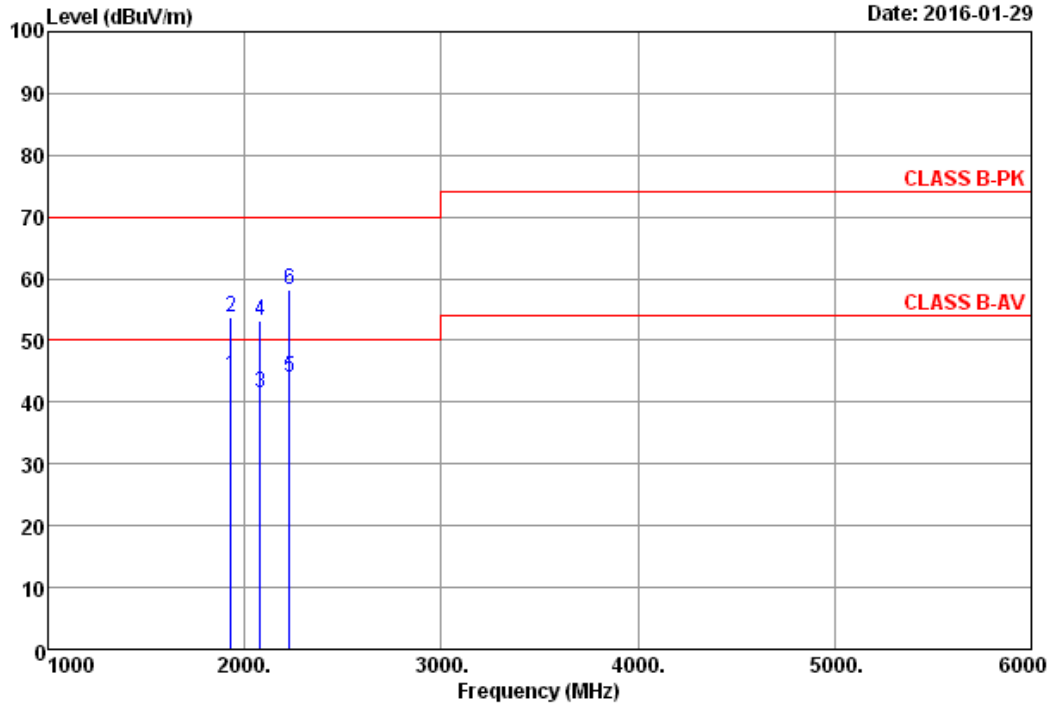
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.
 3. The worst emission was detected at 143.091MHz with corrected signal level of 26.54dBuV/m (limit is 30.0dBuV/m) when the antenna was at vertical polarization and was at 1.0m high and the turn table was at 133°.
 4. 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.

5.6.2. Radiated Disturbance Measurement Results at Semi-Anechoic Chamber (Above 1GHz)



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Data: 2 File: D:\C1M1601189\C1M1601189-CHAMBER\DATA\C1M1601189-CHAMBER.EM6 (36)



Site no. : Audix No.2 Chamber Data no. : 2
 Dis. / Ant. : 3m HORN3115-3775 Ant. pol. : HORIZONTAL
 Limit : CLASS B-PK
 Env. / Ins. : 26°C / 53% I#9010A (076) Engineer : Edward_lin
 EUT : I2475PXQU
 Power Rating : 230Vac/50Hz
 Test Mode : 1920*1080/60Hz DVI

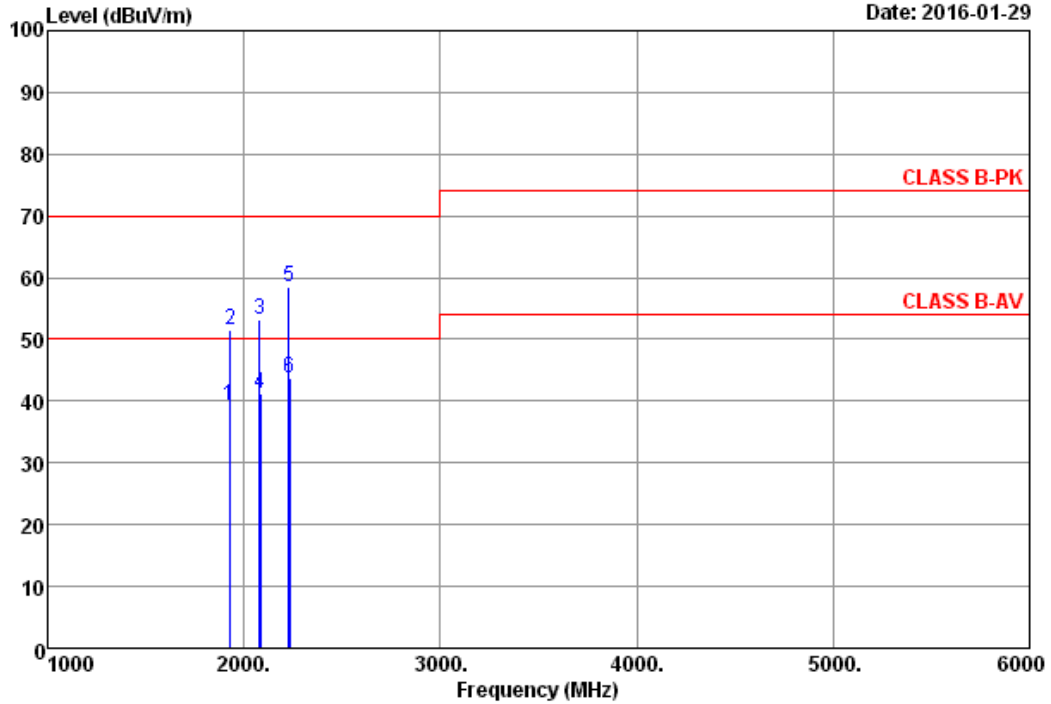
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	PREAMP Gain (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1930.00	27.99	7.22	35.33	44.40	44.28	50.00	5.72	Average
2	1930.00	27.99	7.22	35.33	53.92	53.80	70.00	16.20	Peak
3	2079.62	28.37	7.52	35.23	40.82	41.48	50.00	8.52	Average
4	2080.00	28.37	7.52	35.23	52.56	53.22	70.00	16.78	Peak
5	2227.20	28.49	7.67	35.18	43.11	44.09	50.00	5.91	Average
6	2230.00	28.49	7.68	35.17	57.22	58.22	70.00	11.78	Peak

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



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Data: 1 File: D:\C1M1601189\C1M1601189-CHAMBER\DATA\C1M1601189-CHAMBER.EM6 (36)



Site no. : Audix No.2 Chamber Data no. : 1
 Dis. / Ant. : 3m HORII3115-3775 Ant. pol. : VERTICAL
 Limit : CLASS B-PK
 Env. / Ins. : 26°C / 53% H9010A (076) Engineer : Edward_lin
 EUT : I2475PXQU
 Power Rating : 230Vac/50Hz
 Test Mode : 1920*1080/60Hz DVI

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	PREAMP Gain (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	1927.85	27.99	7.22	35.33	39.37	39.25	50.00	10.75	Average
2	1930.00	27.99	7.22	35.33	51.65	51.53	70.00	18.47	Peak
3	2080.00	28.37	7.52	35.23	52.48	53.14	70.00	16.86	Peak
4	2081.56	28.37	7.52	35.23	40.44	41.10	50.00	8.90	Average
5	2230.00	28.49	7.68	35.17	57.48	58.48	70.00	11.52	Peak
6	2230.58	28.50	7.68	35.17	42.78	43.79	50.00	6.21	Average

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

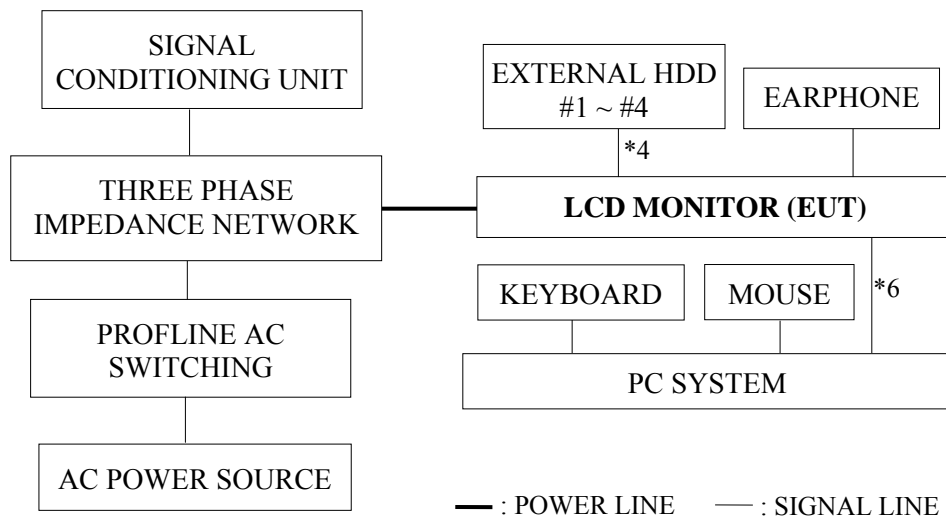
6. POWER HARMONIC & FLICKER MEASUREMENT

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	AC Power Source	TESEQ	NSG 1007-45	1248A04038	2014. 01. 17	3 Years
2.	Signal Conditioning Unit	TESEQ	CCN 1000-3	1234A03680	2014. 01. 17	3 Years
3.	Three Phase Impedance Network	TESEQ	INA 2197	1234A03681	2014. 01. 17	3 Years
4.	Proflin AC Switching Unit	TESEQ	NSG 2200-3	EK 22713	2014. 01. 17	3 Years

6.2. Block Diagram of Test Setup

6.2.1. Block Diagram of connection between EUT and simulators



6.3. Test Standard

EN 61000-3-2:2014 and EN 61000-3-3:2013

6.4. Operating Condition of EUT

Same as conducted measurement which is listed in 4.4. except the test set up replaced by section 6.2.

6.5. Test Results

PASSED. (Complied with Class D limit)

The EUT with following test mode was performed during this section testing and all the test results are listed in next pages.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	DVI	0°	“H” Pattern, 1920*1080/60Hz

Remark: Due to the maximum r.m.s input current (including inrush current) dose not exceed 20A, and the supply current after inrush is within a variation band of 1.5A, it's not applicable to test the manual switching.

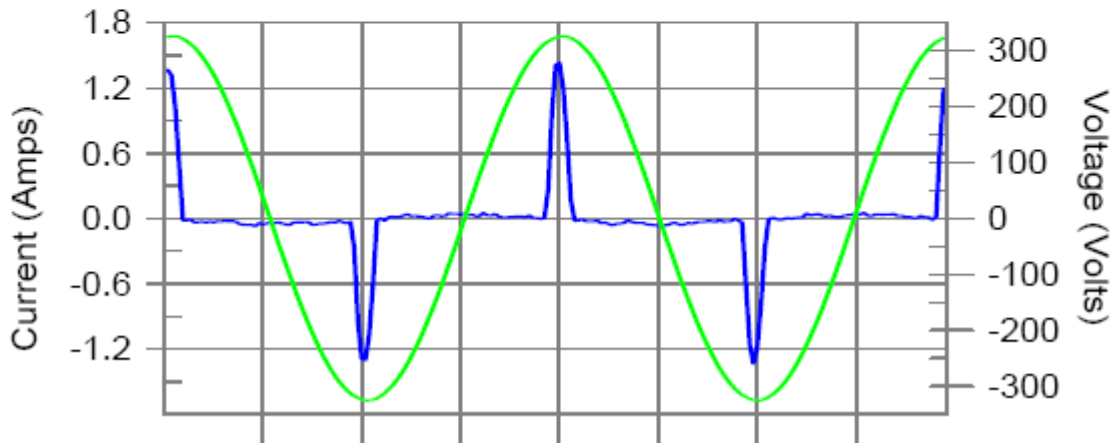
Harmonics – Class-D per Ed. 4.0 (2014)(Run time)

EUT: I2475PXQU
 Test category: Class-D per Ed. 4.0 (2014) (European limits)
 Test date: 2016/2/1
 Test duration (min): 2.5
 Comment: 1920*1080/60Hz(DVI)

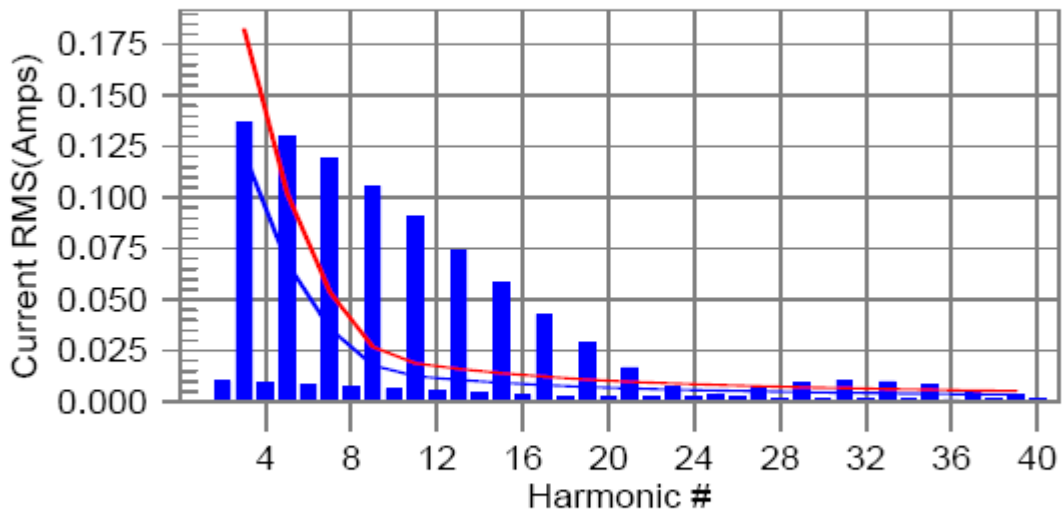
Tested by: Xar Zhuo
 Test Margin: 100
 Data file name: CTSMXL_H-000133.cts_data

Test Result: N/L Source qualification: Normal

Current & voltage waveforms



Harmonics and Class D limit line European Limits



Test result: N/L Worst harmonic was #11 with 502.4% of the limit.

Current Test Result Summary (Run time)

EUT: I2475PXQU Tested by: Xar Zhuo
 Test category: Class-D per Ed. 4.0 (2014) (European limits) Test Margin: 100
 Test date: 2016/2/1
 Test duration (min): 2.5 Data file name: CTSMXL_H-000133.cts_data
 Comment: 1920*1080/60Hz(DVI)

Test Result: N/L Source qualification: Normal
 THC(A): 0.000 I-THD(%): 0.0 POHC(A): 0.000 POHC Limit(A): 0.000

Highest parameter values during test:

V RMS (Volts): 230.168	Frequency(Hz): 50.00
I Peak (Amps): 1.460	I RMS (Amps): 0.346
I Fund (Amps): 0.155	Crest Factor: 4.411
Power (Watts): 35.8	Power Factor: 0.450

Harm#	Harms(avg)	100%Limit	%of Limit	Harms(max)	150%Limit	%of Limit	Status
2	0.010	0.000	N/A	0.011	0.000	N/A	Pass
3	0.137	0.122	N/A	0.146	0.183	N/A	Pass
4	0.009	0.000	N/A	0.010	0.000	N/A	Pass
5	0.130	0.068	N/A	0.138	0.102	N/A	Pass
6	0.009	0.000	N/A	0.009	0.000	N/A	Pass
7	0.119	0.036	N/A	0.126	0.054	N/A	Pass
8	0.008	0.000	N/A	0.008	0.000	N/A	Pass
9	0.106	0.018	N/A	0.111	0.027	N/A	Pass
10	0.006	0.000	N/A	0.007	0.000	N/A	Pass
11	0.090	0.013	N/A	0.094	0.019	N/A	Pass
12	0.005	0.000	N/A	0.005	0.000	N/A	Pass
13	0.074	0.011	N/A	0.077	0.016	N/A	Pass
14	0.004	0.000	N/A	0.004	0.000	N/A	Pass
15	0.058	0.009	N/A	0.059	0.014	N/A	Pass
16	0.003	0.000	N/A	0.003	0.000	N/A	Pass
17	0.043	0.008	N/A	0.043	0.012	N/A	Pass
18	0.003	0.000	N/A	0.003	0.000	N/A	Pass
19	0.029	0.007	N/A	0.030	0.011	N/A	Pass
20	0.002	0.000	N/A	0.003	0.000	N/A	Pass
21	0.017	0.007	N/A	0.018	0.010	N/A	Pass
22	0.002	0.000	N/A	0.003	0.000	N/A	Pass
23	0.007	0.006	N/A	0.008	0.009	N/A	Pass
24	0.002	0.000	N/A	0.002	0.000	N/A	Pass
25	0.004	0.006	N/A	0.005	0.008	N/A	Pass
26	0.002	0.000	N/A	0.002	0.000	N/A	Pass
27	0.007	0.005	N/A	0.009	0.008	N/A	Pass
28	0.002	0.000	N/A	0.002	0.000	N/A	Pass
29	0.010	0.005	N/A	0.011	0.007	N/A	Pass
30	0.002	0.000	N/A	0.002	0.000	N/A	Pass
31	0.011	0.004	N/A	0.011	0.007	N/A	Pass
32	0.001	0.000	N/A	0.001	0.000	N/A	Pass
33	0.010	0.004	N/A	0.010	0.006	N/A	Pass
34	0.001	0.000	N/A	0.001	0.000	N/A	Pass
35	0.008	0.004	N/A	0.008	0.006	N/A	Pass
36	0.001	0.000	N/A	0.001	0.000	N/A	Pass
37	0.006	0.004	N/A	0.006	0.006	N/A	Pass
38	0.001	0.000	N/A	0.001	0.000	N/A	Pass
39	0.003	0.004	N/A	0.004	0.005	N/A	Pass
40	0.001	0.000	N/A	0.001	0.000	N/A	Pass

Note: The EUT power level is below 75.0 Watts and therefore has no defined limits

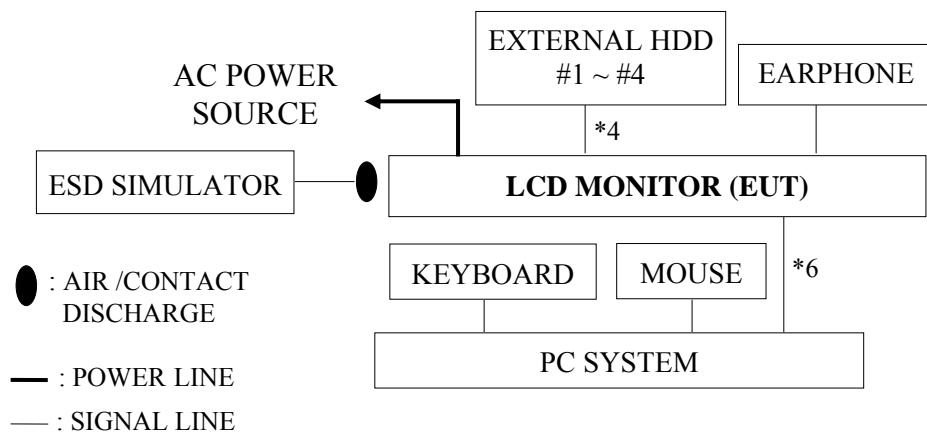
7. ELECTROSTATIC DISCHARGE IMMUNITY TEST

7.1. Test Equipment

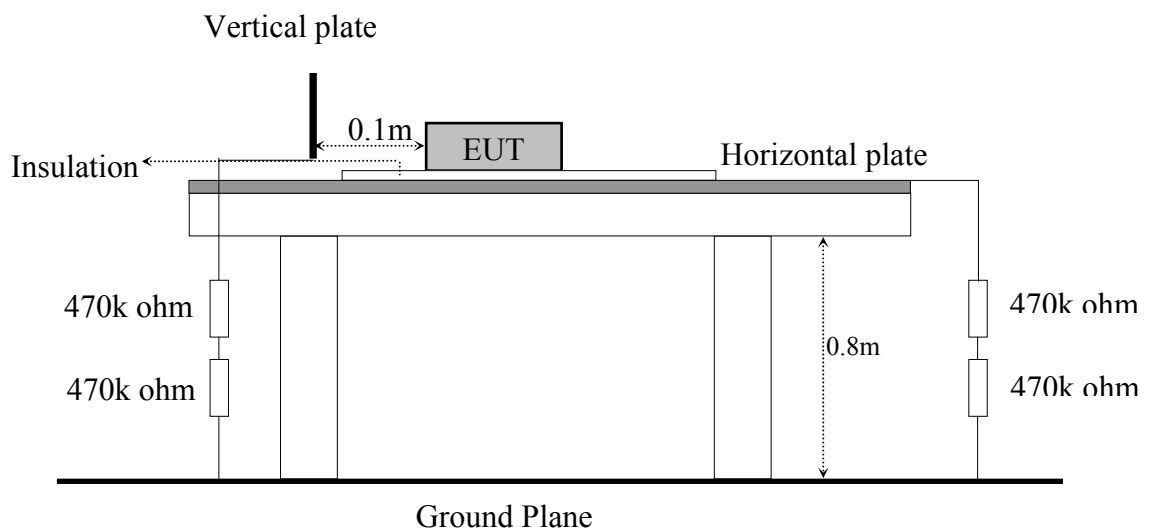
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	ESD Simulator	Thermo	MZ-15/EC	1210245	2015. 05. 06	1 Year

7.2. Block Diagram of Test Setup

7.2.1. Block Diagram of connection between EUT and simulators



7.2.2. Test Setup Diagram



7.3. Test Standard

EN 55024:2010

【IEC 61000-4-2: 2008, Severity Level : Contact: $\pm 4\text{kV}$, Air: $\pm 8\text{kV}$ 】

7.4. Severity Levels and Performance Criterion

7.4.1. Severity level

Level	Test Voltage Contact Discharge (kV)	Test Voltage Air Discharge (kV)
1.	2	2
2.	4	4
3.	6	8
4.	8	15
X	Special	Special

7.4.2. Performance criterion : **B**

7.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 7.2.

7.6. Test Procedure

7.6.1. Air Discharge :

This test is done on a non-conductive surfaces. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the ESD generator discharge electrode shall be removed from the EUT. The generator is then retriggered for a new single discharge and repeated 10 discharges each at positive and negative polarity for each preselected test point. This procedure shall be repeated until all the air discharge completed.

7.6.2. Contact Discharge :

All the procedure shall be same as 7.6.1. except that the tip of the discharge electrode shall touch the EUT conductive surfaces & repeated 25 discharges each at positive and negative polarity for each test point before the discharge switch is operated.

7.6.3. Indirect discharge for horizontal coupling plane

At least 25 discharges each at positive and negative polarity shall be applied to the horizontal coupling plane, at points on each side of the EUT. The ESD generator positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

7.6.4. Indirect discharge for vertical coupling plane

At least 25 discharges each at positive and negative polarity shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

7.6.5. For above tests, the voltage was increased from the minimum to the selected test level.

7.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was performed during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz

Electrostatic Discharge Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant</i> : Taiwan BOE Vision-electronic	<i>Test Date</i> : 2016. 02. 01						
<i>EUT</i> : LCD Monitor, M/N I2475PXQU	<i>Temperature</i> : 20						
<i>Power Supply</i> : AC 230V, 50Hz	<i>Humidity</i> : 51 %						
<i>Working Condition</i> : See Section 4.4.	<i>Atmospheric pressure</i> : 99 kPa						
<i>Engineer</i> : Jacky Chen	<i>Test Mode</i> : See Section 7.7.						
Air Discharge	Voltage kV Level / Discharge per polarity 10 / Result: Pass						
<i>Test Location</i>	+2	-2	+4	-4	+8	-8	Comments
SCREEN*4 (1~4)	ND	ND	ND	ND	A	A	
SEAM*4 (5~8)	ND	ND	ND	ND	ND	ND	
LED*1 (9)	ND	ND	ND	ND	ND	ND	
BUTTON*5 (10~14)	ND	ND	ND	ND	ND	ND	
DVI*1 (15)	ND	ND	ND	ND	A	A	
D-SUB*1 (16)	ND	ND	ND	ND	A	A	
DP*1 (17)	ND	ND	ND	ND	A	A	
HDMI*1 (18)	ND	ND	ND	ND	A	A	
AUDIO IN*1 (19)	ND	ND	ND	ND	A	A	
EARPHONE*1 (20)	ND	ND	ND	ND	A	A	
USB*5 (21~25)	ND	ND	ND	ND	A	A	
SWTICH*1 (26)	ND	ND	ND	ND	ND	ND	
AC IN*1 (27)	ND	ND	ND	ND	ND	ND	
Contact Discharge	Voltage kV Level / Discharge per polarity 25 / Result: Pass						
<i>Test Location</i>	+2	-2	+4	-4			Comments
SCREW*4 (28~31)	A	A	A	A			
Indirect Contact	Voltage kV Level / Discharge per polarity 25 / Result: Pass						
<i>Test Location</i>	+2	-2	+4	-4			Comments
VCP Front	A	A	A	A			
VCP Right	A	A	A	A			
VCP Left	A	A	A	A			
VCP Back	A	A	A	A			
HCP Bottom	A	A	A	A			
Additional Notes							
Measurement Points	Please refer to the Photos of ESD Test Points						
<p style="text-align: center;">ND=No Discharge: Meets criteria but unable to obtain an electrostatic discharge (ESD) at this test point.</p>							

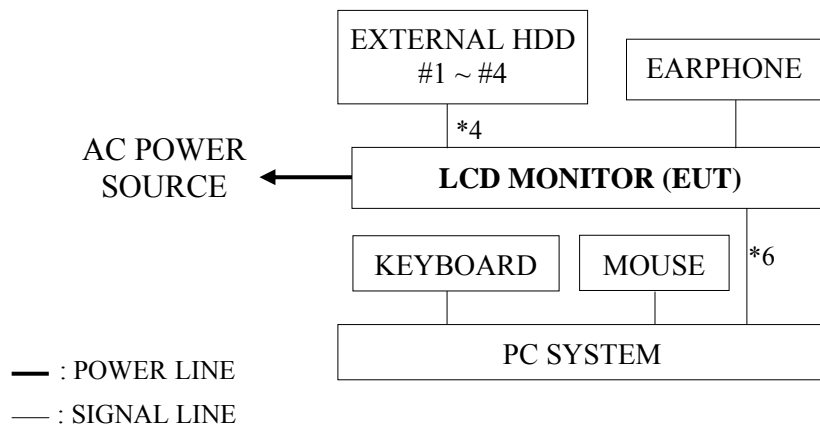
8. RF FIELD STRENGTH IMMUNITY TEST

8.1. Test Equipment

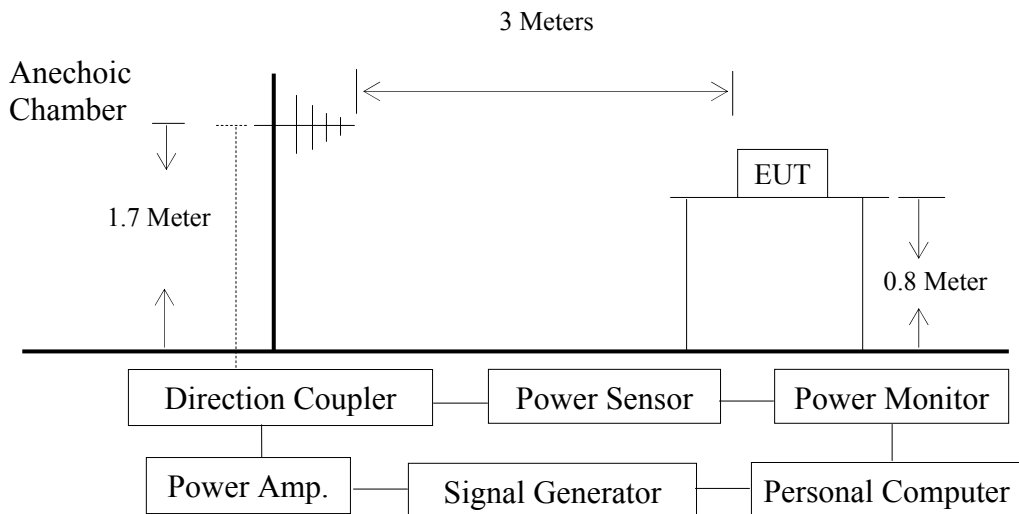
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Signal Generator	R & S	SML03	103251	2015. 12. 28	1 Year
2.	Power Amplifier	A/R	250W1000A	0329092	NCR	NCR
3.	Power Sensor	Agilent	E9327A	US40441766	2016. 01. 21	1 Year
4.	Power Monitor	A & R	E4417A	GB41291797	2016. 01. 21	1 Year
5.	Power Antenna	A & R	AT1080	13002	NCR	NCR
6.	Direction Coupler	A & R	DC6180	19323	2015. 04. 24	1 Year

8.2. Block Diagram of Test Setup

8.2.1. Block Diagram of connection between EUT and simulators



8.2.2. R/S Test Setup



8.3. Test Standard

EN 55024:2010

【IEC 61000-4-3:2010, Severity Level : 2, 3V/m】

8.4. Severity Levels and Performance Criterion

8.4.1. Severity level

Level	Field Strength V/m
1.	1
2.	3
3.	10
X	Special

8.4.2. Performance criterion : **A**

8.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 8.2.

8.6. Test Procedure

The field sensor is placed on the EUT table (0.8 meter above the ground) which is 3 meters away from the transmitting antenna. Through the signal generator, power amplifier and transmitting antenna to produce a uniformity field strength (3V/m measured by field sensor) around the EUT table from frequency range 80 - 1000 MHz and records the signal generator's output level at the same time for whole measured frequency range. Then, put EUT and its simulators on the EUT turn table and keep them 3 meters away from the transmitting antenna which is mounted on an antenna tower and fixes at 1.7 meter (for 80 - 1000MHz) height above the ground. Using the recorded signal generator's output level to measure the EUT from frequency range 80 - 1000 MHz and both horizontal & vertical polarization of antenna must be set and measured. Each of the four sides of EUT must be faced this transmitting antenna and measures individually.

A CCD camera was put inside the chamber and through its display to monitor the EUT operational situation to judge the EUT Compliance criterion during measurement.

All the scanning conditions are as follows :

Condition of Test	Remarks
1. Field Strength	3 V/m (r.m.s, Unmodulated, Severity Level 2)
2. Amplitude Modulated	1kHz, 80%AM
3. Scanning Frequency	80 - 1000 MHz
4. Step Size	1% increments
5. The Rate of Sweep	0.0015 decade/s
6. Dwell Time	3 Sec.

8.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	"H" Pattern, 1920*1080/60Hz

RF Field Strength Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant</i> : <u>Taiwan BOE Vision-electronic</u>			<i>Test Date</i> : <u>2016. 01. 30</u>	
<i>EUT</i> : <u>LCD Monitor, M/N I2475PXQU</u>			<i>Temperature</i> : <u>21</u>	
<i>Power Supply</i> : <u>AC 230V, 50Hz</u>			<i>Humidity</i> : <u>49 %</u>	
<i>Working Condition</i> : <u>See Section 4.4.</u>			<i>Test Mode</i> : <u>See Section 8.7.</u>	
<i>Engineer</i> : <u>James Shen</u>				
<i>Frequency Range (MHz)</i>	<i>Position (Angle)</i>	<i>Polarity (H or V)</i>	<i>Field Strength (V/m)</i>	<i>Results & Performance Criterion</i>
<i>80 ~ 1000</i>	<i>0°</i>	<i>H</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>90°</i>	<i>H</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>180°</i>	<i>H</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>270°</i>	<i>H</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>0°</i>	<i>V</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>90°</i>	<i>V</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>180°</i>	<i>V</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>80 ~ 1000</i>	<i>270°</i>	<i>V</i>	<i>3V/m+Modulated</i>	<i>Pass, A</i>
<i>Remark: Modulation Signal: 1kHz 80% AM.</i>				

9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

9.1. Test Equipment

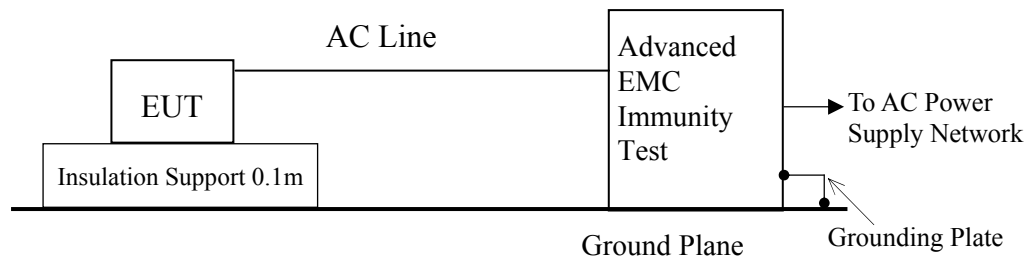
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Advanced EMC Immunity Test System	Keytek	EMCPro Plus	1005199	2015. 09. 08	1 Year

9.2. Block Diagram of Test Setup

9.2.1. Block Diagram of connection between EUT and simulators.

Same as Section 8.2.1.

9.2.2. EFT Test Setup



9.3. Test Standard

EN 55024:2010

【IEC 61000-4-4:2012, Power Line-±1kV; Signal Line-±0.5kV, Repetition : 5kHz】

9.4. Severity Levels and Performance Criterion

9.4.1. Severity levels

Open circuit output test voltage and repetition rate of the impulses				
Level	On power port, PE		On I/O (input/output) signal, data and control ports	
	Voltage peak kV	Repetition rate kHz	Voltage peak kV	Repetition rate kHz
1.	0.5	5 or 100	0.25	5 or 100
2.	1	5 or 100	0.5	5 or 100
3.	2	5 or 100	1	5 or 100
4.	4	5 or 100	2	5 or 100
X ^a	Special	Special	Special	Special
<p>Note 1 : Use of 5kHz repetition rates is traditional; however, 100kHz is closer to reality. Product committees should determine which frequencies are relevant for specific products or product types.</p> <p>Note 2 : With some products, there may be no clear distinction between power ports and I/O ports, in which case it is up to product committees to make this determination for test purposes.</p>				
<p>^a “X” is an open level. The level has to be specified in the dedicated equipment specification.</p>				

9.4.2. Performance criterion : **B**

9.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 9.2.

9.6. Test Procedure

The EUT and its simulators and all cables were placed 0.1m high above the ground reference plane which was a min. 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane shall project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane beneath the EUT, shall be more than 0.5m.

9.6.1. For input and output AC power ports :

The EUT was connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines, and the length of the power line between the coupling device and the EUT shall be 0.5m or less . Both polarities of the test voltage should be applied during compliance test and the duration of the test can't less than 1min.

9.6.2. For signal lines and control lines ports :

The interface cables' length is less than 3m, therefore, it's unnecessary to measure.

9.6.3. For DC input and DC output power ports :

No DC ports. It's unnecessary to measure.

9.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	"H" Pattern, 1920*1080/60Hz

Electrical Fast Transient/Burst Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant : Taiwan BOE Vision-electronic</i>					<i>Test Date : 2016. 01. 30</i>				
<i>EUT : LCD Monitor, M/N I2475PXQU</i>					<i>Temperature : 21</i>				
<i>Power Supply : AC 230V, 50Hz</i>					<i>Humidity : 49 %</i>				
<i>Working Condition : See Section 4.4.</i>					<i>Test Mode: See Section 9.7.</i>				
<i>Engineer : James Shen</i>									
<i>Inject Place: Power Supply Line</i>					<i>Inject Place : I/O Cable</i>				
<i>Inject Line</i>	<i>Voltage kV</i>	<i>Inject Time(s)</i>	<i>Inject Method</i>	<i>Results & Criterion</i>	<i>Inject Line</i>	<i>Voltage kV</i>	<i>Inject Time(s)</i>	<i>Inject Method</i>	<i>Results</i>
<i>L</i>	<i>+0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>L</i>	<i>- 0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>N</i>	<i>+0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>N</i>	<i>- 0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>PE</i>	<i>+0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>PE</i>	<i>- 0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>L, N, PE</i>	<i>+0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>L, N, PE</i>	<i>- 0.5, 1</i>	<i>60</i>	<i>Direct</i>	<i>Pass, A</i>					
<i>Remark: No error occurred.</i>									

10.SURGE IMMUNITY TEST

10.1.Test Equipment

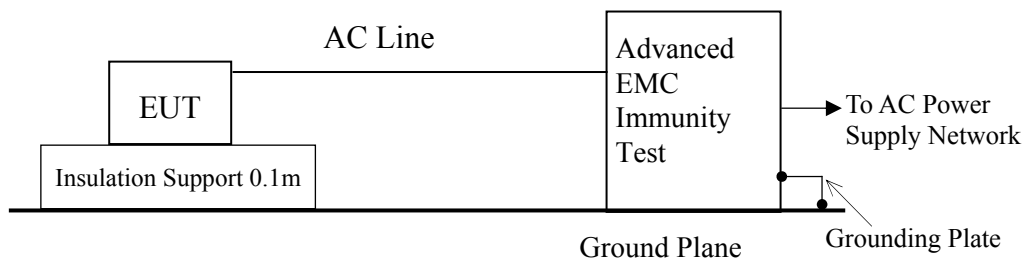
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Advanced EMC Immunity Test System	Keytek	EMCPro Plus	1005199	2015. 09. 08	1 Year

10.2.Block Diagram of Test Setup

10.2.1. Block Diagram of connection between EUT and simulators.

Same as Section 8.2.1.

10.2.2. Test Setup



10.3.Test Standard

EN 55024:2010

【IEC 61000-4-5:2014,

Test Level : line to earth - $\pm 2\text{kV}$, line to line - $\pm 1\text{kV}$, 1.2/50 (8/20) Tr/Th μs .】

10.4. Severity Levels and Performance Criterion

10.4.1. Test Levels

Level	Open-circuit test Voltage +/- 10%, kV
1.	0.5
2.	1.0
3.	2.0
4.	4.0
X	Special

10.4.2. Performance Criterion : **B**

10.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 10.2.

10.6. Test Procedure

- 10.6.1. Set up the EUT and test generator as shown on section 10.2.
- 10.6.2. For line to line coupling mode, provided a 0.5/1kV 1.2/50 μ s current surge (at open-circuit condition) and 8/20 μ s current surge to EUT selected points.
- 10.6.3. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate were conducted during test.
- 10.6.4. Different phase angles were done individually.
- 10.6.5. Repeat procedure 10.6.2. to 10.6.4. except the open-circuit test voltages 0.5kV/1kV/2kV for line to earth coupling mode test.
- 10.6.6. Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

10.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz

Surge Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant</i> : Taiwan BOE Vision-electronic				<i>Test Date</i> : 2016. 01. 30	
<i>EUT</i> : LCD Monitor, M/N I2475PXQU				<i>Temperature</i> : 21	
<i>Power Supply</i> : AC 230V, 50Hz				<i>Humidity</i> : 49 %	
<i>Working Condition</i> : See Section 4.4.				<i>Test Mode</i> : See Section 10.7.	
<i>Engineer</i> : James Shen					
<i>Input And Output AC Power Port</i>					
<i>Location</i>	<i>Polarity</i>	<i>Phase Angle</i>	<i>No of Pulse</i>	<i>Pulse Voltage (kV)</i>	<i>Results & Performance Criterion</i>
<i>L-N</i>	+	0	5	<i>0.5kV, 1.0kV</i>	Pass, A
	+	90	5	<i>0.5kV, 1.0kV</i>	Pass, A
	+	180	5	<i>0.5kV, 1.0kV</i>	Pass, A
	+	270	5	<i>0.5kV, 1.0kV</i>	Pass, A
	-	0	5	<i>0.5kV, 1.0kV</i>	Pass, A
	-	90	5	<i>0.5kV, 1.0kV</i>	Pass, A
	-	180	5	<i>0.5kV, 1.0kV</i>	Pass, A
	-	270	5	<i>0.5kV, 1.0kV</i>	Pass, A
<i>L-PE</i>	+	0	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	90	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	180	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	270	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	0	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	90	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	180	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	270	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
<i>N-PE</i>	+	0	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	90	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	180	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	+	270	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	0	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	90	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	180	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
	-	270	5	<i>0.5kV, 1.0kV, 2.0kV</i>	Pass, A
<i>Remark: No error occurred.</i>					

11. CONDUCTED DISTURBANCE IMMUNITY TEST

11.1. Test Equipment

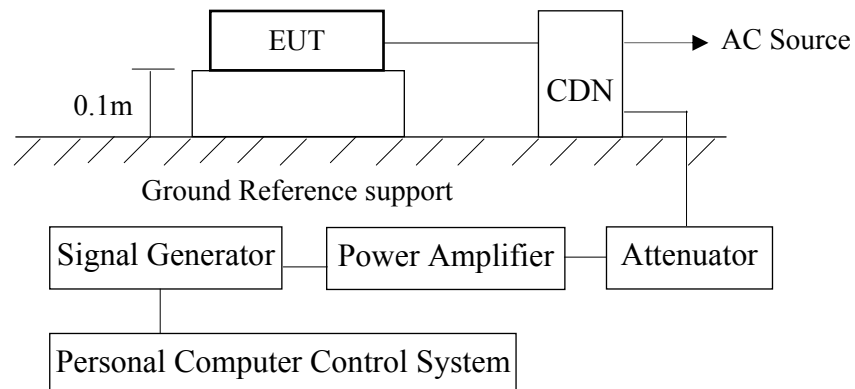
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Signal Generator	R & S	SML03	103251	2015. 12. 28	1 Year
2.	Power Amplifier	A & R	100A250	0330351	N.C.R.	N.C.R.
3.	Power Sensor	Agilent	E9327A	US40441766	2016. 01. 21	1 Year
4.	Power Meter	Agilent	E4417A	GB41291797	2016. 01. 21	1 Year
5.	Attenuator	Weinschel	40-6-34	NB538	2015. 04. 24	1 Year
6.	CDN-M3	Fischer	FCC-801-M3-25 A	9961	2015. 03. 05	1 Year

11.2. Block Diagram of Test Setup

11.2.1. Block Diagram of connection between EUT and simulators.

Same as Section 8.2.1.

11.2.2. Test Setup



11.3. Test Standard

EN 55024:2010

【IEC 61000-4-6:2013, Severity Level : 0.15-80MHz, 3V, 80%AM (1kHz)】

11.4. Severity Levels and Performance Criterion

11.4.1. Severity levels

Frequency range 0.15MHz - 80MHz		
Level	Voltage level (e.m.f.)	
	U_0 dB(μ V)	U_0 V
1.	120	1
2.	130	3
3.	140	10
X ^a	Special	
^a X is an open level.		

11.4.2. Performance criterion : **A**

11.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 11.2.

11.6. Test Procedure

11.6.1. Set up the EUT, CDN and test generators as shown on section 11.2.

11.6.2. The EUT and supporting equipment were placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) was placed on the ground plane making direct contact with it at about 0.1-0.3m from EUT. Cables between CDN and EUT were as short as possible.

11.6.3. The disturbance signal described below was injected to EUT through CDN.

11.6.4. The EUT operates within its operational mode(s) under intended climatic conditions after power on.

11.6.5. The frequency range was swept from 150kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1kHz sine wave.

11.6.6. The rate of sweep shall not exceed 1.5×10^3 decades/s. Where the frequency was swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.

11.6.7. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

11.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz

Conducted Disturbance Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant</i> : <u>Taiwan BOE Vision-electronic</u>		<i>Test Date</i> : <u>2016. 01. 30</u>		
<i>EUT</i> : <u>LCD Monitor, M/N I2475PXQU</u>		<i>Temperature</i> : <u>21</u>		
<i>Power Supply</i> : <u>AC 230V, 50Hz</u>		<i>Humidity</i> : <u>49</u> %		
<i>Working Condition</i> : <u>See Section 4.4.</u>		<i>Test Mode</i> : <u>See Section 11.7.</u>		
<i>Engineer</i> : <u>James Shen</u>				
<i>Frequency Range (MHz)</i>	<i>Inject Position</i>	<i>Strength</i>	<i>Results</i>	<i>Performance Criterion</i>
<i>0.15MHz ~ 80MHz</i>	<i>Main (Power Line)</i>	<i>3V(rms) Modulated</i>	<i>Pass</i>	<i>A</i>
<i>Remark</i> :Modulation Signal:1kHz 80% AM.				

12. POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST

12.1. Test Equipment

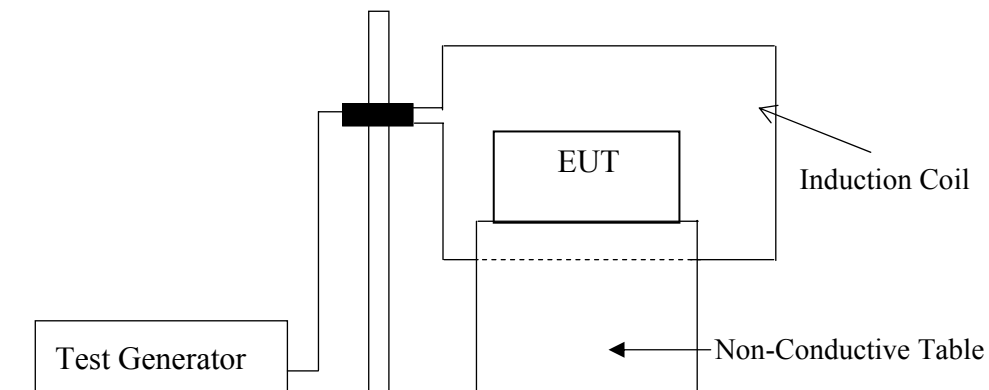
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Magnetic Field Tester	Haefely	MAG 100.1	080015-01	2015. 05. 06	1 Year

12.2. Block Diagram of Test Setup

12.2.1. Block Diagram of connection between EUT and simulators.

Same as Section 8.2.1.

12.2.2. Test Setup



12.3. Test Standard

EN 55024:2010

【IEC 61000-4-8:2009, Severity Level : 50Hz or 60Hz, 1A/m (r.m.s.)】

12.4. Severity Levels and Performance Criterion

12.4.1. Severity level

Level	Magnetic Field Strength Continuous Field A/m
1.	1
2.	3
3.	10
4.	30
5.	100
X	Special

12.4.2. Performance criterion : A

12.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 12.2.

12.6. Test Procedure

The EUT placed on 0.8m high table. And subjected to the test magnetic field by using the induction coil of standard dimensions (1m x 1m). The induction coil rotated by 90 degrees in order to expose the EUT to the test field with different orientations. All cables of EUT exposed to magnetic field for 1m of their length.

12.7. Test Results

PASSED. (Complied with Criterion A)

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz

Power Frequency Magnetic Field Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant : Taiwan BOE Vision-electronic</i>		<i>Test Date : 2016. 02. 01</i>	
<i>EUT : LCD Monitor, M/N I2475PXQU</i>		<i>Temperature : 20</i>	
<i>Power Supply : AC 230V, 50Hz</i>		<i>Humidity : 51 %</i>	
<i>Working Condition : See Section 4.4.</i>		<i>Test Mode: See Section 12.7.</i>	
<i>Engineer : Jacky Chen</i>			
<i>Power Frequency Magnetic Field</i>	<i>Testing Duration</i>	<i>Coil Orientation</i>	<i>Results & Performance Criterion</i>
<i>50Hz, 1 A/m</i>	<i>1 Min</i>	<i>X-axis</i>	<i>Pass, A</i>
<i>50Hz, 1 A/m</i>	<i>1 Min</i>	<i>Y-axis</i>	<i>Pass, A</i>
<i>50Hz, 1 A/m</i>	<i>1 Min</i>	<i>Z-axis</i>	<i>Pass, A</i>
<i>Remark: No error occurred.</i>			

13. VOLTAGE DIPS AND INTERRUPTIONS IMMUNITY TEST

13.1. Test Equipment

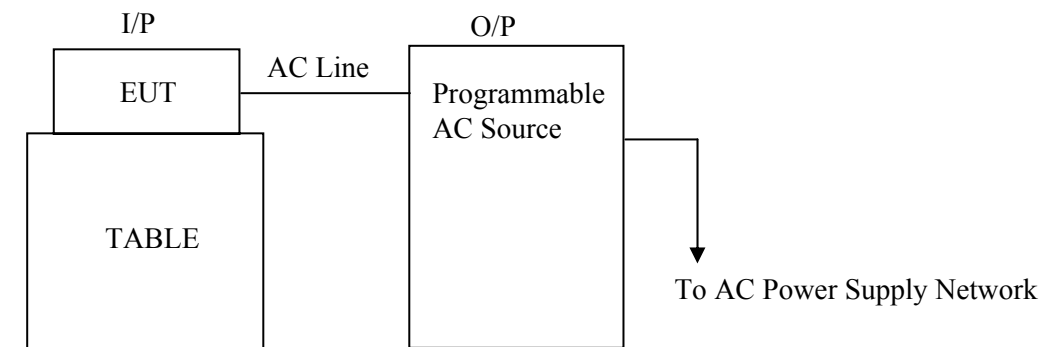
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Programmable Power Source	Chroma	6590	65900086	2015. 07. 16	1 Year

13.2. Block Diagram of Test Setup

13.2.1. Block Diagram of connection between EUT and simulators.

Same as Section 8.2.1.

13.2.2. Test Setup



13.3. Test Standard

EN 55024:2010

【IEC 61000-4-11:2004,

Severity Level : Voltage interruptions : >95% reduction , 250 period ;

Voltage dips : >95% reduction, 0.5 period ; 30% reduction, 25 period.】

13.4. Severity Levels and Performance Criterion

13.4.1. Preferred severity levels and durations for voltage dips

Class ^a	Test level and durations for voltage dips (t_s) (50Hz/60Hz)				
Class 1	Case-by-case according to the equipment requirements				
Class 2	0% during ½ cycle	0% during 1 cycle	70% during 25/30 ^c cycles		
Class 3	0% during ½ cycle	0% during 1 cycle	40% during 10/12 ^c cycles	70% during 25/30 ^c cycles	80% during 250/300 ^c cycles
Class X ^b	X	X	X	X	X
^a Classes as per IEC 61000-2-4. ^b To be defined by product committee. For equipment connected directly or indirectly to the public network, the levels must not be less severe than Class 2. ^c “25/30 cycles” means “25 cycles for 50Hz test” and “30 cycles for 60Hz test”.					

13.4.2. Preferred severity levels and durations for short interruptions

Class ^a	Test level and durations for short interruptions (t_s) (50Hz/60Hz)				
Class 1	Case-by-case according to the equipment requirements				
Class 2	0% during 250/300 ^c cycles				
Class 3	80% during 250/300 ^c cycles				
Class X ^b	X				
^a Classes as per IEC 61000-2-4. ^b To be defined by product committee. For equipment connected directly or indirectly to the public network, the levels must not be less severe than Class 2. ^c “250/300 cycles” means “250 cycles for 50Hz test” and “300 cycles for 60Hz test”.					

13.4.3. Performance criterion :

- 1) Voltage dips >95% reduction performance criterion **B**.
- 2) Voltage dips 30% reduction performance criterion **C**.
- 3) Voltage interruption >95% reduction performance criterion **C**.

13.5. Operating Condition of EUT

Same as conducted disturbance measurement which is listed in 4.4 except the test set up replaced by section 13.2.

13.6. Test Procedure

- 13.6.1. Set up the EUT and test generator as shown on section 13.2.
- 13.6.2. The interruption was introduced at selected phase angles with specified duration. There was a 10s minimum interval between each test event.
- 13.6.3. After each test a full functional check was performed before the next test.
- 13.6.4. Repeat procedures 13.6.2. & 13.6.3. for voltage dips, only the test level and duration was changed.
- 13.6.5. Record any degradation of performance.

13.7. Test Results

PASSED. (Complied with Criterion B in Voltage Interruption & Criterion A in Voltage Dips).

The EUT with following test mode was measured during this section testing and all the test results are listed in next page.

The details of test modes are as follows :

Mode	Input Port	Panel Angle	Display, Resolution/Frequency
1	HDMI	0°	“H” Pattern, 1920*1080/60Hz

Voltage Dips and Interruptions Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

<i>Applicant</i> : Taiwan BOE Vision-electronic		<i>Test Date</i> : 2016. 02. 01			
<i>EUT</i> : LCD Monitor, M/N I2475PXQU		<i>Temperature</i> : 20			
<i>Power Supply</i> : AC 100-240V, 50/60Hz		<i>Humidity</i> : 51 %			
<i>Working Condition</i> : See Section 4.4.		<i>Test Mode</i> : See Section 13.7.			
<i>Engineer</i> : Jacky Chen					
<i>Single Test Voltage</i>					
<i>Type of Test</i>	<i>Test Voltage</i>	<i>Phase Angle</i>	<i>% Reduction</i>	<i>period</i>	<i>Test Results & Performance Criterion</i>
<i>Voltage Interruptions</i>	100/240V	0	> 95	250	Pass, B; Note
		45	> 95	250	Pass, B; Note
		90	> 95	250	Pass, B; Note
		135	> 95	250	Pass, B; Note
		180	> 95	250	Pass, B; Note
		225	> 95	250	Pass, B; Note
		270	> 95	250	Pass, B; Note
		315	> 95	250	Pass, B; Note
<i>Voltage Dips</i>	100/240V	0	30	25	Pass, A
		45	30	25	Pass, A
		90	30	25	Pass, A
		135	30	25	Pass, A
		180	30	25	Pass, A
		225	30	25	Pass, A
		270	30	25	Pass, A
		315	30	25	Pass, A
	100/240V	0	> 95	0.5	Pass, A
		45	> 95	0.5	Pass, A
		90	> 95	0.5	Pass, A
		135	> 95	0.5	Pass, A
		180	> 95	0.5	Pass, A
		225	> 95	0.5	Pass, A
		270	> 95	0.5	Pass, A
		315	> 95	0.5	Pass, A
<i>Note</i> : Criterion B, The EUT was stopped operating during the test, but it's self-recoverable after test.					

14. PHOTOGRAPHS

14.1. Photos of Conducted Disturbance Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT



BACK VIEW OF CONDUCTED MEASUREMENT

14.2.Photos of Radiated Disturbance Measurement at Open Area Test Site
(30-1000MHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT

14.3.Photos of Radiated Emission Measurement at Semi-Anechoic Chamber
(Above 1GHz)



FRONT VIEW OF RADIATED MEASUREMENT



BACK VIEW OF RADIATED MEASUREMENT

14.4.Photos of Harmonic & Flicker Measurement



14.5.Photos of Electrostatic Discharge Immunity Test Air & Contact Discharge



VCP & HCP

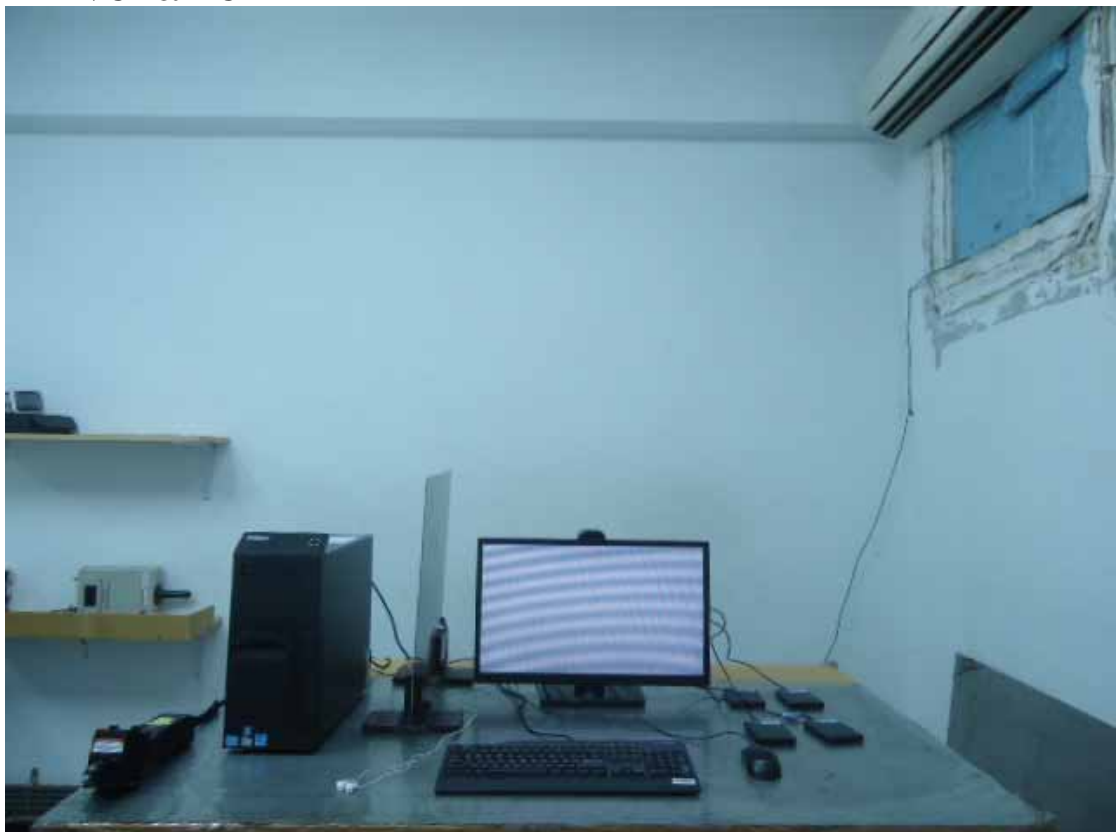


Photo of Points



Photo of Points



Photo of Points



Photo of Points



Photo of Points



14.6.Photos of RF Strength Immunity Test



14.7.Photos of Electrical Fast Transient/Burst Immunity Test



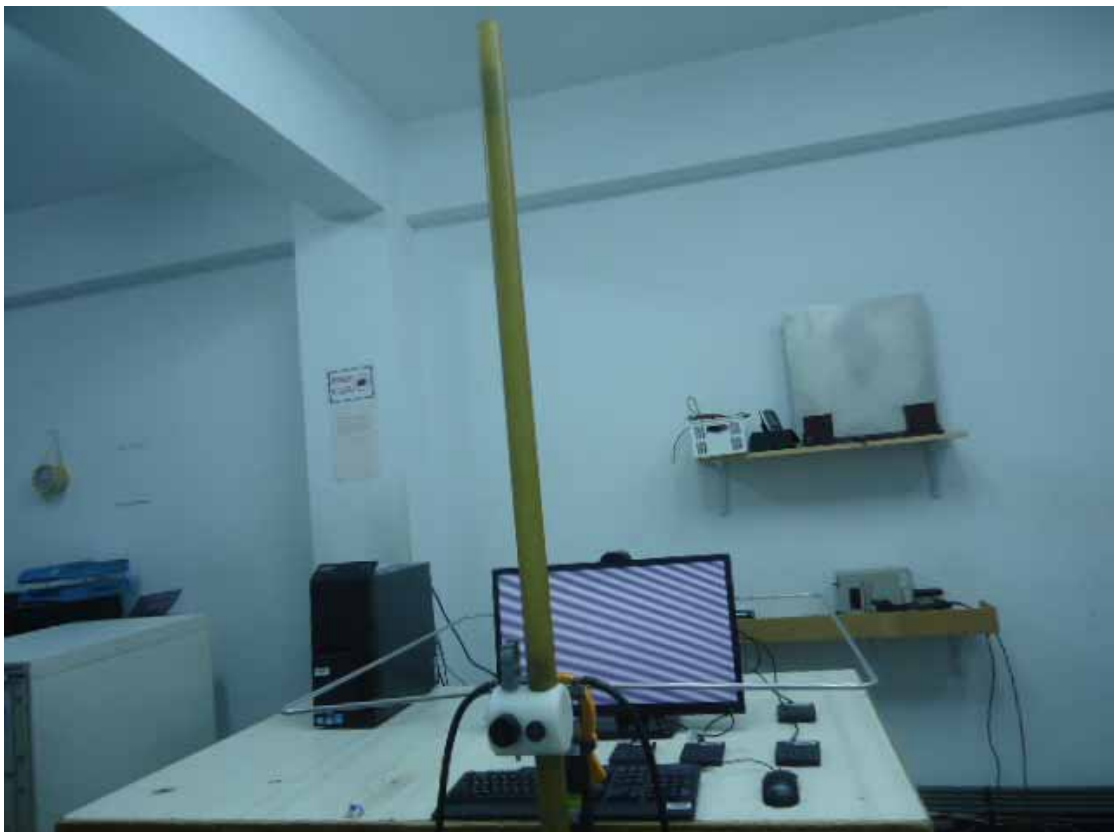
14.8.Photos of Surge Immunity Test



14.9.Photos of Injected Currents Immunity Test



14.10.Photos of Power Frequency Magnetic Field Immunity Test



14.11.Photos of Voltage Dips and Interruptions Immunity Test



APPENDIX

(Photos of EUT)

Total Pages: 13 Pages

Figure 1
Panel Angle: 0°, General Appearance (Front View)



Figure 2
Panel Angle: 0°, General Appearance (Back View)



Figure 3
Panel Angle: 90°, General Appearance (Front View)



Figure 4
Panel Angle: 90°, General Appearance (Back View)



Figure 5
General Appearance (Bottom View)



Figure 6
General Appearance (I/O Ports View)



Figure 7
General Appearance (I/O Ports View)



Figure 8
Internal View (Removed Back Cover)



Figure 9
Internal View (Removed Metal Cover)



Figure 10
Internal View (Removed Main Board, Power Board, USB Board)



Figure 11
Internal View (Main Board, Front View)



Figure 12
Internal View (Main Board, Back View)



Figure 13
Internal View (Power Board, Front View)

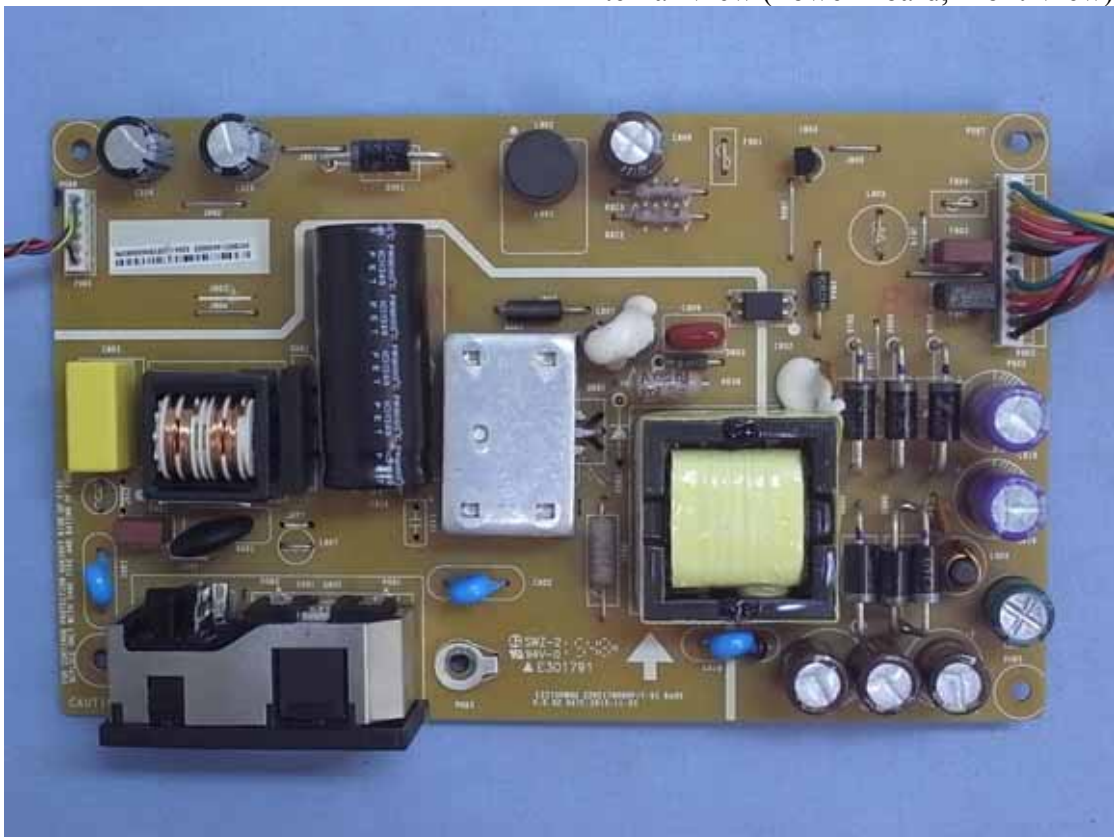


Figure 14
Internal View (Power Board, Back View)

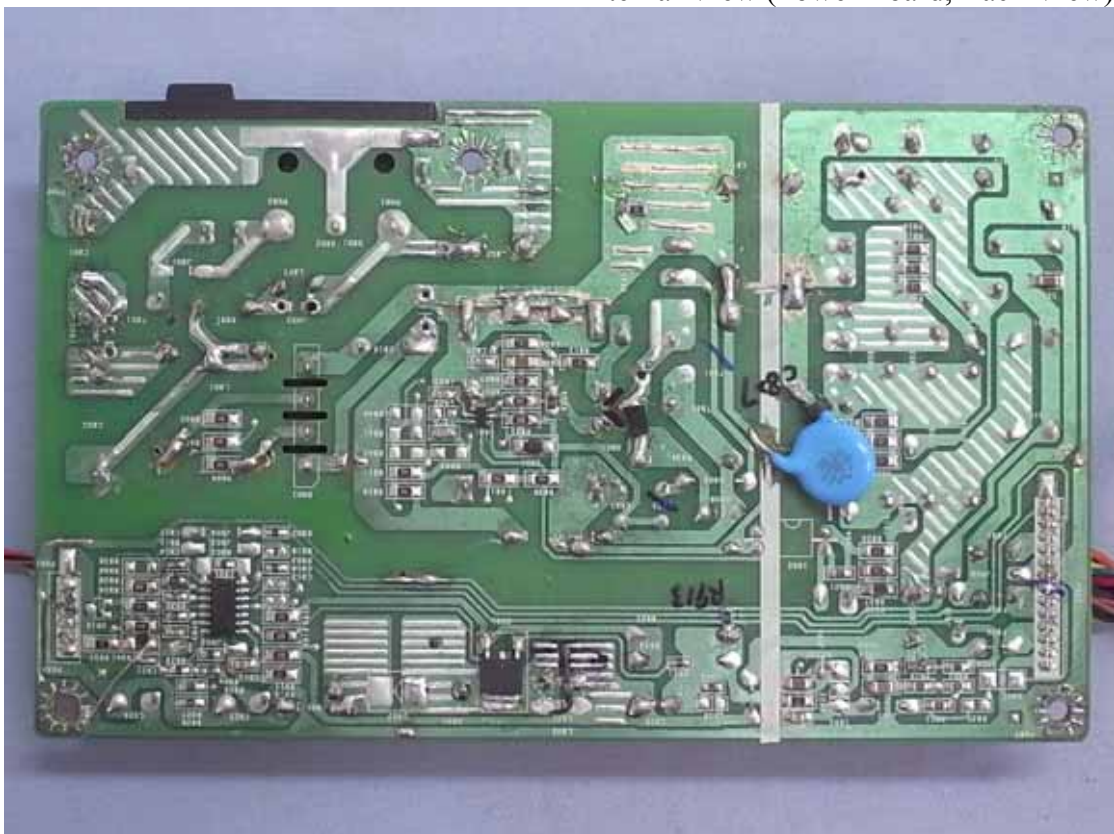


Figure 15
Internal View (USB Board, Front View)

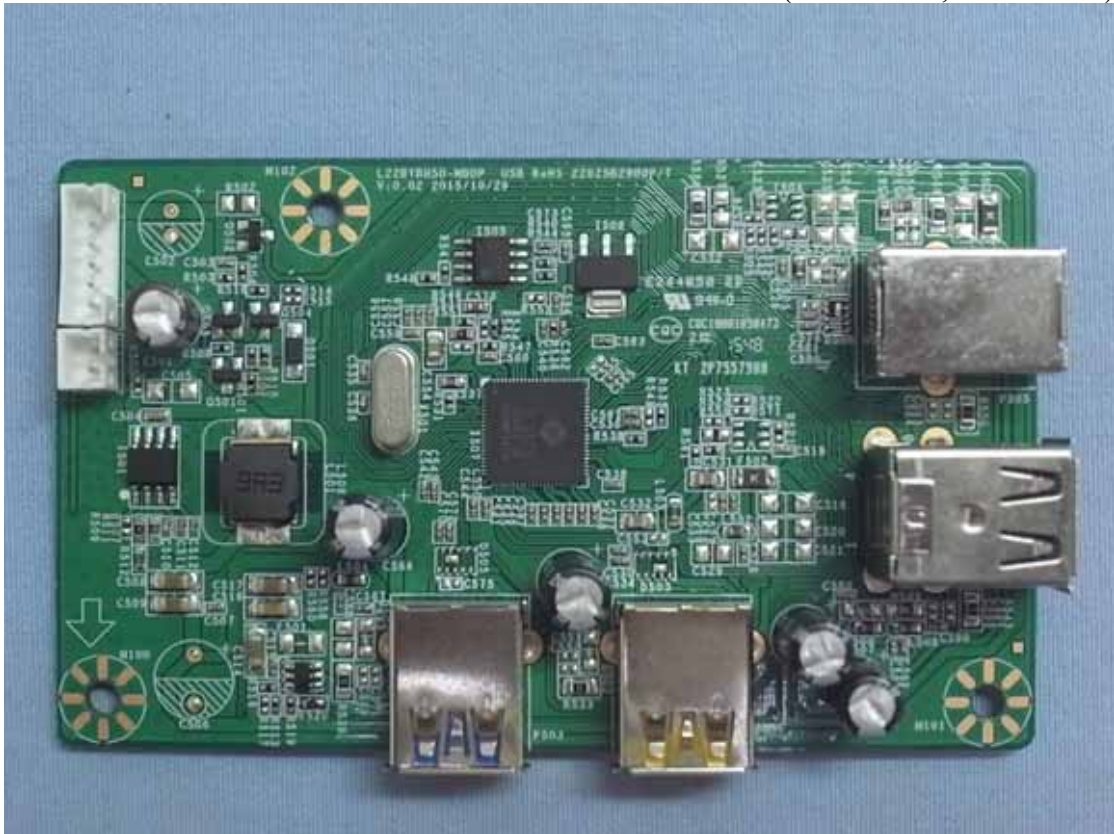


Figure 16
Internal View (USB Board, Back View)

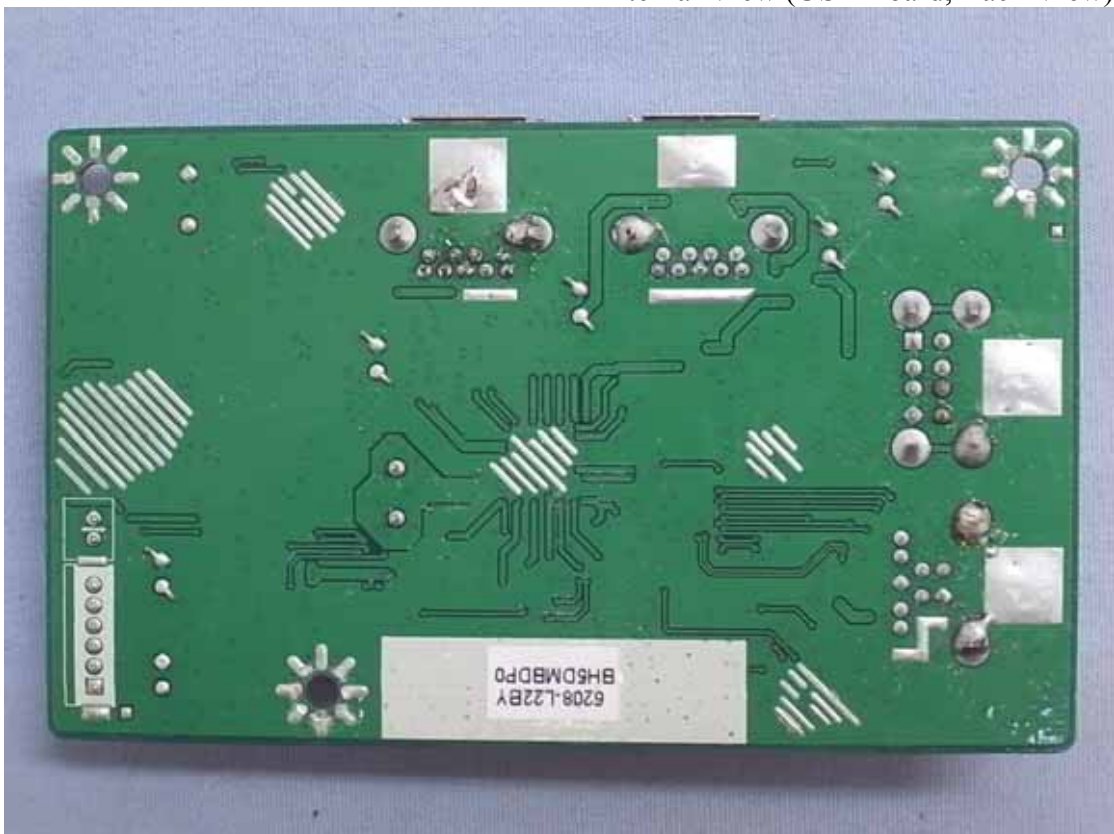


Figure 17
Internal View (Removed Front Frame)



Figure 18
Internal View (Button Control Board, Front View)

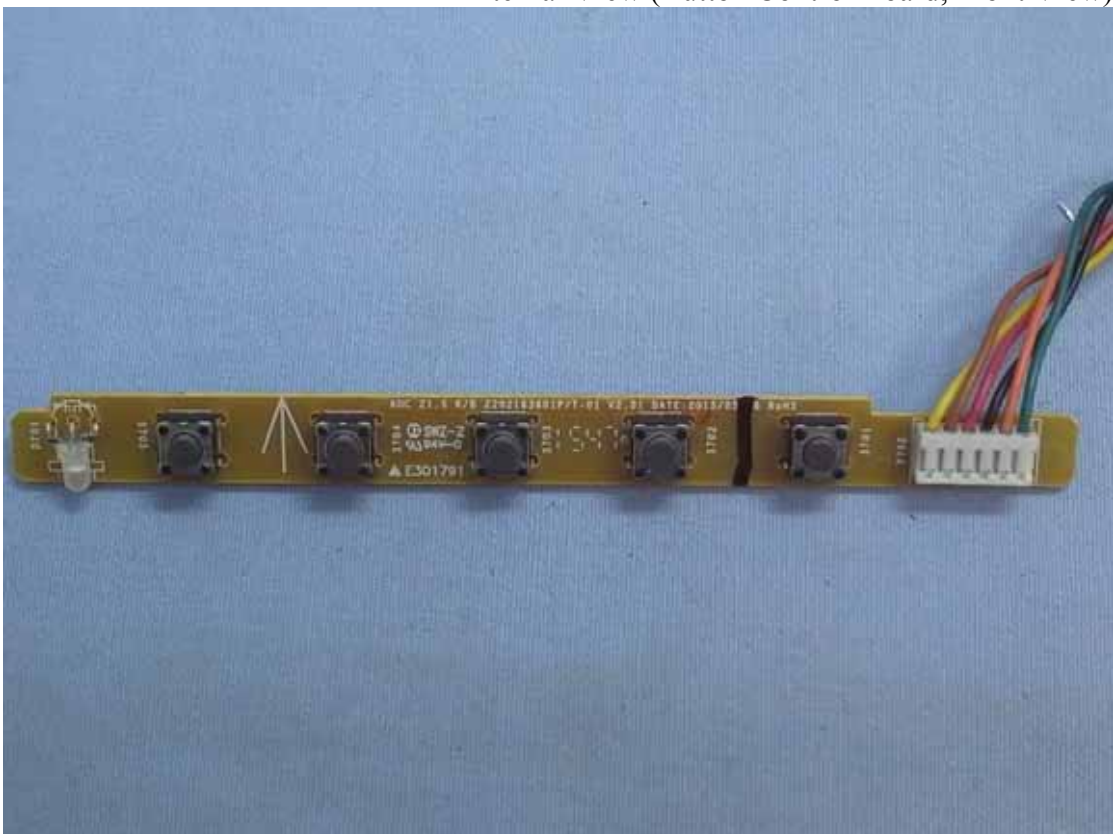


Figure 19
Internal View (Button Control Board, Back View)



Figure 20
Internal View (LCD Panel, Front View)



Figure 21
D-Sub Cable



Figure 22
DVI Cable



Figure 23
DP Cable



Figure 24
USB Cable



Figure 25
Audio Cable



Figure 26
Power Cord

