



CERTIFICATE OF CONFORMITY


For the following information

Ref. File No.: C1M1510105

| | |
|--------------------|--|
| Product | LCD Monitor |
| Model Number | (1)E2275SW** (2)215LM000** |
| Brand | AOC |
| Applicant | Taiwan BOE Vision-electronic |
| Manufacturer | Taiwan BOE Vision-electronic |
| Factory | K Tronics (Suzhou) Technology Co., Ltd. |
| Test Report Number | EM-E150675 |
| 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) |

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 and results are issued on the EMC test report no. EM-E150675.

Signature


Alex Deng/Deputy Manager
Date: 2015. 11. 17

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.

Technical Compliance Statement

CE EMC Test Report

For the following information

Ref. File No.: C1M1510105

Product : LCD Monitor

Model Number : (1)E2275SW** (2)215LM000**

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-E150675.

Signature


Alex Deng/Deputy Manager
Date: 2015. 11. 17

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.

EMC TEST REPORT
for
Taiwan BOE Vision-electronic
LCD Monitor
Model No. : (1)E2275SW** (2)215LM000**
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
No. 53-11, Dingfu, Linkou Dist.,
New Taipei City 244, Taiwan

Tel : (02) 2609-9301, 2609-2133
Fax : (02) 2609-9303

File Number : C1M1510105
Report Number : EM-E150675
Date of Test : 2015. 11. 11 ~ 17
Date of Report : 2015. 11. 17

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 | 10 |
| 3.3. Description of Test Facility | 11 |
| 3.4. Measurement Uncertainty | 11 |
| 4. CONDUCTED DISTURBANCE MEASUREMENT | 12 |
| 4.1. Test Equipment | 12 |
| 4.2. Block Diagram of Test Setup | 12 |
| 4.3. Limits for Conducted Disturbance | 12 |
| 4.4. Operating Condition of EUT | 13 |
| 4.5. Test Procedure | 13 |
| 4.6. Conducted Disturbance Measurement Results | 14 |
| 5. RADIATED DISTURBANCE MEASUREMENT | 17 |
| 5.1. Test Equipment | 17 |
| 5.2. Block Diagram of Test Setup | 17 |
| 5.3. Limits for Radiated Disturbance | 19 |
| 5.4. Operating Condition of EUT | 19 |
| 5.5. Test Procedure | 19 |
| 5.6. Radiated Disturbance Measurement Results | 21 |
| 6. POWER HARMONIC & FLICKER MEASUREMENT | 26 |
| 6.1. Test Equipment | 26 |
| 6.2. Block Diagram of Test Setup | 26 |
| 6.3. Test Standard | 26 |
| 6.4. Operating Condition of EUT | 27 |
| 6.5. Test Results | 27 |
| 7. ELECTROSTATIC DISCHARGE IMMUNITY TEST | 31 |
| 7.1. Test Equipment | 31 |
| 7.2. Block Diagram of Test Setup | 31 |
| 7.3. Test Standard | 32 |
| 7.4. Severity Levels and Performance Criterion | 32 |
| 7.5. Operating Condition of EUT | 32 |
| 7.6. Test Procedure | 33 |
| 7.7. Test Results | 33 |
| 8. RF FIELD STRENGTH IMMUNITY TEST | 35 |
| 8.1. Test Equipment | 35 |
| 8.2. Block Diagram of Test Setup | 35 |
| 8.3. Test Standard | 36 |
| 8.4. Severity Levels and Performance Criterion | 36 |
| 8.5. Operating Condition of EUT | 36 |
| 8.6. Test Procedure | 37 |
| 8.7. Test Results | 37 |
| 9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST | 39 |

| | |
|---|-----------|
| 9.1. Test Equipment | 39 |
| 9.2. Block Diagram of Test Setup..... | 39 |
| 9.3. Test Standard | 39 |
| 9.4. Severity Levels and Performance Criterion | 40 |
| 9.5. Operating Condition of EUT | 40 |
| 9.6. Test Procedure | 41 |
| 9.7. Test Results..... | 41 |
| 10. SURGE IMMUNITY TEST..... | 43 |
| 10.1. Test Equipment | 43 |
| 10.2. Block Diagram of Test Setup..... | 43 |
| 10.3. Test Standard | 43 |
| 10.4. Severity Levels and Performance Criterion | 44 |
| 10.5. Operating Condition of EUT | 44 |
| 10.6. Test Procedure | 44 |
| 10.7. Test Results..... | 45 |
| 11. CONDUCTED DISTURBANCE IMMUNITY TEST..... | 47 |
| 11.1. Test Equipment | 47 |
| 11.2. Block Diagram of Test Setup..... | 47 |
| 11.3. Test Standard | 47 |
| 11.4. Severity Levels and Performance Criterion | 48 |
| 11.5. Operating Condition of EUT | 48 |
| 11.6. Test Procedure | 48 |
| 11.7. Test Results..... | 49 |
| 12. POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST | 51 |
| 12.1. Test Equipment | 51 |
| 12.2. Block Diagram of Test Setup..... | 51 |
| 12.3. Test Standard | 51 |
| 12.4. Severity Levels and Performance Criterion | 52 |
| 12.5. Operating Condition of EUT | 52 |
| 12.6. Test Procedure | 52 |
| 12.7. Test Results..... | 52 |
| 13. VOLTAGE DIPS AND INTERRUPTIONS IMMUNITY TEST | 54 |
| 13.1. Test Equipment | 54 |
| 13.2. Block Diagram of Test Setup..... | 54 |
| 13.3. Test Standard | 54 |
| 13.4. Severity Levels and Performance Criterion | 55 |
| 13.5. Operating Condition of EUT | 55 |
| 13.6. Test Procedure | 56 |
| 13.7. Test Results..... | 56 |
| 14. PHOTOGRAPHS..... | 58 |
| 14.1. Photos of Conducted Disturbance Measurement..... | 58 |
| 14.2. Photos of Radiated Disturbance Measurement at Open Area Test Site (30-1000MHz)..... | 59 |
| 14.3. Photos of Radiated Disturbance Measurement at Semi-Anechoic Chamber (Above 1GHz)..... | 60 |
| 14.4. Photos of Harmonic & Flicker Measurement | 61 |
| 14.5. Photos of Electrostatic Discharge Immunity Test | 62 |
| 14.6. Photos of RF Strength Immunity Test | 69 |
| 14.7. Photos of Electrical Fast Transient/Burst Immunity Test..... | 70 |
| 14.8. Photos of Surge Immunity Test | 70 |
| 14.9. Photos of Injected Currents Immunity Test..... | 71 |
| 14.10. Photos of Power Frequency Magnetic Field Immunity Test..... | 71 |
| 14.11. Photos of Voltage Dips and Interruptions Immunity Test | 72 |

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)E2275SW** (2)215LM000** |
| | (B) Serial No. | : N/A |
| | (C) Brand | : AOC |
| | (D) Power Supply | : AC 100-240V, 50/60Hz |
| | (E) 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 standard.

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 : 2015. 11. 11 ~ 17

Date of Report : 2015. 11. 17

Producer : Patty Yu
(Patty Yu/Administrator)

Signatory : Alex Deng
(Alex Deng/Deputy Manager)

1. DESCRIPTION OF VERSION

| Edition No. | Date of Revision | Revision Summary | Report Number |
|-------------|------------------|------------------|---------------|
| 0 | 2015. 11. 17 | Original Report. | EM-E150675 |

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 | N/A | 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) | | N/A | 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)E2275SW** (2)215LM000** (“*” = alphameric or blank) The difference of above models are in sales marketing. The model E2275SWDA was tested in this report. |
| Brand | : | 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, 1.5m Bonded two ferrite cores |
| AC Power Cord | : | Unshielded, Detachable, 1.5m (3C) |
| Date of Receipt of Sample | : | 2015. 11. 09 |
| Date of Test | : | 2015. 11. 11 ~ 17 |

Remark 1:

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

Back View:

- (1) One AC Input Port
- (2) One DVI Port
- (3) One D-Sub Port
- (4) One Audio Port
- (5) One Earphone Port

Remark 2:

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

| Test Item | Input Port | Display, Resolution/Frequency |
|--|------------|-------------------------------|
| Conducted Disturbance & Radiated Disturbance | DVI | "H" Pattern, 1920*1080/60Hz |
| | | "H" Pattern, 1280*1024/75Hz |
| | | "H" Pattern, 640*480/60Hz |
| | D-Sub | "H" Pattern, 1920*1080/60Hz |
| H & V & EMS test | DVI | "H" Pattern, 1920*1080/60Hz |

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

| Test Item | Input Port | Display, Resolution/Frequency |
|-----------------------|------------|-------------------------------|
| Conducted Disturbance | DVI | "H" Pattern, 1920*1080/60Hz |
| Radiated Disturbance | DVI | "H" Pattern, 1920*1080/60Hz |
| H & V & EMS test | DVI | "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 |
|---|--------------|--------|------------|------------------------------|-----------|
| 【Only For Conducted、Radiated Disturbance Measurements Tests Used】 | | | | | |
| 1. | PC System | DELL | DC8M1F | 24283942660 | By DoC |
| 2. | Printer | hp | C2642A | MY83N1C0J0 | B94C2642X |
| 3. | USB Keyboard | DELL | KB212-B | CN-05V23T-71581-2 8R-000U | By DoC |
| 4. | USB Mouse | DELL | MS111-L | CN-09RRC7-48723-2 B7-0H3M | By DoC |
| 5. | I-POD Player | APPLE | A1204 | 4H722TGDVTE | By DoC |
| 6. | Earphone | SAMPO | EK-Y1251MP | N/A | N/A |
| 【Only For Harmonic、Flicker Measurements and EMS Immunity Tests Used】 | | | | | |
| 1. | PC System | Lenovo | RK4 | PBFK914 | By DoC |
| 2. | USB Keyboard | Lenovo | SK-8825 | 0056462 | By DoC |
| 3. | USB Mouse | Lenovo | 45J4886 | N/A | By DoC |
| 4. | Earphone | SAMPO | EK-Y1251MP | N/A | N/A |

3.2.2. Support Peripheral Unit

| No. | Cable Description Of The Above Support Units |
|---|---|
| 【Only For Conducted、Radiated Disturbance Measurements Tests Used】 | |
| 1. | DVI Cable: Shielded, Detachable, 1.5m, Bonded two ferrite cores Audio Cable: Unshielded, Detachable, 1.5m AC Power Cord: Unshielded, Detachable, 1.8m |
| 2. | USB Cable: Shielded, Detachable, 1.5m O/P Power Cord: Unshielded, Undetachable, 0.6m I/P Power Cord: Unshielded, Detachable, 1.7m |
| 3. | USB Cable: Shielded, Undetachable, 1.8m |
| 4. | USB Cable: Shielded, Undetachable, 1.8m |
| 5. | USB Cable: Shielded, Undetachable, 1.0m |
| 6. | Earphone Cable: Unshielded, Undetachable, 1.2m |
| 【Only For Harmonic、Flicker Measurements and EMS Immunity Tests Used】 | |
| 1. | DVI Cable: Shielded, Detachable, 1.5m, Bonded two ferrite cores Audio Cable: Unshielded, Detachable, 1.5m 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, 1.2m |

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 Site : **No. 4 Shielded Room &**
No. 7 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 | ±5.3dB |
| | 1GHz~6GHz | ±4.8dB |
| | 6GHz~18GHz | ±4.8dB |
| RF Field Strength Susceptibility Test | 80MHz~200MHz | ±1.7dB |
| | 200MHz~1000MHz | ±1.8dB |
| | 1GHz~6GHz | ±1.7dB |

Remark : Uncertainty = $ku_c(y)$

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 DVI input, the screen was filling with “H” pattern by EUT’s resolution.
- 4.4.5. The PC system was running the program “Windows Media Player” and sending sounds to Earphone.
- 4.4.6. 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 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 ESCI 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. : E2275SWDA

Test Date : 2015. 11. 11 Temperature : 24°C Humidity : 62%

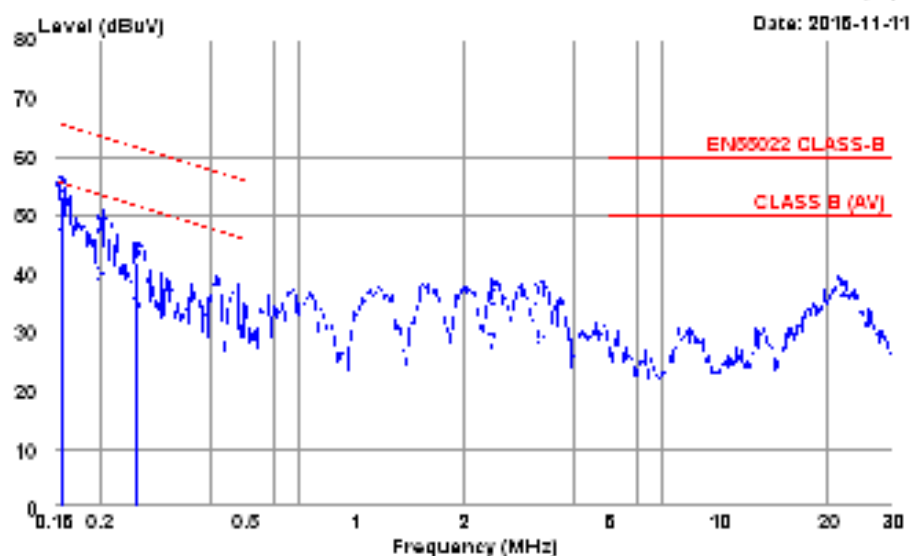
The details of test modes are as follows :

| Mode | Input Port | Display, Resolution/Frequency | Reference Test Data No. | |
|------|------------|-------------------------------|-------------------------|------|
| | | | Neutral | Line |
| 1 | DVI | “H” Pattern, 1920*1080/60Hz | # 10 | # 9 |



AUDIX Technology Corporation EMC Data
No. 55-1, Inga, Section 4, New Taipei City
224 Taiwan, R.O.C.
Tel: +86(2) 26392137 Fax: +86(2) 26393003
E-mail: emc@audix-tech.com

Date: 10 File: D:\TEST-DATA\REPORT\2015\IC1M1510XXX\IC1M1510105-C-D.EM6 (10)



Site no. : No.4 Shielded Room Data no. : 10
Condition : ESH2-Z5 890485/023 LISN Phase : NEUTRAL
Limit : EN55022 CLASS-B
Env. / Ins. : 24°C/ 62% ESCH (100555) Engineer : Garry Chao
EUT : E22755WDA
Power Rating : 230Vac/50Hz
Test Mode : 1920*1080/60Hz DVI

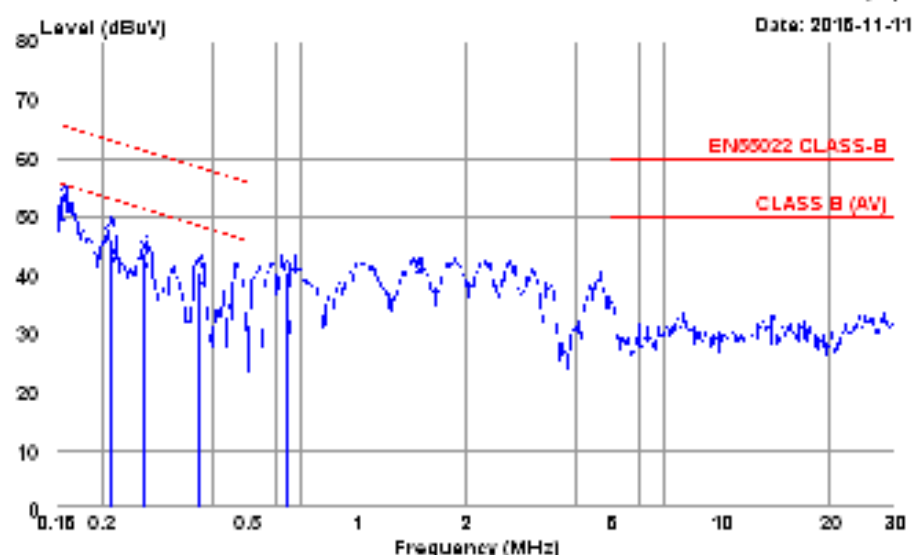
| | Freq. (MHz) | AMN Factor (dB) | Cable Loss (dB) | Pulse Att. (dB) | Reading (dBμV) | Emission Level (dBμV) | Limits (dBμV) | Margin (dB) | Remark |
|----|----------------|-----------------------|-----------------------|-----------------------|-------------------|-----------------------------|------------------|----------------|---------|
| 1 | 0.156 | 0.15 | 0.02 | 9.86 | 34.90 | 44.93 | 55.65 | 10.72 | Average |
| 2 | 0.156 | 0.15 | 0.02 | 9.86 | 43.26 | 53.29 | 65.65 | 12.36 | QP |
| 3 | 0.202 | 0.15 | 0.02 | 9.85 | 27.99 | 38.01 | 53.54 | 15.53 | Average |
| 4 | 0.202 | 0.15 | 0.02 | 9.85 | 37.85 | 47.87 | 63.54 | 15.67 | QP |
| 5 | 0.251 | 0.16 | 0.02 | 9.86 | 22.72 | 32.76 | 51.73 | 18.97 | Average |
| 6 | 0.251 | 0.16 | 0.02 | 9.86 | 32.03 | 42.07 | 61.73 | 19.66 | QP |
| 7 | 2.396 | 0.26 | 0.04 | 9.86 | 16.22 | 26.38 | 46.00 | 19.62 | Average |
| 8 | 2.396 | 0.26 | 0.04 | 9.86 | 23.78 | 33.94 | 56.00 | 22.06 | QP |
| 9 | 3.293 | 0.29 | 0.05 | 9.86 | 16.97 | 27.17 | 46.00 | 18.83 | Average |
| 10 | 3.293 | 0.29 | 0.05 | 9.86 | 24.93 | 35.13 | 56.00 | 20.87 | QP |
| 11 | 21.486 | 1.15 | 0.14 | 9.96 | 18.05 | 29.30 | 50.00 | 20.70 | Average |
| 12 | 21.486 | 1.15 | 0.14 | 9.96 | 24.08 | 35.33 | 60.00 | 24.67 | 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.



AUDIX Technology Corporation EMC Data
 No. 55-1, Jingxi, Section 2, Neihu, Taipei City
 114, Taiwan, R.O.C.
 Tel: +86(0)2 26792137 Fax: +86(0)2 26793003
 E-mail: emc@audix-tech.com

Data: 8 File: D:\TEST-DATA\REPORT\2015\IC1M1510XXX\IC1M1510105-C-D.EM8 (18)



Site no. : No.4 Shielded Room Data no. : 9
 Condition : ESH2-Z5 890485/023 LISN Phase : LINE
 Limit : EN55022 CLASS-B
 Env. / Ins. : 24°C/ 62% ESCL (100555) Engineer : Garry Chao
 EUT : E2275SWDA
 Power Rating : 230Vac/50Hz
 Test Mode : 1920*1080/60Hz DVI

| | Freq. (MHz) | AMN Factor (dB) | Cable Loss (dB) | Pulse Att. (dB) | Reading (dBμV) | Emission Level (dBμV) | Limits (dBμV) | Margin (dB) | Remark |
|----|----------------|-----------------------|-----------------------|-----------------------|-------------------|-----------------------------|------------------|----------------|---------|
| 1 | 0.158 | 0.17 | 0.02 | 9.86 | 36.40 | 46.45 | 55.56 | 9.11 | Average |
| 2 | 0.158 | 0.17 | 0.02 | 9.86 | 41.88 | 51.93 | 65.56 | 13.63 | QP |
| 3 | 0.211 | 0.17 | 0.02 | 9.85 | 31.34 | 41.38 | 53.18 | 11.80 | Average |
| 4 | 0.211 | 0.17 | 0.02 | 9.85 | 36.32 | 46.36 | 63.18 | 16.82 | QP |
| 5 | 0.260 | 0.18 | 0.02 | 9.86 | 29.76 | 39.82 | 51.42 | 11.60 | Average |
| 6 | 0.260 | 0.18 | 0.02 | 9.86 | 33.65 | 43.71 | 61.42 | 17.71 | QP |
| 7 | 0.367 | 0.19 | 0.03 | 9.86 | 25.45 | 35.53 | 48.56 | 13.03 | Average |
| 8 | 0.367 | 0.19 | 0.03 | 9.86 | 30.31 | 40.39 | 58.56 | 18.17 | QP |
| 9 | 0.644 | 0.20 | 0.03 | 9.85 | 19.01 | 29.09 | 46.00 | 16.91 | Average |
| 10 | 0.644 | 0.20 | 0.03 | 9.85 | 30.21 | 40.29 | 56.00 | 15.71 | QP |
| 11 | 1.449 | 0.23 | 0.04 | 9.86 | 21.14 | 31.27 | 46.00 | 14.73 | Average |
| 12 | 1.449 | 0.23 | 0.04 | 9.86 | 29.63 | 39.76 | 56.00 | 16.24 | 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 disturbance measurement:

5.1.1. For 30MHz-1000MHz Frequency (At No. 7 Open Area Test Site)

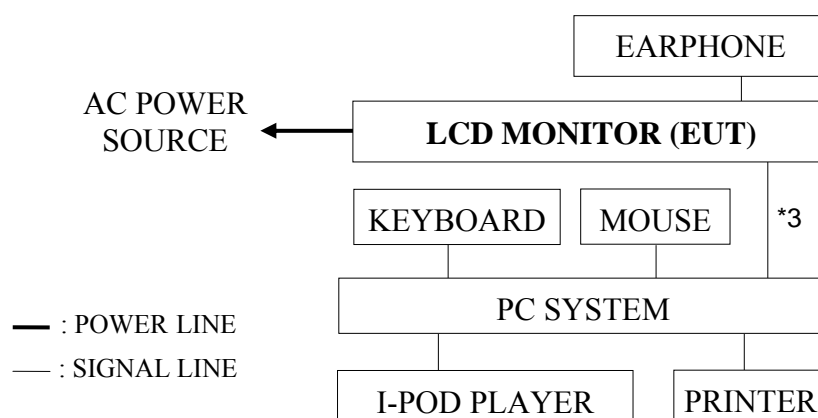
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Due Date | Cal. Interval |
|------|-------------------|--------------|------------|------------|---------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A-507 | MY48031090 | 2015. 10. 12 | 1 Year |
| 2. | Test Receiver | R&S | ESCI | 100557 | 2015. 01. 07 | 1 Year |
| 3. | Amplifier | HP | 8447D | 2727A06154 | N.C.R | N.C.R |
| 4. | Bilog Antenna | ETC | MCTD 2786 | BL13F03010 | 2015. 01. 26 | 1 Year |

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

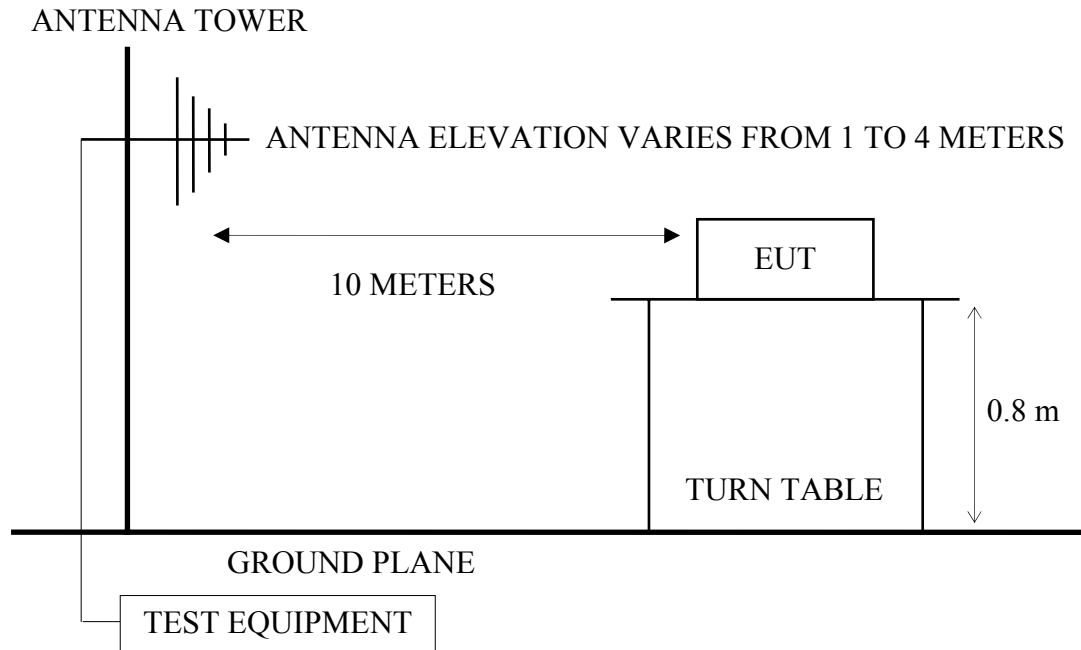
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|-------------------|--------------|------------|------------|--------------|---------------|
| 1. | Spectrum Analyzer | Agilent | N9010A-526 | MY48031076 | 2015. 09. 24 | 1 Year |
| 2. | Amplifier | HP | 8447D | 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

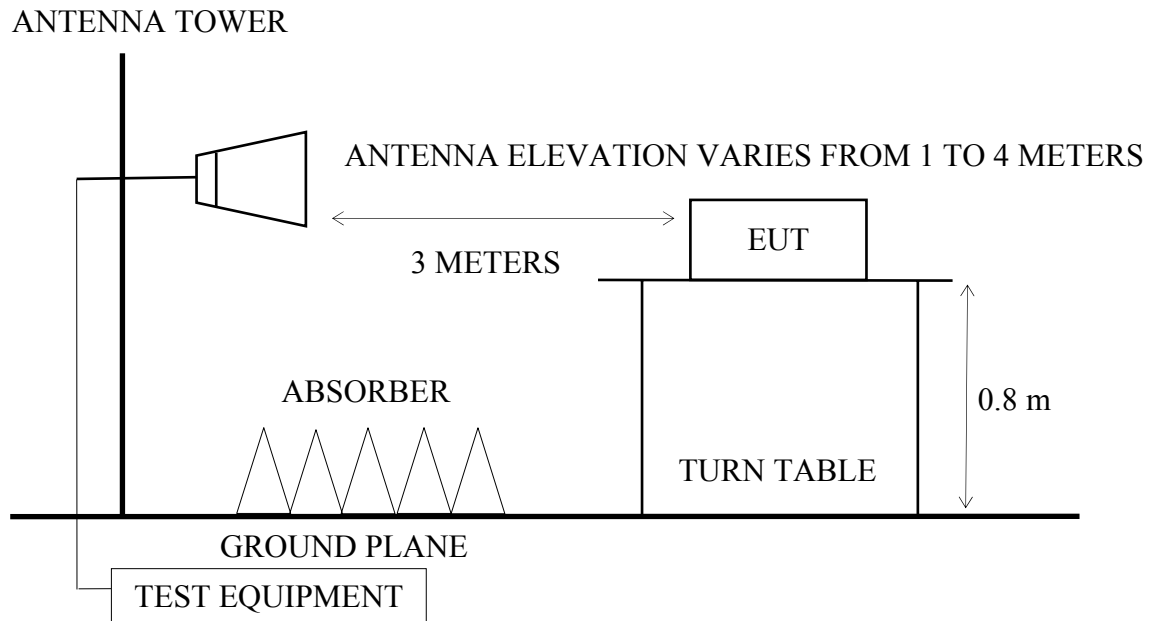
5.2.1. Block Diagram of connection between EUT and simulators



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 30MHz-1000MHz, which measurement was at Open Area Test Site:

The EUT and its simulator were placed on a turn table which was 0.8 meter above ground. The turn table rotate 360 degrees to determine the position of the maximum emission level. EUT was set to 10 meters away from the receiving antenna which were mounted on an antenna tower. The antenna could be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna was used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to EN 55022 Class B requirements.

The bandwidth of the R & S Test Receiver ESCI 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 above 1GHz, which measurement was 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 polarization 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 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_{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 was performed during this section testing and all the test results are listed in section 5.6.1.

EUT: LCD Monitor Model No.: E2275SWDA

Test Date: 2015. 11. 11 Temperature: 25°C Humidity: 57%

The details of test modes are as follows :

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

For above 1GHz frequency range:

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

EUT: LCD Monitor Model No.: E2275SWDA

Test Date: 2015. 11. 12 Temperature: 24°C Humidity: 52%

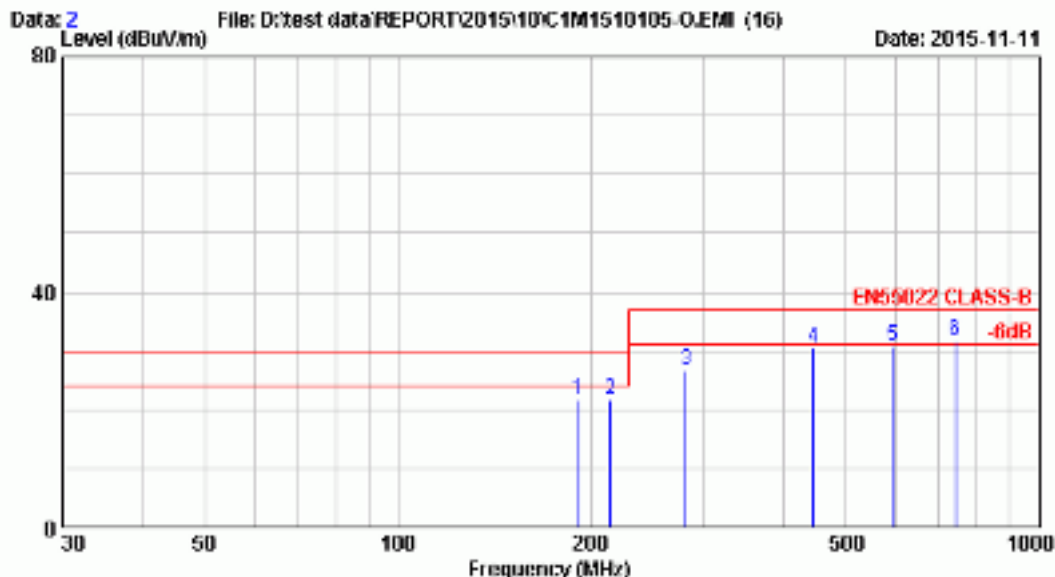
The details of test modes are as follows :

| Mode | Input Port | Display, Resolution/Frequency | Reference Test Data No. | |
|------|------------|-------------------------------|-------------------------|----------|
| | | | Horizontal | Vertical |
| 1 | DVI | “H” Pattern, 1920*1080/60Hz | # 4 | # 3 |

5.6.1. Radiated Disturbance Measurement Results at Open Area Test Site (30-1000MHz)



AUDIX Technology Corp. EMC Department
No.53-11, Dingfa, Linkou, Dist., New Taipei City,
244 Taiwan R.O.C.
Tel:+886-2-26092133 Fax:+886-2-26099303
Email: emc@audixtech.com



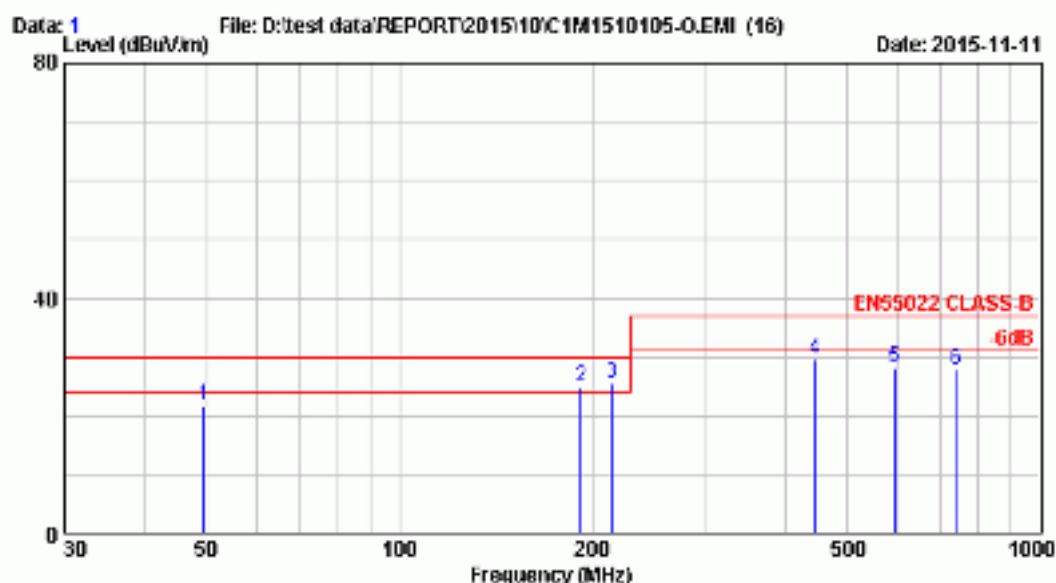
Site no. : OATS NO.7 Data no. : 2
Dis. / Ant. : 10m BILOG ANTENNA 2786 Ant. pol. : HORIZONTAL
Limit : EN55022 CLASS-B
Env. / Ins. : 25°C/57% RHCI (557) Engineer : Garry Chao
EUT M/N : E2275WDA
Power Rating : 230Vac/50Hz
Test Mode : 1920*1080/60Hz DVI

| | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|----------------|--------------------------|-----------------------|-------------------|-------------------------------|-------------------|----------------|--------|
| 1 | 191.732 | 10.50 | 1.82 | 9.33 | 21.65 | 30.00 | 8.35 | QP |
| 2 | 214.796 | 11.66 | 1.95 | 9.21 | 21.81 | 30.00 | 8.19 | QP |
| 3 | 281.740 | 14.15 | 2.28 | 10.33 | 26.76 | 37.00 | 10.24 | QP |
| 4 | 445.490 | 17.74 | 2.72 | 9.07 | 30.34 | 37.00 | 6.66 | QP |
| 5 | 594.000 | 19.02 | 3.47 | 9.27 | 30.76 | 37.00 | 6.24 | QP |
| 6 | 742.490 | 20.63 | 3.97 | 7.09 | 31.70 | 37.00 | 5.30 | 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 742.498MHz with corrected signal level of 31.70dBuV/m (limit is 37.0dBuV/m) when the antenna was at horizontal polarization and was at 4m high and the turn table was at 70°.
4. 0°was the table front facing the antenna. Degree is calculated from 0°clockwise facing the antenna.



AUDIX Technology Corp. EMC Department
No.53-11, Dingfu, Linkou, Dist., New Taipei City,
244 Taiwan R.O.C.
Tel:+886-2-26092133 Fax:+886-2-26092303
Email: emc@audixtech.com



Site no. : CATS NO.7 Data no. : 1
Dis. / Ant. : 10m BILOG ANTENNA 2706 Ant. pol. : VERTICAL
Limit : EN55022 CLASS-B
Env. / Ins. : 25°C/57% RHCI (557) Engineer : Garry Chao
EUT M/N : B22758WDA
Power Rating : 230Vac/50Hz
Test Mode : 1920*1080/60Hz DVI

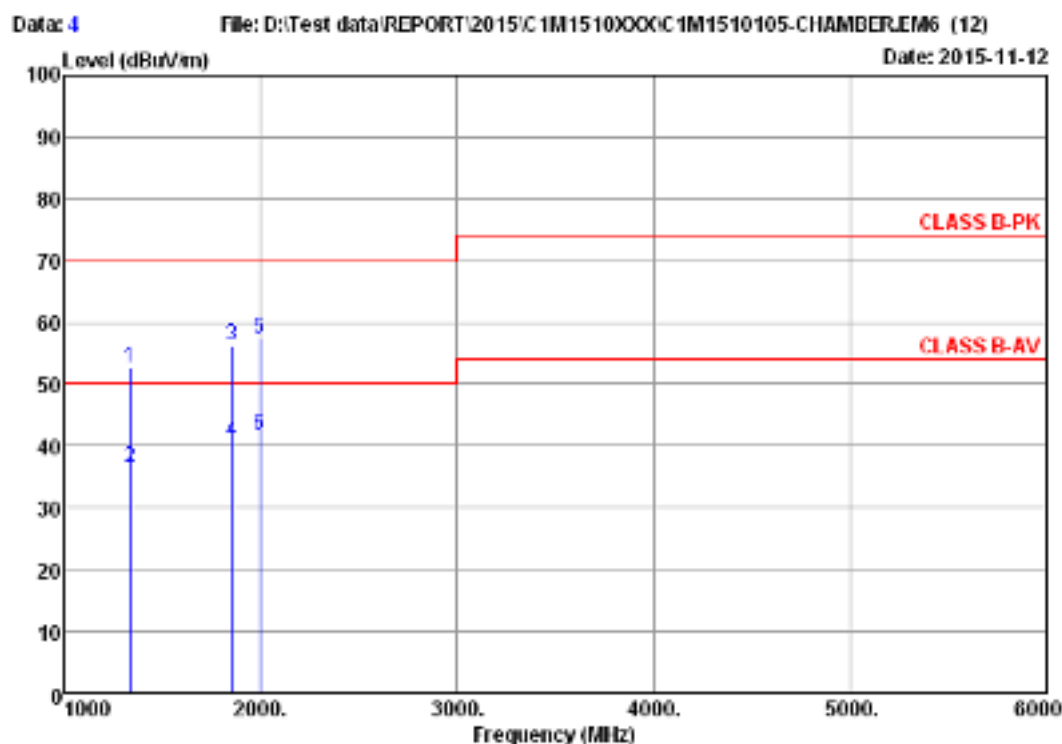
| | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|---|----------------|--------------------------|-----------------------|-------------------|-------------------------------|-------------------|----------------|--------|
| 1 | 49.650 | 9.78 | 0.83 | 11.12 | 21.74 | 30.00 | 8.26 | QF |
| 2 | 191.999 | 10.50 | 1.82 | 12.65 | 24.97 | 30.00 | 5.03 | QF |
| 3 | 214.802 | 11.66 | 1.95 | 11.87 | 25.48 | 30.00 | 4.52 | QF * |
| 4 | 445.499 | 17.74 | 2.72 | 9.11 | 29.57 | 37.00 | 7.43 | QF |
| 5 | 594.010 | 19.02 | 3.47 | 5.74 | 28.23 | 37.00 | 8.77 | QF |
| 6 | 742.493 | 20.63 | 3.97 | 3.24 | 27.84 | 37.00 | 9.16 | QF |

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 214.802MHz with corrected signal level of 25.48dBuV/m (limit is 30.0dBuV/m) when the antenna was at vertical polarization and was at 1m high and the turn table was at 40°.
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)



AUDIX Technology Corp. EMC Department
No.33-11, Dingfu, Linkou Dist., New Taipei City,
244 Taiwan R.O.C.
Tel: +886-2-26092133 Fax: +886-2-26099303
Email: emc@audixtech.com



Site no. : Audix No.2 Chamber Data no. : 4
Dis. / Ant. : 3m HORN3115-3775 Ant. pol. : HORIZONTAL
Limit : CLASS B-PK
Env. / Ins. : 24°C / 52% RH9010A (076) Engineer : Edward_lin
EUT : E2275SWDA
Power Rating : 230Vac/50Hz
Test Mode : 1920*1080/60Hz DVI

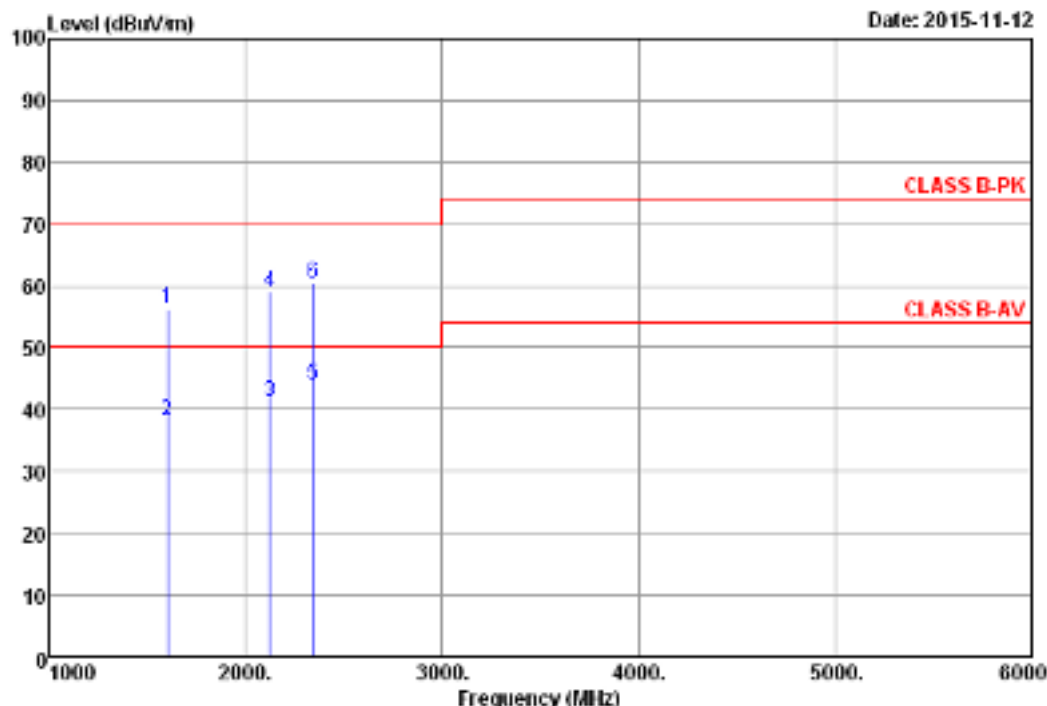
| | Freq. (MHz) | Ant. Factor (dB/μ) | Cable Loss (dB) | PREAMP Gain (dB) | Reading (dBμV) | Emission Level (dBμV/μ) | Limits (dBμV/μ) | Margin (dB) | |
|---|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1 | 1340.00 | 25.70 | 5.37 | 36.09 | 57.54 | 52.52 | 70.00 | 17.48 | Peak |
| 2 | 1340.70 | 25.70 | 5.38 | 36.09 | 41.42 | 36.41 | 50.00 | 13.59 | Average |
| 3 | 1855.00 | 27.68 | 6.98 | 35.40 | 56.91 | 56.17 | 70.00 | 13.83 | Peak |
| 4 | 1856.78 | 27.68 | 6.98 | 35.40 | 41.42 | 40.68 | 50.00 | 9.32 | Average |
| 5 | 1995.00 | 28.28 | 7.44 | 35.27 | 56.86 | 57.31 | 70.00 | 12.69 | Peak |
| 6 | 1996.93 | 28.28 | 7.45 | 35.27 | 41.35 | 41.81 | 50.00 | 8.19 | 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.



AUDIX Technology Corp. EMC Department
No.53-11, Dingfa, Linkou Dist., New Taipei City,
244 Taiwan R.O.C.
Tel: +886-2-26092133 Fax: +886-2-26099303
Email: emc@audixtech.com

Data: 3 File: D:\Test data\REPORT\2015\CI\1M1510XXXX\CI\1M1510105-CHAMBER\EM6 (12) Date: 2015-11-12



Site no. : Audix No.2 Chamber Data no. : 3
Dis. / Ant. : 3m HORH3115-3775 Ant. pol. : VERTICAL
Limit : CLASS B-PK
Env. / Ins. : 24°C / 52% RH800A (076) Engineer : Edward_lin
EUT : E2275SWDA
Power Rating : 230Vac/50Hz
Test Mode : 1920*1080/60Hz DVI

| | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | PREAMP Gain (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | |
|---|----------------|--------------------------|-----------------------|------------------------|-------------------|-------------------------------|--------------------|----------------|---------|
| 1 | 1600.00 | 26.45 | 6.14 | 35.68 | 59.43 | 56.34 | 70.00 | 13.66 | Peak |
| 2 | 1603.24 | 26.45 | 6.15 | 35.67 | 41.13 | 38.06 | 50.00 | 11.94 | Average |
| 3 | 2123.96 | 28.41 | 7.57 | 35.21 | 40.37 | 41.14 | 50.00 | 8.86 | Average |
| 4 | 2125.00 | 28.41 | 7.57 | 35.21 | 58.32 | 59.09 | 70.00 | 10.91 | Peak |
| 5 | 2344.86 | 28.59 | 7.80 | 35.13 | 42.73 | 43.99 | 50.00 | 6.01 | Average |
| 6 | 2345.00 | 28.59 | 7.80 | 35.13 | 59.22 | 60.48 | 70.00 | 9.52 | 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.

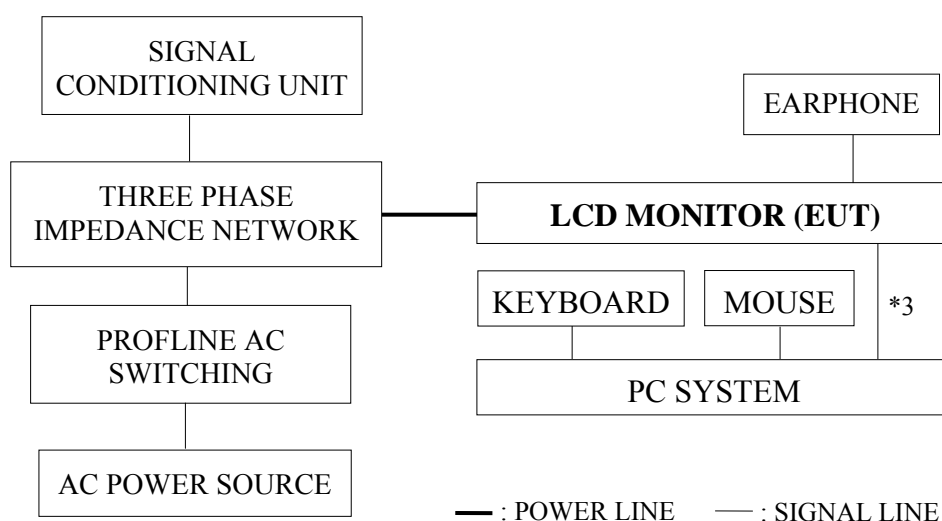
6. POWER HARMONIC & FLICKER MEASUREMENT

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 | 2 Years |
| 2. | Signal Conditioning Unit | TESEQ | CCN 1000-3 | 1234A03680 | 2014. 01. 17 | 2 Years |
| 3. | Three Phase Impedance Network | TESEQ | INA 2197 | 1234A03681 | 2014. 01. 17 | 2 Years |
| 4. | Proflin AC Switching Unit | TESEQ | NSG 2200-3 | EK 22713 | 2014. 01. 17 | 2 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 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “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: E2275SWDA

Tested by: jason chou

Test category: Class-D per Ed. 4.0 (2014) (European limits) Test Margin: 100

Test date: 2015/11/16

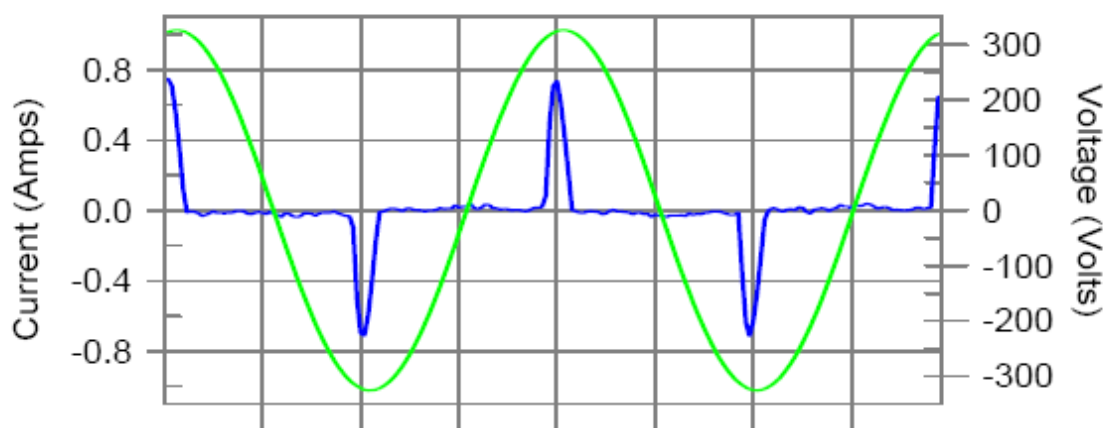
Test duration (min): 2.5

Data file name: CTSMXL_H-000243.cts_data

Comment: 1920*1080/60Hz(DVI)

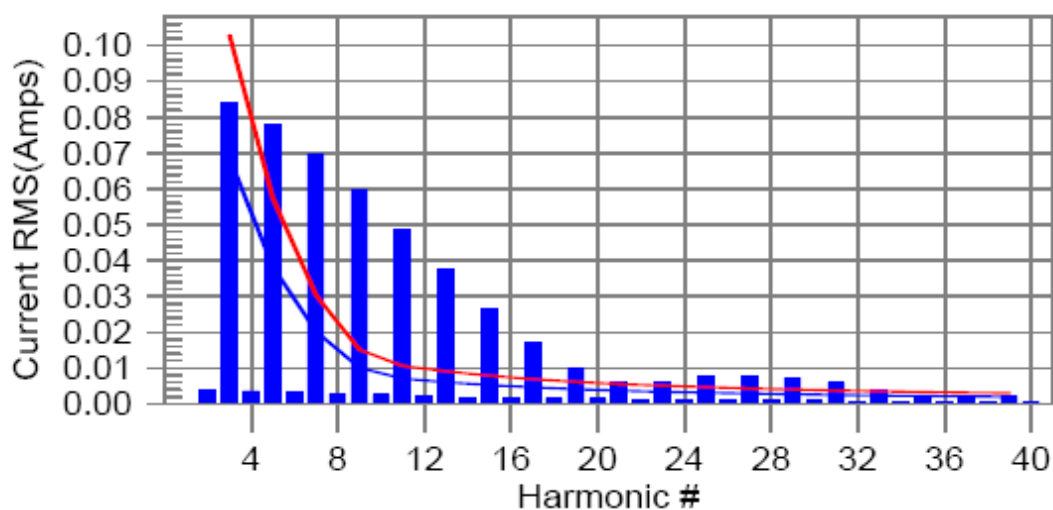
Test Result: N/L Source qualification: Normal

Current & voltage waveforms



Harmonics and Class D limit line

European Limits



Test result: N/L Worst harmonic was #11 with 461.7% of the limit.

Current Test Result Summary (Run time)

EUT: E2275SWDA
 Test category: Class-D per Ed. 4.0 (2014) (European limits)
 Test date: 2015/11/16
 Test duration (min): 2.5
 Comment: 1920*1080/60Hz(DVI)

Tested by: jason chou

Test Margin: 100

Data file name: CTSXML_H-000243.cts_data

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): 230.187
 I_Peak (Amps): 0.774
 I_Fund (Amps): 0.092
 Power (Watts): 20.2

Frequency(Hz): 50.00
 I_RMS (Amps): 0.188
 Crest Factor: 4.122
 Power Factor: 0.467

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.004 | 0.000 | N/A | 0.004 | 0.000 | N/A | Pass |
| 3 | 0.084 | 0.069 | N/A | 0.084 | 0.103 | N/A | Pass |
| 4 | 0.004 | 0.000 | N/A | 0.004 | 0.000 | N/A | Pass |
| 5 | 0.078 | 0.038 | N/A | 0.079 | 0.058 | N/A | Pass |
| 6 | 0.003 | 0.000 | N/A | 0.004 | 0.000 | N/A | Pass |
| 7 | 0.070 | 0.020 | N/A | 0.070 | 0.030 | N/A | Pass |
| 8 | 0.003 | 0.000 | N/A | 0.003 | 0.000 | N/A | Pass |
| 9 | 0.060 | 0.010 | N/A | 0.060 | 0.015 | N/A | Pass |
| 10 | 0.002 | 0.000 | N/A | 0.003 | 0.000 | N/A | Pass |
| 11 | 0.049 | 0.007 | N/A | 0.049 | 0.011 | N/A | Pass |
| 12 | 0.002 | 0.000 | N/A | 0.002 | 0.000 | N/A | Pass |
| 13 | 0.037 | 0.006 | N/A | 0.038 | 0.009 | N/A | Pass |
| 14 | 0.002 | 0.000 | N/A | 0.002 | 0.000 | N/A | Pass |
| 15 | 0.027 | 0.005 | N/A | 0.027 | 0.008 | N/A | Pass |
| 16 | 0.002 | 0.000 | N/A | 0.002 | 0.000 | N/A | Pass |
| 17 | 0.017 | 0.005 | N/A | 0.019 | 0.007 | N/A | Pass |
| 18 | 0.001 | 0.000 | N/A | 0.002 | 0.000 | N/A | Pass |
| 19 | 0.010 | 0.004 | N/A | 0.011 | 0.006 | N/A | Pass |
| 20 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 21 | 0.006 | 0.004 | N/A | 0.006 | 0.006 | N/A | Pass |
| 22 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 23 | 0.006 | 0.003 | N/A | 0.007 | 0.005 | N/A | Pass |
| 24 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 25 | 0.008 | 0.003 | N/A | 0.008 | 0.005 | N/A | Pass |
| 26 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 27 | 0.008 | 0.003 | N/A | 0.008 | 0.004 | N/A | Pass |
| 28 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 29 | 0.007 | 0.003 | N/A | 0.007 | 0.004 | N/A | Pass |
| 30 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 31 | 0.006 | 0.003 | N/A | 0.006 | 0.004 | N/A | Pass |
| 32 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 33 | 0.004 | 0.002 | N/A | 0.004 | 0.004 | N/A | Pass |
| 34 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 35 | 0.002 | 0.002 | N/A | 0.003 | 0.003 | N/A | Pass |
| 36 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 37 | 0.002 | 0.002 | N/A | 0.002 | 0.003 | N/A | Pass |
| 38 | 0.001 | 0.000 | N/A | 0.001 | 0.000 | N/A | Pass |
| 39 | 0.002 | 0.002 | N/A | 0.002 | 0.003 | 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

Flicker Test Summary per EN/IEC61000-3-3 Ed. 3.0 (2013) (Run time)

EUT: E2275SWDA

Tested by: JASON CHOU

Test category: dt,dmax,dc and Pst (European limits)

Test Margin: 100

Test date: 2015/11/16

Test duration (min): 10

Data file name: CTSMXL_F-000244.cts_data

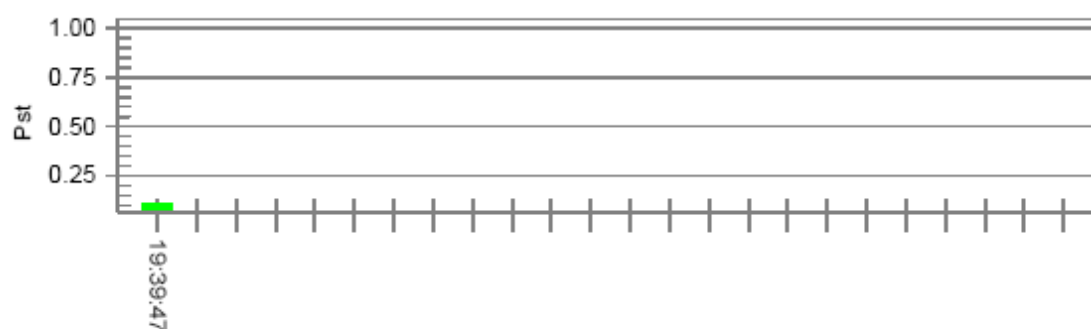
Comment: 1920*1080/60Hz(DVI)

Test Result: Pass

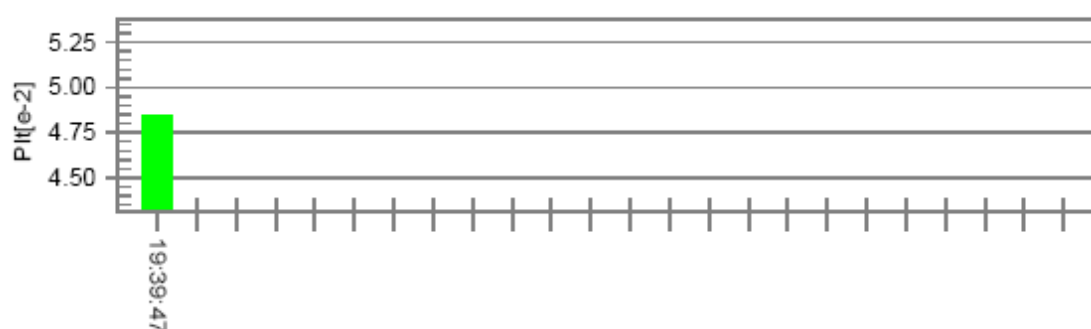
Status: Test Completed

Pst_t and limit line

European Limits



Plt and limit line



Parameter values recorded during the test:

Vrms at the end of test (Volt): 230.12

Highest dt (%): 0.00

T-max (mS): 0.0

Highest dc (%): 0.00

Highest dmax (%): -0.05

Highest Pst (10 min. period): 0.111

Test limit (%): N/A N/A

Test limit (mS): 500.0 Pass

Test limit (%): 3.30 Pass

Test limit (%): 4.00 Pass

Test limit: 1.000 Pass

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 retrigged 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 B)

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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “H” Pattern, 1920*1080/60Hz |

Electrostatic Discharge Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| | |
|---|--------------------------------------|
| Applicant : <u>Taiwan BOE Vision-electronic</u> | Test Date : <u>2015. 11. 13</u> |
| EUT : <u>LCD Monitor, M/N E2275SWDA</u> | Temperature : <u>22</u> |
| Power Supply : <u>AC 230V, 50Hz</u> | Humidity : <u>49</u> % |
| Working Condition : <u>See Section 4.4.</u> | Atmospheric pressure : <u>99 kPa</u> |
| Engineer : <u>Xar Zhuo</u> | Test Mode: <u>See Section 7.7.</u> |

| | | | | | | | |
|--|--|----|----|----|----|----|----------|
| Air Discharge | Voltage kV Level / Discharge per polarity 10 / Result: Pass | | | | | | |
| Test Location | +2 | -2 | +4 | -4 | +8 | -8 | Comments |
| Screen (1-4) | ND | ND | ND | ND | A | B | Note |
| LED (5) | ND | ND | ND | ND | ND | ND | |
| Button (6-10) | ND | ND | ND | ND | ND | ND | |
| Seam (11-13) | ND | ND | ND | ND | ND | ND | |
| Contact Discharge | Voltage kV Level / Discharge per polarity 25 / Result: Pass | | | | | | |
| Test Location | +2 | -2 | +4 | -4 | | | Comments |
| Audio Out (14) | A | A | A | A | | | |
| Audio In (15) | A | A | A | A | | | |
| D-Sub (16) | A | A | A | A | | | |
| DVI (17) | A | A | A | A | | | |
| AC In (18) | A | A | A | A | | | |
| Indirect Contact | Voltage kV Level / Discharge per polarity 25 / Result: Pass | | | | | | |
| Test Location | +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 | | | | | | |
| ND=No Discharge: Meets criteria but unable to obtain an electrostatic discharge (ESD) at this test point. Note: The EUT was interfered and its screen flickered which was self-recovering after the interference was stopped. | | | | | | | |

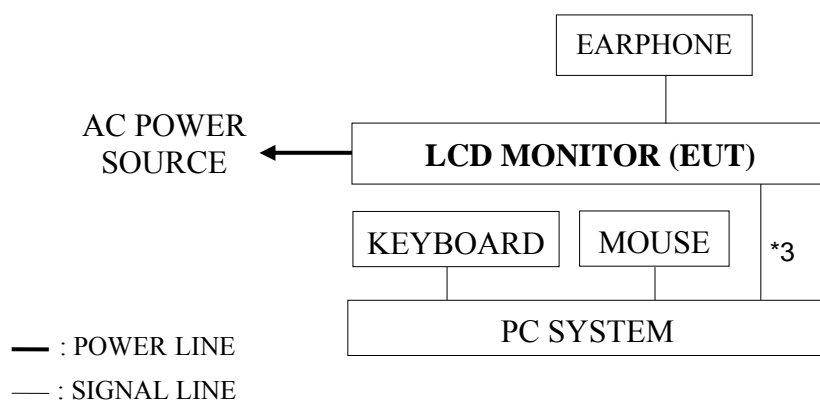
8. RF FIELD STRENGTH IMMUNITY TEST

8.1. Test Equipment

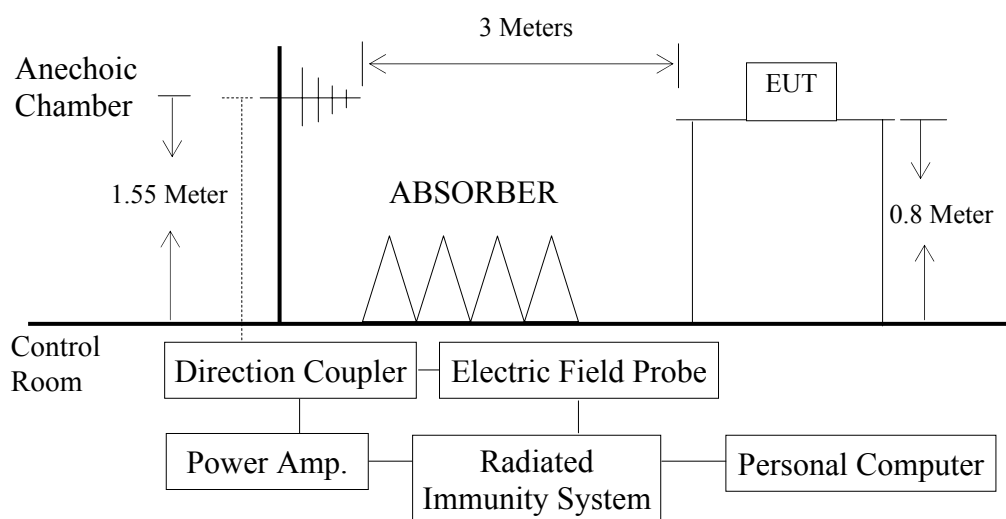
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|--------------------------|--------------|-------------|------------|--------------|---------------|
| 1. | Radiated Immunity System | TESEQ | ITS 6006 | 033009 | 2015. 09. 24 | 1 Year |
| 2. | Power Amplifier | TESEQ | CBA 1G-275 | T44214 | N.C.R | N.C.R |
| 3. | Power Meter | TESEQ | PM 6006 | 073364 | 2015. 09. 26 | 1 Year |
| 4. | Power Antenna | Schwarzbeck | STLP 9128 E | 9128E084 | N.C.R | N.C.R |
| 5. | Direction Coupler | TESEQ | C5982-10 | 98618 | 2015. 08. 12 | 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 1.55 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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | "H" Pattern, 1920*1080/60Hz |

RF Field Strength Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| | | | | |
|---|--|--|------------------------------------|--|
| Applicant : <u>Taiwan BOE Vision-electronic</u> | | | Test Date : <u>2015. 11. 14</u> | |
| EUT : <u>LCD Monitor, M/N E2275SWDA</u> | | | Temperature : <u>25</u> | |
| Power Supply : <u>AC 230V, 50Hz</u> | | | Humidity : <u>53</u> % | |
| Working Condition : <u>See Section 4.4.</u> | | | Test Mode: <u>See Section 8.7.</u> | |
| Engineer : <u>Rex Wang</u> | | | | |

| Frequency Range (MHz) | Position (Angle) | Polarity (H or V) | Field Strength (V/m) | Results & Performance Criterion |
|--------------------------|---------------------|----------------------|-------------------------|------------------------------------|
| 80 ~ 1000 | 0° | H | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 90° | H | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 180° | H | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 270° | H | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 0° | V | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 90° | V | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 180° | V | 3V/m+Modulated | Pass, A |
| 80 ~ 1000 | 270° | V | 3V/m+Modulated | Pass, A |

Remark: Modulation Signal: 1kHz 80% AM.

9. ELECTRICAL FAST TRANSIENT/BURST IMMUNITY TEST

9.1. Test Equipment

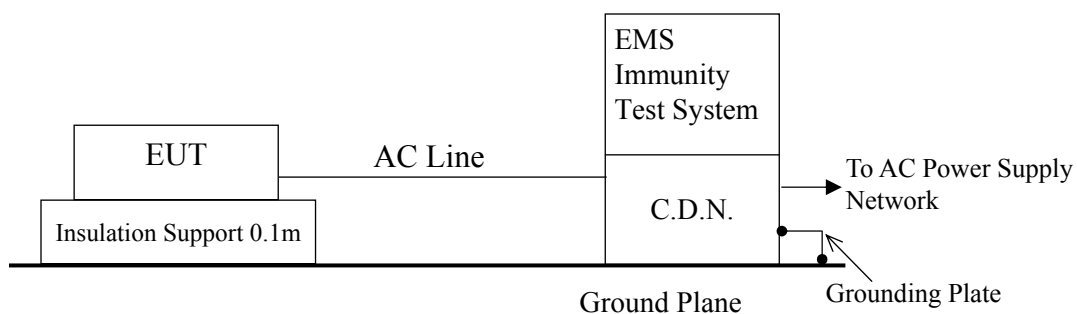
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|--------------------------|--------------|-----------|------------|--------------|---------------|
| 1. | EMS Immunity Test System | TESEQ | NSG 3060 | 1519 | 2015. 07. 29 | 1 Year |
| 2. | C.D.N. | TESEQ | CDN 3063 | 2074 | 2015. 07. 29 | 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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | "H" Pattern, 1920*1080/60Hz |

Electrical Fast Transient/Burst Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| <i>Applicant :</i> <u>Taiwan BOE Vision-electronic</u> | | | | | <i>Test Date :</i> <u>2015. 11. 17</u> | | | | |
|--|-----------------------|---------------------------|--------------------------|------------------------------------|---|-----------------------|---------------------------|--------------------------|----------------|
| <i>EUT :</i> <u>LCD Monitor, M/N E2275SWDA</u> | | | | | <i>Temperature :</i> <u>22</u> | | | | |
| <i>Power Supply :</i> <u>AC 230V, 50Hz</u> | | | | | <i>Humidity :</i> <u>53</u> % | | | | |
| <i>Working Condition :</i> <u>See Section 4.4.</u> | | | | | <i>Test Mode:</i> <u>See Section 9.7.</u> | | | | |
| <i>Engineer :</i> <u>Jacky Chen</u> | | | | | | | | | |
| <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> |
| L | + 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| L | - 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| N | + 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| N | - 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| PE | + 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| PE | - 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| L, N, PE | + 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| L, N, PE | - 0.5, 1 | 60 | Direct | Pass, A | | | | | |
| <i>Remark: No error occurred.</i> | | | | | | | | | |

10.SURGE IMMUNITY TEST

10.1.Test Equipment

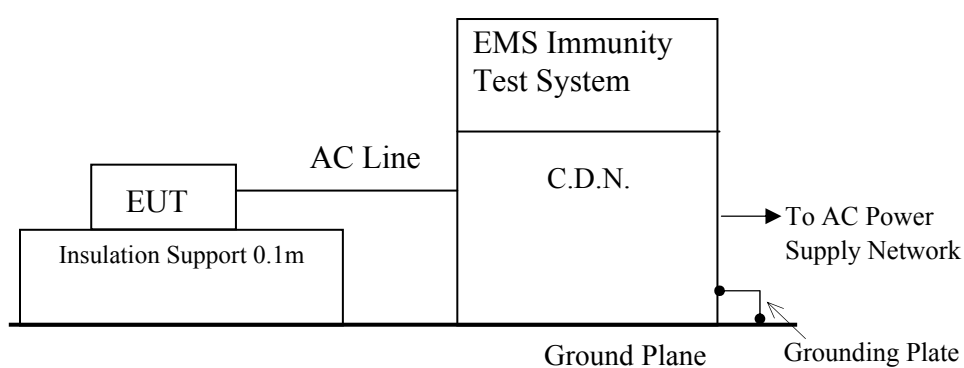
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|--------------------------|--------------|-----------|------------|--------------|---------------|
| 1. | EMS Immunity Test System | TESEQ | NSG 3060 | 1519 | 2015. 07. 29 | 1 Year |
| 2. | C.D.N. | TESEQ | CDN 3063 | 2074 | 2015. 07. 29 | 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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “H” Pattern, 1920*1080/60Hz |

Surge Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| | | | | | |
|--|--|--|--|--|--|
| <i>Applicant :</i> <u>Taiwan BOE Vision-electronic</u> | | | | <i>Test Date :</i> <u>2015. 11. 17</u> | |
| <i>EUT :</i> <u>LCD Monitor, M/N E2275SWDA</u> | | | | <i>Temperature :</i> <u>22</u> | |
| <i>Power Supply :</i> <u>AC 230V, 50Hz</u> | | | | <i>Humidity :</i> <u>53</u> % | |
| <i>Working Condition :</i> <u>See Section 4.4.</u> | | | | <i>Test Mode:</i> <u>See Section 10.7.</u> | |
| <i>Engineer :</i> <u>Jacky Chen</u> | | | | | |

| <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 | 0.5kV, 1.0kV | Pass, A |
| | + | 90 | 5 | 0.5kV, 1.0kV | Pass, A |
| | + | 180 | 5 | 0.5kV, 1.0kV | Pass, A |
| | + | 270 | 5 | 0.5kV, 1.0kV | Pass, A |
| | - | 0 | 5 | 0.5kV, 1.0kV | Pass, A |
| | - | 90 | 5 | 0.5kV, 1.0kV | Pass, A |
| | - | 180 | 5 | 0.5kV, 1.0kV | Pass, A |
| | - | 270 | 5 | 0.5kV, 1.0kV | Pass, A |
| <i>L-PE</i> | + | 0 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 90 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 180 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 270 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 0 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 90 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 180 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 270 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| <i>N-PE</i> | + | 0 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 90 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 180 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | + | 270 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 0 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 90 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 180 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |
| | - | 270 | 5 | 0.5kV, 1.0kV, 2.0kV | Pass, A |

Remark: No error occurred.

11.CONDUCTED DISTURBANCE IMMUNITY TEST

11.1.Test Equipment

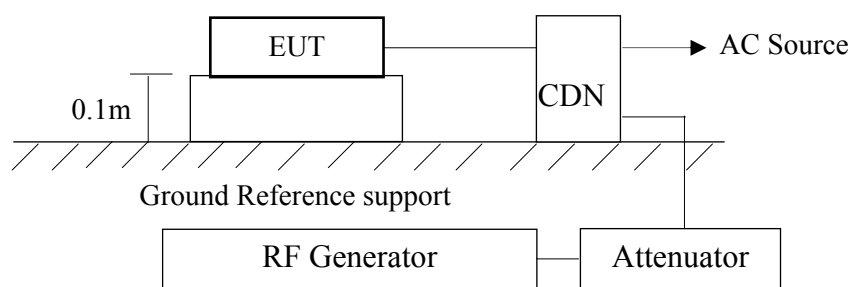
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|----------------|--------------|--------------|------------|--------------|---------------|
| 1. | RF Generator | TESEQ | NSG 4070B-30 | 035076 | 2015. 11. 03 | 1 Year |
| 2. | 6dB Attenuator | TESEQ | ATN 6050 | 38424 | 2015. 03. 09 | 1 Year |
| 3. | C.D.N | TESEQ | CDN M016 | 34607 | 2015. 11. 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(μV) | 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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “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>2015. 11. 16</u> | | |
| <i>EUT :</i> <u>LCD Monitor, M/N E2275SWDA</u> | | <i>Temperature :</i> <u>23</u> | | |
| <i>Power Supply :</i> <u>AC 230V, 50Hz</u> | | <i>Humidity :</i> <u>55</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>MinXaing Yang</u> | | | | |

| <i>Frequency Range (MHz)</i> | <i>Inject Position</i> | <i>Strength</i> | <i>Results</i> | <i>Performance Criterion</i> |
|----------------------------------|------------------------|----------------------|----------------|----------------------------------|
| 0.15MHz ~ 80MHz | Main (Power Line) | 3V(rms) Modulated | Pass | A |

Remark : Modulation Signal: 1kHz 80% AM.

12. POWER FREQUENCY MAGNETIC FIELD IMMUNITY TEST

12.1. Test Equipment

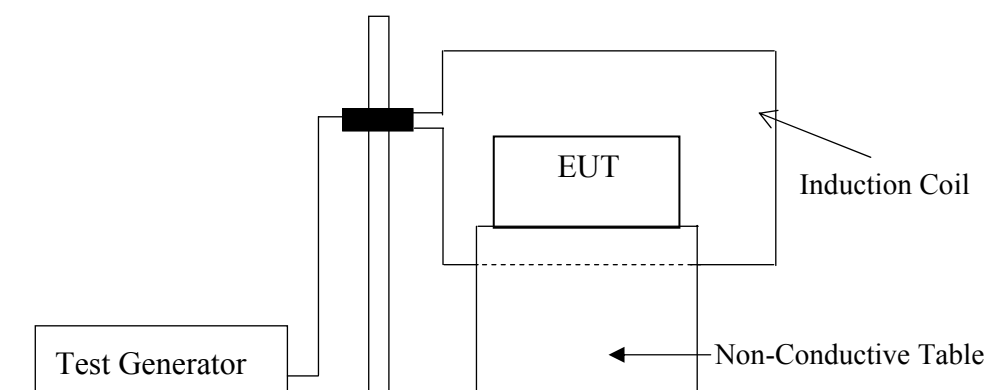
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|--------------------------|--------------------|-----------|------------|--------------|---------------|
| 1. | Magnetic field generator | Narda S.T.S. / PMM | PMM1008 | 0100X30101 | 2014. 11. 20 | 1 Year |

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 2.6m). 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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “H” Pattern, 1920*1080/60Hz |

Power Frequency Magnetic Field Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| | | | |
|--|--|--|--|
| <i>Applicant :</i> <u>Taiwan BOE Vision-electronic</u> | | <i>Test Date :</i> <u>2015. 11. 16</u> | |
| <i>EUT :</i> <u>LCD Monitor, M/N E2275SWDA</u> | | <i>Temperature :</i> <u>25</u> | |
| <i>Power Supply :</i> <u>AC 230V, 50Hz</u> | | <i>Humidity :</i> <u>53</u> % | |
| <i>Working Condition :</i> <u>See Section 4.4.</u> | | <i>Test Mode:</i> <u>See Section 12.7.</u> | |
| <i>Engineer :</i> <u>Jason Chou</u> | | | |

| <i>Power Frequency Magnetic Field</i> | <i>Testing Duration</i> | <i>Coil Orientation</i> | <i>Results & Performance Criterion</i> |
|---|-----------------------------|-----------------------------|--|
| 50Hz, 1 A/m | 1 Min | X-axis | Pass, A |
| 50Hz, 1 A/m | 1 Min | Y-axis | Pass, A |
| 50Hz, 1 A/m | 1 Min | Z-axis | Pass, A |

Remark: No error occurred.

13.VOLTAGE DIPS AND INTERRUPTIONS IMMUNITY TEST

13.1.Test Equipment

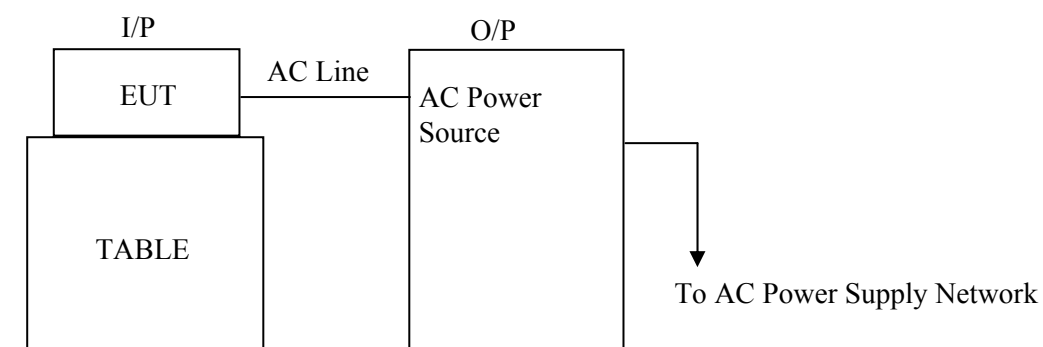
| Item | Type | Manufacturer | Model No. | Serial No. | Cal. Date | Cal. Interval |
|------|---------------------------|--------------|-----------|------------|--------------|---------------|
| 1. | Programmable Power Source | TESEQ | NSG1007 | 1248A04038 | 2014. 01. 17 | 2 Years |

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 the 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 | Display, Resolution/Frequency |
|------|------------|-------------------------------|
| 1 | DVI | “H” Pattern, 1920*1080/60Hz |

Voltage Dips and Interruptions Immunity Test Results

AUDIX TECHNOLOGY CORPORATION

| | | | | | |
|---|---------------------|--------------------|--------------------|--|---|
| <i>Applicant</i> : <u>Taiwan BOE Vision-electronic</u> | | | | <i>Test Date</i> : <u>2015. 11. 16</u> | |
| <i>EUT</i> : <u>LCD Monitor, M/N E2275SWDA</u> | | | | <i>Temperature</i> : <u>25</u> | |
| <i>Power Supply</i> : <u>AC 100-240V, 50/60Hz</u> | | | | <i>Humidity</i> : <u>48</u> % | |
| <i>Working Condition</i> : <u>See Section 4.4.</u> | | | | <i>Test Mode:</i> <u>See Section 13.7.</u> | |
| <i>Engineer</i> : <u>Jason Chou</u> | | | | | |
| <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> | <i>100/240V</i> | <i>0</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>45</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>90</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>135</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>180</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>225</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>270</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| | | <i>315</i> | <i>> 95</i> | <i>250</i> | <i>Pass, B, Note</i> |
| <i>Voltage Dips</i> | <i>100/240V</i> | <i>0</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>45</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>90</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>135</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>180</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>225</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>270</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | | <i>315</i> | <i>30</i> | <i>25</i> | <i>Pass, A</i> |
| | <i>100/240V</i> | <i>0</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>45</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>90</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>135</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>180</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>225</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>270</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| | | <i>315</i> | <i>> 95</i> | <i>0.5</i> | <i>Pass, A</i> |
| <i>Note</i> : <i>Performance Criteria B,</i> <i>During the test, the EUT was interfered and its monitor turned to black, but it's self-recoverable after test.</i> | | | | | |

14. PHOTOGRAPHS

14.1. Photos of Conducted Disturbance Measurement



FRONT VIEW OF CONDUCTED MEASUREMENT

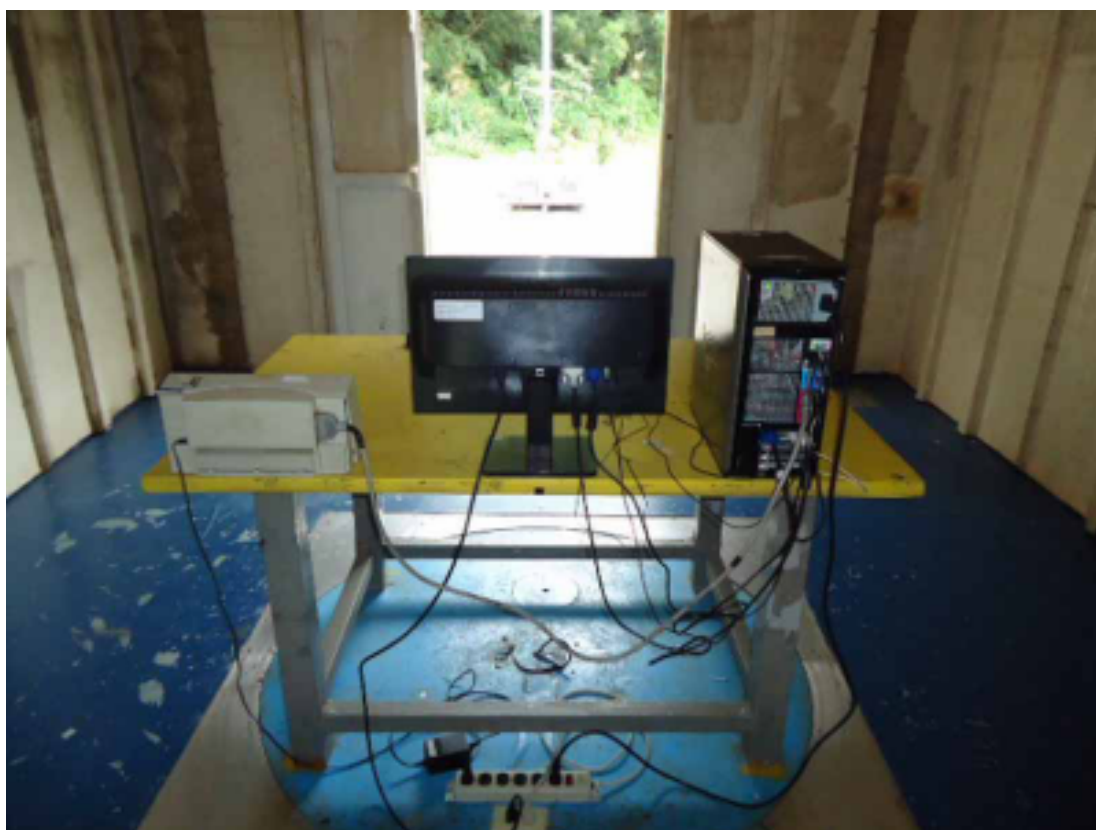


BACK VIEW OF CONDUCTED MEASUREMENT

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 Disturbance 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



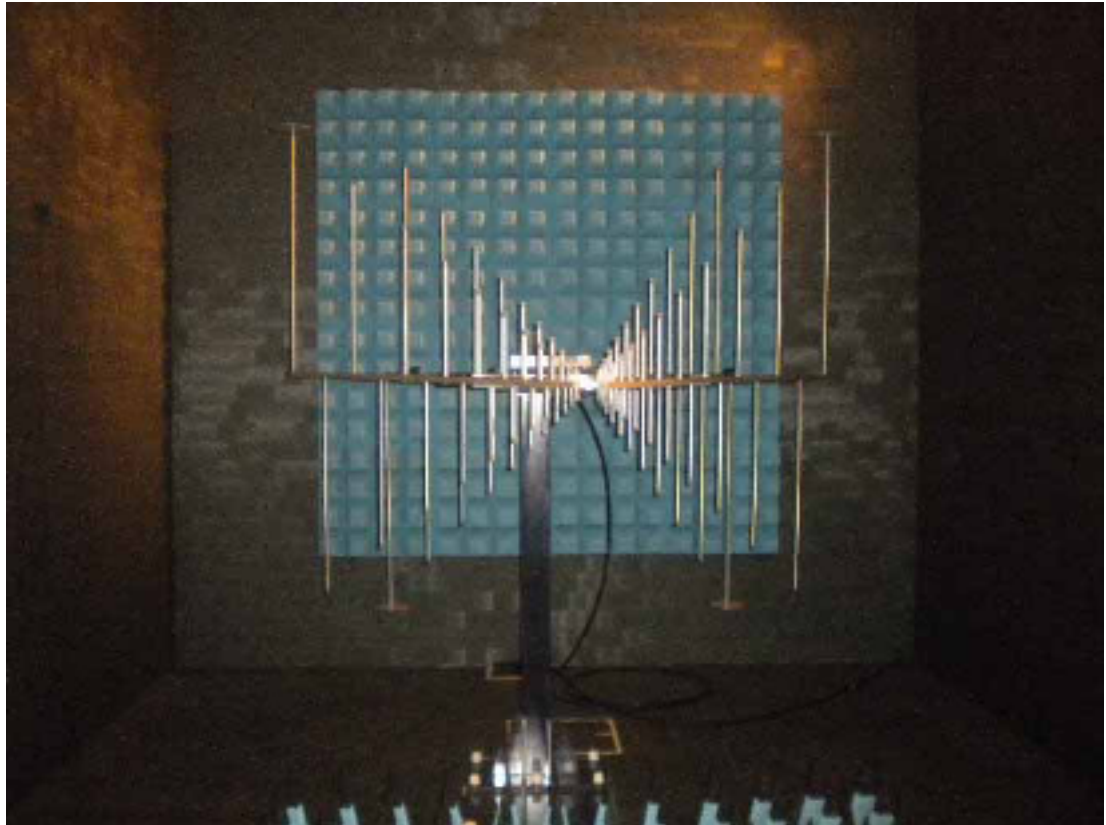
Photo of Points



Photo of Points



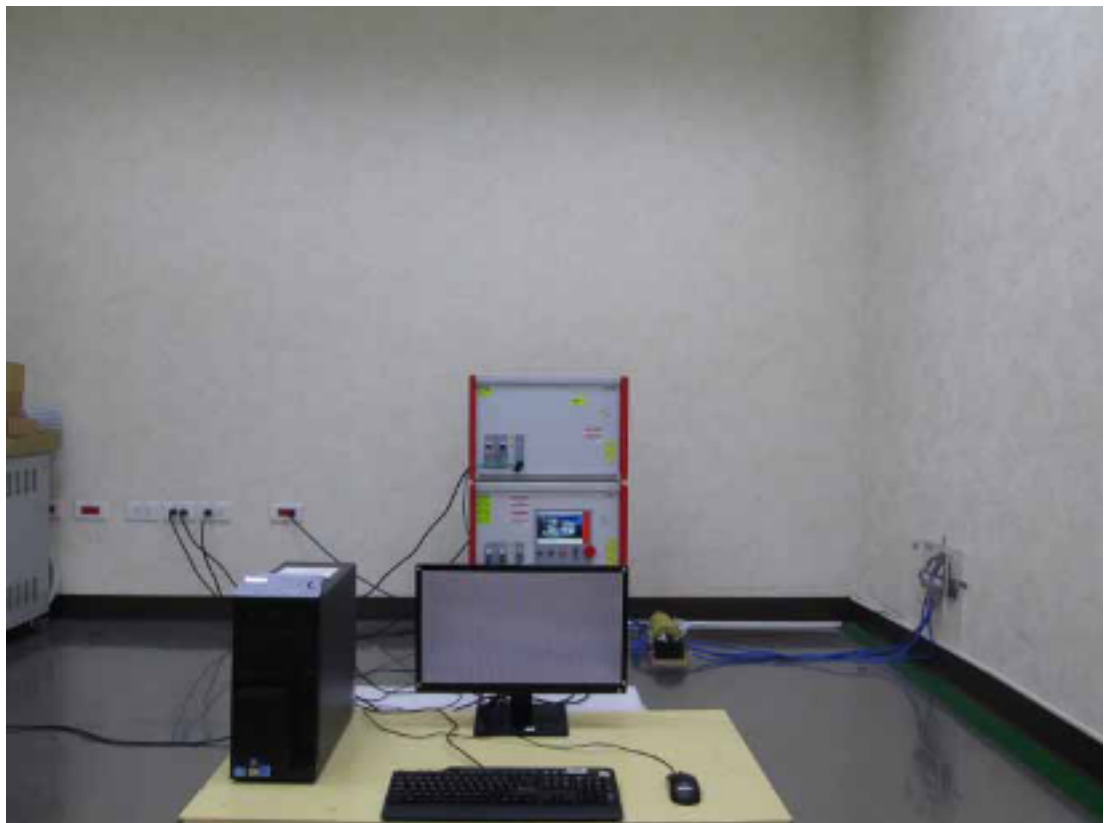
14.6.Photos of RF Strength Immunity Test



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: 7 Pages

Figure 1
General Appearance (Front View)



Figure 2
General Appearance (Back View)



Figure 3
General Appearance (Bottom View)



Figure 4
Appearance (Removed Base, I/O Ports View)



Figure 5
Internal View (Removed Back Cover)



Figure 6
Internal View (Removed Metal Cover)



Figure 7
Internal View (Main Board, Front View)



Figure 8
Internal View (Main Board, Back View)

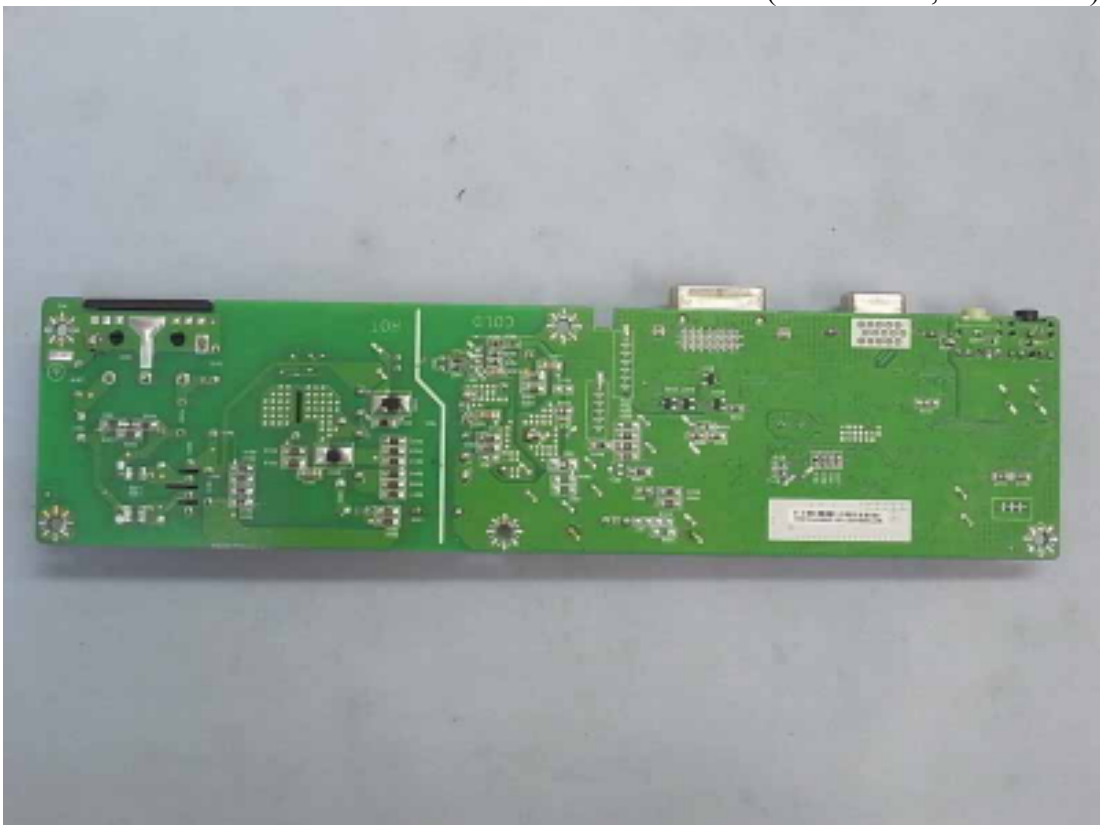


Figure 9
Internal View (Button Control Board, Front View)

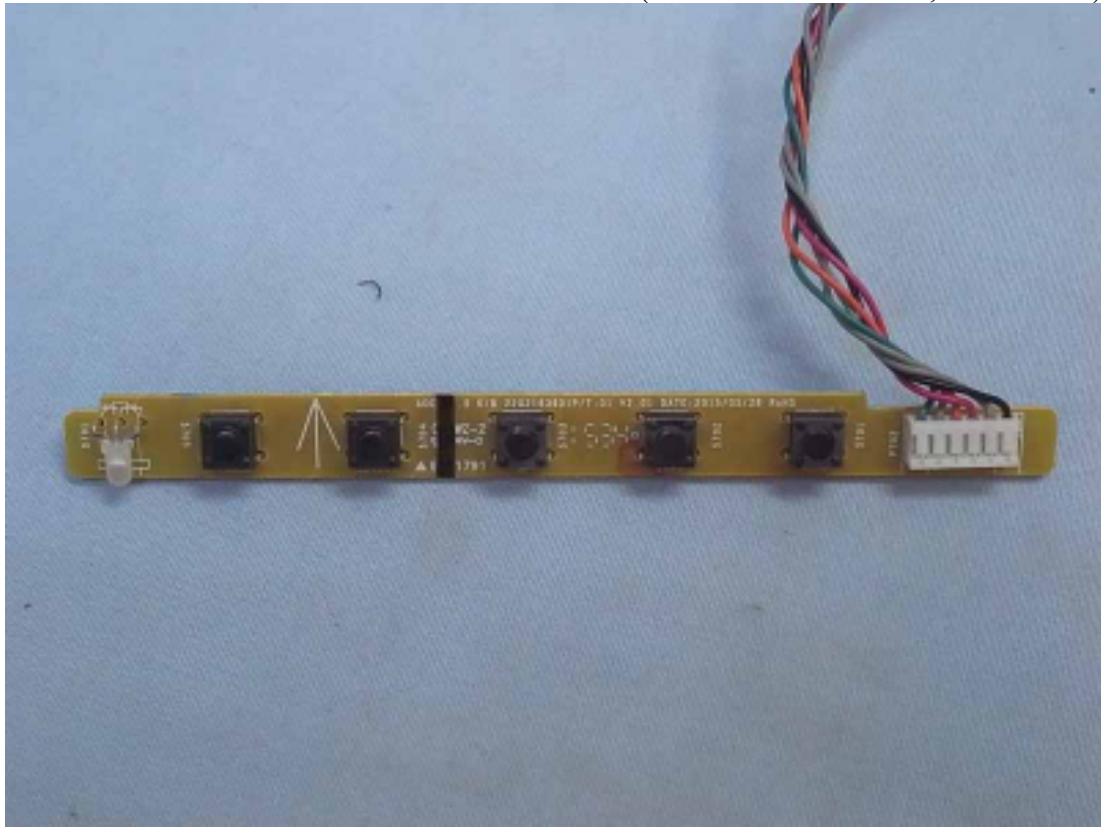


Figure 10
Internal View (Button Control Board, Back View)



Figure 11
Internal View (LCD Panel, Front View)



Figure 12
Internal View (LCD Panel, Back View)



Figure 13
D-Sub Cable



Figure 14
AC Power Cord

