# Technical Compliance Statement
# FCC Test Report

**For the following information Ref. File No.: A1Z2412184**

| | | |
|---|---|---|
| Product | : | LCD Monitor |
| Brand | : | AOC |
| Model No. | : | **24B3QA2********<br>(* = 0-9, A-Z, a-z, +, -, /, \ or blank) |
| Applicant | : | TPV Electronics (FuJian) Co., Ltd. |
| Address | : | Rongqiao Economic and Technological Development Zone,Fuqing City,Fujian Province,P.R. China |
| Rules and Standards | : | 47 CFR FCC Part 15 Subpart B<br>ANSI C63.4: 2014+ANSI C63.4a: 2017<br>(Class B Limits) |

We hereby certify that the above product has been tested by us and complied with above FCC standard limits. The test was performed according to the procedures ANSI C63.4: 2014+ANSI C63.4a: 2017. The equipment might be marketed in US in accordance with the rules of 47 CFR FCC Part 2 regulations.

The test data and results are issued on the test report **ACS-F24201-1.**

信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report

Test Laboratory:
Audix Technology (Shenzhen) Co., Ltd.
NVLAP Lab. Code: 200372-0
FCC OET Designation: CN5022
Web Site: www.audix.com.cn

Signature: _____
(Sunny Lu /Manager)
Date:Feb.17, 2025

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.

# TEST REPORT

LCD Monitor

AOC

Model No.: **24B3QA2********
(* = 0-9, A-Z, a-z, +, -, /, \ or blank)

Prepared for: TPV Electronics (FuJian) Co., Ltd.
Rongqiao Economic and Technological Development Zone,Fuqing City,Fujian Province,P.R. China

Prepared By: Audix Technology (Shenzhen) Co., Ltd.
No. 6, Kefeng Road, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China

Tel: (0755) 26639496
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TESTING
NVLAP LAB CODE 200372-0

Testing Laboratory
1418

| | | |
|---|---|---|
| Report Number | : | ACS-F24201-1 |
| Date of Test | : | Dec.31, 2024~Jan.07, 2025 |
| Date of Report | : | Feb.17, 2025 |

The test report 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.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, TAF, or any agency of the U.S. Government.

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# TEST REPORT

| | | |
|---|---|---|
| Applicant | : | TPV Electronics (FuJian) Co., Ltd. |
| Product | : | LCD Monitor |
| Brand | : | AOC |
| Model No. | : | **24B3QA2******** (* = 0-9, A-Z, a-z, +, -, /, \ or blank) |
| Report No. | : | ACS-F24201-1 |
| Power Supply | : | AC 100-240V, 50/60Hz |
| Test Voltage | : | AC 120V/60Hz |

Rules of Compliance and Applicable Standards:

47 CFR FCC Part 15 Subpart B, Class B Limits
ANSI C63.4: 2014+ANSI C63.4a: 2017

The device described above was tested by Audix Technology (Shenzhen) Co., Ltd. to determine the maximum emission levels emanating from the device. All of the tests were requested by the applicant and the results thereof based upon the information that the applicant provided to us. We, Audix Technology (Shenzhen) Co., Ltd. assume full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is compliance with the requirements of 47 CFR FCC Part 2 regulations.

No modifications were required during testing to bring this product into compliance.
The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

This report applies to single evaluation of one sample of above mentioned products. This report shall not be reproduced in parts without written approval of Audix Technology (Shenzhen) Co., Ltd.

Date of Test : Dec.31, 2024~Jan.07, 2025 Date of Report: Feb.17, 2025

Prepared by : Dora Yang
Dora Yang / Assistant

Reviewed by : Fire Zhang
Fire Zhang / Assistant Manager

AUDIX® 信華科技（深圳）有限公司
Audix Technology (Shenzhen) Co., Ltd.
EMC 部門報告專用章
Stamp only for EMC Dept. Report

Approved & Authorized Signer : Signature: Sunny Lu
Sunny Lu / Manager

Name of the Representative of the Responsible Party: _____

Signature: _____

# REPORT REVISION HISTORY

| Edition No. | Revision | Issue Date | Report No. |
|---|---|---|---|
| Original | Initial issue of report | Oct.21, 2024 | ACS-F24201 |
| Rev.01 | 1.LVDS interface changes on the host board (applicable to all models);<br><br>2.Added aluminum foil countermeasure element.<br><br>3.The motherboard software has been upgraded and the HDMI/DP resolution has been upgraded to 1920*1080@120Hz | Feb.17, 2025 | ACS-F24201-1 |

Remark for Rev.01

1. This report is an additional version with original report number ACS-F24201. The different with original report are see the above table of Rev.01.
2. Through evaluation of the above difference, all test items need to assess the test for the original mode.
3. This report is based on report of ACS-F24201.

# 1. SUMMARY OF STANDARDS AND RESULTS

## 1.1.Description of Standards and Results

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

| EMISSION | | | |
|---|---|---|---|
| **Description of Test Item** | **Standard** | **Results** | **Remark** |
| Power Line Conducted Emission Test | 47 CFR FCC Part 15 Subpart B ANSI C63.4: 2014+ANSI C63.4a: 2017 | PASS | Minimum passing margin is 4.08dB at 2.540MHz |
| Radiated emission (30MHz-1000MHz) | 47 CFR FCC Part 15 Subpart B ANSI C63.4: 2014+ANSI C63.4a: 2017 | PASS | Minimum passing margin is 4.23dB at 407.330MHz |
| Radiated emission (1GHz-18GHz) | 47 CFR FCC Part 15 Subpart B ANSI C63.4: 2014+ANSI C63.4a: 2017 | PASS | Minimum passing margin is 16.64dB at 1308.120MHz |
| Note: Measurement uncertainty affection to the result is not considered, the EUT is technically compliant with standard requirements. | | | |

# 2. GENERAL INFORMATION

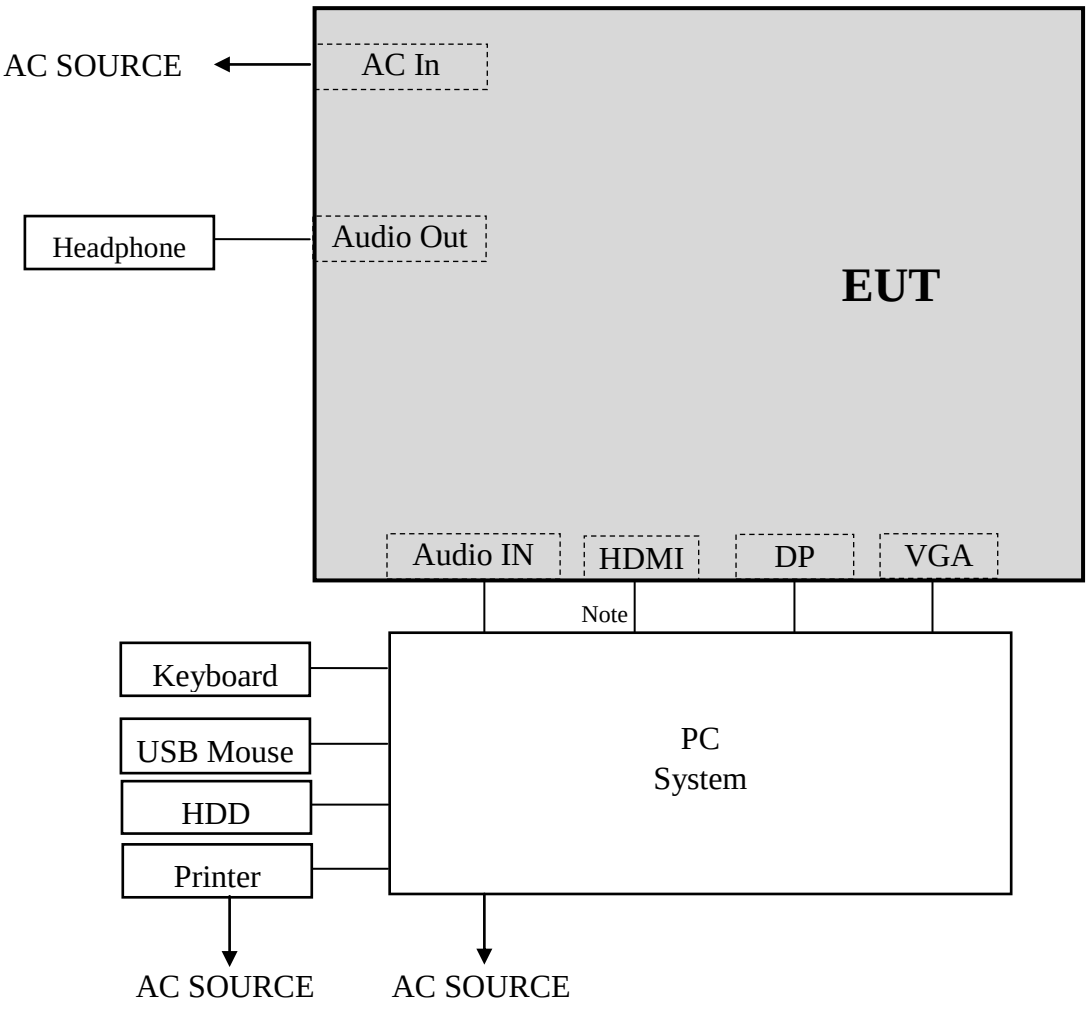
## 2.1.Description of Device (EUT)

| | | |
|---|---|---|
| Product | : | LCD Monitor |
| Brand | : | AOC |
| Model No. | : | **24B3QA2******** (*=0-9,A-Z,a-z,+,-,/,\ or blank) |
| Test Model | : | 24B3QA2 |
| Applicant | : | TPV Electronics (FuJian) Co., Ltd.<br>Rongqiao Economic and Technological Development Zone,<br>Fuqing City, Fujian Province, P.R. China |
| Max. Resolution | : | HDMI&DP: 1920*1080@120Hz<br>VGA: 1920*1080@60Hz |
| Max.Work Frequency | : | Above 108MHz |
| I/O Port | : | (1)One AC In Port<br>(2)One HDMI Port<br>(3)One DP Port<br>(4)One VGA Port<br>(5)A serials of Audio In/Out Ports(Option) |
| Power Cord | : | Unshielded, Detachable, 1.8m/1.5m (3 pins) |
| HDMI Cable | : | Shielded, Detachable, 1.8m/1.5m |
| DP Cable | : | Shielded, Detachable, 1.8m/1.5m |
| Audio Cable | : | Shielded, Detachable, 1.8m/1.5m |
| VGA Cable | : | Shielded, Detachable, 1.8m/1.5m(with two cores) |
| Date of Test | : | Dec.31, 2024~Jan.07, 2025 |
| Date of Receipt | : | Dec.30, 2024 |
| Sample Type | : | Prototype production |

## 2.2. Tested Supporting System Details

| No. | Description | ACS No. | Manufacturer | Model | Serial Number |
|---|---|---|---|---|---|
| 1. | Personal Computer | --- | ASUS | S502MER | S7PFT00F24028H |
| | | Power Cord(3C): Unshielded, Detachable, 1.8m | | | |
| 2. | USB Keyboard | ACS-EMC-K03R | DELL | SK-8120 | CN-ODJ365-71616-2B E-0DCE-A00 |
| | | USB Cable: Shielded, Undetachable, 2.0m | | | |
| 3. | USB Mouse | ACS-EMC-M03R | DELL | M0C5UO | 512023253 |
| | | USB Cable: Shielded, Undetachable, 1.8m | | | |
| 4. | Printer | ACS-EMC-PT06 | Canon | MG3080 | KLSV26948 |
| | | USB Cable: Shielded, Detachable, 1.8m<br>Power Cord(2C): Unshielded, Detachable, 1.8m | | | |
| 5. | HDD | ACS-EMC-HDD33 | WD | WD My Book Studio | WCAV5C987862 |
| | | Data Cable: Shielded, Detachable, 0.4m | | | |
| 6. | DVD | --- | Pioneer | DV-310NC-K | --- |
| 7. | Headphone | ACS-EMC-EP01 | OVANN | 0V-T880V | --- |
| | | Data Cable: Shielded, Detachable, 2.0m | | | |

## 2.3.Block Diagram of Test Setup




**Note 1: PC Mode, DVD Mode can not link the HDMI port at the same time.**
**(EUT: LCD Monitor)**

## 2.4.Method of Exercising EUT

| | |
|---|---|
| Operating System | Windows 10 of PC system |
| Test Program | BurnIn Test V9.0 |
| Video Signal (Display Image) | “H” pattern(Arial, 9; Black letters on white background) |
| Audio | 1kHz signal playing |
| Other | Other peripheral devices were driven and operated in turn |

Display and video parameters

| Function | Setting |
|---|---|
| Hardware acceleration | Maximum |
| Screen settings | High/medium/low effective resolution |
| Color quality | Highest color bit depth |
| Brightness, contrast, color saturation | Set the contrast and color saturation to the maximum value. Set the brightness to the maximum value or the maximum value before the cursor disappears |
| Other | Adjusted to obtain a typical picture using settings giving the highest performance |

## 2.5.Description of Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.
No. 6, Kefeng Road, Science & Technology Park,
Nanshan District, Shenzhen, Guangdong, China

EMC Lab. : Accredited by NVLAP, USA
NVLAP Code: 200372-0
Valid Date: Mar.31, 2025

Certificated by FCC, USA
Designation No: CN5022
Valid Date: Mar.31, 2025

Accredited by TAF, Taiwan
Registration No: 1418
Valid Date: Nov.30, 2026

## 2.6.Measurement Uncertainty（95% confidence levels, k=2）

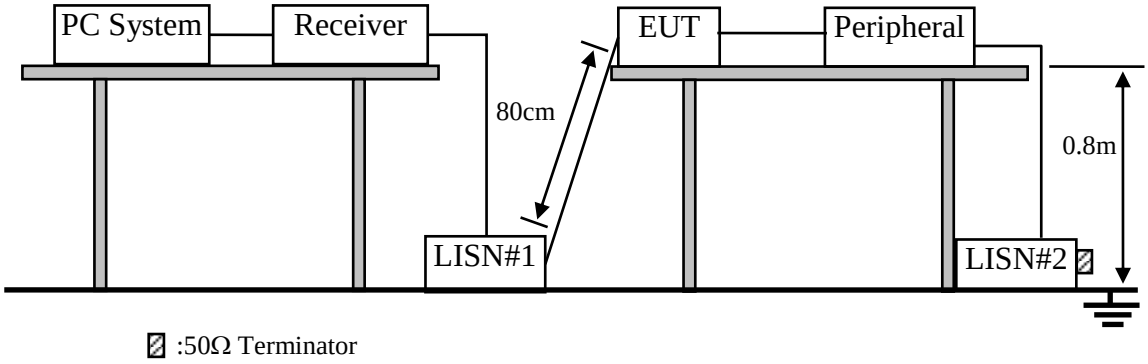
| Test Item | Uncertainty |
|---|---|
| Uncertainty for Conduction emission test in No. 2 Conduction | ±2.4dB (150kHz to 30MHz) |
| Uncertainty for Radiation Emission test in 10m chamber (Distance: 10m) | ±3.8dB (30~200MHz, Polarization: H) |
| | ±3.8dB (30~200MHz, Polarization: V) |
| | ±4.0dB (200M~1GHz, Polarization: H) |
| | ±4.4dB (200M~1GHz, Polarization: V) |
| Uncertainty for Radiation Emission test in 10m chamber (1GHz-18GHz) | ±4.4dB (1-6GHz, Distance: 3m) |
| | ±4.6dB (6-18GHz, Distance: 3m) |
| Uncertainty for $S_{VSWR}$ in 10m Chamber | ±2.8dB (1-6GHz,Distance: 3m) |
| | ±2.8dB (6-18GHz,Distance: 3m) |
| Uncertainty for test site temperature and humidity and Pressure | ±0.6℃ |
| | ±3% |
| | ±1kPa |

# 3. POWER LINE CONDUCTED EMISSION TEST

## 3.1.Test Equipments

| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | 2# Shielding Room(SE) | AUDIX | N/A | N/A | Sep.16,22 | 3 Year |
| 2. | EMI Test Receiver | Rohde &Schwarz | ESR7 | 101547 | Mar.16,24 | 1 Year |
| 3. | L.I.S.N.#1 | Rohde & Schwarz | ENV216 | 102834 | Jun.19,24 | 1 Year |
| 4. | L.I.S.N.#2 | Kyoritsu | KNW-407 | 8-1636-1 | Mar.16,24 | 1 Year |
| 5. | RF Cable | Eastsheep | RG223 | 190425 | Sep.13,24 | 1 Year |
| 6. | Terminator | Hubersuhner | 50Ω | No.4 | Mar.16,24 | 1 Year |
| 7. | Test Software | AUDIX | e3 | 6.100913a | N/A | N/A |
| Note: N/A means Not applicable. | | | | | | |

## 3.2.Block Diagram of Test Setup




## 3.3.Power Line Conducted Emission Class B Limits

| Frequency | Maximum RF Line Voltage | |
|---|---|---|
| | Quasi-Peak Level dB(μV) | Average Level dB(μV) |
| 150kHz ~ 500kHz | 66 ~ 56* | 56 ~ 46* |
| 500kHz ~ 5MHz | 56 | 46 |
| 5MHz ~ 30MHz | 60 | 50 |

Notes: 1. * Decreasing linearly with logarithm of frequency.
2. The lower limits shall apply at the transition frequencies.
3. Emission Level (dBμV) = Factor (L.I.S.N.) (dB) + Cable Loss (dB)+Reading (Receiver) (dBμV)

## 3.4. Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N. #2). This provided a 50-ohm coupling impedance for the EUT (Please refer to the block diagram of the test setup and photographs). Both sides of power line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4 on conducted Emission test.

The bandwidth of the (R&S ESR7) was set at 9kHz.

The frequency range from 150kHz to 30MHz is checked. The test results are recorded in Section 3.5.

## 3.5. Conducted Disturbance at Mains Terminals Test Results

**PASS.** **(**All emissions not reported below are too low against the prescribed limits.)

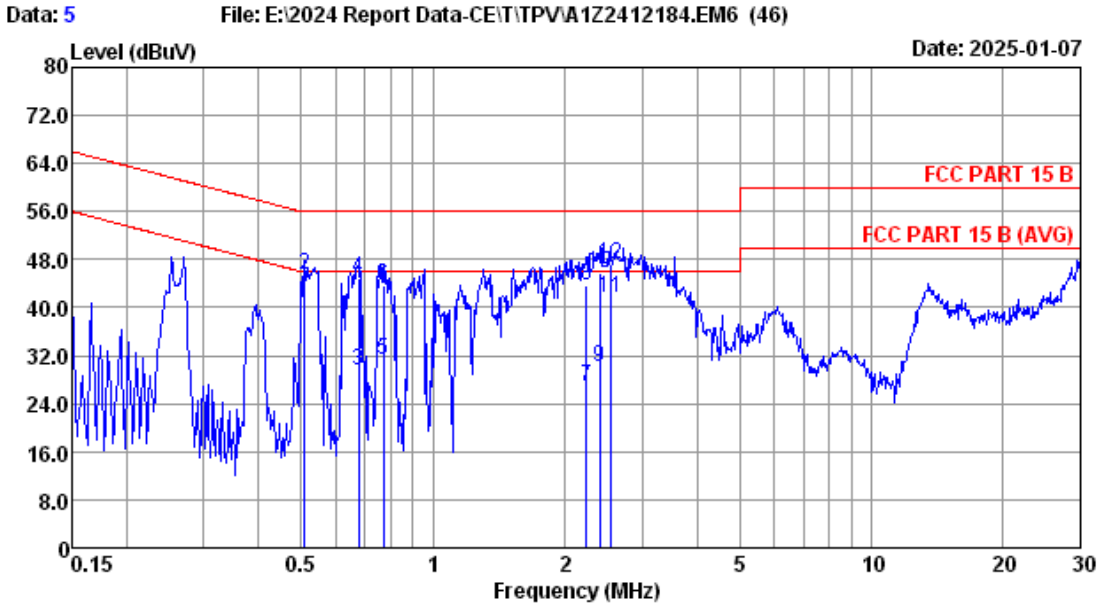
**EUT: LCD Monitor** **Model No. : 24B3QA2**

The EUT with following test modes were pre-tested:

| No. | Test Mode | Input Port | Cable Length | Resolution & Frequency |
|---|---|---|---|---|
| 1. | PC Mode | DP | 1.8m | 640*480@60Hz |
| 2. | | | | 1280*1024@75Hz |
| 3. | | | | 1920*1080@120Hz |
| 4. | | HDMI | 1.8m | 640*480@60Hz |
| 5. | | | | 1280*1024@75Hz |
| 6. | | | | 1920*1080@120Hz |
| 7. | | | 1.5m | 1920*1080@120Hz |
| 8. | | VGA | 1.8m | 640*480@60Hz |
| 9. | | | | 1280*1024@75Hz |
| 10. | | | | 1920*1080@60Hz |
| 11. | DVD Mode | HDMI | 1.8m | Color Bar |

The result of worst test mode is presented in the report as below and the test data are listed in next pages.

| No. | Cable Length | Test Mode | Input Port | Resolution & Frequency | Reference Test Data No. | |
|---|---|---|---|---|---|---|
| | | | | | Line | Neutral |
| 1. | 1.8m | PC Mode | HDMI | 1920*1080@120Hz | #5 | #6 |

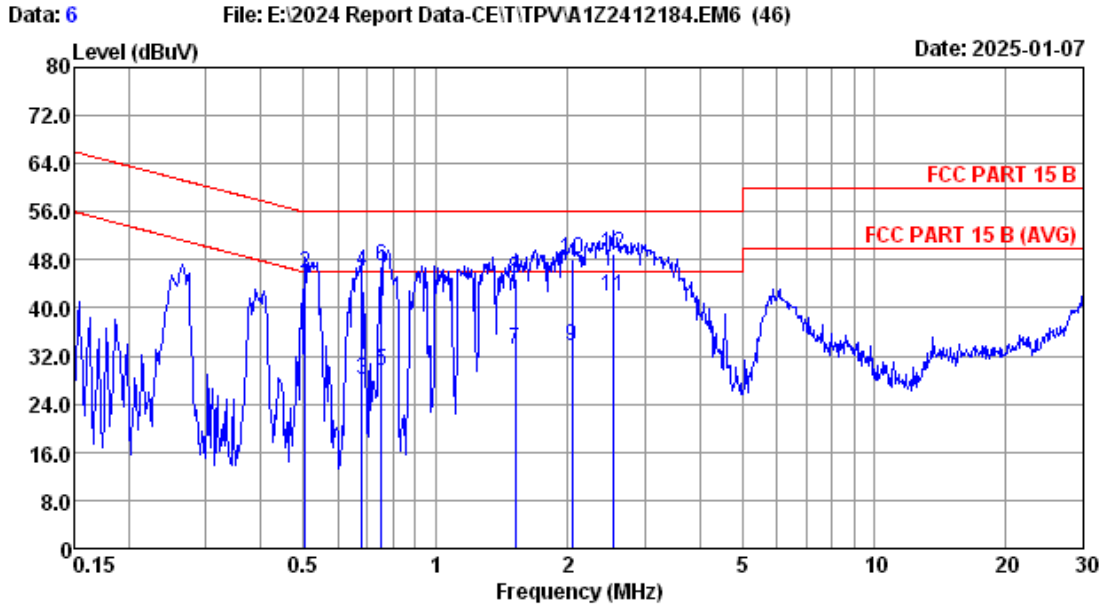



Site no :1# CE
Dis./Lisn :2024 ENV216 0.15-30M
Limit :FCC PART 15 B
Env./Ins. :22.8*C/47%
EUT :M/N:24B3QA2
Power Rating :AC 120V/60Hz
Test Mode :HDMI:1920*1080@120Hz
Line:1.8m

Data No :5
LISN phase:LINE
Pressure :101.5kPa
Engineer :Hongjie

| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV) | Limits (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.510 | 9.62 | 0.01 | 29.03 | 38.66 | 46.00 | 7.34 | Average |
| 2 | 0.510 | 9.62 | 0.01 | 35.74 | 45.37 | 56.00 | 10.63 | QP |
| 3 | 0.675 | 9.64 | 0.01 | 19.93 | 29.58 | 46.00 | 16.42 | Average |
| 4 | 0.675 | 9.64 | 0.01 | 35.17 | 44.82 | 56.00 | 11.18 | QP |
| 5 | 0.771 | 9.64 | 0.01 | 21.51 | 31.16 | 46.00 | 14.84 | Average |
| 6 | 0.771 | 9.64 | 0.01 | 34.00 | 43.65 | 56.00 | 12.35 | QP |
| 7 | 2.236 | 9.65 | 0.03 | 17.04 | 26.72 | 46.00 | 19.28 | Average |
| 8 | 2.236 | 9.65 | 0.03 | 34.12 | 43.80 | 56.00 | 12.20 | QP |
| 9 | 2.396 | 9.65 | 0.03 | 20.37 | 30.05 | 46.00 | 15.95 | Average |
| 10 | 2.396 | 9.65 | 0.03 | 36.07 | 45.75 | 56.00 | 10.25 | QP |
| 11 | 2.540 | 9.65 | 0.04 | 32.04 | 41.73 | 46.00 | 4.27 | Average |
| 12 | 2.540 | 9.65 | 0.04 | 37.44 | 47.13 | 56.00 | 8.87 | QP |

Remarks: 1.Emission Level=LISN Factor+Cable Loss+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.




Site no :1# CE
Dis./Lisn :2024 ENV216 0.15-30M
Limit :FCC PART 15 B
Env./Ins. :22.8*C/47%
EUT :M/N:24B3QA2
Power Rating :AC 120V/60Hz
Test Mode :HDMI:1920*1080@120Hz
Line:1.8m

Data No :6
LISN phase:NEUTRAL
Pressure :101.5kPa
Engineer :Hongjie

| No | Freq (MHz) | LISN Factor (dB) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV) | Limits (dBuV) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 0.504 | 9.65 | 0.01 | 27.01 | 36.67 | 46.00 | 9.33 | Average |
| 2 | 0.504 | 9.65 | 0.01 | 35.97 | 45.63 | 56.00 | 10.37 | QP |
| 3 | 0.679 | 9.64 | 0.01 | 18.29 | 27.94 | 46.00 | 18.06 | Average |
| 4 | 0.679 | 9.64 | 0.01 | 36.52 | 46.17 | 56.00 | 9.83 | QP |
| 5 | 0.754 | 9.64 | 0.01 | 19.95 | 29.60 | 46.00 | 16.40 | Average |
| 6 | 0.754 | 9.64 | 0.01 | 37.35 | 47.00 | 56.00 | 9.00 | QP |
| 7 | 1.519 | 9.64 | 0.03 | 23.34 | 33.01 | 46.00 | 12.99 | Average |
| 8 | 1.519 | 9.64 | 0.03 | 35.31 | 44.98 | 56.00 | 11.02 | QP |
| 9 | 2.044 | 9.65 | 0.03 | 23.94 | 33.62 | 46.00 | 12.38 | Average |
| 10 | 2.044 | 9.65 | 0.03 | 38.31 | 47.99 | 56.00 | 8.01 | QP |
| 11 | 2.540 | 9.65 | 0.04 | 32.23 | 41.92 | 46.00 | 4.08 | Average |
| 12 | 2.540 | 9.65 | 0.04 | 39.38 | 49.07 | 56.00 | 6.93 | QP |

Remarks: 1.Emission Level=LISN Factor+Cable Loss+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.

# 4. RADIATED EMISSION TEST

## 4.1. Test Equipments

### 4.1.1. For frequency range 30MHz~1000MHz (In 10m Anechoic Chamber)

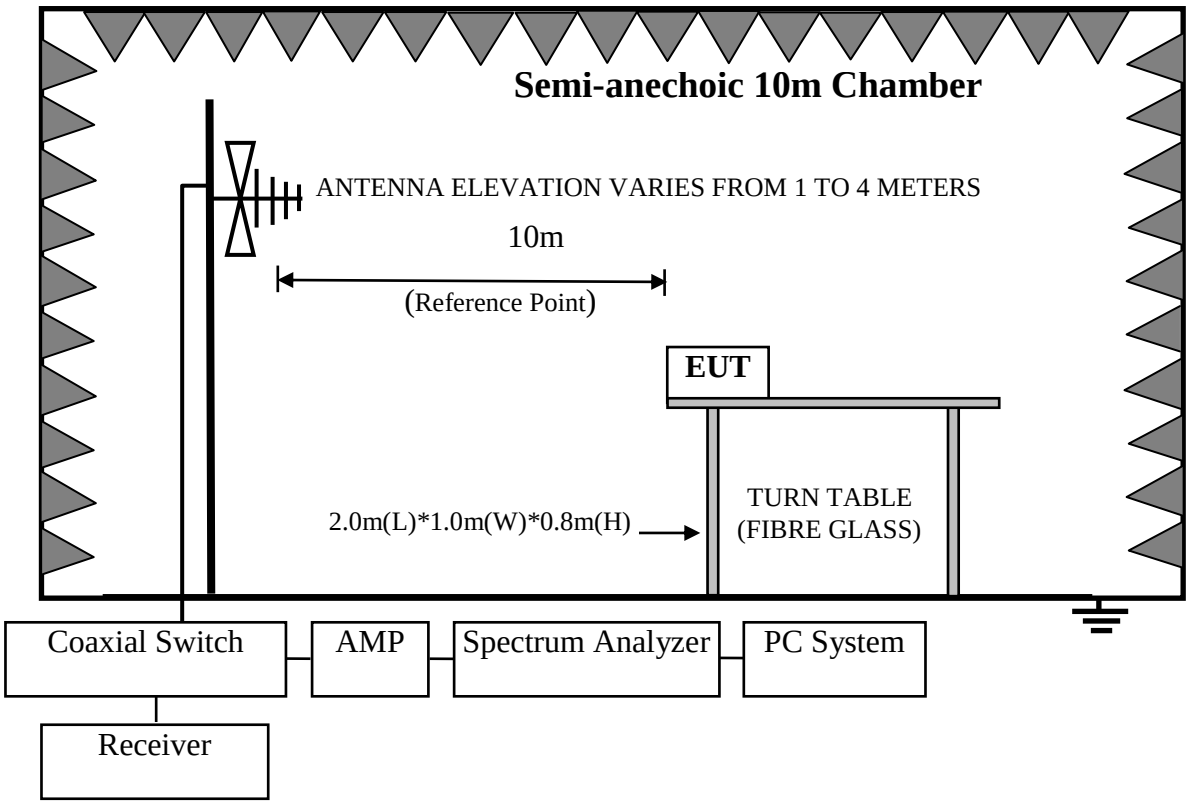
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | 10m Chamber(NSA) | AUDIX | N/A | N/A | Aug.12,23 | 3 Year |
| 2. | 10m Chamber(SE) | AUDIX | N/A | N/A | Sep.16,22 | 3 Year |
| 3. | Signal Analyzer | Rohde & Schwarz | FSV30 | 103669 | Sep.15,24 | 1 Year |
| 4. | Signal Analyzer | Rohde & Schwarz | FSV30 | 103670 | Jun.19,24 | 1 Year |
| 5. | EMI Test Receiver | Rohde & Schwarz | ESR3 | 102891 | Sep.15,24 | 1 Year |
| 6. | Amplifier | EMCI | EMC9135 | 980348 | Dec.12,24 | 1 Year |
| 7. | Broadband Amplifier | SCHWARZBECK | BBV9744 | 00259 | Aug.13,24 | 1 Year |
| 8. | Amplifier | EMCI | EMC9135 | 980347 | Sep.13,24 | 1 Year |
| 9. | Tri-log-Broadband Antenna | SCHWARZBECK | VULB 9168 | 01317 | Nov.22,24 | 1 Year |
| 10. | Tri-log-Broadband Antenna | Schwarzbeck | VULB 9168 | 710 | Feb.23,24 | 1 Year |
| 11. | RF Cable | SPUMA | CFD400-NM-NM | 160727+160728 | Mar.17,24 | 1 Year |
| 12. | Coaxial Switch | Anritsu | MP59B | 6201397220 | Mar.17,24 | 1 Year |
| 13. | Coaxial Switch | Anritsu | MP59B | 6201397221 | Mar.17,24 | 1 Year |
| 14. | Coaxial Switch | Anritsu | MP59B | 6201397224 | Mar.17,24 | 1 Year |
| 15. | Test Software | AUDIX | e3 | 6.100913a | N/A | N/A |
| Note: N/A means Not applicable. | | | | | | |

### 4.1.2. For frequency range above 1GHz (In 10m Anechoic Chamber)

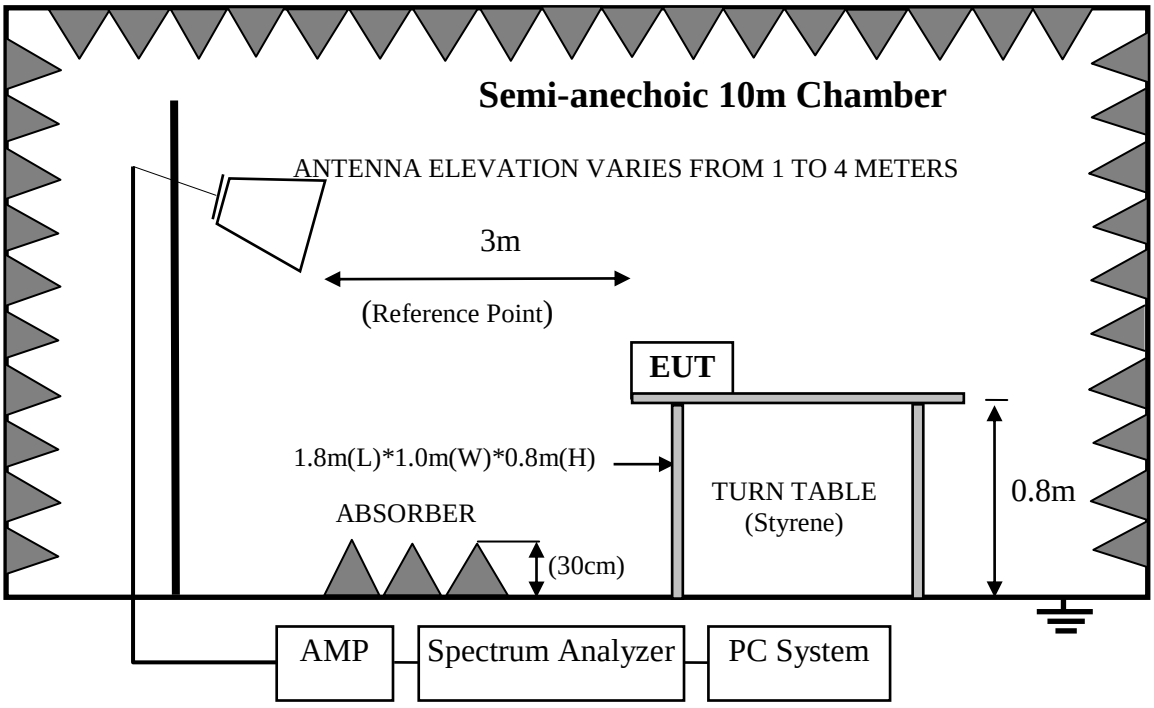
| Item | Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Cal. Interval |
|---|---|---|---|---|---|---|
| 1. | 10m Chamber(Svswr) | AUDIX | N/A | N/A | Aug.08,23 | 3 Year |
| 2. | 10m Chamber(SE) | AUDIX | N/A | N/A | Sep.16,22 | 3 Year |
| 3. | Signal Analyzer | Rohde & Schwarz | FSV30 | 103669 | Sep.15,24 | 1 Year |
| 4. | Horn Antenna | ETS | 3117 | 00218552 | Feb.22,24 | 1 Year |
| 5. | Amplifier | EMCI | EMC0518A45SE | 980963 | Aug.13,24 | 1 Year |
| 6. | RF Cable | TIMES MICROWAVE | SFT205-SMNM-6M | 20231214-0001 | Aug.13,24 | 1 Year |
| 7. | Test Software | AUDIX | e3 | 6.100913a | N/A | N/A |
| Note: N/A means Not applicable. | | | | | | |

## 4.2.Block Diagram of Test Setup

### 4.2.1. Test Setup Diagram for 30MHz~1000MHz (In 10m Anechoic Chamber)




### 4.2.2. For frequency range above 1GHz (In 10m Anechoic Chamber)



## 4.3.Radiated Emission Limits

All emanations from a Class B computing devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FCC §15.109/CISPR 22, Class B

| Frequency (MHz) | Distance (Meters) | Field strengths limits (dBμV/m) |
|---|---|---|
| 30 ~ 230 | 10 | 30 |
| 230~1000 | 10 | 37 |
| Above 1000 | 3 | 74(Peak) 54(Average) |

Notes: (1) Emission Level (dBμV/m) = Reading (Receiver) (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB)
Emission Level (dBμV/m) = Reading (Spectrum) (dBμV) + Antenna Factor (dB/m) – Amp Factor (dB) + Cable Loss (dB)(above 1000MHz)
(2) The lower limits shall apply at the transition frequencies.

## 4.4. Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. An antenna was located 10m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.4 on radiated emission test.

The bandwidth setting on the test receiver is 120kHz.

The resolution bandwidth of the Signal Analyzer was set at 1MHz. (For above 1GHz)

The frequency range from 30MHz to 1000MHz was pre-scanned with a peak detector and all final readings of measurement from Test Receiver are Quasi-Peak values.

The frequency range from 1GHz to 18GHz was checked and all final readings of measurement were with Peak and Average detector, measurement distance was 10m at semi-anechoic chamber. the EUT were rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. The portion of the test volume that was obstructed by absorber placed on the floor (30cm maximum).

Finally, selected operating situations at Anechoic Chamber measurement, all the test results are listed in section 4.5.

## 4.5. Radiated Disturbance Test Results

**PASS.** (All emissions not reported below are too low against the prescribed limits.)

EUT: LCD Monitor Model No. : 24B3QA2

**For frequency range 30MHz~1000MHz**

The EUT with following test modes were pre-tested:

| No. | Test Mode | Input Port | Cable Length | Resolution & Frequency |
|---|---|---|---|---|
| 1. | PC Mode | DP | 1.8m | 640*480@60Hz |
| 2. | | | | 1280*1024@75Hz |
| 3. | | | | 1920*1080@120Hz |
| 4. | | HDMI | 1.8m | 640*480@60Hz |
| 5. | | | | 1280*1024@75Hz |
| 6. | | | | 1920*1080@120Hz |
| 7. | | | 1.5m | 1920*1080@120Hz |
| 8. | | VGA | 1.8m | 640*480@60Hz |
| 9. | | | | 1280*1024@75Hz |
| 10. | | | | 1920*1080@60Hz |
| 11. | DVD Mode | HDMI | 1.8m | Color Bar |

The result of worst test mode is presented in the report as below and the test data are listed in next pages.

| No. | Test Mode | Input Port | Cable Length | Resolution & Frequency | Reference Test Data No. | |
|---|---|---|---|---|---|---|
| | | | | | Horizontal | Vertical |
| 1. | PC Mode | HDMI | 1.8m | 1920*1080@120Hz | #4 | #3 |

**For frequency range 1GHz~18GHz**

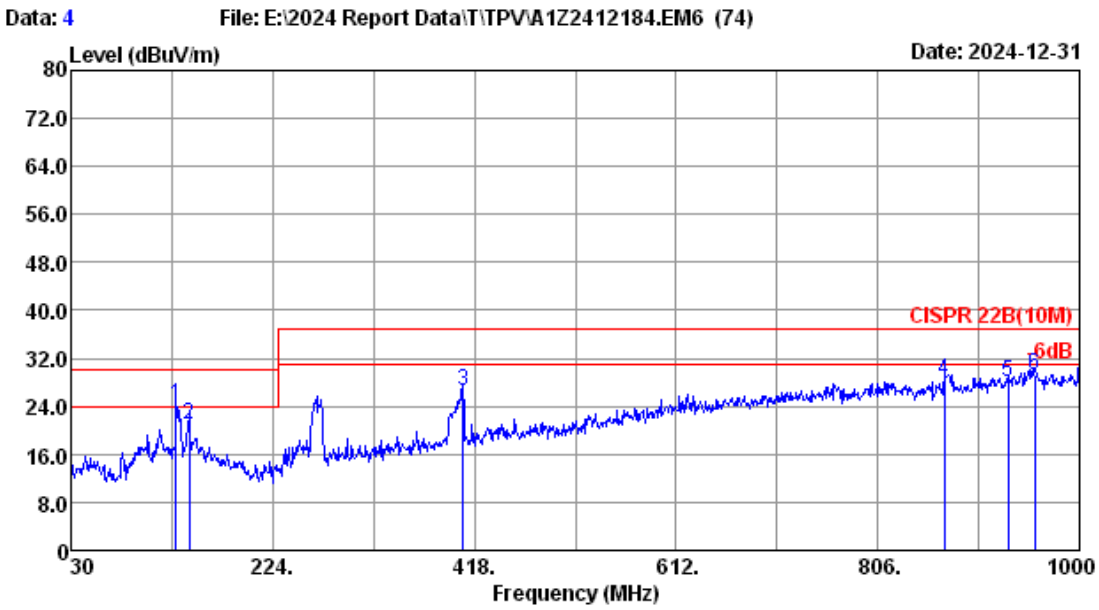
The EUT with below test mode were measured within Anechoic Chamber and the test results listed in next pages.

The EUT with following test modes were pre-tested:.

| No. | Test Mode | Input Port | Cable Length | Resolution & Frequency |
|---|---|---|---|---|
| 1. | PC Mode | DP | 1.8m | 1280*1024@75Hz |
| 2. | | | | 1920*1080@120Hz |
| 3. | | HDMI | 1.8m | 1280*1024@75Hz |
| 4. | | | | 1920*1080@120Hz |
| 5. | | | 1.5m | 1920*1080@120Hz |
| 6. | | VGA | 1.8m | 1280*1024@75Hz |
| 7. | | | | 1920*1080@60Hz |
| 8. | DVD Mode | HDMI | 1.8m | Color Bar |

The result of worst test mode is presented in the report as below and the test data are listed in next pages.

| No. | Test Mode | Input Port | Cable Length | Resolution & Frequency | Reference Test Data No. | |
|---|---|---|---|---|---|---|
| | | | | | Horizontal | Vertical |
| 1. | PC Mode | HDMI | 1.8m | 1920*1080@120Hz | #60 | #59 |




Site no. : 10m Chamber
Dis. / Ant. : 10m 2024 VULB9168-01317
Limit : CISPR 22B(10M)
Env. / Ins. : 23.0*C/53%
EUT : M/N:24B3QA2
Power rating : AC 120V/60Hz
Test Mode : HDMI:1920*1080@120Hz
Line:1.8m

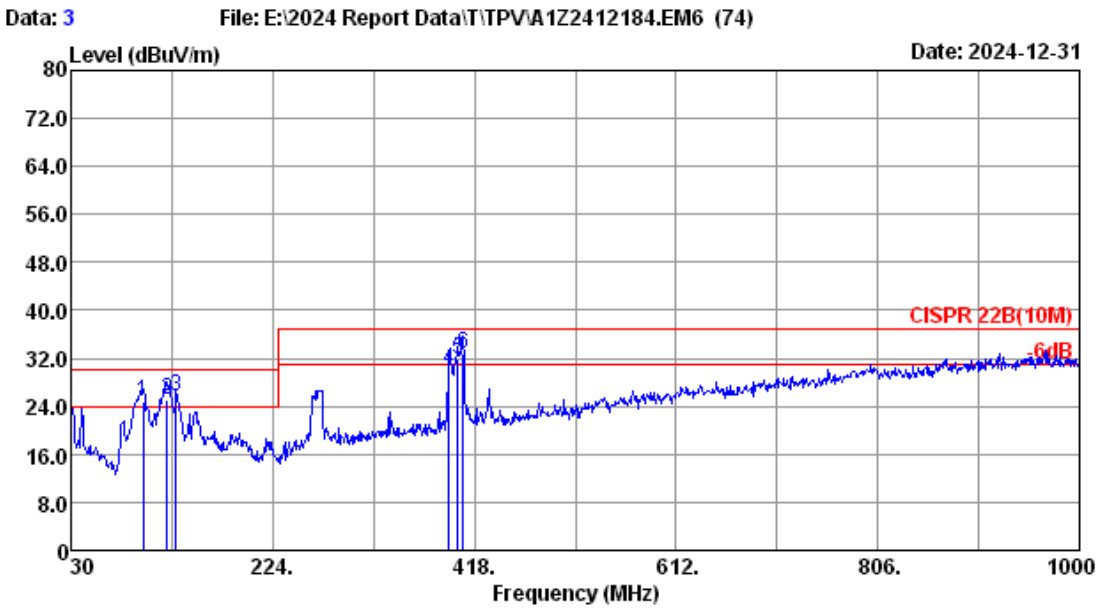
Data no. : 4
Ant. pol. : HORIZONTAL
Pressure : 101.6kPa
Engineer : Cinder

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 130.880 | 17.70 | 1.32 | 5.17 | 24.19 | 30.00 | 5.81 | QP* |
| 2 | 143.490 | 19.00 | 1.38 | 0.53 | 20.91 | 30.00 | 9.09 | QP |
| 3 | 407.330 | 21.55 | 2.69 | 2.23 | 26.47 | 37.00 | 10.53 | QP |
| 4 | 870.020 | 28.60 | 4.41 | -4.76 | 28.25 | 37.00 | 8.75 | QP |
| 5 | 931.130 | 29.50 | 4.45 | -5.86 | 28.09 | 37.00 | 8.91 | QP |
| 6 | 957.320 | 29.65 | 4.48 | -4.92 | 29.21 | 37.00 | 7.79 | QP |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

**2. The worst emission was detected at 130.880MHz with corrected signal level of 24.19dBμV/m (Antenna height 1.60m; Turntable degree 186°)**

**3. 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.**




Site no. : 10m Chamber
Dis. / Ant. : 10m 2024 VULB9168-710
Limit : CISPR 22B(10M)
Env. / Ins. : 23.0*C/53%
EUT : M/N:24B3QA2
Power rating : AC 120V/60Hz
Test Mode : HDMI:1920*1080@120Hz
Line:1.8m

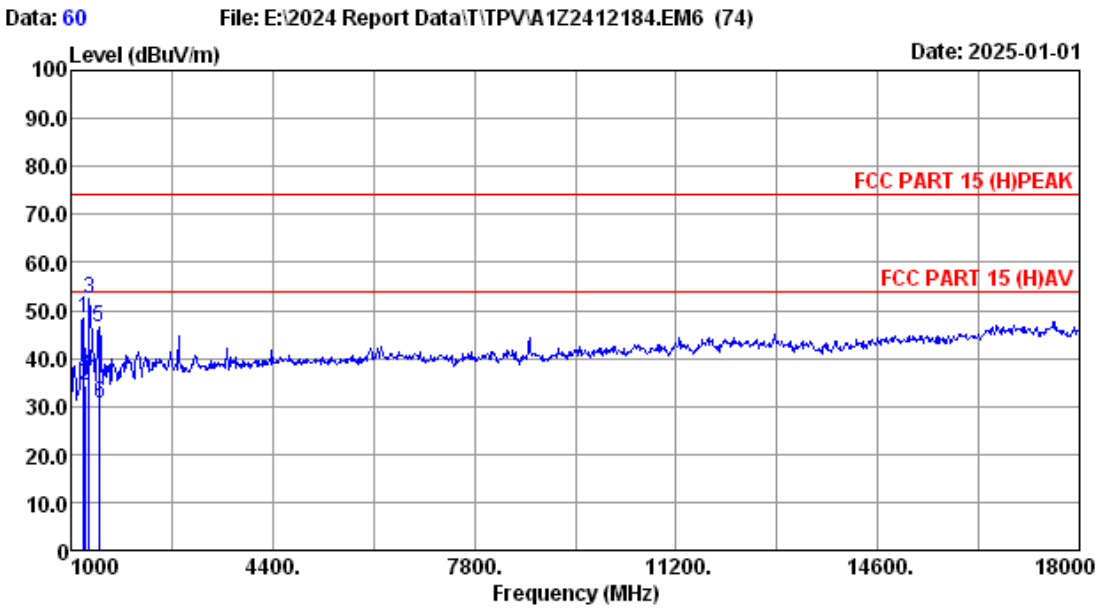
Data no. : 3
Ant. pol. : VERTICAL
Pressure : 101.6kPa
Engineer : Cinder

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|
| 1 | 99.840 | 14.98 | 1.50 | 8.28 | 24.76 | 30.00 | 5.24 | QP |
| 2 | 122.150 | 17.00 | 1.63 | 6.46 | 25.09 | 30.00 | 4.91 | QP |
| 3 | 130.880 | 17.89 | 1.68 | 6.11 | 25.68 | 30.00 | 4.32 | QP |
| 4 | 393.750 | 21.48 | 2.98 | 5.51 | 29.97 | 37.00 | 7.03 | QP |
| 5 | 402.480 | 21.65 | 3.02 | 7.18 | 31.85 | 37.00 | 5.15 | QP |
| 6 | 407.330 | 21.79 | 3.04 | 7.94 | 32.77 | 37.00 | 4.23 | QP* |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

**2.The worst emission was detected at 407.330MHz with corrected signal level of 32.77dBμV/m (Antenna height 3.10m; Turntable degree 299°)**

**3.0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.**

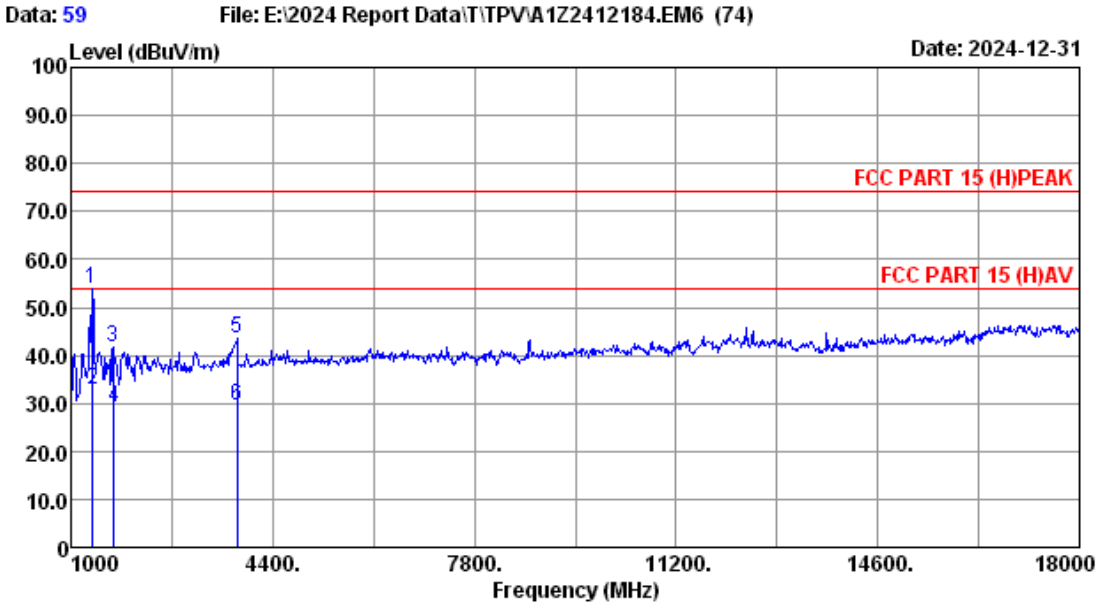



Site no. : 10m Chamber
Dis. / Ant. : 3m 2024-3117
Limit : FCC PART 15 (H)PEAK
Env. / Ins. : 23.0*C/53%
EUT : M/N:24B3QA2
Power rating : AC 120V/60Hz
Test Mode : HDMI:1920*1080@120Hz
Line:1.8m

Data no. : 60
Ant. pol. : HORIZONTAL
Pressure : 101.6kPa
Engineer : Cinder

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1221.000 | 28.34 | 1.53 | 50.11 | 68.59 | 48.35 | 74.00 | 25.65 | Peak |
| 2 | 1228.120 | 28.45 | 1.54 | 50.11 | 54.47 | 34.35 | 54.00 | 19.65 | Average |
| 3 | 1306.000 | 29.82 | 1.58 | 50.15 | 71.10 | 52.35 | 74.00 | 21.65 | Peak |
| 4 | 1308.120 | 29.83 | 1.58 | 50.15 | 56.10 | 37.36 | 54.00 | 16.64 | Average |
| 5 | 1476.000 | 28.06 | 1.69 | 50.24 | 66.82 | 46.33 | 74.00 | 27.67 | Peak |
| 6 | 1478.120 | 28.07 | 1.69 | 50.24 | 51.24 | 30.76 | 54.00 | 23.24 | Average |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor




Site no. : 10m Chamber
Dis. / Ant. : 3m 2024-3117
Limit : FCC PART 15 (H)PEAK
Env. / Ins. : 23.0*C/53%
EUT : M/N:24B3QA2
Power rating : AC 120V/60Hz
Test Mode : HDMI:1920*1080@120Hz
Line:1.8m

Data no. : 59
Ant. pol. : VERTICAL
Pressure : 101.6kPa
Engineer : Cinder

| No. | Freq. (MHz) | Ant. Factor (dB/m) | Cable Loss (dB) | AMP factor (dB) | Reading (dBuV) | Emission Level (dBuV/m) | Limits (dBuV/m) | Margin (dB) | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1357.000 | 29.89 | 1.61 | 50.18 | 72.70 | 54.02 | 74.00 | 19.98 | Peak |
| 2 | 1359.120 | 29.85 | 1.62 | 50.18 | 51.45 | 32.74 | 54.00 | 21.26 | Average |
| 3 | 1714.000 | 29.14 | 1.83 | 50.36 | 61.08 | 41.69 | 74.00 | 32.31 | Peak |
| 4 | 1718.120 | 29.18 | 1.83 | 50.36 | 48.33 | 28.98 | 54.00 | 25.02 | Average |
| 5 | 3805.000 | 33.38 | 2.74 | 48.98 | 56.29 | 43.43 | 74.00 | 30.57 | Peak |
| 6 | 3808.120 | 33.37 | 2.74 | 48.97 | 42.25 | 29.39 | 54.00 | 24.61 | Average |

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading -Amp Factor

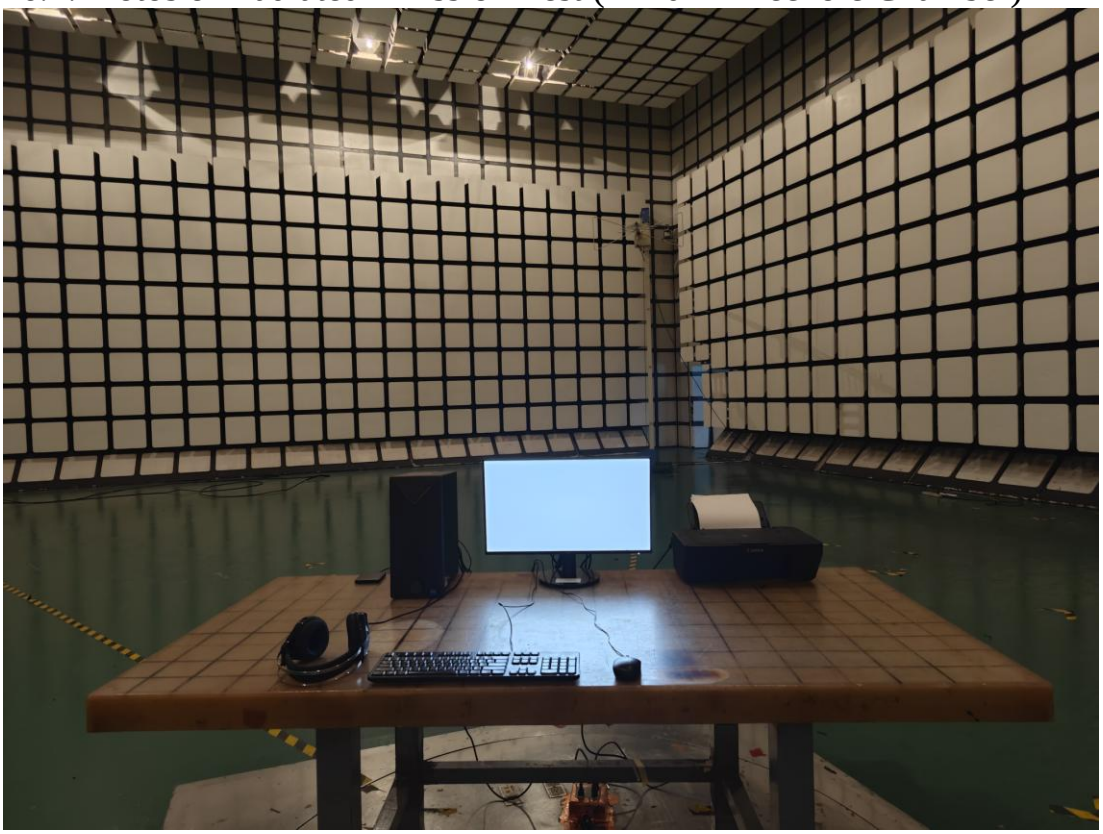
# 5. DEVIATION TO TEST SPECIFICATIONS

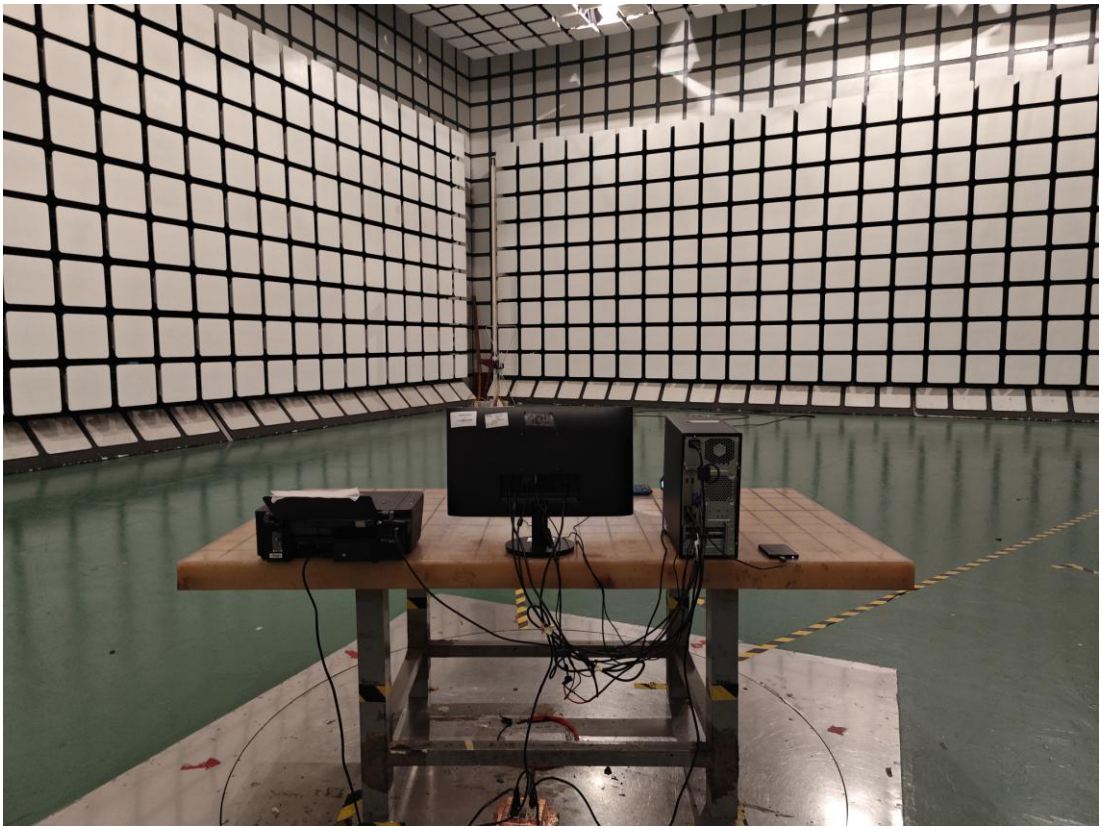
[NONE]

# 6. PHOTOGRAPH

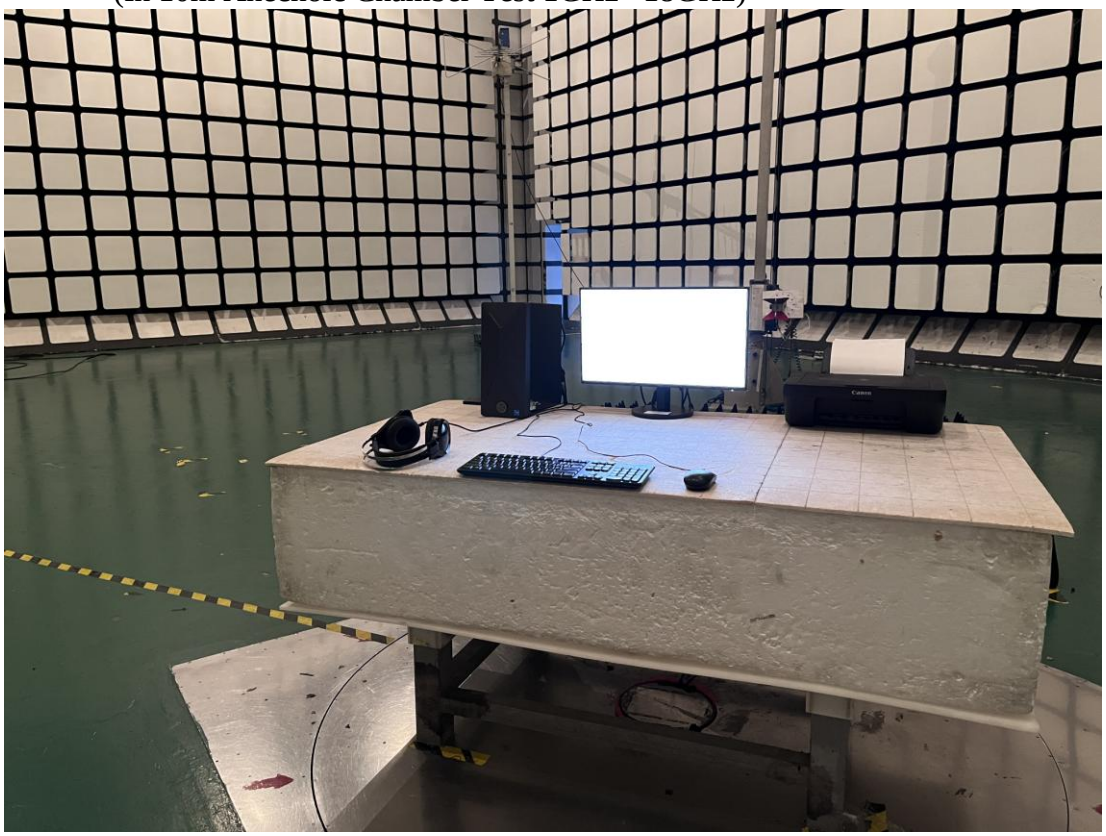
## 6.1.Photos of Power Line Conducted Emission Test

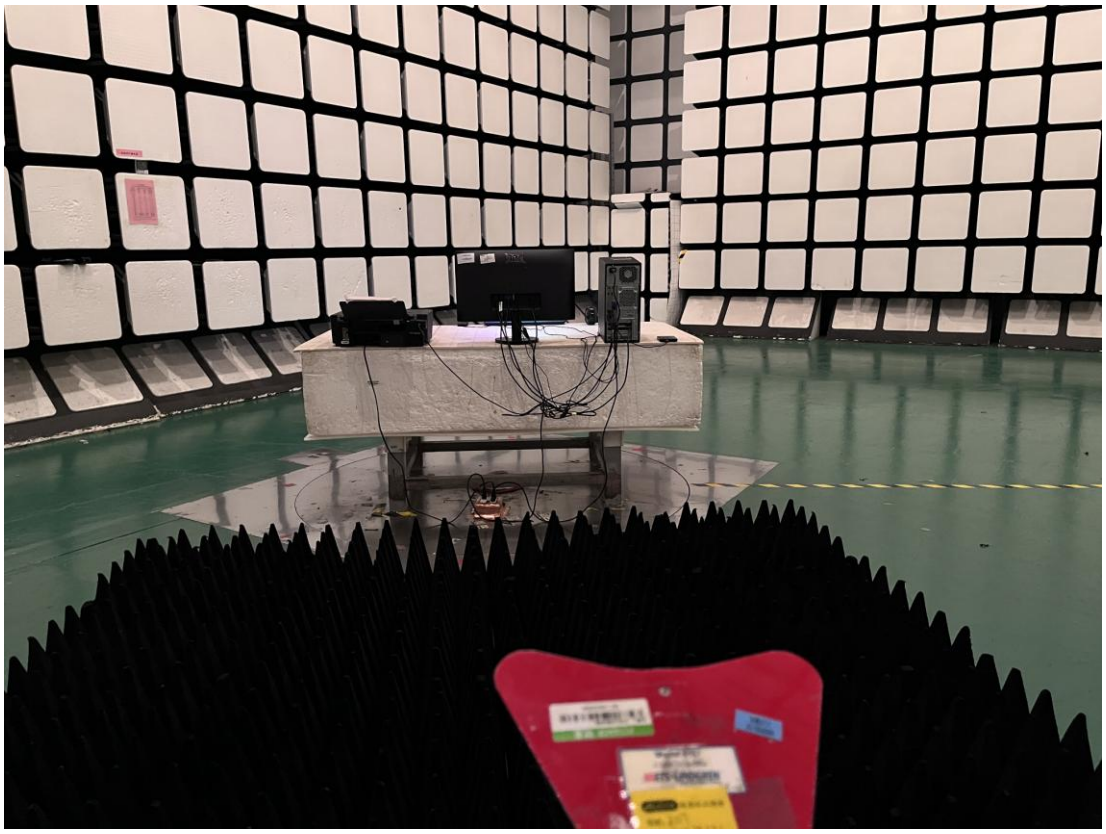
6.2.Photos of Radiated Emission Test (In 10m Anechoic Chamber)





(In 10m Anechoic Chamber Test 1GHz –18GHz)





**THE END**