



FCC SDoC Test Report

Issued date: Jun. 27, 2025

Project No.: 24Q122002

Product : Panel PC

Model : MTA-1010W

Series Model : MTA-1XXXXXXXXXXXXXXXXX ("X" can be 0-9, A-Z or blank)

Applicant : Vecow Co., Ltd

Address : 3F, No. 10, Jiankang Rd., Zhonghe Dist., New Taipei City 23586,
Taiwan

Report No: WD-EF-R-250198-A0

According to

47 CFR FCC Part 15, Subpart B, Class A

ANSI C63.4: 2014

ANSI C63.4a: 2017

Authorized Signatory :

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History of this test report

| Report No. | Issue date | Description |
|-------------------|---------------|---------------|
| WD-EF-R-250198-A0 | Jun. 27, 2025 | Initial Issue |

Declaration

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us.



History of supplementary report

| Report No. | Issue date | Description |
|-------------------|---------------|-----------------|
| WD-EF-R-250198-A0 | Jun. 27, 2025 | Original report |

Declaration

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1 Certification

Product: Panel PC
Brand Name: Vecow
Model: MTA-1010W
Series Model: MTA-1XXXXXXXXXXXXX ("X" can be 0-9, A-Z or blank)
Applicant: Vecow Co., Ltd
Tested: Jun. 13 ~ Jun. 17, 2025
Standard: 47 CFR FCC Part 15, Subpart B, Class A
ANSI C63.4: 2014
ANSI C63.4a: 2017

The above equipment (Model: MTA-1010W) has been tested by **Wendell EMC & RF Laboratory**, and found compliance with the requirement of the above standards. The test record, data evaluation and Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Please note that the measurement uncertainty are provided for informational purpose only and are not used in determining the Pass/Fail results.



1.1 Summary of Result

The EUT has been tested according to the following specifications:

| Emission | | | | |
|-------------------------------|--|---------|--------|------------------------|
| Standard | Test Item | Limit | Result | Remark |
| 47 CFR FCC Part 15, Subpart B | Conducted disturbance at mains power ports | Class A | Pass | Meets the requirements |
| | Radiated disturbance | Class A | Pass | Meets the requirements |

Note: Test record contained in the referenced test report relate only to the EUT sample and test item.



2 Laboratory Information

2.1 Measurement Facility

Conducted disturbance at main power port test

W01: 5F-1, No.188, Baoqiao Rd., Xindian Dist., New Taipei City 23145, Taiwan (R.O.C)

Conducted disturbance at main power port and Radiated disturbance (9*6*6 Chamber) test

W08: No.119, Wugong 3rd Rd., Wugu Dist., New Taipei City 248, Taiwan (R.O.C)

ACCREDITATIONS

The laboratories are accredited and approved by the TAF according to ISO/IEC 17025.

2.2 Measurement Uncertainty

The measurement instrumentation uncertainty is evaluated according to CISPR 16-4-2.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Wendell EMC & RF Laboratory U_{lab} is less than U_{cisp} , therefore compliance or non-compliance with a disturbance limit shall be determined in the following manner.

- compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
- non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

Please note that the measurement uncertainty (U_{lab}) is provided for informational purpose only and is not used in determining the Pass/Fail results.

2.2.1 Conducted Emission Measurement

| Test Site | Frequency Range | dB (U_{lab}) | Note |
|-----------|------------------|------------------|------|
| W01-CE | 150 kHz ~ 30 MHz | 2.84 | LISN |
| W08-CE | 150 kHz ~ 30 MHz | 2.72 | LISN |

2.2.2 Radiated Emission Measurement

| Test Site | Frequency Range | Ant | dB (U_{lab}) | Note |
|-----------|--------------------|-----|------------------|------|
| W08-966-1 | 30 MHz ~ 200 MHz | V | 3.50 | N/A |
| | 30 MHz ~ 200 MHz | H | 2.96 | N/A |
| | 200 MHz ~ 1000 MHz | V | 5.09 | N/A |
| | 200 MHz ~ 1000 MHz | H | 3.41 | N/A |
| | 1 GHz ~ 6 GHz | V | 4.37 | N/A |
| | 1 GHz ~ 6 GHz | H | 4.30 | N/A |
| | 6 GHz ~ 18 GHz | V | 4.49 | N/A |
| | 6 GHz ~ 18 GHz | H | 4.60 | N/A |
| | 18 GHz ~ 40 GHz | V | 4.44 | N/A |
| | 18 GHz ~ 40 GHz | H | 4.44 | N/A |

3 General Information

3.1 Description of Equipment Under Test

| | |
|----------------------------|--|
| Product | Panel PC |
| Brand | Vecow |
| Model | MTA-1010W |
| Series Model | MTA-1XXXXXXXXXXXXXX (“X” can be 0-9, A-Z or blank) |
| Applicant | Vecow Co., Ltd |
| Received Date | Mar. 25, 2025 |
| EUT Power Rating | 24Vdc (from adapter) |
| Model Differences | The models are electrically identical, different models no. are for marketing purpose. The series model information is provided by client. |
| Operating System | Ubuntu 22.04.1 LTS |
| Data Cable Supplied | N/A |
| Accessory Device | N/A |
| I/O Port | Please refer to the User’s Manual |

Note:

- The EUT uses the follow adapter:

| Adapter (support unit only) | |
|-----------------------------|---|
| Brand | MEAN WELL |
| Model | GST160A24 |
| Input Power | 100-240Vac, 2.0A, 50/60Hz |
| Output Power | 24Vdc, 6.67A |
| Power line | Input: 1.8m non-shielded cable Output: 1m non-shielded cable with 1 core |

- The EUT contains following components.

| Item | Brand | Model | Spec. | Qty. |
|--------|----------|----------------|--------|------|
| CPU | NXP | i.MX 8M PLUS | 1.8GHz | 1 |
| Memory | Kingston | 4 EMMC32G-TX29 | 32G | 1 |

- The EUT’s highest operating frequency is 1.8GHz. Therefore the radiated emission is tested up to 9GHz.

3.2 Description of Measurement Modes

Test results are presented in the report as below.

| Test Mode | Measurement Condition |
|---|-----------------------|
| Conducted Emission Measurement | |
| - | AC-DC Adapter mode |
| Radiated Emission 30MHz ~ 1GHz Measurement | |
| - | AC-DC Adapter mode |
| Radiated Emission above 1GHz Measurement | |
| - | AC-DC Adapter mode |

3.3 Description of Operating Condition

- Placed the EUT on the test table.
- Prepare PC to act as a communication partner and placed it outside of testing area.
- The EUT was connected to the PC with LAN cable.
- The communication partner sent data to EUT by command "ping" via LAN.
- The EUT read / write data with Micro SD card.
- The EUT run test program "BurnIN.exe" to enable all functions.
- The EUT sent H message to monitor and displayed on screen.
- The microphone sent voice signal to EUT.
- The EUT sent voice signal to earphone.



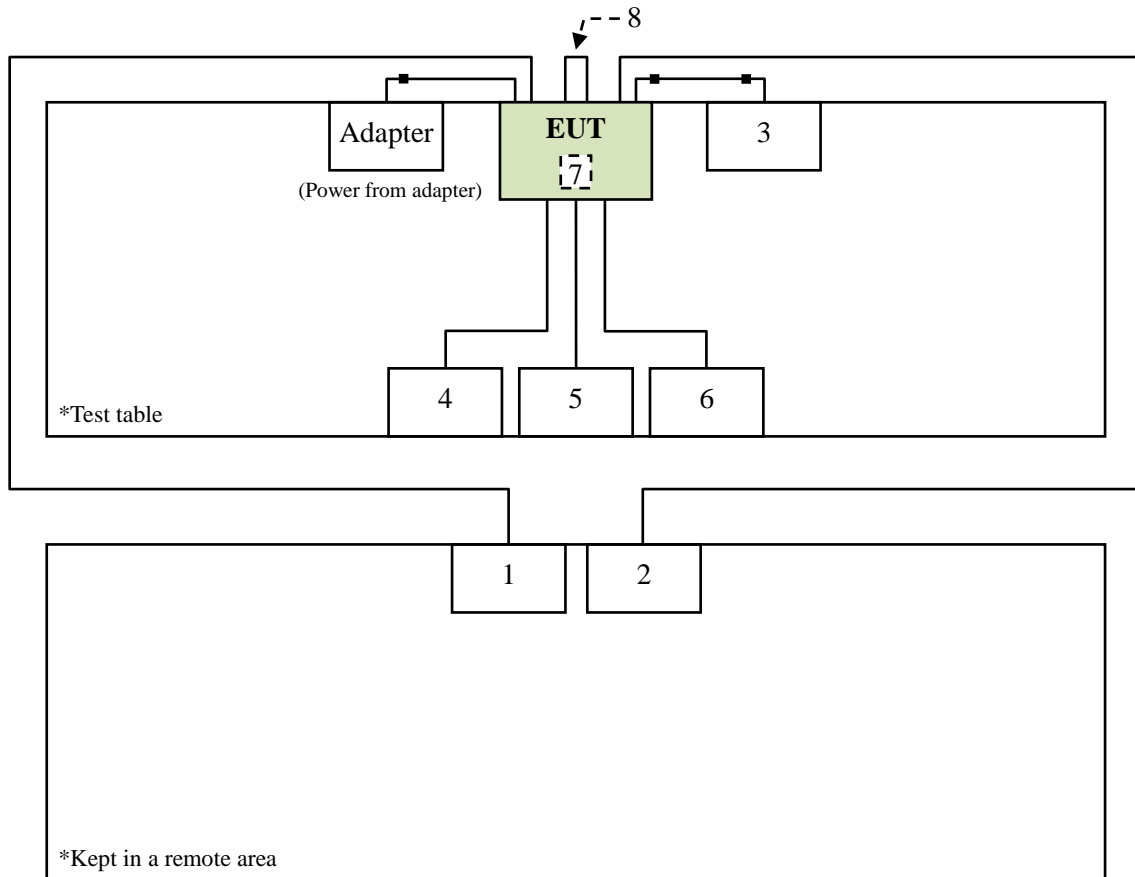
3.4 Description of Associated Equipment

The EUT has been conducted testing with other necessary accessories or support units.

| Item | Equipment | Brand | Model No. | Serial No. | FCC ID | Data Cable | Power Cable | Remark |
|------|--------------------------|-------|----------------------|----------------------------------|----------------------|---|---|-----------------------|
| 1 | Desktop PC | DELL | D19M | N/A | PPD-QCNFA 335 | 15m CAT.6A shielded LAN cable | AC: 1.8m non-shielded cable | - |
| 2 | Desktop PC | DELL | D24M | N/A | PD93165NG | 15m CAT.6A shielded LAN cable | AC: 1.8m non-shielded cable | - |
| 3 | 4K Monitor | HP | HP 27f 4k Display | 3CM01935TF | FCC SDoC Approved | 1.5m shielded HDMI cable with 2 cores | AC: 1.8m non-shielded cable DC: 1.4m non-shielded cable with 1 core | - |
| 4 | Keyboard | DELL | KB216t | CN-0W33XP-L 0300 -7C1-15UP | FCC SDoC Approved | 1.5m non-shielded USB cable | N/A | - |
| 5 | Mouse | DELL | MS116 | CN-0DV0RH- L0300 -7C1-15UP | FCC SDoC Approved | 1.5m non-shielded USB cable | N/A | - |
| 6 | Earphone & Microphone | Avier | AEP-MM | N/A | N/A | 1.2m non-shielded Audio cable | N/A | - |
| 7 | Micro SD Card | N/A | N/A | N/A | N/A | N/A | N/A | Supplied by client |
| 8 | RS232 Loop Cable | N/A | N/A | N/A | N/A | 0.2m non-shielded cable | N/A | Supplied by client |

Note: 1. The core(s) is(are) originally attached to the cable(s).
2. Item 1-2 acted as communication partners to transfer data.

3.5 Configuration of Equipment Under Test



4 Emission Measurement

4.1 Conducted Emission Measurement

4.1.1 Limit of Conducted Emission Measurement

| Frequency (MHz) | Class A (dB μ V) | | Class B (dB μ V) | |
|-----------------|-------------------------|----------------------|-------------------------|----------------------|
| | Quasi-peak (dB μ V) | Average (dB μ V) | Quasi-peak (dB μ V) | Average (dB μ V) |
| 0.15 to 0.5 | 79 | 66 | 66 to 56* | 56 to 46* |
| 0.5 to 5 | 73 | 60 | 56 | 46 |
| 5 to 30 | 73 | 60 | 60 | 50 |

* Decreases with the logarithm of the frequency.

- Note:**
1. The lower limit shall apply at the transition frequencies.
 2. Detector function in the form: QP = Quasi Peak, AVG = Average
 3. The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = LISN Factor + Cable Loss + Transient Limiter (If use)
 Margin Level = Measurement Value – Limit Value



4.1.2 Measurement Instrument

| Test Site: W01-CE | | | | | |
|-------------------|--------------------------------|--------------|--------------------|------------|------------------------|
| Item | Equipment | Manufacturer | Model | Meter No. | Calibration Date |
| 1 | TWO-LINE V-NETWORK | R&S | ENV216 | CT-1-025-1 | Apr. 26, 2025 |
| 2 | Pulse limiter | R&S | ESH3-Z2 | CT-2-015 | Apr. 23, 2025 |
| 3 | EMI Test Receiver | R&S | ESCI | CT-1-024 | Apr. 18, 2025 |
| 4 | Artificial Mains Network (AMN) | SCHWARZBECK | NSLK 8127 | CT-1-104-1 | Apr. 26, 2025 |
| 5 | RF Cable | MVE | 200200.400LL .500A | CT-9-101 | Apr. 23, 2025 |
| 6 | 50ohm Termination | N/A | N/A | CT-1-065-1 | Apr. 26, 2025 |
| 7 | Measurement Software | EZ-EMC | Ver: EMC-CON 3A1 | CT-3-012 | No calibration request |

Note: 1. The calibration interval of the above test instruments is 12 months.

| Test Site: W08-CE | | | | | |
|-------------------|--------------------------------|-----------------|----------------------|--------------|------------------------|
| Item | Equipment | Manufacturer | Model | Meter No. | Calibration Date |
| 1 | TWO-LINE V-NETWORK | R&S | ENV216 | CT-1-025-2 | May 25, 2025 |
| 2 | RF Cable | EMCI | EMCCFD300-BM-BM-5000 | CT-1-107-2 | May 21, 2025 |
| 3 | EMI Test Receiver | R&S | ESR3 | CT-1-103 | May 20, 2025 |
| 4 | Artificial Mains Network (AMN) | SCHWARZBECK | NSLK 8127 RC | CT-1-104-1RC | May 25, 2025 |
| 5 | Transient Limiter | Electro-Metrics | EM-7600 | CT-1-026 | May 21, 2025 |
| 6 | 50ohm Termination | N/A | N/A | CT-1-109-1 | May 26, 2025 |
| 7 | Measurement Software | EZ-EMC | Ver: EMC-CON 3A1 | CT-3-012 | No calibration request |

Note: 1. The calibration interval of the above test instruments is 12 months.

4.1.3 Measurement Procedure

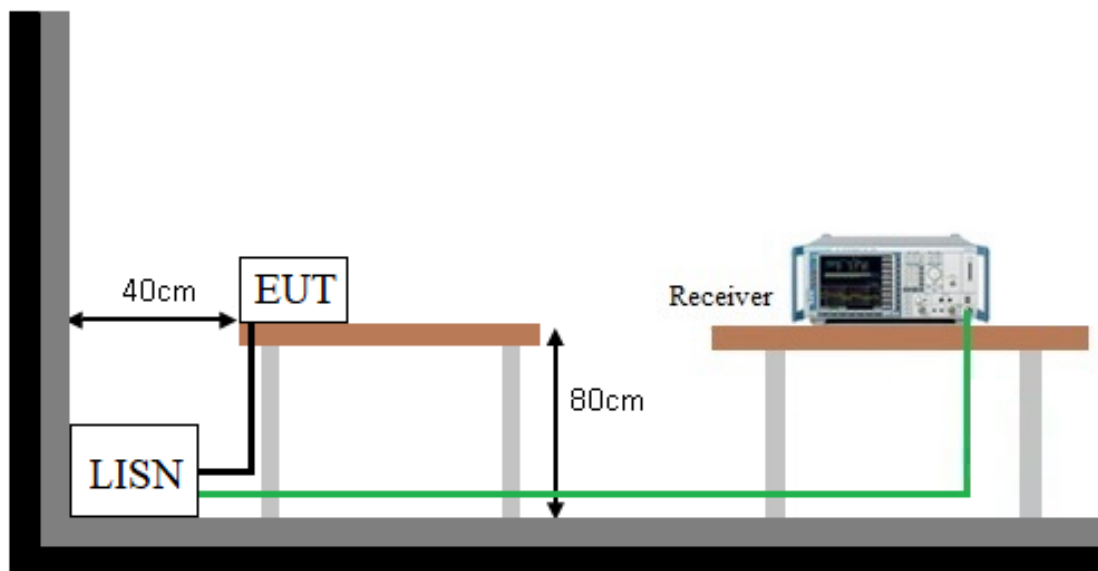
- a. The table-top equipment under test was placed 0.8 meter height wooden table from the horizontal ground plane with EUT being connected to power source through a line impedance stabilization network (LISN). The floor-standing equipment under test and all cables shall be insulated from the ground plane by up to 12 mm of insulating material if required. The LISN at least be 0.8 meter from nearest chassis of equipment under test.
- b. The line impedance stabilization network (LISN) provides 50 ohm/50uH of coupling impedance for the measuring instrument. All associated equipment powered from additional LISN(s).
- c. Interrelating cables that hang closer than 0.4 meter to the ground plane shall be folded back and forth in the center forming a bundle. All I/O cables were positioned to simulate typical usage.
- d. Interconnect cabling or wiring shall be connected to one of each type of functional port of the equipment under test, and each cable or wire shall be terminated in a device typical of actual usage. Where there are multiple ports all of the same type, additional connecting cables or wires shall be added to the equipment under test to determine the effect these cables or wires have on emission from the equipment under test.
- e. The EMI test receiver connected to the line impedance stabilization network (LISN) powering the equipment. The measurements shall be limited to the operating ranges of voltage and frequency as specified for the equipment under test, having regard to the supply voltage and frequency for the intended market of the equipment under test.
- f. The EMI test receiver scanned from 150kHz to 30MHz for emissions in each of modes. A scan was taken on both power lines, Line and Neutral, recording at least six highest emission amplitude.
- g. The equipment under test and cable configuration of the above highest emission amplitude were recorded

4.1.4 Deviation from Standard

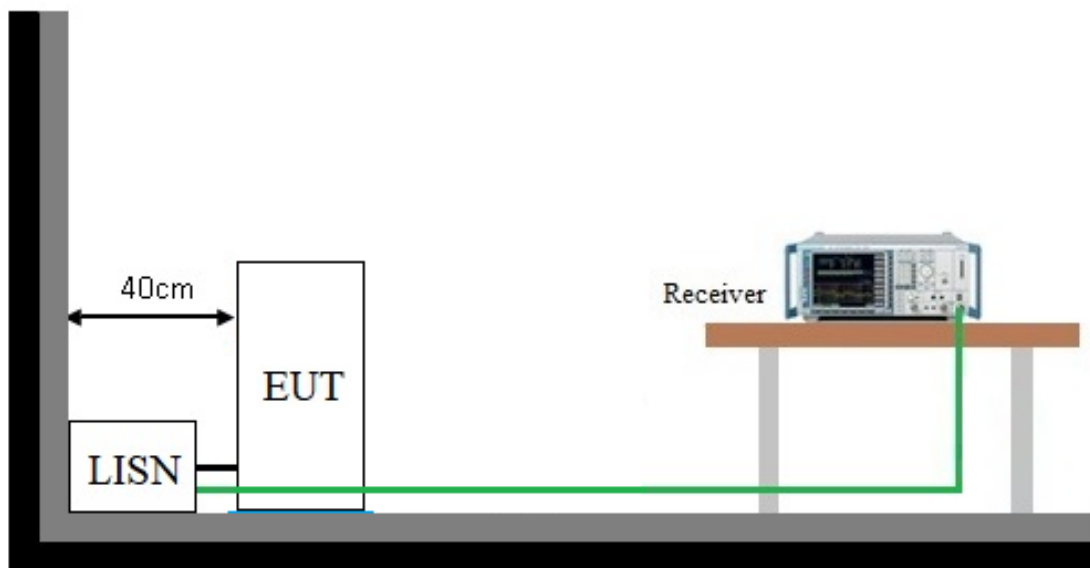
No deviation

4.1.5 Measurement Configuration

< Table-Top equipment under test >



< Floor-Standing equipment under test >

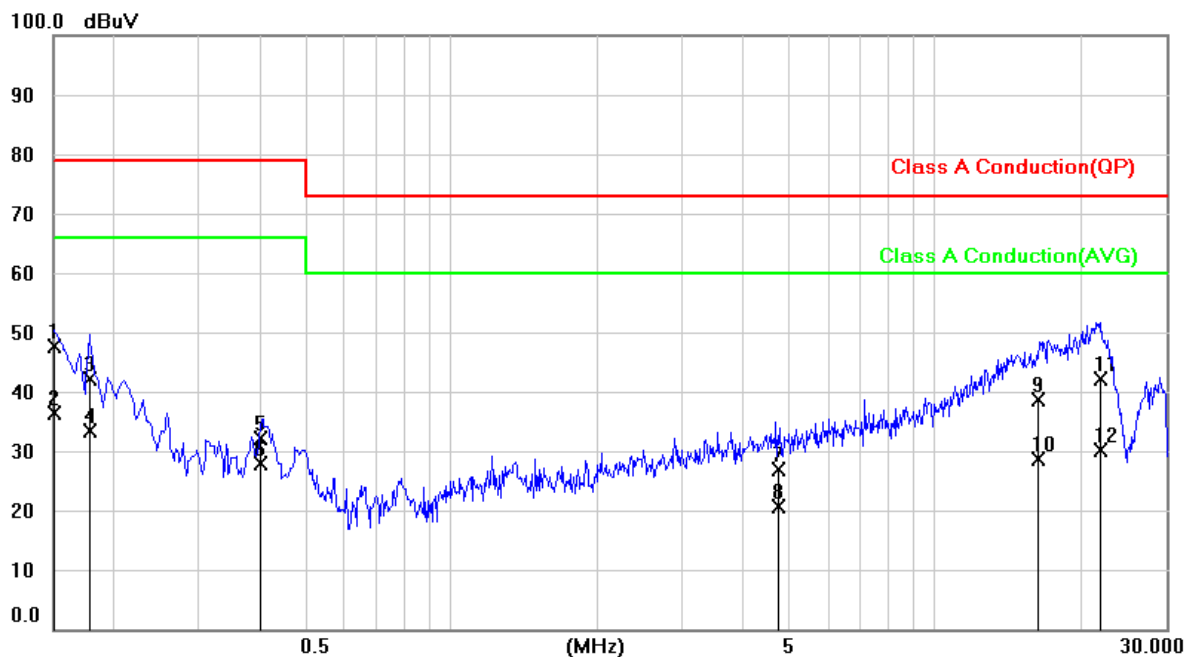


Note: Please refer to 4.1.7 for the actual test configuration.



4.1.6 Measurement Result

| | | | |
|--------------------------|----------------|-----------------|---------------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 0.15 ~ 30 MHz |
| Environmental Conditions | 23.2°C, 43% RH | 6dB Bandwidth | 9 kHz |
| Test Date | 2025/06/17 | Phase | L |
| Tested by | Wayne Yang | Test Site | W08-CE |

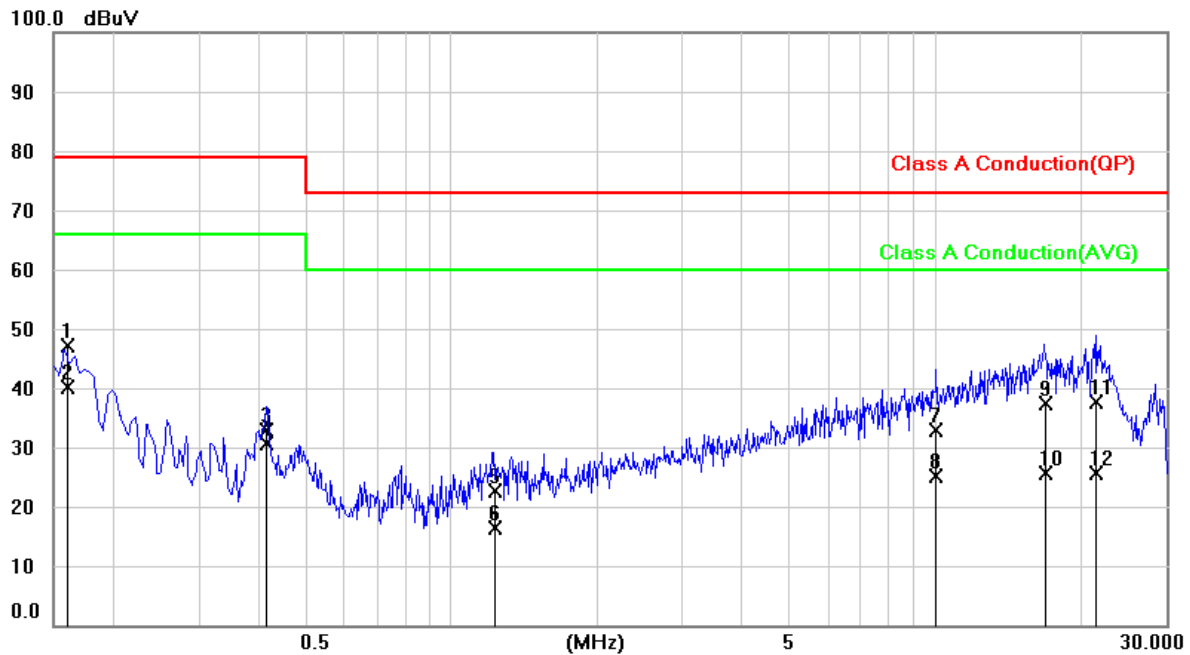


| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB) | Measurement (dBμV) | Limit (dBμV) | Margin (dB) | Detector |
|-----|-----------------|----------------------|---------------------|--------------------|--------------|-------------|----------|
| 1 | 0.1508 | 37.93 | 9.82 | 47.75 | 79.00 | -31.25 | QP |
| 2 | 0.1508 | 26.67 | 9.82 | 36.49 | 66.00 | -29.51 | AVG |
| 3 | 0.1790 | 32.19 | 9.82 | 42.01 | 79.00 | -36.99 | QP |
| 4 | 0.1790 | 23.53 | 9.82 | 33.35 | 66.00 | -32.65 | AVG |
| 5 | 0.4020 | 22.38 | 9.83 | 32.21 | 79.00 | -46.79 | QP |
| 6 | 0.4020 | 18.06 | 9.83 | 27.89 | 66.00 | -38.11 | AVG |
| 7 | 4.7500 | 16.82 | 9.99 | 26.81 | 73.00 | -46.19 | QP |
| 8 | 4.7500 | 10.57 | 9.99 | 20.56 | 60.00 | -39.44 | AVG |
| 9 | 16.3758 | 28.27 | 10.25 | 38.52 | 73.00 | -34.48 | QP |
| 10 | 16.3758 | 18.31 | 10.25 | 28.56 | 60.00 | -31.44 | AVG |
| 11 | 22.0458 | 31.69 | 10.36 | 42.05 | 73.00 | -30.95 | QP |
| 12 | 22.0458 | 19.71 | 10.36 | 30.07 | 60.00 | -29.93 | AVG |

Remark: 1. QP = Quasi Peak, AVG = Average
2. Correct Factor = LISN Factor + Cable Loss + Transient Limiter (If use)
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value – Limit Value



| | | | |
|--------------------------|----------------|-----------------|---------------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 0.15 ~ 30 MHz |
| Environmental Conditions | 23.2°C, 43% RH | 6dB Bandwidth | 9 kHz |
| Test Date | 2025/06/17 | Phase | N |
| Tested by | Wayne Yang | Test Site | W08-CE |



| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB) | Measurement (dBμV) | Limit (dBμV) | Margin (dB) | Detector |
|-----|-----------------|----------------------|---------------------|--------------------|--------------|-------------|----------|
| 1 | 0.1602 | 37.22 | 9.82 | 47.04 | 79.00 | -31.96 | QP |
| 2 | 0.1602 | 30.30 | 9.82 | 40.12 | 66.00 | -25.88 | AVG |
| 3 | 0.4107 | 23.12 | 9.82 | 32.94 | 79.00 | -46.06 | QP |
| 4 | 0.4107 | 20.69 | 9.82 | 30.51 | 66.00 | -35.49 | AVG |
| 5 | 1.2338 | 12.67 | 9.85 | 22.52 | 73.00 | -50.48 | QP |
| 6 | 1.2338 | 6.46 | 9.85 | 16.31 | 60.00 | -43.69 | AVG |
| 7 | 10.0817 | 22.65 | 10.11 | 32.76 | 73.00 | -40.24 | QP |
| 8 | 10.0817 | 15.03 | 10.11 | 25.14 | 60.00 | -34.86 | AVG |
| 9 | 16.8727 | 27.04 | 10.24 | 37.28 | 73.00 | -35.72 | QP |
| 10 | 16.8727 | 15.45 | 10.24 | 25.69 | 60.00 | -34.31 | AVG |
| 11 | 21.5076 | 27.32 | 10.34 | 37.66 | 73.00 | -35.34 | QP |
| 12 | 21.5076 | 15.37 | 10.34 | 25.71 | 60.00 | -34.29 | AVG |

Remark: 1. QP = Quasi Peak, AVG = Average
2. Correct Factor = LISN Factor + Cable Loss + Transient Limiter (If use)
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value – Limit Value

4.1.7 Photographs of Measurement Configuration



4.2 Radiated Emission Measurement

4.2.1 Limit of Radiated Emission Measurement

Radiated Frequency Range 30 MHz to 1000 MHz

| FCC 15B Radiated Emissions Limits | | | | |
|-----------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| Frequency range (MHz) | Class A (3m) Quasi-peak (dBμV/m) | Class A (10m) Quasi-peak (dBμV/m) | Class B (3m) Quasi-peak (dBμV/m) | Class B (10m) Quasi-peak (dBμV/m) |
| 30 - 88 | 49.5 | 39.1 | 40 | 29.5 |
| 88 - 216 | 54 | 43.5 | 43.5 | 33.1 |
| 216 - 230 | 56.9 | 46.4 | 46 | 35.6 |
| 230 - 960 | | | | |
| 960 - 1000 | 60 | 49.5 | 54 | 43.5 |

- Note:**
1. The lower limit shall apply at the transition frequency.
 2. Detector function in the form: PK = Peak, QP = Quasi Peak, AVG = Average
 3. The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) -
 Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)
 Margin Level = Measurement Value - Limit Value

**Radiated Frequency Range above 1 GHz**

| FCC 15B Radiated Emissions Limits | | | | |
|-----------------------------------|--------------------------|---------|--------------------------|---------|
| Frequency range (GHz) | Class A (3m) (dBμV/m) | | Class B (3m) (dBμV/m) | |
| | Peak | Average | Peak | Average |
| 1 - 40 | 80 | 60 | 74 | 54 |

- Note:** 1. The lower limit shall apply at the transition frequency.
2. Detector function in the form: PK = Peak, QP = Quasi Peak, AVG = Average
3. The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) -
Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)
Margin Level = Measurement Value - Limit Value

Frequency Range (For unintentional radiators)

| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | Upper frequency of measurement range (MHz) |
|---|---|
| Below 1.705 | 30 |
| 1.705-108 | 1000 |
| 108-500 | 2000 |
| 500-1000 | 5000 |
| Above 1000 | 5th harmonic of the highest frequency or 40GHz, whichever is lower |

4.2.2 Measurement Instrument

| Test Site: W08-966-1 | | | | | |
|----------------------|---|-------------------|-------------------------|-------------|------------------------|
| Item | Equipment | Manufacturer | Model | Meter No. | Calibration Date |
| 1 | Horn Antenna | Schwarzbeck | BBHA 9120D | CT-9-031 | Jul. 29, 2024 |
| 2 | Horn Antenna | Schwarzbeck | BBHA 9170 | CT-9-032 | Aug. 15, 2024 |
| 3 | TRILOG Broadband Antenna with 6 dB Attenuator | Schwarzbeck & MVE | VULB 9168 & MVE2251-06 | CT-1-096-1 | Apr. 29, 2025 |
| 4 | Spectrum Analyzer | Agilent | E4407B | CT-1-003(1) | May 06, 2025 |
| 5 | EXA Signal Analyzer | Keysight | N9010A | CT-1-093 | Aug. 18, 2024 |
| 6 | EMI Test Receiver | Keysight | N9038A | CT-9-007 | May 06, 2025 |
| 7 | Preamplifier | EM | EMC330 | CT-9-024 | May 06, 2025 |
| 8 | Preamplifier | SGH & MCL | SGH118 & BW-S15W2+ | CT-9-071 | May 06, 2025 |
| 9 | Preamplifier | EMCI | EMC184045SE | CT-9-013 | Aug. 16, 2024 |
| 10 | Test Cable | EMCI | EMCCFD400-NM-NM-1000 | CT-1-132 | May 07, 2025 |
| 11 | Test Cable | PEWC | CFD400NL-LW-N M-NM-3000 | CT-1-141 | May 07, 2025 |
| 12 | Test Cable | EMCI | EMCCFD400-NM-NM-15000 | CT-1-133 | May 07, 2025 |
| 13 | Test Cable | EMCI | EMC104-SM-35M-600 | CT-1-134 | May 07, 2025 |
| 14 | Test Cable | MVE | 280280.LL266.1400 | CT-9-106 | May 07, 2025 |
| 15 | Test Cable | EMCI | EMC102-KM-KM-600 | CT-1-136 | Aug. 21, 2024 |
| 16 | Test Cable | MVE | 140140.LL404.700 | CT-9-100 | May 07, 2025 |
| 17 | Measurement Software | EZ-EMC | Ver :WD-03A1-1 | CT-3-012 | No calibration request |

Note: 1. The calibration interval of the above test instruments is 12 months.

4.2.3 Measurement Procedure

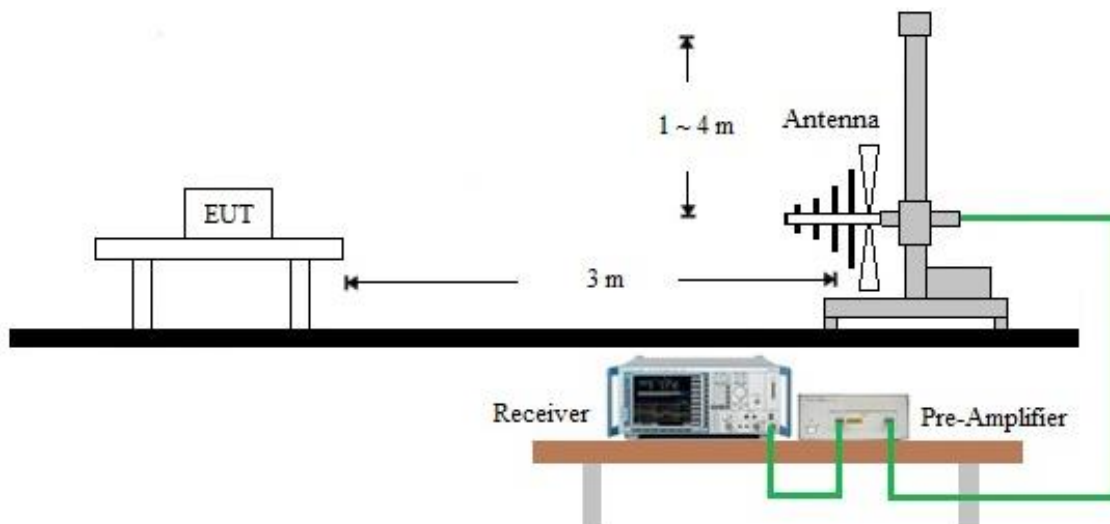
- a. The table-top equipment under test was placed on the top of a turntable 0.8 meters above the ground at 3 m 966 chamber. The floor-standing equipment under test and all cables shall be insulated from the ground plane by up to 12 mm of insulating material if required. The turntable was rotated 360 degrees to determine the position of the highest radiation emissions.
- b. The height of the antenna shall vary between 1 m to 4 m. Both vertical and horizontal polarizations of the antenna were set to make the measurement.
- c. The EUT was set up as per the test configuration to simulate typical usage per the user's manual. All I/O cables were positioned to simulate typical usage.
- d. Interconnect cabling or wiring shall be connected to one of each type of functional port of the equipment under test, and each cable or wire shall be terminated in a device typical of actual usage. Where there are multiple ports all of the same type, additional connecting cables or wires shall be added to the equipment under test to determine the effect these cables or wires have on emission from the equipment under test.
- e. The initial step in collecting radiated emission data is a spectrum mode scanning the measurement frequency range.
Below 1GHz:
Reading in which marked as QP means measurements by using receiver mode with detector setting in RBW = 120 kHz.
If the spectrum mode measured peak value compliance with and lower than QP Limit, the equipment under test shall be deemed to meet QP Limits.
Above 1GHz:
Reading in which marked as Peak & AVG means measurements by using spectrum mode with setting in RBW = 1 MHz.
If the spectrum mode measured value compliance with the Peak Limits and lower than AVG Limits, the equipment under test shall be deemed to meet both Peak and AVG Limits.
- f. Emission frequency and amplitude were recorded, recording at least six highest emissions. The equipment under test and cable configuration of the above highest emission amplitude were recorded.

4.2.4 Deviation from Standard

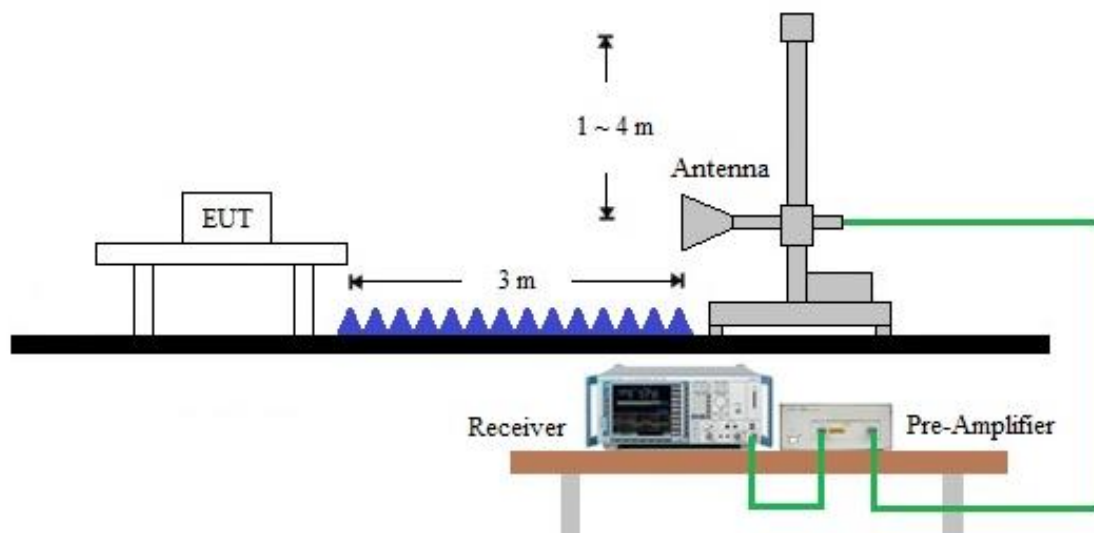
No deviation

4.2.5 Measurement Configuration

< Radiated Emissions Frequency: 30 MHz to 1000 MHz >



< Radiated Emissions Frequency: above 1GHz >

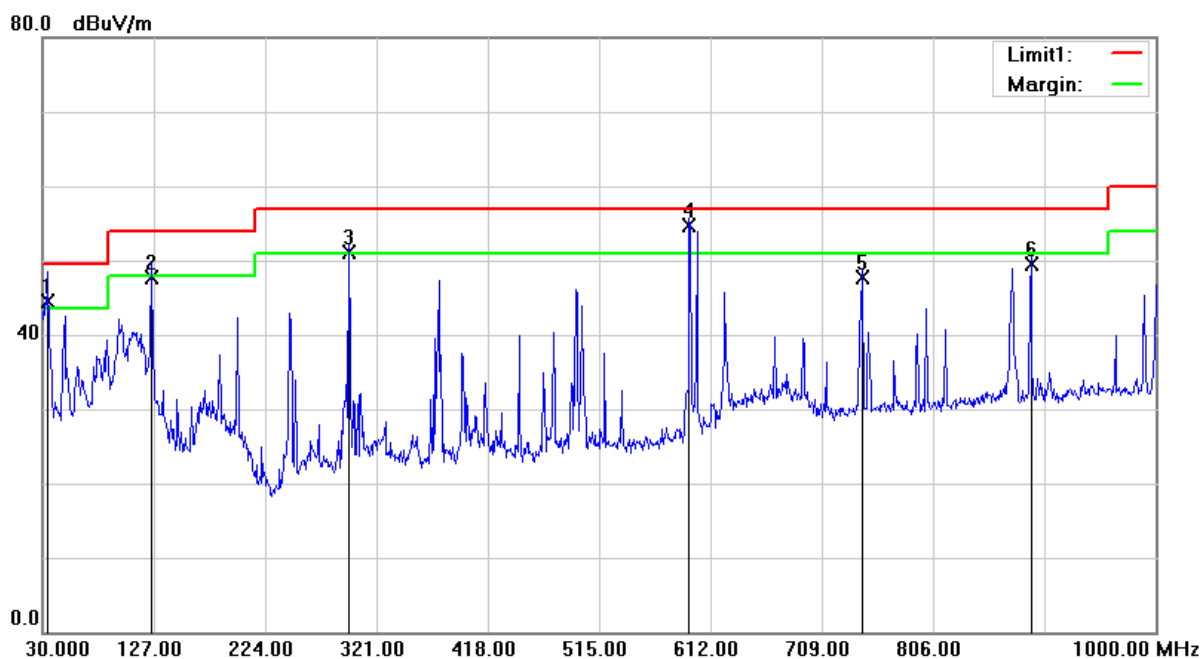


Note:

- (1) Please refer to the 4.2.7 for the actual test configuration.
- (2) Detector function in the form: PK = Peak, QP = Quasi Peak, AVG = Average
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Antenna Factor + Cable Loss - Pre-Amplifier Gain (if use)
 Margin Level = Measurement Value - Limit Value

4.2.6 Measurement Result

| | | | |
|--------------------------|--------------|-----------------|---------------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 30 ~ 1000 MHz |
| Environmental Conditions | 24°C, 48% RH | 6dB Bandwidth | 120 kHz |
| Test Date | 2025/06/14 | Test Distance | 3m |
| Tested by | Karwin Kao | Polarization | Vertical |
| Test Site | W08-966-1 | | |



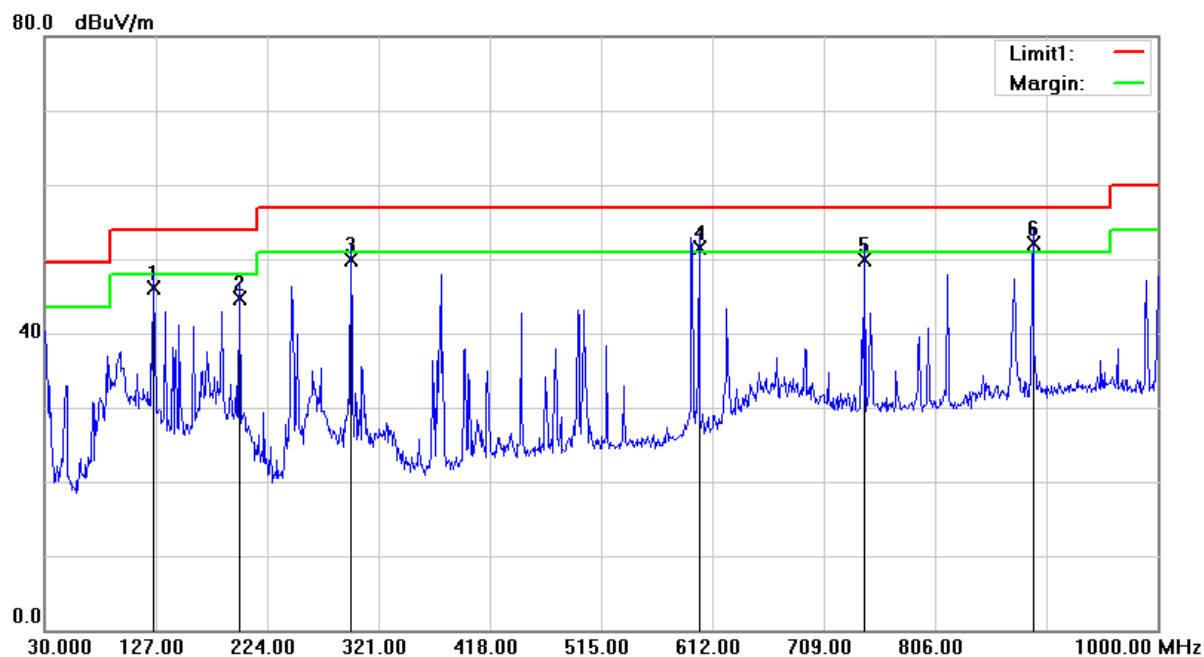
| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB/m) | Measurement (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Table Degree (degree) | Antenna Height (cm) | Detector |
|-----|-----------------|----------------------|-----------------------|----------------------|----------------|-------------|-----------------------|---------------------|----------|
| 1 | 34.8500 | 55.34 | -10.86 | 44.48 | 49.50 | -5.02 | 125 | 100 | QP |
| 2 | 125.0600 | 59.34 | -11.72 | 47.62 | 54.00 | -6.38 | 165 | 100 | QP |
| 3 | 296.7500 | 59.69 | -8.56 | 51.13 | 56.90 | -5.77 | 16 | 200 | QP |
| 4 | 593.5700 | 55.39 | -0.59 | 54.80 | 56.90 | -2.10 | 194 | 200 | QP |
| 5 | 743.9200 | 44.71 | 2.94 | 47.65 | 56.90 | -9.25 | 127 | 200 | QP |
| 6 | 891.3600 | 44.93 | 4.54 | 49.47 | 56.90 | -7.43 | 159 | 100 | QP |

Remark:

1. QP = Quasi Peak
2. Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) - Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value - Limit Value



| | | | |
|--------------------------|--------------|-----------------|---------------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 30 ~ 1000 MHz |
| Environmental Conditions | 24°C, 48% RH | 6dB Bandwidth | 120 kHz |
| Test Date | 2025/06/14 | Test Distance | 3m |
| Tested by | Karwin Kao | Polarization | Horizontal |
| Test Site | W08-966-1 | | |



| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB/m) | Measurement (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Table Degree (degree) | Antenna Height (cm) | Detector |
|-----|-----------------|----------------------|-----------------------|----------------------|----------------|-------------|-----------------------|---------------------|----------|
| 1 | 125.0600 | 57.75 | -11.72 | 46.03 | 54.00 | -7.97 | 45 | 200 | QP |
| 2 | 199.7500 | 57.26 | -12.51 | 44.75 | 54.00 | -9.25 | 243 | 200 | QP |
| 3 | 296.7500 | 58.39 | -8.56 | 49.83 | 56.90 | -7.07 | 348 | 100 | QP |
| 4 | 600.3600 | 51.78 | -0.30 | 51.48 | 56.90 | -5.42 | 230 | 100 | QP |
| 5 | 744.8900 | 46.96 | 2.96 | 49.92 | 56.90 | -6.98 | 86 | 100 | QP |
| 6 | 891.3600 | 47.54 | 4.54 | 52.08 | 56.90 | -4.82 | 23 | 100 | QP |

Remark: 1. QP = Quasi Peak

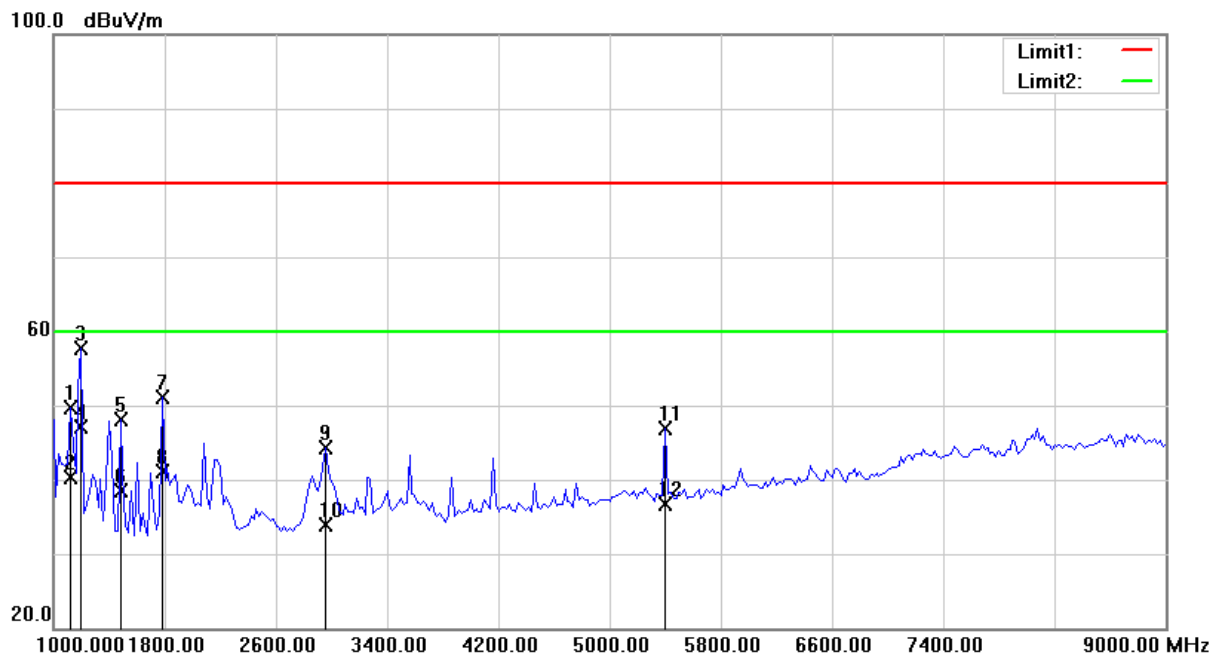
2. Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) - Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)

3. Measurement Value = Reading Level + Correct Factor

4. Margin Level = Measurement Value - Limit Value



| | | | |
|--------------------------|--------------|-----------------|-----------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 1 ~ 9 GHz |
| Environmental Conditions | 24°C, 48% RH | 6dB Bandwidth | 1MHz |
| Test Date | 2025/06/13 | Test Distance | 3m |
| Tested by | Karwin Kao | Polarization | Vertical |
| Test Site | W08-966-1 | | |



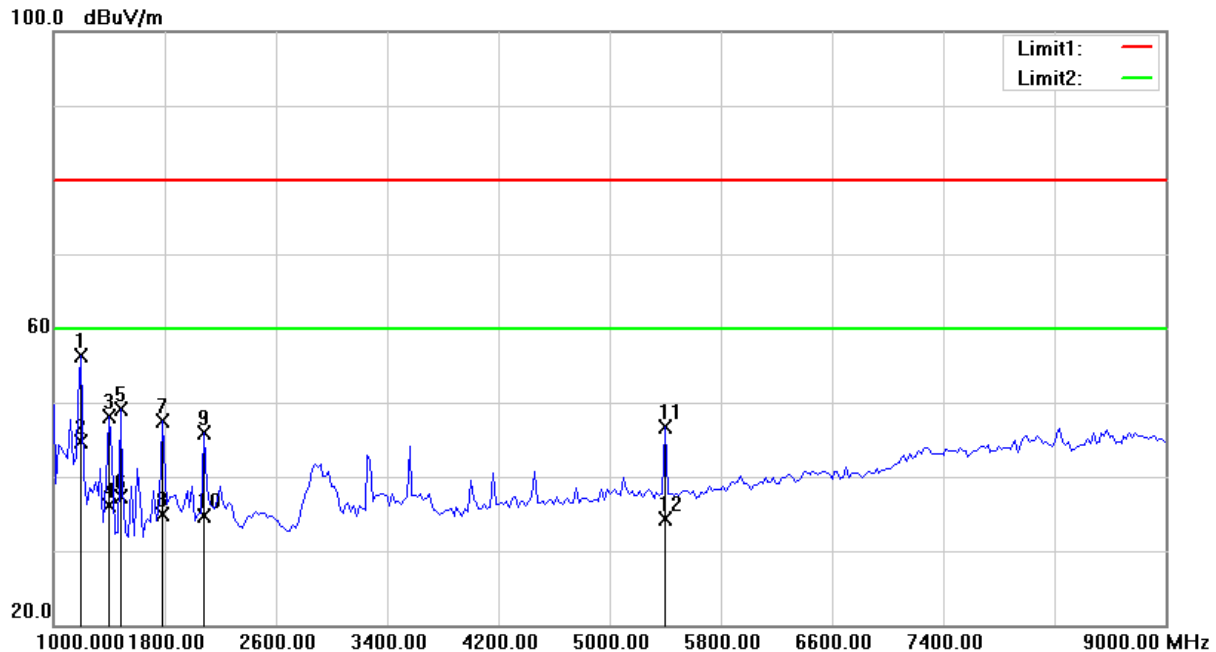
| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB/m) | Measurement (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Table Degree (degree) | Antenna Height (cm) | Detector |
|-----|-----------------|----------------------|-----------------------|----------------------|----------------|-------------|-----------------------|---------------------|----------|
| 1 | 1120.000 | 69.35 | -19.66 | 49.69 | 80.00 | -30.31 | 45 | 100 | peak |
| 2 | 1120.000 | 59.86 | -19.66 | 40.20 | 60.00 | -19.80 | 45 | 100 | AVG |
| 3 | 1200.000 | 76.91 | -19.12 | 57.79 | 80.00 | -22.21 | 36 | 100 | peak |
| 4 | 1200.000 | 66.31 | -19.12 | 47.19 | 60.00 | -12.81 | 36 | 100 | AVG |
| 5 | 1480.000 | 66.48 | -18.31 | 48.17 | 80.00 | -31.83 | 209 | 100 | peak |
| 6 | 1480.000 | 56.74 | -18.31 | 38.43 | 60.00 | -21.57 | 209 | 100 | AVG |
| 7 | 1780.000 | 69.38 | -18.22 | 51.16 | 80.00 | -28.84 | 177 | 100 | peak |
| 8 | 1780.000 | 59.29 | -18.22 | 41.07 | 60.00 | -18.93 | 177 | 100 | AVG |
| 9 | 2960.000 | 57.36 | -13.12 | 44.24 | 80.00 | -35.76 | 199 | 100 | peak |
| 10 | 2960.000 | 47.12 | -13.12 | 34.00 | 60.00 | -26.00 | 199 | 100 | AVG |
| 11 | 5400.000 | 54.81 | -7.92 | 46.89 | 80.00 | -33.11 | 139 | 100 | peak |
| 12 | 5400.000 | 44.68 | -7.92 | 36.76 | 60.00 | -23.24 | 139 | 100 | AVG |

Remark:

1. peak = Peak, AVG = Average
2. Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) - Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value - Limit Value



| | | | |
|--------------------------|--------------|-----------------|------------|
| Test Voltage | 120Vac, 60Hz | Frequency Range | 1 ~ 9 GHz |
| Environmental Conditions | 24°C, 48% RH | 6dB Bandwidth | 1MHz |
| Test Date | 2025/06/13 | Test Distance | 3m |
| Tested by | Karwin Kao | Polarization | Horizontal |
| Test Site | W08-966-1 | | |



| No. | Frequency (MHz) | Reading Level (dBμV) | Correct Factor (dB/m) | Measurement (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Table Degree (degree) | Antenna Height (cm) | Detector |
|-----|-----------------|----------------------|-----------------------|----------------------|----------------|-------------|-----------------------|---------------------|----------|
| 1 | 1200.000 | 75.34 | -19.12 | 56.22 | 80.00 | -23.78 | 101 | 100 | peak |
| 2 | 1200.000 | 63.78 | -19.12 | 44.66 | 60.00 | -15.34 | 101 | 100 | AVG |
| 3 | 1400.000 | 66.24 | -18.06 | 48.18 | 80.00 | -31.82 | 147 | 100 | peak |
| 4 | 1400.000 | 54.19 | -18.06 | 36.13 | 60.00 | -23.87 | 147 | 100 | AVG |
| 5 | 1480.000 | 67.51 | -18.31 | 49.20 | 80.00 | -30.80 | 151 | 100 | peak |
| 6 | 1480.000 | 55.68 | -18.31 | 37.37 | 60.00 | -22.63 | 151 | 100 | AVG |
| 7 | 1780.000 | 65.75 | -18.22 | 47.53 | 80.00 | -32.47 | 34 | 100 | peak |
| 8 | 1780.000 | 53.22 | -18.22 | 35.00 | 60.00 | -25.00 | 34 | 100 | AVG |
| 9 | 2080.000 | 62.14 | -16.16 | 45.98 | 80.00 | -34.02 | 201 | 100 | peak |
| 10 | 2080.000 | 50.87 | -16.16 | 34.71 | 60.00 | -25.29 | 201 | 100 | AVG |
| 11 | 5400.000 | 54.68 | -7.92 | 46.76 | 80.00 | -33.24 | 185 | 100 | peak |
| 12 | 5400.000 | 42.29 | -7.92 | 34.37 | 60.00 | -25.63 | 185 | 100 | AVG |

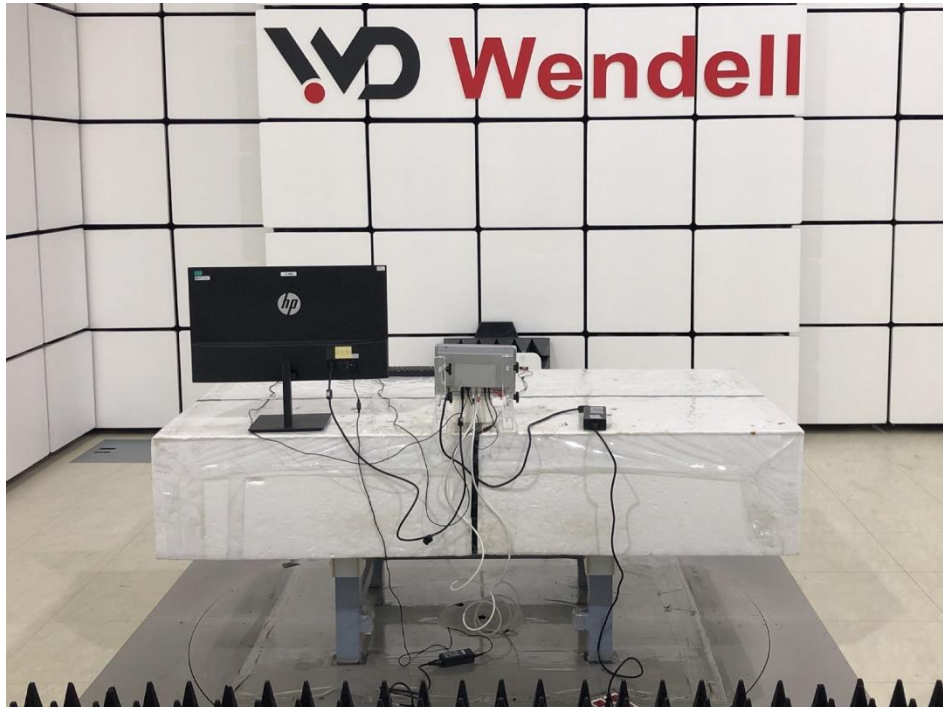
Remark:

1. peak = Peak, AVG = Average
2. Correct Factor = Antenna Factor + Cable Loss (Antenna to Pre-Amplifier) - Pre-Amplifier Gain + Cable Loss (Pre-Amplifier to Receiver)
3. Measurement Value = Reading Level + Correct Factor
4. Margin Level = Measurement Value - Limit Value

4.2.7 Photographs of Measurement Configuration

Frequency Range: 30 MHz ~ 1 GHz



Frequency Range: Above 1 GHz

< End Page >