

**FCC 47 CFR PART 18**

**TEST REPORT**

*For*

**Microwave Oven**

**MODEL NUMBER: D90N28(X)RII-(Y)(L2), D90N28CSLRII-HP3N(L2), WMCS5522RB, WMCS5522RS (Where X may be L,P,SL,SP ,AL,AP,ASL,ASP,EL,EP, ESL,ESP,CP,CL,CSL,CSP, Y may compose by one to five characters from A to Z and/or numbers from 0 to 9 representing the differences of appearance.)**

**REPORT NUMBER: 4791378734-2**

**FCC ID: UHW9028002**

**ISSUE DATE: November 20, 2024**

*Prepared for*

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*Prepared by*

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## Revision History

| Rev. | Issue Date        | Revisions     | Revised By |
|------|-------------------|---------------|------------|
| V0   | November 20, 2024 | Initial Issue |            |

**Summary of Test Results**

| <b>Emission</b>    |                                       |                                     |               |
|--------------------|---------------------------------------|-------------------------------------|---------------|
| <b>Standard</b>    | <b>Test Item</b>                      | <b>Limit</b>                        | <b>Result</b> |
| FCC 47 CFR PART 18 | Conducted Emissions                   | FCC Part 18.307(b)                  | Pass          |
|                    | Radiated Emissions<br>(30MHz~1000MHz) | FCC Part 18.305(b)                  | Pass          |
|                    | Radiated Emissions<br>(1GHz~25GHz)    | FCC Part 18.305(b)                  | Pass          |
|                    | Operating Frequency                   | FCC Part 18.301                     | Pass          |
|                    | Input Power                           | FCC / OST MP-5 (1986)<br>Clause 4.3 | Pass          |
|                    | Output Power                          | FCC / OST MP-5 (1986)<br>Clause 4.3 | Pass          |
|                    | Radiation Hazard                      | FCC / OST MP-5 (1986)<br>Clause 3.1 | Pass          |

\*This test report is only published to and used by the applicant, and it is not for evidence purpose in China.

\*The measurement result for the sample received is <Pass> according to <FCC 47 CFR PART 18> when <Simple Acceptance> decision rule is applied.

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## 1. ATTESTATION OF TEST RESULTS

### Applicant Information

Company Name: Guangdong Galanz Enterprises Co., Ltd.  
Address: 25 Ronggui Nan.Rd., Shunde, Foshan, Guangdong. China

### Manufacturer Information

Company Name 1: Guangdong Galanz Microwave Oven and Electrical Appliances Manufacturing Co., Ltd.  
Address: No.25, South Ronggui Avenue, Shunde District, Foshan City, Guangdong Province, China  
Company Name 2: Guangdong Galanz Appliances Manufacturing Co., Ltd.  
Address: No. 3, East Xingpu Avenue, Maxin Industrial Zone, Huangpu Town, Zhongshan City, Guangdong Province, China

### EUT Information

EUT Name: Microwave Oven  
Model: D90N28CSLR II-HP3N(L2)  
Series Model: D90N28(X)RII-(Y)(L2), WMCS5522RB, WMCS5522RS (Where X may be L, P, SL, SP, AL, AP, ASL, ASP, EL, EP, ESL, ESP, CP, CL, CSL, CSP, Y may compose by one to five characters from A to Z and/or numbers from 0 to 9 representing the differences of appearance.)  
Brand: Galanz, Whirlpool  
Sample Received Date: July 3, 2024  
Sample ID: 7348813-1  
Date of Tested: July 4, 2024 to August 6, 2024

| APPLICABLE STANDARDS |              |
|----------------------|--------------|
| STANDARD             | TEST RESULTS |
| FCC 47 CFR PART 18   | Pass         |

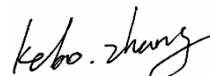
Prepared By:



Karl Wu

Engineer Project Associate

Checked By:



Kebo Zhang

Senior Project Engineer

Approved By:



Stephen Guo

Operations Manager

## 2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC 47 CFR PART 18 and FCC/OET MP-5

## 3. FACILITIES AND ACCREDITATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accreditation Certificate | <p><b>A2LA (Certificate No.: 4102.01)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.</p> <p><b>ISED (Company No.: 21320)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p> <p><b>VCCI (Registration No.: G-20192, C-20153, T-20155 and R-20202)</b><br/>UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793.<br/>Facility Name:<br/>Chamber D, the VCCI registration No. is G-20192 and R-20202<br/>Shielding Room B, the VCCI registration No. is C-20153 and T-20155</p> |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Note:

All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

### 4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| Test Item                                                                                                                                                                                                                                                                                                                                                                     | Measurement Frequency Range | K | U(dB) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|-------|
| Conducted Emissions                                                                                                                                                                                                                                                                                                                                                           | 0.009 MHz - 0.15 MHz        | 2 | 4.00  |
|                                                                                                                                                                                                                                                                                                                                                                               | 0.15MHz - 30MHz             | 2 | 3.63  |
| Radiated Emissions<br>(30MHz~1000MHz)                                                                                                                                                                                                                                                                                                                                         | 9kHz - 30MHz                | 2 | 2.20  |
|                                                                                                                                                                                                                                                                                                                                                                               | 30MHz -1GHz                 | 2 | 4.13  |
| Radiated Emissions (1GHz~25GHz)                                                                                                                                                                                                                                                                                                                                               | 1GHz - 18GHz                | 2 | 5.64  |
|                                                                                                                                                                                                                                                                                                                                                                               | 18GHz - 26GHz               | 2 | 5.23  |
| Note1: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k=2.                                                                                                                                                                                                                               |                             |   |       |
| Note 2: According to the standard CISPR 16-4-2, the MU for the Conducted emissions from the AC mains power ports using AMN should not exceed 3.8 in range of 9kHz to 150kHz and 3.4 in range of 150kHz to 30MHz. We have considered the test results containing the value of U <sub>lab</sub> (in dB) for the measurement instrumentation actually used for the measurements. |                             |   |       |

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

|                                |                                                                                                                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EUT Name                       | Microwave Oven                                                                                                                                                                                                                                              |
| Model                          | D90N28CSLRII-HP3N(L2)                                                                                                                                                                                                                                       |
| Series Model                   | D90N28(X)RII-(Y)(L2), WMCS5522RB, WMCS5522RS (Where X may be L, P, SL, SP, AL, AP, ASL, ASP, EL, EP, ESL, ESP, CP, CL, CSL,CSP, Y may compose by one to five characters from A to Z and/or numbers from 0 to 9 representing the differences of appearance.) |
| Model Difference               | All types of electronic circuit of the same, the difference are model name and appearance (color).<br>Therefore, full tests were applied on D90N28CSLRII-HP3N(L2).                                                                                          |
| Operating Frequency            | 2450MHz                                                                                                                                                                                                                                                     |
| Rated Input Power (Microwave)  | 1350W                                                                                                                                                                                                                                                       |
| Rated Output Power (Microwave) | 900W                                                                                                                                                                                                                                                        |
| Rated Voltage                  | 120V~, 60Hz, Single Phase                                                                                                                                                                                                                                   |

### 5.2. TEST MODE

| Test Mode | Description                                                                         |
|-----------|-------------------------------------------------------------------------------------|
| M01       | Maximum power+1000mL water load+beaker located in the center of the oven            |
| M02       | Maximum power+700mL water load+beaker located in the center of the oven             |
| M03       | Maximum power+700mL water load+beaker located in the right front corner of the oven |
| M04       | Maximum power+300mL water load+beaker located in the center of the oven             |
| M05       | Maximum power+300mL water load+beaker located in the right front corner of the oven |

### 5.3. EUT ACCESSORY

| Cable        |                            |
|--------------|----------------------------|
| Description: | AC Cable                   |
| Cable Type:  | Unshielded without ferrite |
| Length:      | 1.0 Meter                  |

## 5.4. LOAD FOR MICROWAVE OVENS

For all measurements the energy developed by the oven is absorbed by a dummy load consisting of a quantity of tap water in a beaker. A polypropylene beaker or any other low-loss material shall be used as the container. If the oven is provided with a shelf or other utensil support, test shall be made with this support in its initial normal position. For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs. For ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction thereof in excess of 1000 watts. Additional beakers are used if necessary.

- Load for power output measurement: 1000 milliliters of water in the beaker located in the center of the oven.
- Load for frequency measurement: 1000 milliliters of water in the beaker located in the center of the oven.
- Load for measurement of radiation on second and third harmonic: Two loads, one of 700 and the other of 300 milliliters, of water are used. Each load is tested both with the beaker located in the center of the oven and with it in the right front corner.
- Load for all other measurements: 700 milliliters of water, with the beaker located in the center of the oven.

## 5.5. SUPPORT UNITS FOR SYSTEM TEST

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | Specification | Note       |
|------|-----------|-----------|----------------|---------------|------------|
| 1    | Beaker    | N/A       | N/A            | 1000ML        | UL Support |

## 6. MEASURING EQUIPMENT AND SOFTWARE USED

| Test Equipment of Conducted Emissions |                 |           |            |               |               |
|---------------------------------------|-----------------|-----------|------------|---------------|---------------|
| Equipment                             | Manufacturer    | Model No. | Serial No. | Last Cal.     | Due Date      |
| EMI Test Receiver                     | ROHDE & SCHWARZ | ESR3      | 101961     | Oct. 13, 2023 | Oct. 12, 2024 |
| Two-Line V-Network                    | ROHDE & SCHWARZ | ENV216    | 101983     | Oct. 13, 2023 | Oct. 12, 2024 |
| Test Software for Conducted Emission  | Farad           | EZ-EMC    | Ver.UL-3A1 | N/A           | N/A           |

| Test Equipment of Radiated Emissions (30MHz~1000MHz) |              |           |            |               |               |
|------------------------------------------------------|--------------|-----------|------------|---------------|---------------|
| Equipment                                            | Manufacturer | Model No. | Serial No. | Last Cal.     | Due Date      |
| Hybrid Log Periodic Antenna                          | TDK          | HLP-3003C | 130960     | Jun. 28, 2024 | Jun. 27, 2027 |
| MXE EMI Receiver                                     | KEYSIGHT     | N9038A    | MY56400036 | Oct. 12, 2023 | Oct. 11, 2024 |
| Amplifier                                            | HP           | 8447F     | 2944A03683 | Oct. 12, 2023 | Oct. 11, 2024 |
| Test Software for Radiated Emission                  | Farad        | EZ-EMC    | Ver.UL-3A1 | N/A           | N/A           |

| Test Equipment of Radiated Emissions (1GHz~25GHz) |                 |            |               |               |               |
|---------------------------------------------------|-----------------|------------|---------------|---------------|---------------|
| Equipment                                         | Manufacturer    | Model No.  | Serial No.    | Last Cal.     | Due Date      |
| EMI Measurement Receiver                          | ROHDE & SCHWARZ | ESR26      | 101377        | Oct. 12, 2023 | Oct. 11, 2024 |
| Preamplifier                                      | TDK             | PA-02-0118 | TRS-305-00067 | Oct. 12, 2023 | Oct. 11, 2024 |
| Preamplifier                                      | TDK             | PA-02-2    | TRS-307-00003 | Oct. 12, 2023 | Oct. 11, 2024 |
| Horn Antenna                                      | TDK             | HRN-0118   | 130939        | Apr. 29, 2022 | Apr. 28, 2025 |
| High Gain Horn Antenna                            | Schwarzbeck     | BBHA-9170  | 697           | Jun. 30, 2024 | Jun. 29, 2027 |
| Test Software for Radiated Emission               | Farad           | EZ-EMC     | Ver.UL-3A1    | N/A           | N/A           |

| Test Equipment of Operating Frequency |                 |            |               |               |               |
|---------------------------------------|-----------------|------------|---------------|---------------|---------------|
| Equipment                             | Manufacturer    | Model No.  | Serial No.    | Last Cal.     | Due Date      |
| EMI Measurement Receiver              | ROHDE & SCHWARZ | ESR26      | 101377        | Oct. 12, 2023 | Oct. 11, 2024 |
| Preamplifier                          | TDK             | PA-02-0118 | TRS-305-00067 | Oct. 12, 2023 | Oct. 11, 2024 |
| Horn Antenna                          | TDK             | HRN-0118   | 130939        | Apr. 29, 2022 | Apr. 28, 2025 |
| Test Software for Radiated Emission   | Farad           | EZ-EMC     | Ver.UL-3A1    | N/A           | N/A           |

| Test Equipment of Input Power |              |            |            |             |             |
|-------------------------------|--------------|------------|------------|-------------|-------------|
| Equipment                     | Manufacturer | Model No.  | Serial No. | Last Cal.   | Due Date    |
| Signal Conditioning Unit      | TESEQ        | CCN 1000-1 | 1544A00611 | Dec.03,2023 | Dec.02,2024 |
| 5K VA AC Power Source         | TESEQ        | NSG 1007   | 1616A00637 | Dec.03,2023 | Dec.02,2024 |

| Radiation Hazard |              |                |            |               |               |
|------------------|--------------|----------------|------------|---------------|---------------|
| Equipment        | Manufacturer | Model No.      | Serial No. | Last Cal.     | Due Date      |
| Electric Field   | LTLUTRON     | EMF-819/EP-05H | I.508502   | Oct. 23, 2023 | Oct. 22, 2024 |

| Output Power Measurement |                 |           |            |               |               |
|--------------------------|-----------------|-----------|------------|---------------|---------------|
| Equipment                | Manufacturer    | Model No. | Serial No. | Last Cal.     | Due Date      |
| Probe Thermometer        | Control Company | 4242      | 150709653  | Oct. 12, 2023 | Oct. 11, 2024 |

| Other Instrument           |              |           |            |              |              |
|----------------------------|--------------|-----------|------------|--------------|--------------|
| Equipment                  | Manufacturer | Model No. | Serial No. | Last Cal.    | Due Date     |
| Temperature humidity probe | OMEGA        | ITHX-SD-5 | 18470007   | Oct.21, 2023 | Oct.20, 2024 |
| Barometer                  | Yiyi         | Baro      | N/A        | Oct.19, 2023 | Oct.18, 2024 |
| Attenuator                 | Agilent      | 8495B     | 2814a12853 | Oct.12, 2023 | Oct.11, 2024 |

## 7. EMISSION TEST

### 7.1. CONDUCTED EMISSIONS

#### LIMITS

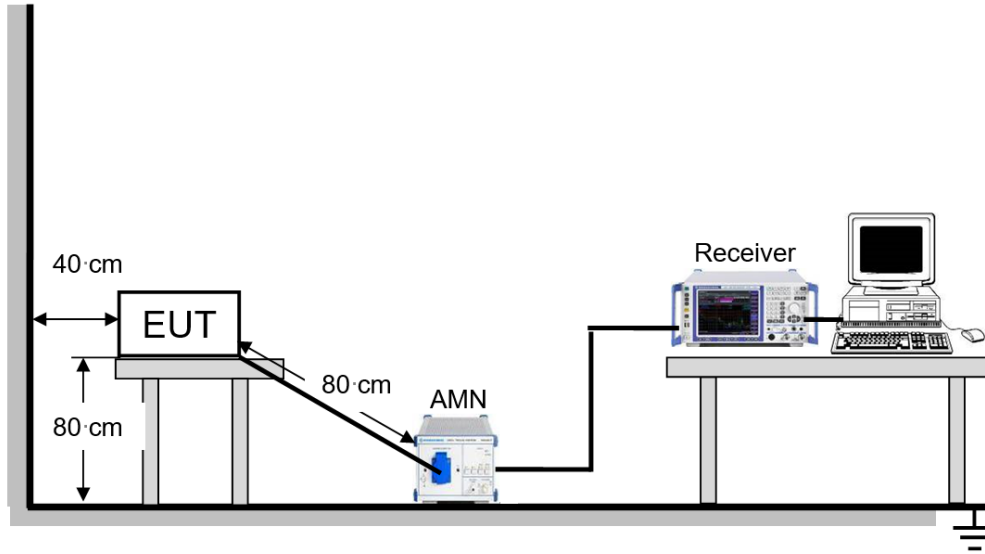
| Frequency of emission (MHz) | Conducted limit (dB $\mu$ V) |           |
|-----------------------------|------------------------------|-----------|
|                             | Quasi-peak                   | Average   |
| 0.15-0.5                    | 66 to 56*                    | 56 to 46* |
| 0.5-5                       | 56                           | 46        |
| 5-30                        | 60                           | 50        |

Note: \*Decreases with the logarithm of the frequency.

#### TEST PROCEDURE

- 1) The testing follows the guideline in FCC / OST MP-5.
- 2) The EUT was placed on a 0.8m insulating material from the horizontal ground plane with EUT being connected to the power mains through a Line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 3) Excess I/O cables shall be bundled in the center. If bundling is not possible, bundling shall not exceed 30 to 40 cm in length.
- 4) Excess power cords shall be bundled in the center or shortened to appropriate length.
- 5) LISN at least 80 cm from nearest part of EUT.
- 6) For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs, For ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction thereof in excess of 1000 watts,  
A 700 milliliters of water in the beaker located in the center of the oven.
- 7) Conducted emissions from the EUT measured in the frequency range between 0.15MHz and 30MHz using CISPR Quasi-Peak and average detector mode, Resolution bandwidth set 9kHz.

### TEST SETUP



### TEST ENVIRONMENT

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 25.7°C | Relative Humidity | 58.1% |
| Atmosphere Pressure | 101kPa |                   |       |

### TEST DATE / ENGINEER

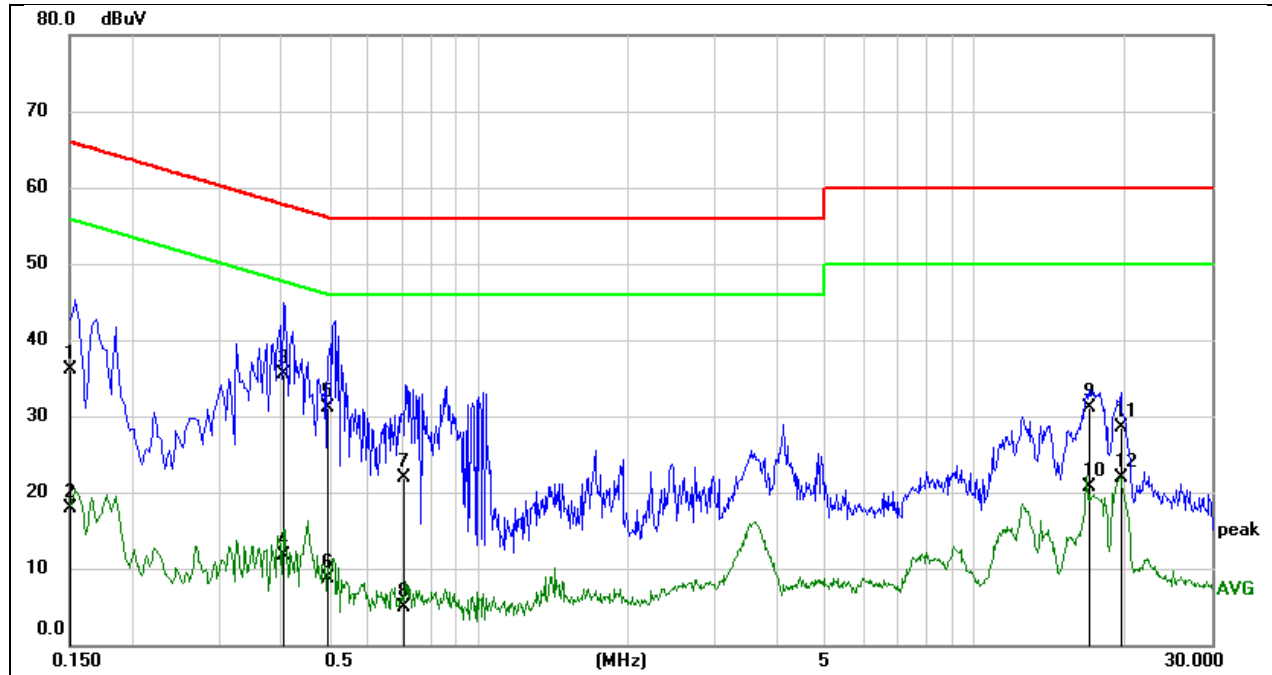
|           |              |         |         |
|-----------|--------------|---------|---------|
| Test Date | July 4, 2024 | Test By | Karl Wu |
|-----------|--------------|---------|---------|

### TEST MODE

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M02 |
| Final Test Mode: | M02 |

## TEST RESULTS

|               |              |       |      |
|---------------|--------------|-------|------|
| Test Mode:    | M02          | Line: | Line |
| Test Voltage: | AC 120V_60Hz |       |      |



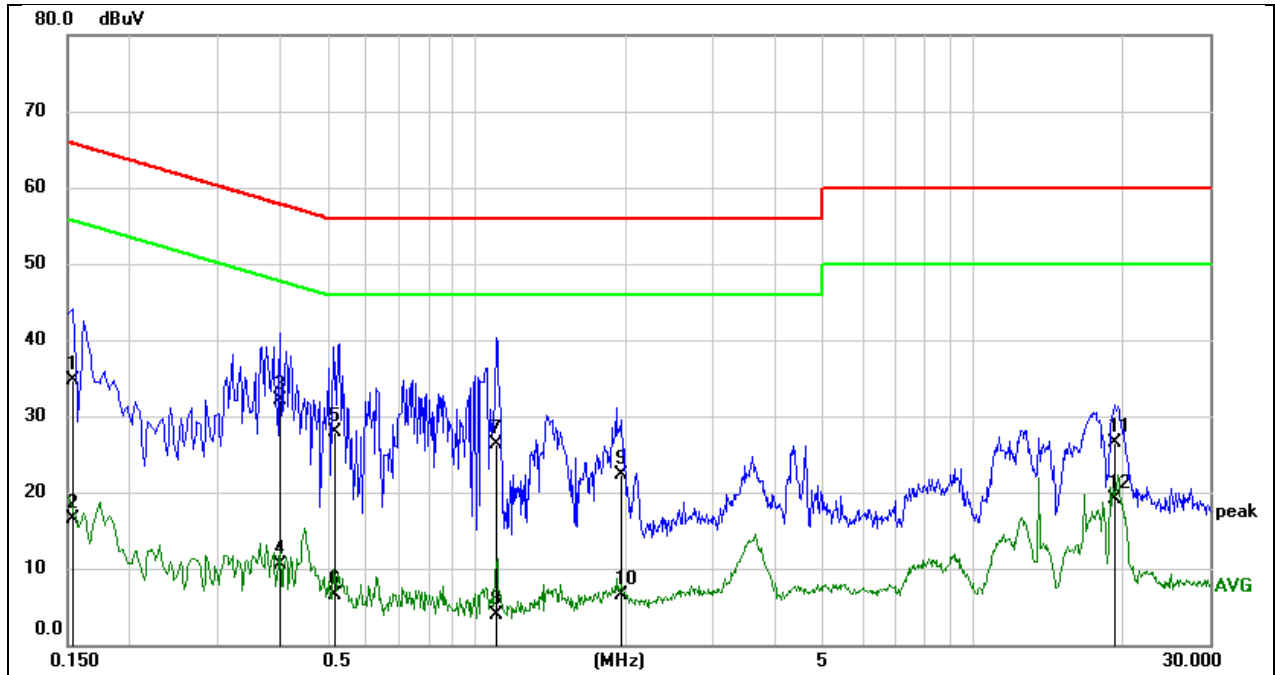
| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|-----|-----------------|----------------|--------------|---------------|--------------|-------------|--------|
| 1   | 0.1500          | 25.86          | 10.34        | 36.20         | 66.00        | -29.80      | QP     |
| 2   | 0.1500          | 7.66           | 10.34        | 18.00         | 56.00        | -38.00      | AVG    |
| 3   | 0.4047          | 25.18          | 10.24        | 35.42         | 57.76        | -22.34      | QP     |
| 4   | 0.4047          | 1.45           | 10.24        | 11.69         | 47.76        | -36.07      | AVG    |
| 5   | 0.4946          | 20.84          | 10.24        | 31.08         | 56.09        | -25.01      | QP     |
| 6   | 0.4946          | -1.55          | 10.24        | 8.69          | 46.09        | -37.40      | AVG    |
| 7   | 0.7089          | 11.63          | 10.22        | 21.85         | 56.00        | -34.15      | QP     |
| 8   | 0.7089          | -5.27          | 10.22        | 4.95          | 46.00        | -41.05      | AVG    |
| 9   | 16.9571         | 20.44          | 10.66        | 31.10         | 60.00        | -28.90      | QP     |
| 10  | 16.9571         | 10.09          | 10.66        | 20.75         | 50.00        | -29.25      | AVG    |
| 11  | 19.7087         | 17.62          | 10.82        | 28.44         | 60.00        | -31.56      | QP     |
| 12  | 19.7087         | 11.18          | 10.82        | 22.00         | 50.00        | -28.00      | AVG    |

Remark:

Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit

|               |              |       |         |
|---------------|--------------|-------|---------|
| Test Mode:    | M02          | Line: | Neutral |
| Test Voltage: | AC 120V_60Hz |       |         |



| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB) | Result (dBuV) | Limit (dBuV) | Margin (dB) | Remark |
|-----|-----------------|----------------|--------------|---------------|--------------|-------------|--------|
| 1   | 0.1530          | 24.56          | 10.23        | 34.79         | 65.84        | -31.05      | QP     |
| 2   | 0.1530          | 6.22           | 10.23        | 16.45         | 55.84        | -39.39      | AVG    |
| 3   | 0.4052          | 21.95          | 10.07        | 32.02         | 57.75        | -25.73      | QP     |
| 4   | 0.4052          | 0.35           | 10.07        | 10.42         | 47.75        | -37.33      | AVG    |
| 5   | 0.5192          | 17.91          | 10.04        | 27.95         | 56.00        | -28.05      | QP     |
| 6   | 0.5192          | -3.54          | 10.04        | 6.50          | 46.00        | -39.50      | AVG    |
| 7   | 1.1010          | 16.51          | 9.85         | 26.36         | 56.00        | -29.64      | QP     |
| 8   | 1.1010          | -5.91          | 9.85         | 3.94          | 46.00        | -42.06      | AVG    |
| 9   | 1.9669          | 12.23          | 10.03        | 22.26         | 56.00        | -33.74      | QP     |
| 10  | 1.9669          | -3.49          | 10.03        | 6.54          | 46.00        | -39.46      | AVG    |
| 11  | 19.3723         | 15.69          | 10.90        | 26.59         | 60.00        | -33.41      | QP     |
| 12  | 19.3723         | 8.19           | 10.90        | 19.09         | 50.00        | -30.91      | AVG    |

Remark:

Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)

Margin = Result - Limit

## 7.2. RADIATED EMISSIONS (30MHZ~1000MHZ)

### LIMITS

- ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.
- The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

| Equipment                                           | Operating frequency | RF Power generated by equipment (watts) | Field strength limit (uV/m)               | Distance (meters) |
|-----------------------------------------------------|---------------------|-----------------------------------------|-------------------------------------------|-------------------|
| Any type unless otherwise specified (miscellaneous) | Any ISM frequency   | Below 500                               | 25                                        | 300               |
|                                                     |                     | 500 or more                             | $25 \times \text{SQRT}(\text{power}/500)$ | <sup>1</sup> 300* |

<sup>1</sup>Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

Note: (1). dBuV/m = 20log(uV/m)

(2). dBuV/m @3m = dBuV/m @300m + 20log(300m/3m)

- Frequency range for field strength measurements:

| Frequency band in which device operates (MHz) | Range of frequency measurements                                         |                                                   |
|-----------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|
|                                               | Lowest frequency                                                        | Highest frequency                                 |
| Below 1.705                                   | Lowest frequency generated in the device, but not lower than 9 kHz      | 30 MHz.                                           |
| 1.705 to 30                                   | Lowest frequency generated in the device, but not lower than 9 kHz      | 400 MHz.                                          |
| 30 to 500                                     | Lowest frequency generated in the device or 25 MHz, whichever is lower  | Tenth harmonic or 1,000 MHz, whichever is higher. |
| 500 to 1,000                                  | Lowest frequency generated in the device or 100 MHz, whichever is lower | Tenth harmonic.                                   |
| Above 1,000                                   | .....do                                                                 | Tenth harmonic or highest detectable emission.    |

### TEST PROCEDURE

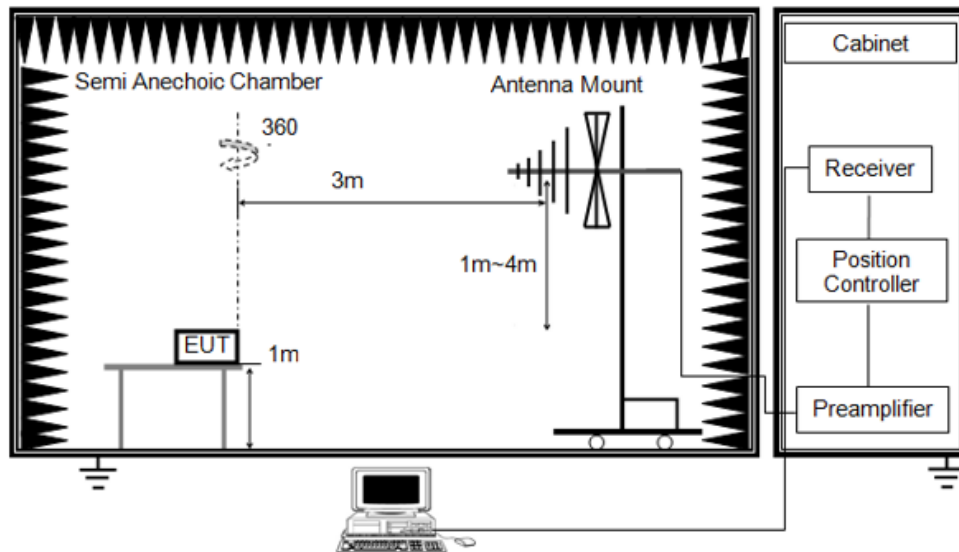
- The testing follows the guidelines in FCC / OST MP-5.
- The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The EUT was placed on a turntable with 1m meter above ground.
- The EUT was set 3 meters from the interference receiving antenna, test antenna mast is remotely controlled and can be varied in height form 1m to 4m.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

- 7) For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs, For ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction thereof in excess of 1000 watts,
- Load for measurement of radiation on second and third harmonic; Two loads, one of 700ml and the other of 300ml, of water are used. Each load is tested both with the beaker located in the center of the oven and with it in the right front corner.
  - All other emissions were measured while a 700ml water load was placed in the center of the oven.
- 8) The setting of the spectrum analyser

|          |                  |
|----------|------------------|
| RBW      | 100kHz           |
| VBW      | 300kHz           |
| Detector | Peak / Average # |

Note: # Peak for pre-scan, average for the final result.

### TEST SETUP



### TEST ENVIRONMENT

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 22.4°C | Relative Humidity | 55.8% |
| Atmosphere Pressure | 101kPa |                   |       |

### TEST DATE / ENGINEER

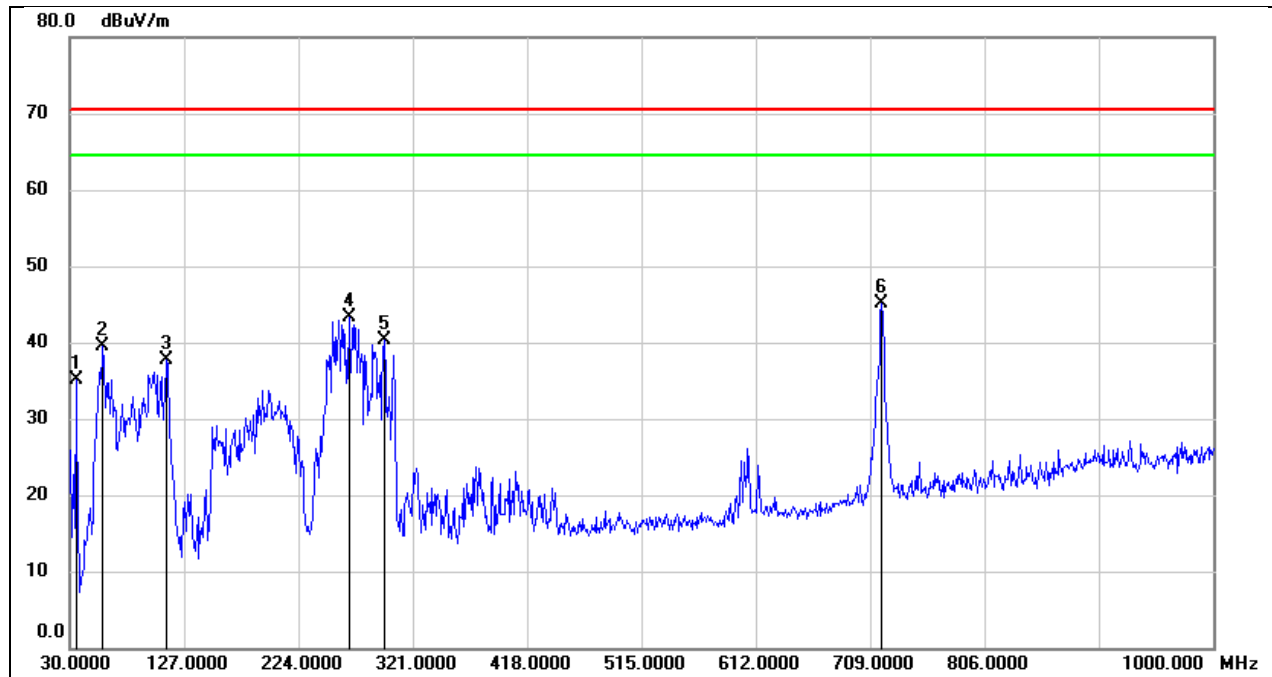
|           |              |         |            |
|-----------|--------------|---------|------------|
| Test Date | July 5, 2024 | Test By | Deacon Tan |
|-----------|--------------|---------|------------|

### TEST MODE

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M02 |
| Final Test Mode: | M02 |

## TEST RESULTS

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M02          | Polarity: | Horizontal |
| Test Voltage: | AC 120V_60Hz |           |            |

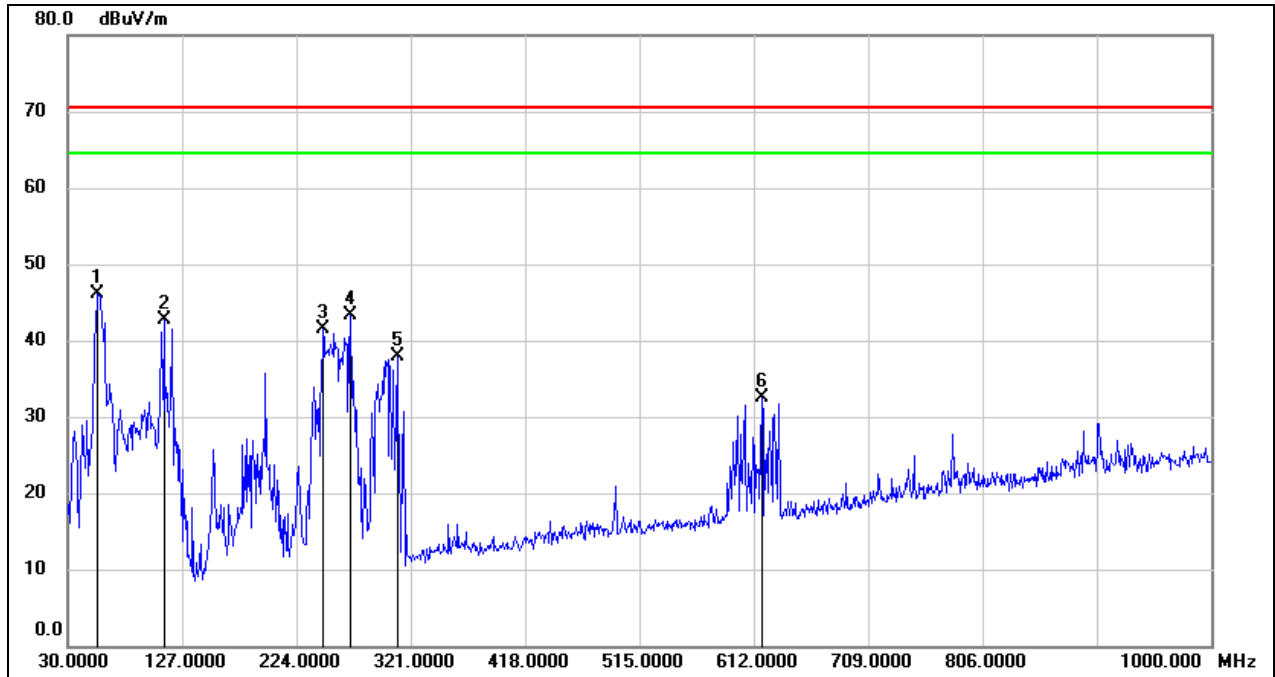


| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------|--------------------|-------------------|----------------|--------|
| 1   | 35.8200            | 49.97             | -14.88            | 35.09              | 70.46             | -35.37         | AVG    |
| 2   | 58.1300            | 54.78             | -15.23            | 39.55              | 70.46             | -30.91         | AVG    |
| 3   | 112.4500           | 53.11             | -15.32            | 37.79              | 70.46             | -32.67         | AVG    |
| 4   | 266.6800           | 56.86             | -13.55            | 43.31              | 70.46             | -27.15         | AVG    |
| 5   | 296.7500           | 52.00             | -11.70            | 40.30              | 70.46             | -30.16         | AVG    |
| 6   | 718.7000           | 49.42             | -4.28             | 45.14              | 70.46             | -25.32         | AVG    |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M02          | Polarity: | Vertical |
| Test Voltage: | AC 120V_60Hz |           |          |



| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|-----|--------------------|-------------------|-------------------|--------------------|-------------------|----------------|--------|
| 1   | 55.2200            | 61.38             | -15.37            | 46.01              | 70.46             | -24.45         | AVG    |
| 2   | 111.4800           | 58.04             | -15.36            | 42.68              | 70.46             | -27.78         | AVG    |
| 3   | 246.3100           | 55.88             | -14.38            | 41.50              | 70.46             | -28.96         | AVG    |
| 4   | 269.5900           | 56.71             | -13.36            | 43.35              | 70.46             | -27.11         | AVG    |
| 5   | 309.3599           | 49.05             | -11.14            | 37.91              | 70.46             | -32.55         | AVG    |
| 6   | 618.7900           | 38.74             | -6.21             | 32.53              | 70.46             | -37.93         | AVG    |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

2. Margin = Result - Limit

### 7.3. RADIATED EMISSIONS (1GHZ~25GHZ)

#### LIMITS

- ISM equipment operating on a frequency specified in §18.301 is permitted unlimited radiated energy in the band specified for that frequency.
- The field strength levels of emissions which lie outside the bands specified in §18.301, unless otherwise indicated, shall not exceed the following:

| Equipment                                           | Operating frequency | RF Power generated by equipment (watts) | Field strength limit (uV/m)               | Distance (meters) |
|-----------------------------------------------------|---------------------|-----------------------------------------|-------------------------------------------|-------------------|
| Any type unless otherwise specified (miscellaneous) | Any ISM frequency   | Below 500                               | 25                                        | 300               |
|                                                     |                     | 500 or more                             | $25 \times \text{SQRT}(\text{power}/500)$ | <sup>1</sup> 300* |

<sup>1</sup>Field strength may not exceed 10 µV/m at 1600 meters. Consumer equipment operating below 1000 MHz is not permitted the increase in field strength otherwise permitted here for power over 500 watts.

Note: (1). dBuV/m = 20log(uV/m)

(2). dBuV/m @3m = dBuV/m @300m + 20log(300m/3m)

- Frequency range for field strength measurements:

| Frequency band in which device operates (MHz) | Range of frequency measurements                                         |                                                   |
|-----------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|
|                                               | Lowest frequency                                                        | Highest frequency                                 |
| Below 1.705                                   | Lowest frequency generated in the device, but not lower than 9 kHz      | 30 MHz.                                           |
| 1.705 to 30                                   | Lowest frequency generated in the device, but not lower than 9 kHz      | 400 MHz.                                          |
| 30 to 500                                     | Lowest frequency generated in the device or 25 MHz, whichever is lower  | Tenth harmonic or 1,000 MHz, whichever is higher. |
| 500 to 1,000                                  | Lowest frequency generated in the device or 100 MHz, whichever is lower | Tenth harmonic.                                   |
| Above 1,000                                   | .....do                                                                 | Tenth harmonic or highest detectable emission.    |

#### TEST PROCEDURE

- The testing follows the guidelines in FCC / OST MP-5.
- The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The EUT was placed on a turntable with 1m meter above ground.
- The EUT was set 3 meters from the interference receiving antenna, test antenna mast is remotely controlled and can be varied in height form 1m to 4m.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

- |          |                             |
|----------|-----------------------------|
| RBW      | 1MHz                        |
| VBW      | 3MHz                        |
| Detector | Peak / Average <sup>#</sup> |

The diagram illustrates the experimental setup for measuring the radiation pattern of an EUT. The setup is contained within a Semi Anechoic Chamber. The EUT is placed on a table at a height of 1m. The distance between the EUT and the Antenna Mount is 3m. The Antenna Mount is at a height of 1m~4m. The Antenna Mount is connected to a Receiver, Position Controller, and Preamplifier, which are housed in a Cabinet. The Receiver is connected to the Position Controller, which is connected to the Preamplifier. The Preamplifier is connected to a computer. The Antenna Mount is rotated 360 degrees.

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 20.8°C | Relative Humidity | 59.1% |
| Atmosphere Pressure | 101kPa |                   |       |

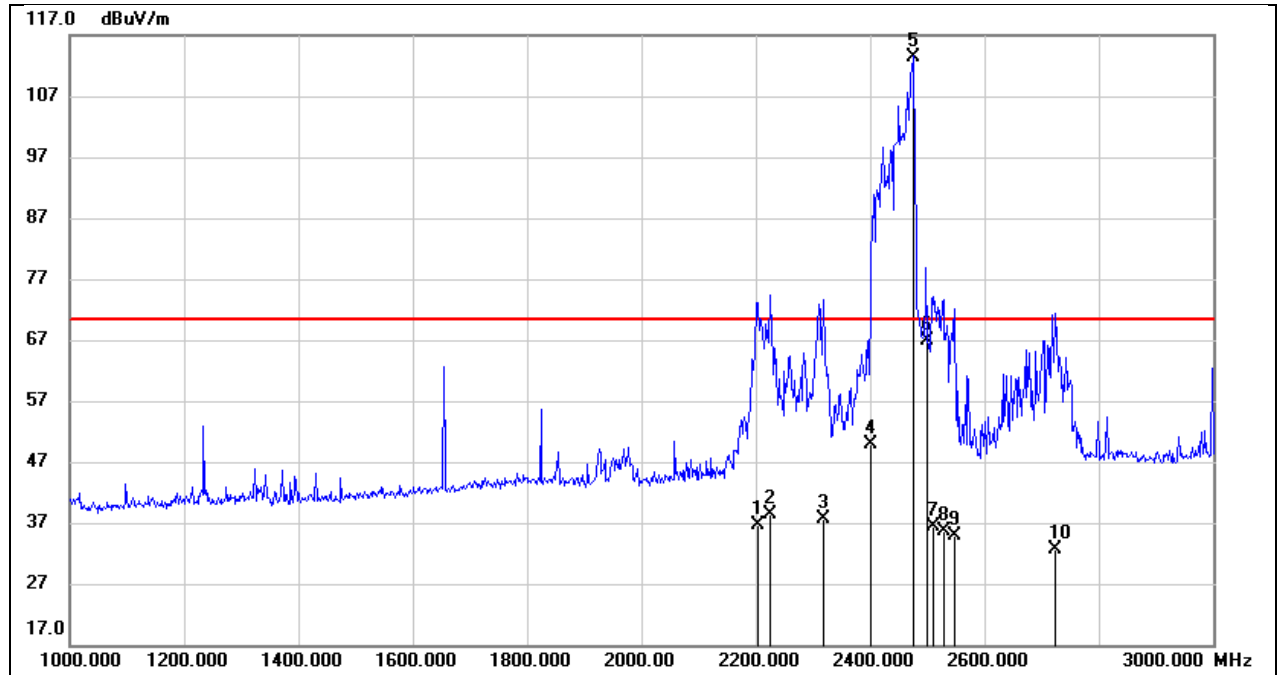
|           |              |         |            |
|-----------|--------------|---------|------------|
| Test Date | July 5, 2024 | Test By | Mason Wang |
|-----------|--------------|---------|------------|

|                  |           |
|------------------|-----------|
| Pre-test Mode:   | M02 ~ M05 |
| Final Test Mode: | M02, M04  |

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## TEST RESULTS

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M02          | Polarity: | Horizontal |
| Test Voltage: | AC 120V_60Hz |           |            |

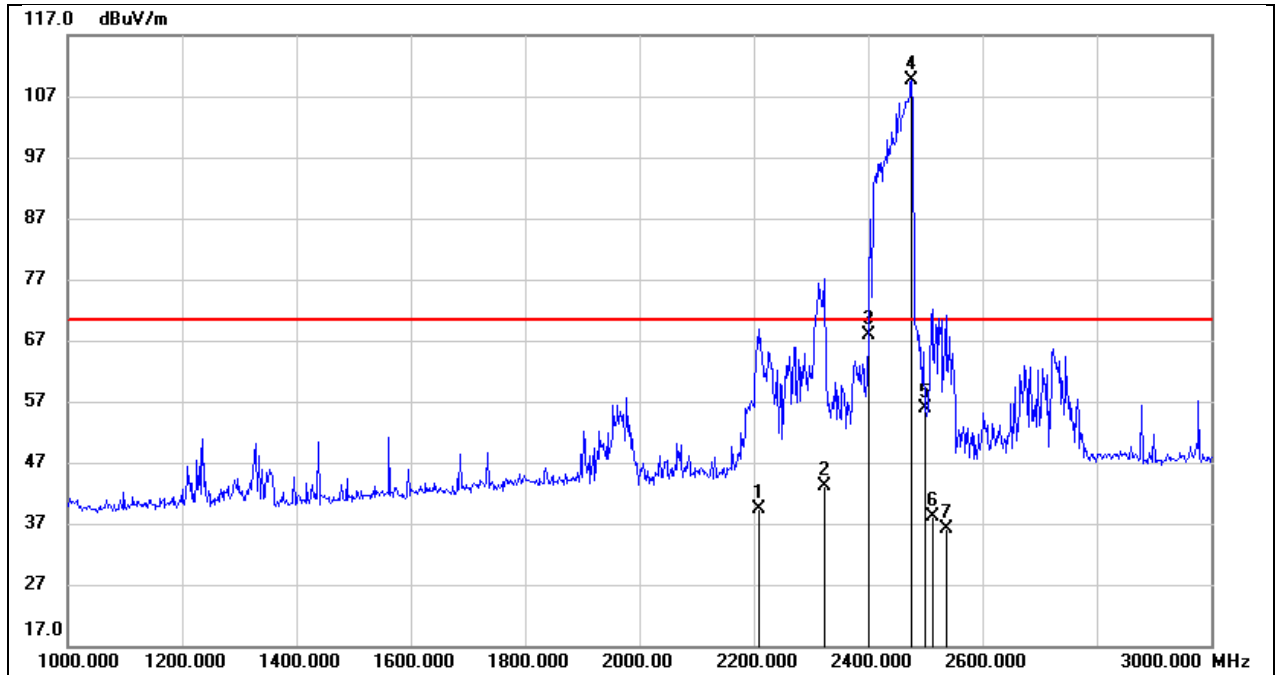


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark                  |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|-------------------------|
| 1   | 2204.000        | 4.80           | 31.90          | 36.70           | 70.46          | -33.76      | AVG                     |
| 2   | 2224.000        | 6.39           | 32.01          | 38.40           | 70.46          | -32.06      | AVG                     |
| 3   | 2318.000        | 5.07           | 32.53          | 37.60           | 70.46          | -32.86      | AVG                     |
| 4   | 2400.000        | 16.92          | 32.98          | 49.90           | /              | /           | exempted frequency band |
| 5   | 2476.000        | 80.56          | 32.94          | 113.50          | /              | /           | exempted frequency band |
| 6   | 2500.000        | 33.87          | 32.93          | 66.80           | /              | /           | exempted frequency band |
| 7   | 2510.000        | 3.38           | 32.92          | 36.30           | 70.46          | -34.16      | AVG                     |
| 8   | 2528.000        | 2.81           | 32.89          | 35.70           | 70.46          | -34.76      | AVG                     |
| 9   | 2548.000        | 2.03           | 32.87          | 34.90           | 70.46          | -35.56      | AVG                     |
| 10  | 2724.000        | -0.53          | 33.23          | 32.70           | 70.46          | -37.76      | AVG                     |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M02          | Polarity: | Vertical |
| Test Voltage: | AC 120V_60Hz |           |          |

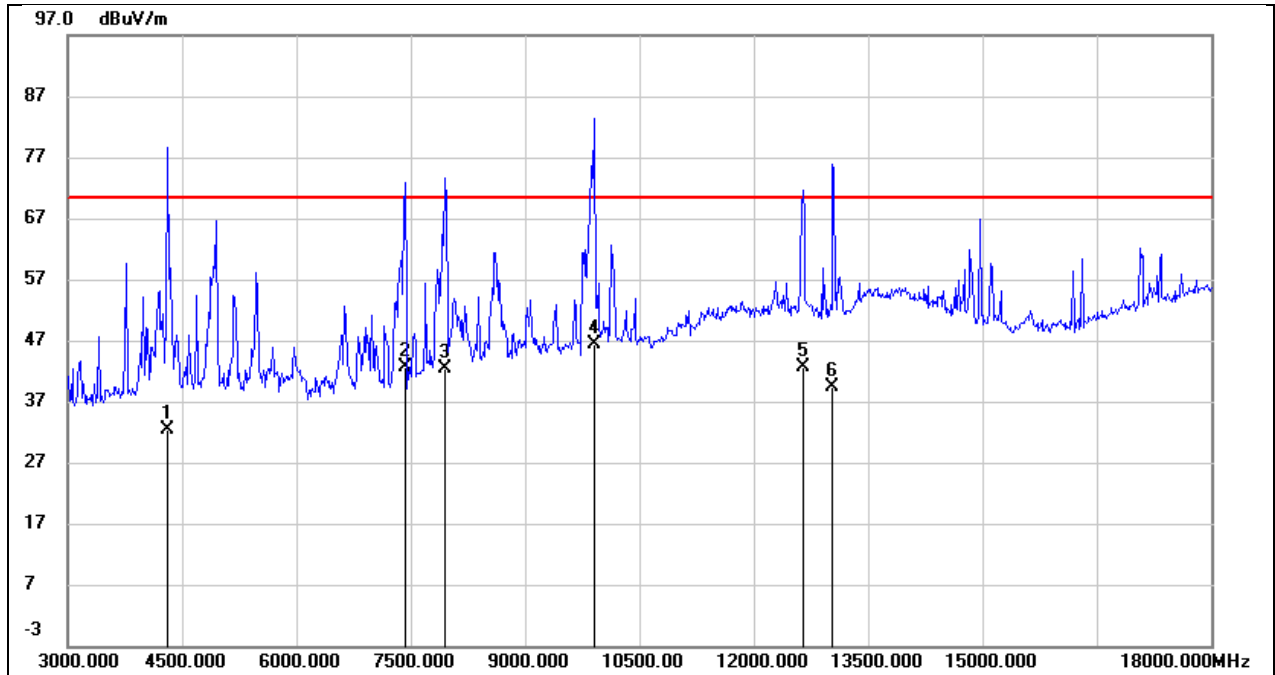


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark                  |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|-------------------------|
| 1   | 2210.000        | 7.46           | 31.94          | 39.40           | 70.46          | -31.06      | AVG                     |
| 2   | 2324.000        | 10.64          | 32.56          | 43.20           | 70.46          | -27.26      | AVG                     |
| 3   | 2400.000        | 34.83          | 32.98          | 67.81           | /              | /           | exempted frequency band |
| 4   | 2476.000        | 76.63          | 32.94          | 109.57          | /              | /           | exempted frequency band |
| 5   | 2500.000        | 23.02          | 32.93          | 55.95           | /              | /           | exempted frequency band |
| 6   | 2512.000        | 5.29           | 32.91          | 38.20           | 70.46          | -32.26      | AVG                     |
| 7   | 2536.000        | 3.22           | 32.88          | 36.10           | 70.46          | -34.36      | AVG                     |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M02          | Polarity: | Horizontal |
| Test Voltage: | AC 120V_60Hz |           |            |

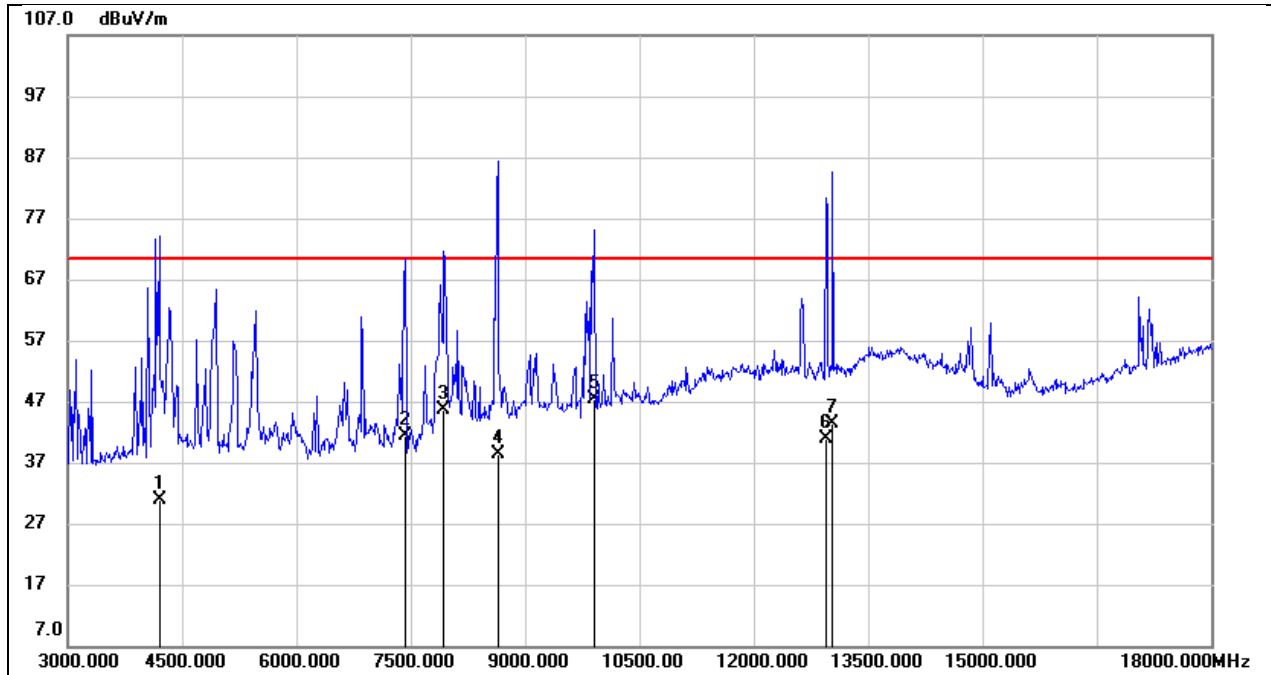


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 4305.000        | 33.57          | -1.27          | 32.30           | 70.46          | -38.16      | AVG    |
| 2   | 7425.000        | 35.31          | 7.39           | 42.70           | 70.46          | -27.76      | AVG    |
| 3   | 7950.000        | 35.27          | 7.13           | 42.40           | 70.46          | -28.06      | AVG    |
| 4   | 9915.000        | 34.22          | 12.08          | 46.30           | 70.46          | -24.16      | AVG    |
| 5   | 12645.000       | 24.26          | 18.44          | 42.70           | 70.46          | -27.76      | AVG    |
| 6   | 13035.000       | 20.03          | 19.27          | 39.30           | 70.46          | -31.16      | AVG    |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M02          | Polarity: | Vertical |
| Test Voltage: | AC 120V_60Hz |           |          |

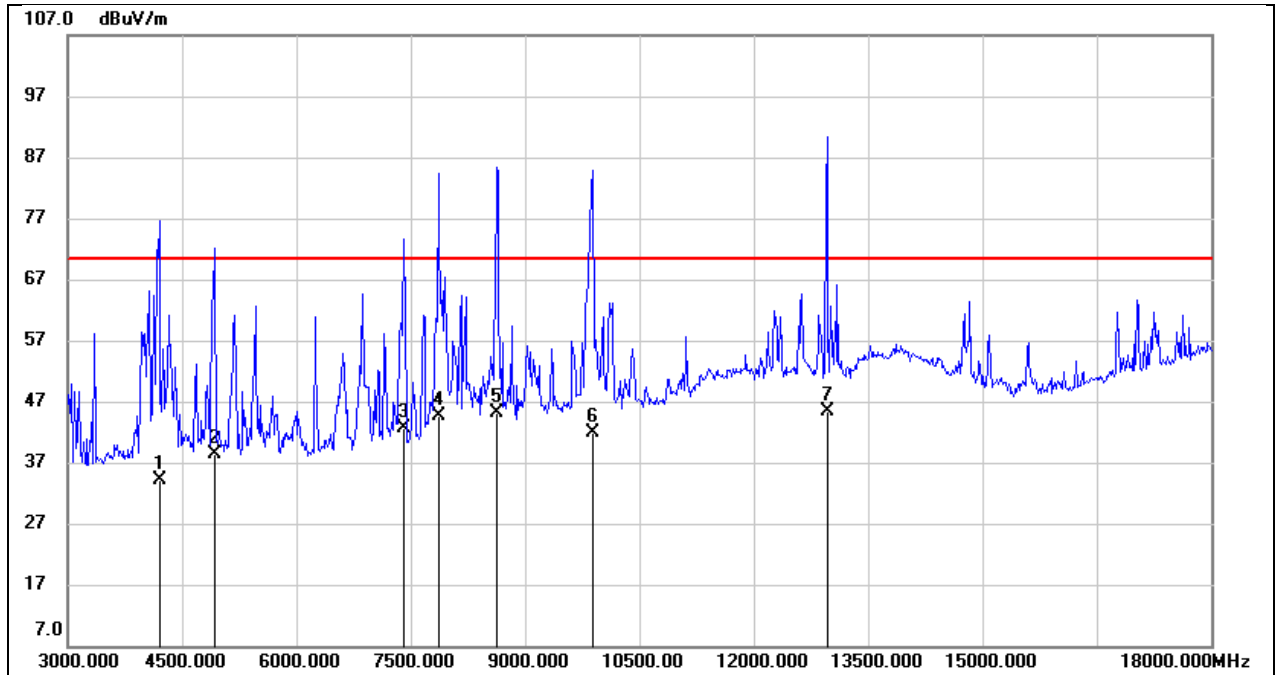


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 4200.000        | 32.37          | -1.57          | 30.80           | 70.46          | -39.66      | AVG    |
| 2   | 7425.000        | 33.91          | 7.39           | 41.30           | 70.46          | -29.16      | AVG    |
| 3   | 7935.000        | 38.53          | 7.17           | 45.70           | 70.46          | -24.76      | AVG    |
| 4   | 8640.000        | 29.63          | 8.67           | 38.30           | 70.46          | -32.16      | AVG    |
| 5   | 9900.000        | 35.40          | 12.00          | 47.40           | 70.46          | -23.06      | AVG    |
| 6   | 12945.000       | 21.73          | 19.07          | 40.80           | 70.46          | -29.66      | AVG    |
| 7   | 13035.000       | 24.23          | 19.27          | 43.50           | 70.46          | -26.96      | AVG    |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M04          | Polarity: | Horizontal |
| Test Voltage: | AC 120V_60Hz |           |            |

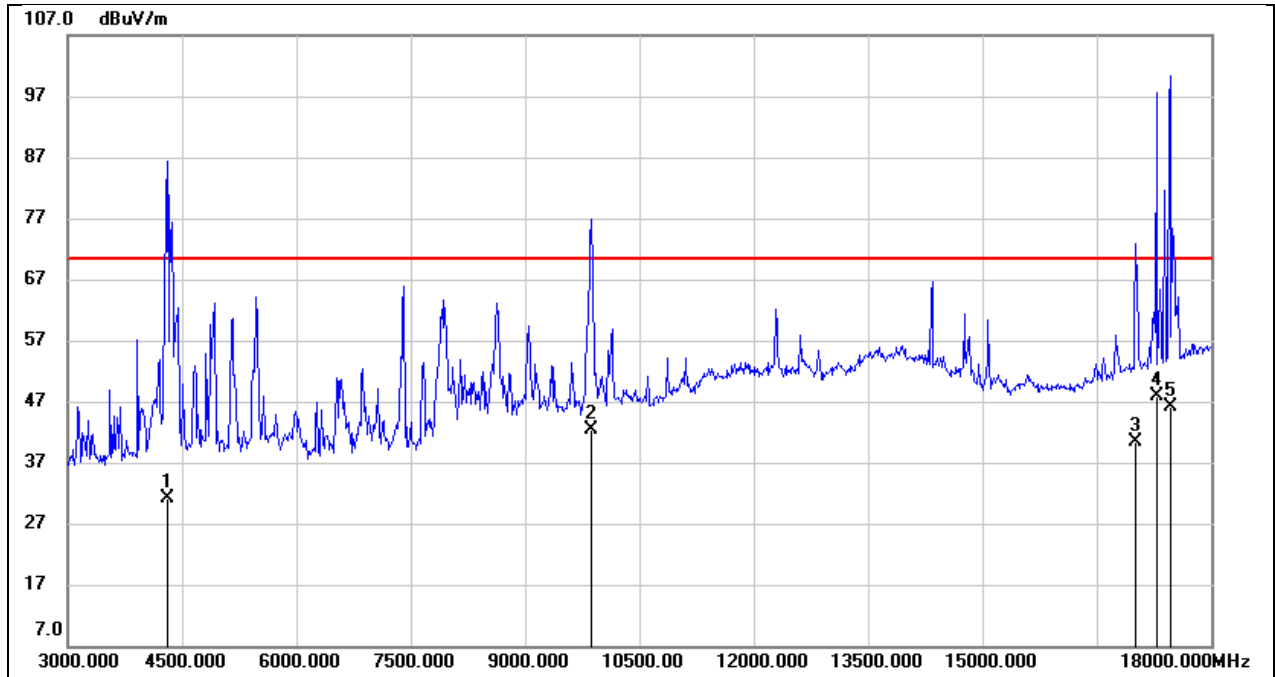


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 4200.000        | 35.67          | -1.57          | 34.10           | 70.46          | -36.36      | AVG    |
| 2   | 4920.000        | 37.61          | 0.69           | 38.30           | 70.46          | -32.16      | AVG    |
| 3   | 7410.000        | 35.27          | 7.43           | 42.70           | 70.46          | -27.76      | AVG    |
| 4   | 7860.000        | 37.23          | 7.37           | 44.60           | 70.46          | -25.86      | AVG    |
| 5   | 8625.000        | 36.50          | 8.70           | 45.20           | 70.46          | -25.26      | AVG    |
| 6   | 9885.000        | 29.88          | 11.92          | 41.80           | 70.46          | -28.66      | AVG    |
| 7   | 12960.000       | 26.43          | 19.07          | 45.50           | 70.46          | -24.96      | AVG    |

Remark:

1. Result = Reading + Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M04          | Polarity: | Vertical |
| Test Voltage: | AC 120V_60Hz |           |          |

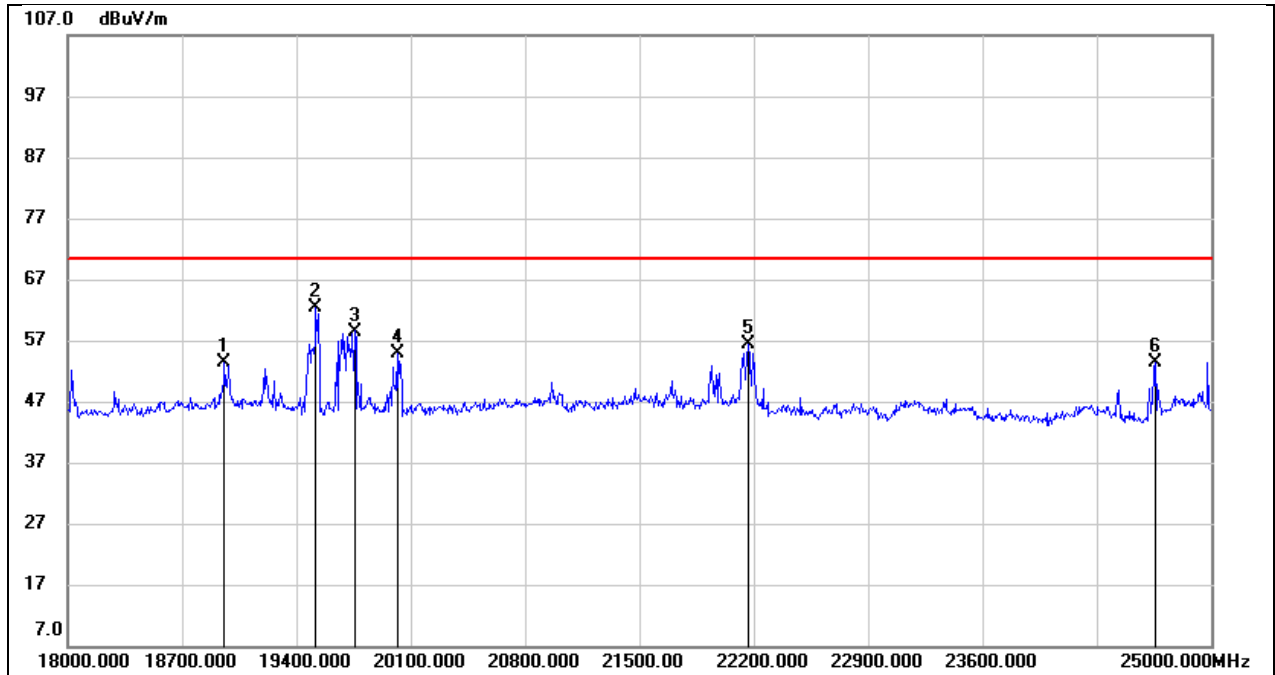


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 4305.000        | 32.47          | -1.27          | 31.20           | 70.46          | -39.26      | AVG    |
| 2   | 9870.000        | 30.64          | 11.86          | 42.50           | 70.46          | -27.96      | AVG    |
| 3   | 17010.000       | 18.65          | 21.65          | 40.30           | 70.46          | -30.16      | AVG    |
| 4   | 17280.000       | 24.64          | 23.16          | 47.80           | 70.46          | -22.66      | AVG    |
| 5   | 17460.000       | 22.47          | 23.63          | 46.10           | 70.46          | -24.36      | AVG    |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M02          | Polarity: | Horizontal |
| Test Voltage: | AC 120V_60Hz |           |            |

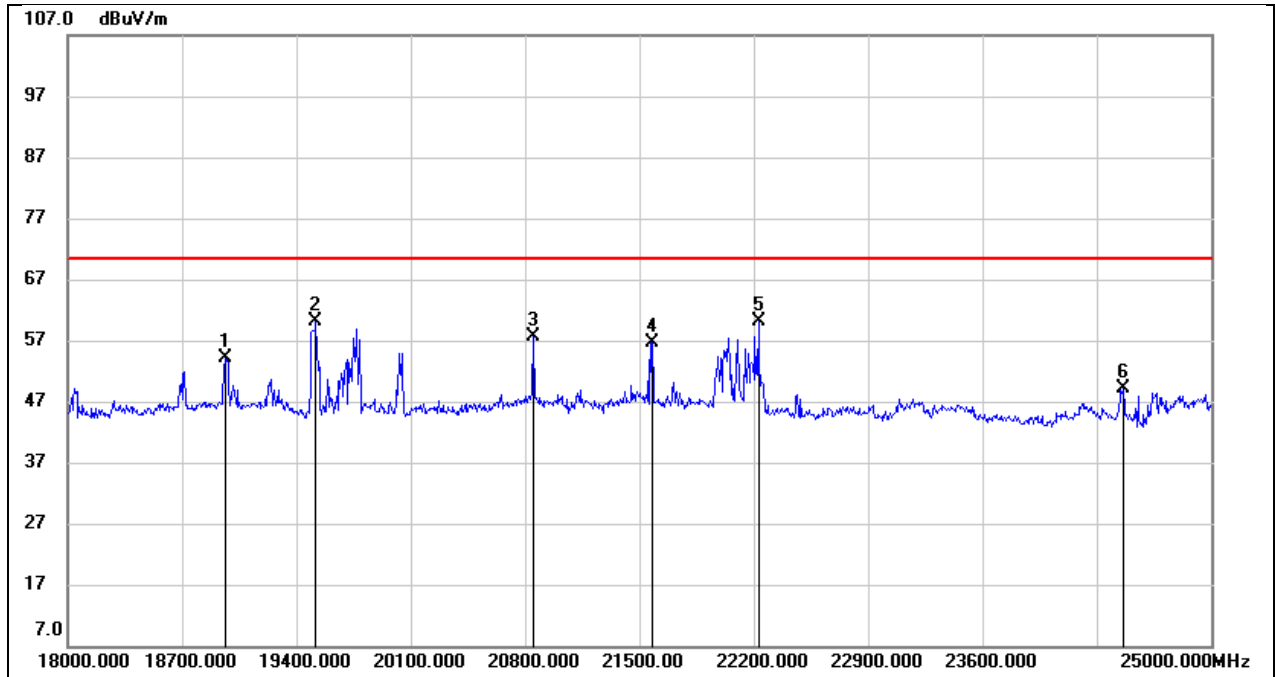


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 18959.000       | 55.61          | -2.22          | 53.39           | 70.46          | -17.07      | peak   |
| 2   | 19519.000       | 65.90          | -3.41          | 62.49           | 70.46          | -7.97       | peak   |
| 3   | 19757.000       | 62.03          | -3.53          | 58.50           | 70.46          | -11.96      | peak   |
| 4   | 20016.000       | 58.50          | -3.60          | 54.90           | 70.46          | -15.56      | peak   |
| 5   | 22165.000       | 58.15          | -1.79          | 56.36           | 70.46          | -14.10      | peak   |
| 6   | 24657.000       | 53.17          | 0.23           | 53.40           | 70.46          | -17.06      | peak   |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result – Limit
3. If the peak values are less than the average limit, the peak result is deemed to comply with average limit.

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M02          | Polarity: | Vertical |
| Test Voltage: | AC 120V_60Hz |           |          |



| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|--------|
| 1   | 18966.000       | 56.43          | -2.20          | 54.23           | 70.46          | -16.23      | peak   |
| 2   | 19519.000       | 63.53          | -3.41          | 60.12           | 70.46          | -10.34      | peak   |
| 3   | 20849.000       | 59.97          | -2.41          | 57.56           | 70.46          | -12.90      | peak   |
| 4   | 21577.000       | 58.61          | -1.94          | 56.67           | 70.46          | -13.79      | peak   |
| 5   | 22228.000       | 61.95          | -1.92          | 60.03           | 70.46          | -10.43      | peak   |
| 6   | 24461.000       | 49.49          | -0.47          | 49.02           | 70.46          | -21.44      | peak   |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result – Limit
3. If the peak values are less than the average limit, the peak result is deemed to comply with average limit.

## 7.4. OPERATING FREQUENCY

### LIMITS

2400MHz~2500MHz

### TEST PROCEDURE

The EUT was setup inside the Fully Anechoic chamber, and a double ridge horn antenna and spectrum analyzer were used to measure the fundamental frequency of the EUT.

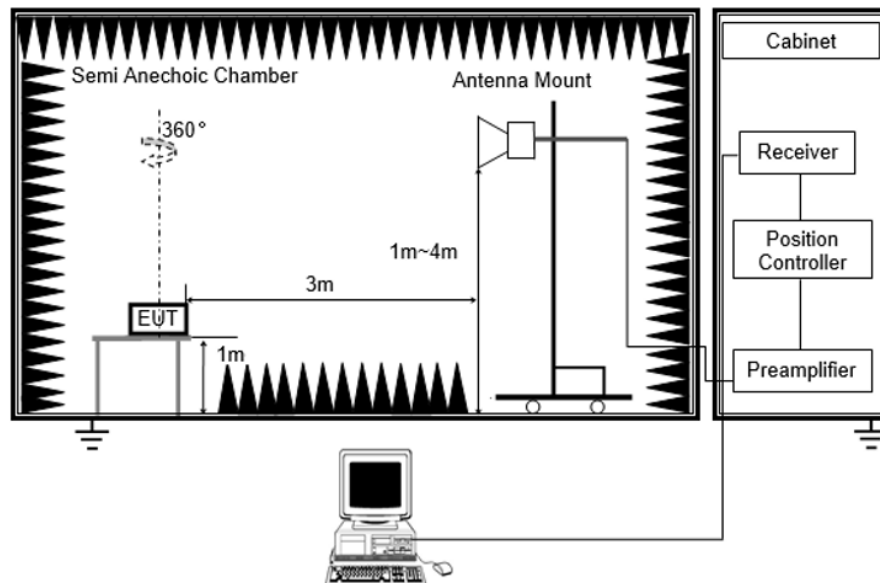
#### 1) FREQUENCY FOR NORMAL VOLTAGE

The operating frequency was measured using a spectrum analyzer. Starting with the EUT at room temperature, a 1000mL water load was placed in the center of the oven and the oven was operated at maximum output power. The fundamental operating frequency was monitored until the water load was reduced to 20 percent of the original load. This test is made with nominal rated ac supply voltage.

#### 2) FREQUENCY FOR LINE VOLTAGE

The EUT was operated / warmed by at least 10 minutes of use with a 1000 mL water load at room temperature at the beginning of the test. Then the operating frequency was monitored as the input voltage was varied between 80% and 125% of the nominal rating.

### TEST SETUP



**TEST ENVIRONMENT**

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 20.8°C | Relative Humidity | 58.3% |
| Atmosphere Pressure | 101kPa |                   |       |

**TEST DATE / ENGINEER**

|           |              |         |            |
|-----------|--------------|---------|------------|
| Test Date | July 5, 2024 | Test By | Mason Wang |
|-----------|--------------|---------|------------|

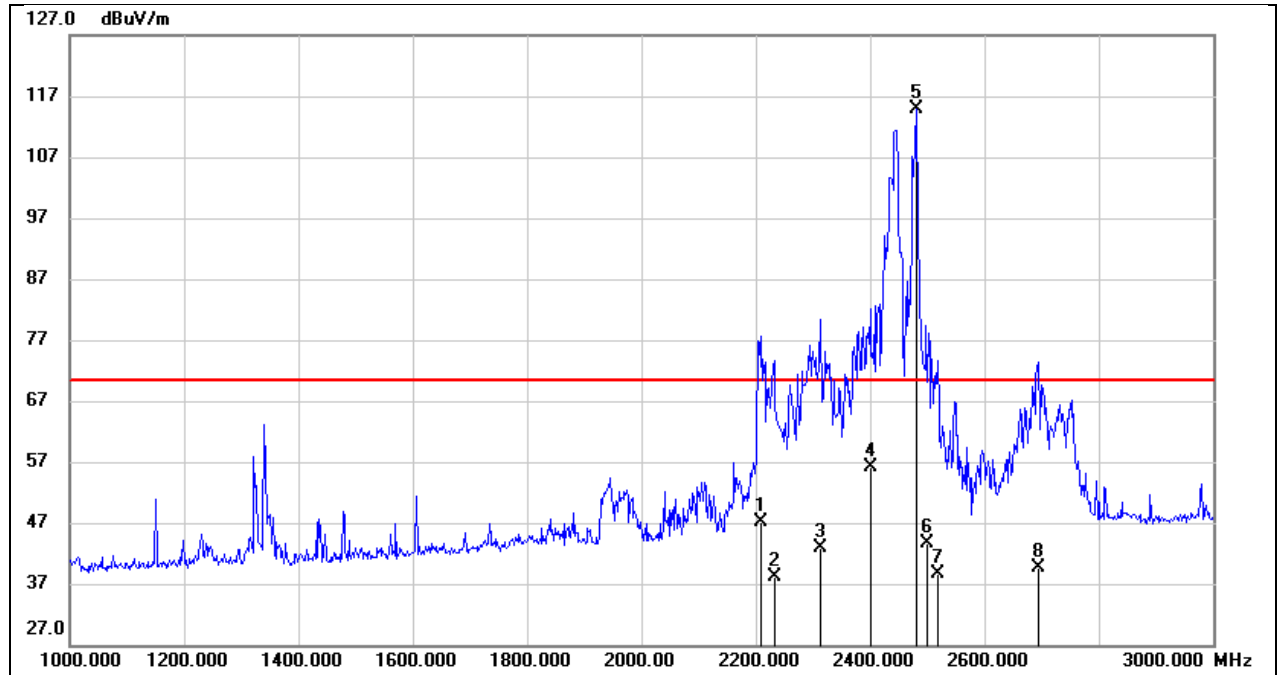
**TEST MODE**

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M01 |
| Final Test Mode: | M01 |

Note: 1. Only the worst volume of water was recorded in the report.  
2. Only the worst voltage of rated was recorded in the report.

## TEST RESULTS

|               |              |                  |            |
|---------------|--------------|------------------|------------|
| Test Mode:    | M01          | Polarity:        | Horizontal |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 1000mL     |



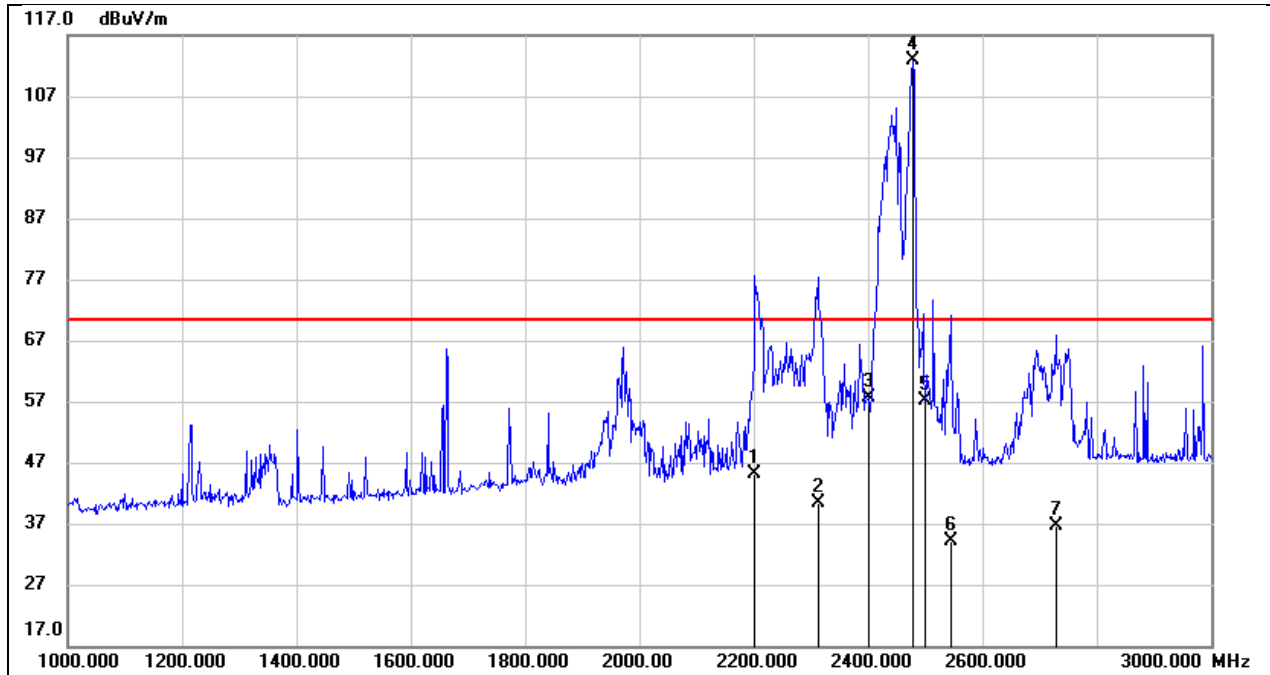
| No. | Frequency<br>(MHz) | Reading<br>(dBuV) | Correct<br>(dB/m) | Result<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark        |
|-----|--------------------|-------------------|-------------------|--------------------|-------------------|----------------|---------------|
| 1   | 2210.000           | 15.16             | 31.94             | 47.10              | 70.46             | -23.36         | AVG           |
| 2   | 2232.000           | 6.15              | 32.05             | 38.20              | 70.46             | -32.26         | AVG           |
| 3   | 2312.000           | 10.51             | 32.49             | 43.00              | 70.46             | -27.46         | AVG           |
| 4   | 2400.000           | 23.12             | 32.98             | 56.10              | /                 | /              | ISM frequency |
| 5   | 2480.000           | 81.92             | 32.94             | 114.86             | /                 | /              | ISM frequency |
| 6   | 2500.000           | 10.67             | 32.93             | 43.60              | /                 | /              | ISM frequency |
| 7   | 2518.000           | 5.80              | 32.90             | 38.70              | 70.46             | -31.76         | AVG           |
| 8   | 2694.000           | 6.47              | 33.13             | 39.60              | 70.46             | -30.86         | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

2. Margin = Result - Limit

|               |              |                  |          |
|---------------|--------------|------------------|----------|
| Test Mode:    | M01          | Polarity:        | Vertical |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 1000mL   |

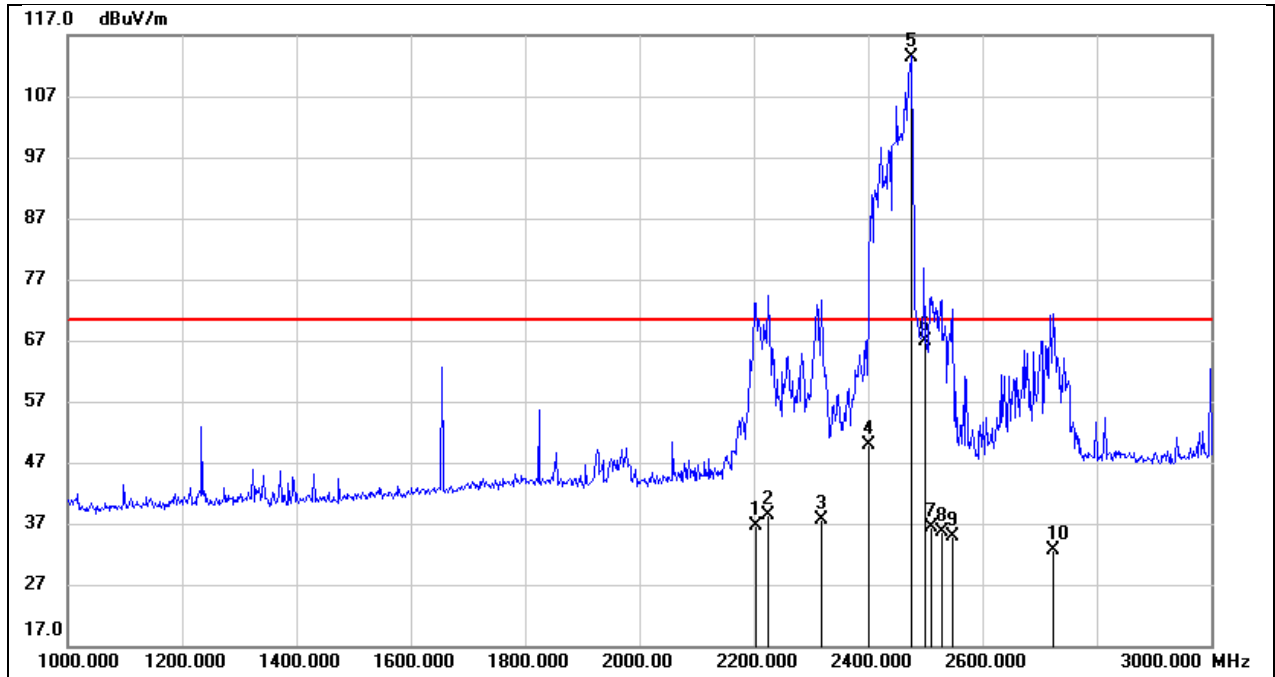


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2202.000        | 13.30          | 31.90          | 45.20           | 70.46          | -25.26      | AVG           |
| 2   | 2312.000        | 8.01           | 32.49          | 40.50           | 70.46          | -29.96      | AVG           |
| 3   | 2400.000        | 24.56          | 32.98          | 57.54           | /              | /           | ISM frequency |
| 4   | 2478.000        | 79.94          | 32.94          | 112.88          | /              | /           | ISM frequency |
| 5   | 2500.000        | 24.13          | 32.93          | 57.06           | /              | /           | ISM frequency |
| 6   | 2544.000        | 1.33           | 32.87          | 34.20           | 70.46          | -36.26      | AVG           |
| 7   | 2728.000        | 3.35           | 33.25          | 36.60           | 70.46          | -33.86      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |                  |            |
|---------------|--------------|------------------|------------|
| Test Mode:    | M01          | Polarity:        | Horizontal |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 700mL      |

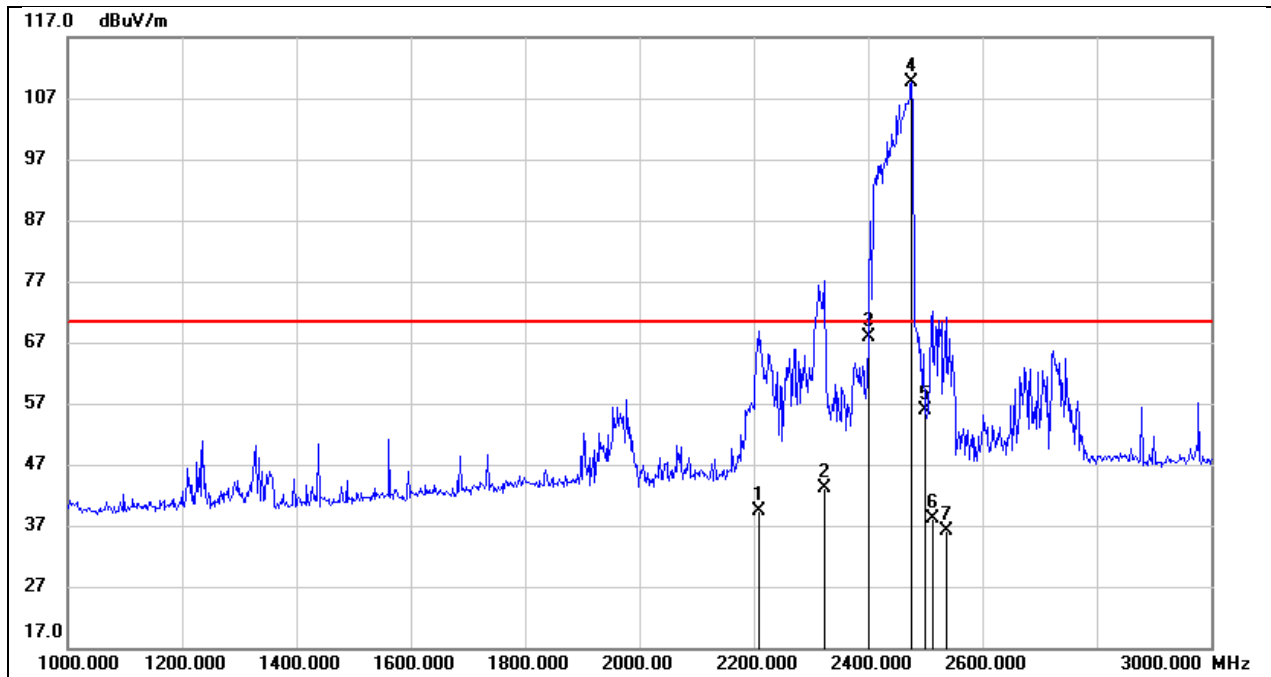


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2204.000        | 4.80           | 31.90          | 36.70           | 70.46          | -33.76      | AVG           |
| 2   | 2224.000        | 6.39           | 32.01          | 38.40           | 70.46          | -32.06      | AVG           |
| 3   | 2318.000        | 5.07           | 32.53          | 37.60           | 70.46          | -32.86      | AVG           |
| 4   | 2400.000        | 16.92          | 32.98          | 49.90           | /              | /           | ISM frequency |
| 5   | 2476.000        | 80.56          | 32.94          | 113.50          | /              | /           | ISM frequency |
| 6   | 2500.000        | 33.87          | 32.93          | 66.80           | /              | /           | ISM frequency |
| 7   | 2510.000        | 3.38           | 32.92          | 36.30           | 70.46          | -34.16      | AVG           |
| 8   | 2528.000        | 2.81           | 32.89          | 35.70           | 70.46          | -34.76      | AVG           |
| 9   | 2548.000        | 2.03           | 32.87          | 34.90           | 70.46          | -35.56      | AVG           |
| 10  | 2724.000        | -0.53          | 33.23          | 32.70           | 70.46          | -37.76      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |                  |          |
|---------------|--------------|------------------|----------|
| Test Mode:    | M01          | Polarity:        | Vertical |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 700mL    |

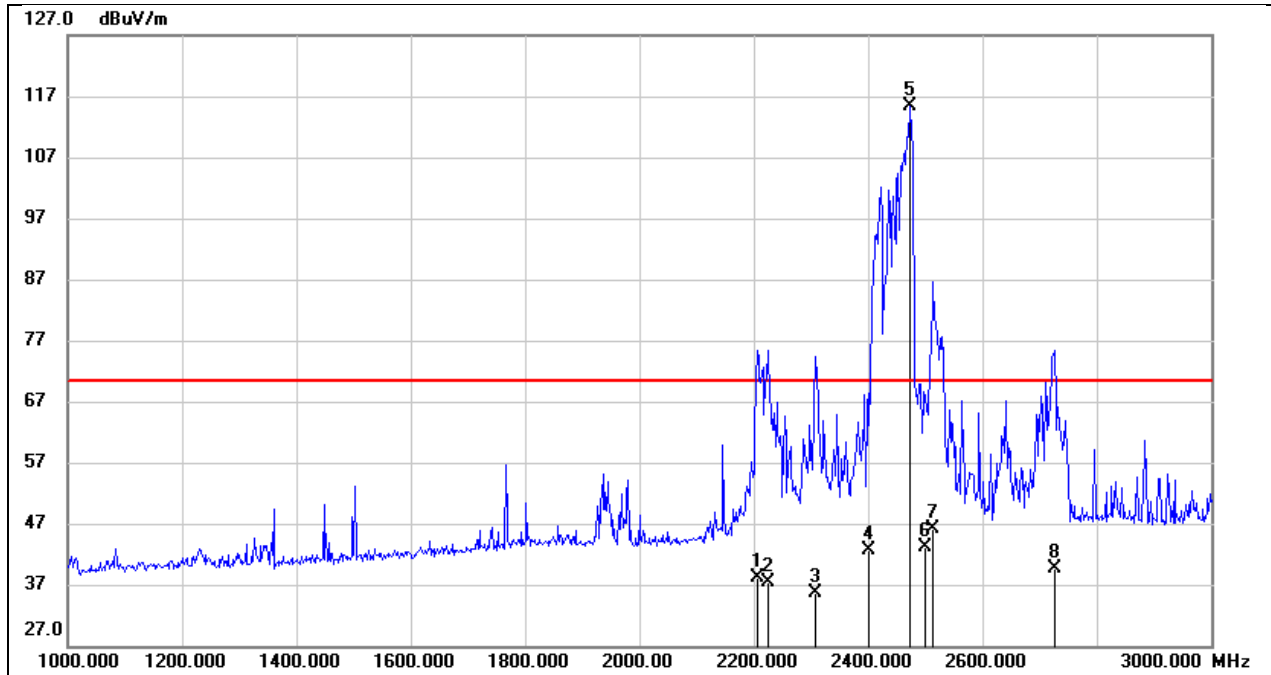


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2210.000        | 7.46           | 31.94          | 39.40           | 70.46          | -31.06      | AVG           |
| 2   | 2324.000        | 10.64          | 32.56          | 43.20           | 70.46          | -27.26      | AVG           |
| 3   | 2400.000        | 34.83          | 32.98          | 67.81           | /              | /           | ISM frequency |
| 4   | 2476.000        | 76.63          | 32.94          | 109.57          | /              | /           | ISM frequency |
| 5   | 2500.000        | 23.02          | 32.93          | 55.95           | /              | /           | ISM frequency |
| 6   | 2512.000        | 5.29           | 32.91          | 38.20           | 70.46          | -32.26      | AVG           |
| 7   | 2536.000        | 3.22           | 32.88          | 36.10           | 70.46          | -34.36      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |                  |            |
|---------------|--------------|------------------|------------|
| Test Mode:    | M01          | Polarity:        | Horizontal |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 300mL      |

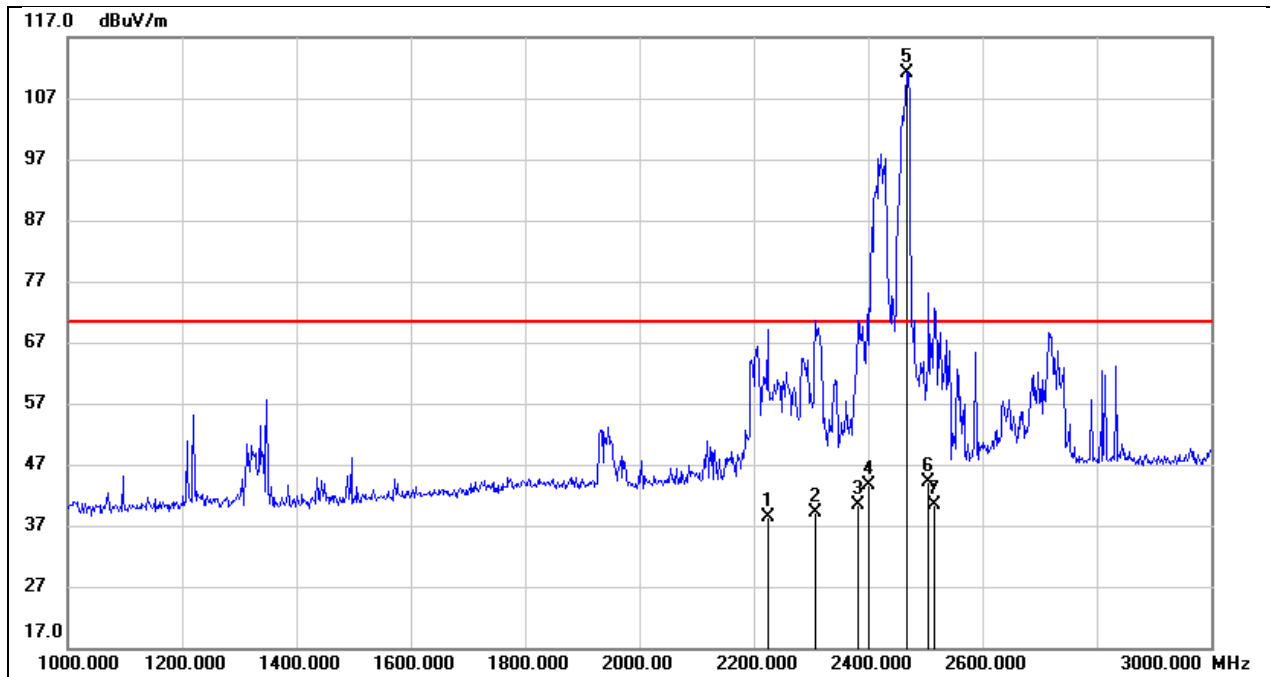


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2206.000        | 6.28           | 31.92          | 38.20           | 70.46          | -32.26      | AVG           |
| 2   | 2224.000        | 5.29           | 32.01          | 37.30           | 70.46          | -33.16      | AVG           |
| 3   | 2308.000        | 3.23           | 32.47          | 35.70           | 70.46          | -34.76      | AVG           |
| 4   | 2400.000        | 9.72           | 32.98          | 42.70           | /              | /           | ISM frequency |
| 5   | 2474.000        | 82.33          | 32.94          | 115.27          | /              | /           | ISM frequency |
| 6   | 2500.000        | 10.27          | 32.93          | 43.20           | /              | /           | ISM frequency |
| 7   | 2514.000        | 13.18          | 32.92          | 46.10           | 70.46          | -24.36      | AVG           |
| 8   | 2726.000        | 6.46           | 33.24          | 39.70           | 70.46          | -30.76      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |                  |          |
|---------------|--------------|------------------|----------|
| Test Mode:    | M01          | Polarity:        | Vertical |
| Test Voltage: | AC 120V_60Hz | Volume of Water: | 300mL    |

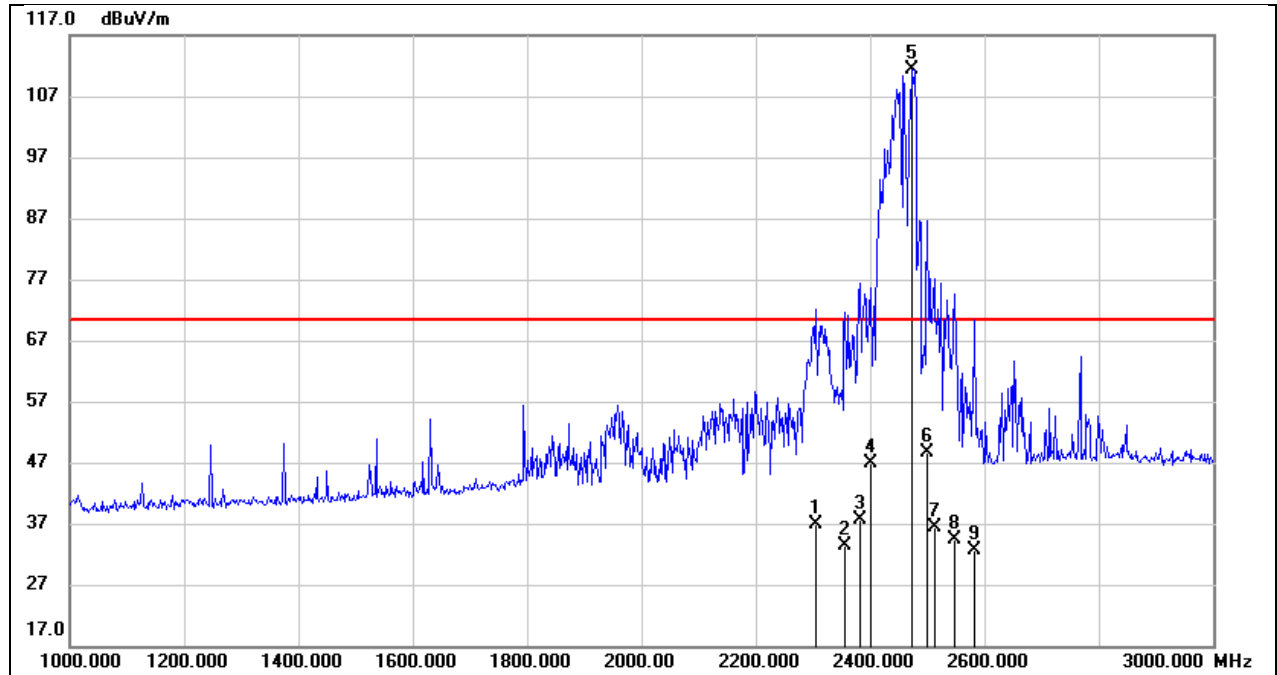


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2224.000        | 6.39           | 32.01          | 38.40           | 70.46          | -32.06      | AVG           |
| 2   | 2308.000        | 6.73           | 32.47          | 39.20           | 70.46          | -31.26      | AVG           |
| 3   | 2382.000        | 7.62           | 32.88          | 40.50           | 70.46          | -29.96      | AVG           |
| 4   | 2400.000        | 10.62          | 32.98          | 43.60           | /              | /           | ISM frequency |
| 5   | 2468.000        | 78.24          | 32.95          | 111.19          | /              | /           | ISM frequency |
| 6   | 2506.000        | 11.18          | 32.92          | 44.10           | 70.46          | -26.36      | AVG           |
| 7   | 2516.000        | 7.39           | 32.91          | 40.30           | 70.46          | -30.16      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |             |           |            |
|---------------|-------------|-----------|------------|
| Test Mode:    | M01         | Polarity: | Horizontal |
| Test Voltage: | AC 96V_60Hz |           |            |



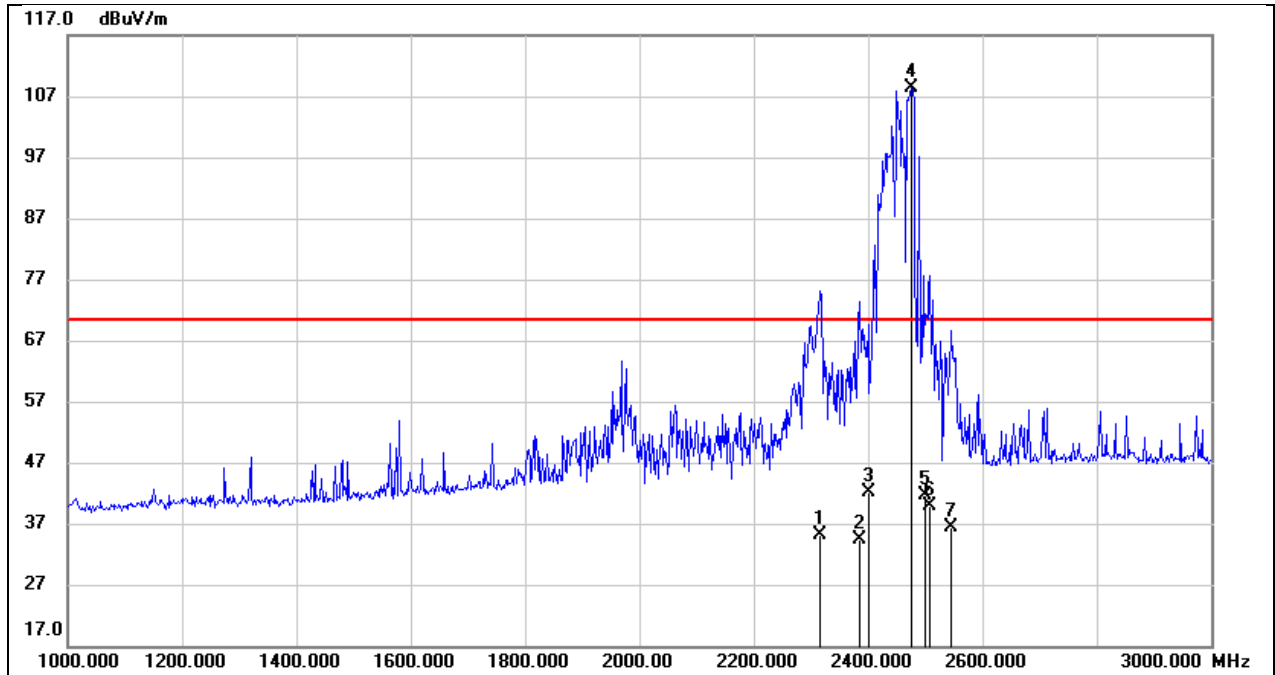
| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2304.000        | 4.45           | 32.45          | 36.90           | 70.46          | -33.56      | AVG           |
| 2   | 2356.000        | 0.76           | 32.74          | 33.50           | 70.46          | -36.96      | AVG           |
| 3   | 2382.000        | 4.72           | 32.88          | 37.60           | 70.46          | -32.86      | AVG           |
| 4   | 2400.000        | 13.92          | 32.98          | 46.90           | /              | /           | ISM frequency |
| 5   | 2472.000        | 78.55          | 32.95          | 111.50          | /              | /           | ISM frequency |
| 6   | 2500.000        | 15.77          | 32.93          | 48.70           | /              | /           | ISM frequency |
| 7   | 2512.000        | 3.49           | 32.91          | 36.40           | 70.46          | -34.06      | AVG           |
| 8   | 2548.000        | 1.53           | 32.87          | 34.40           | 70.46          | -36.06      | AVG           |
| 9   | 2582.000        | -0.13          | 32.83          | 32.70           | 70.46          | -37.76      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)

2. Margin = Result - Limit

|               |             |           |          |
|---------------|-------------|-----------|----------|
| Test Mode:    | M01         | Polarity: | Vertical |
| Test Voltage: | AC 96V_60Hz |           |          |

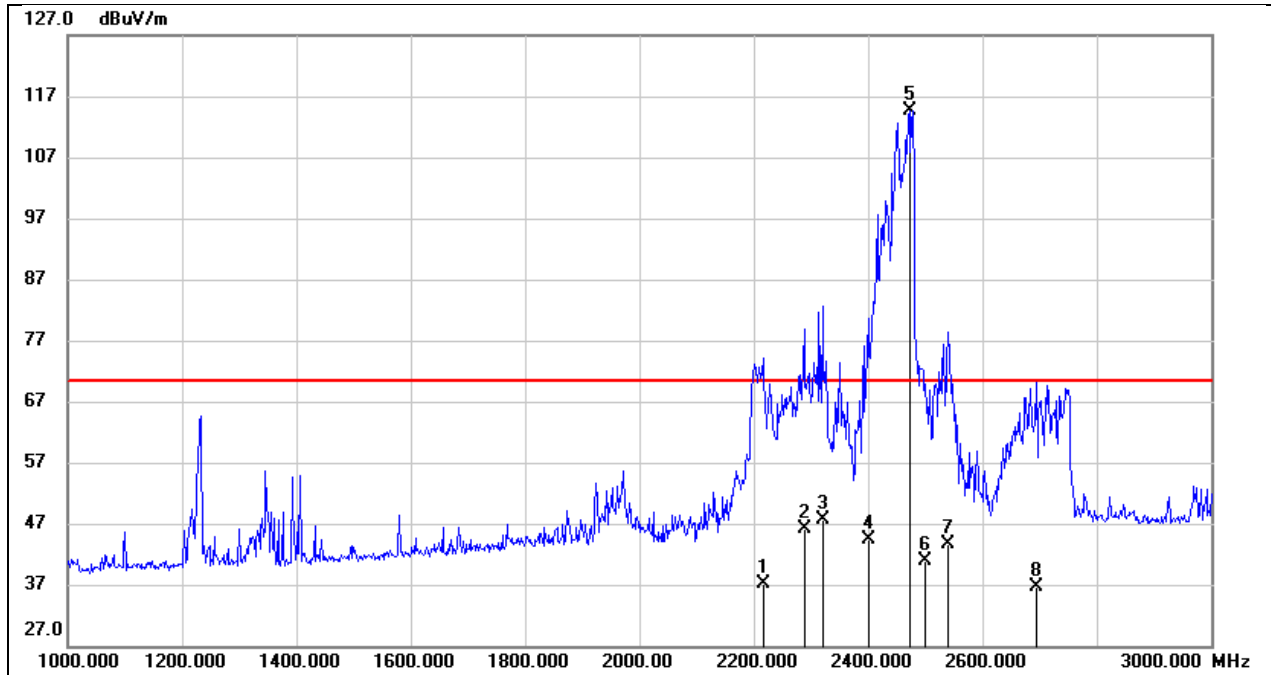


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2316.000        | 2.68           | 32.52          | 35.20           | 70.46          | -35.26      | AVG           |
| 2   | 2384.000        | 1.51           | 32.89          | 34.40           | 70.46          | -36.06      | AVG           |
| 3   | 2400.000        | 9.12           | 32.98          | 42.10           | /              | /           | ISM frequency |
| 4   | 2476.000        | 75.44          | 32.94          | 108.38          | /              | /           | ISM frequency |
| 5   | 2500.000        | 8.77           | 32.93          | 41.70           | /              | /           | ISM frequency |
| 6   | 2508.000        | 6.88           | 32.92          | 39.80           | 70.46          | -30.66      | AVG           |
| 7   | 2546.000        | 3.53           | 32.87          | 36.40           | 70.46          | -34.06      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result - Limit

|               |              |           |            |
|---------------|--------------|-----------|------------|
| Test Mode:    | M01          | Polarity: | Horizontal |
| Test Voltage: | AC 132V_60Hz |           |            |

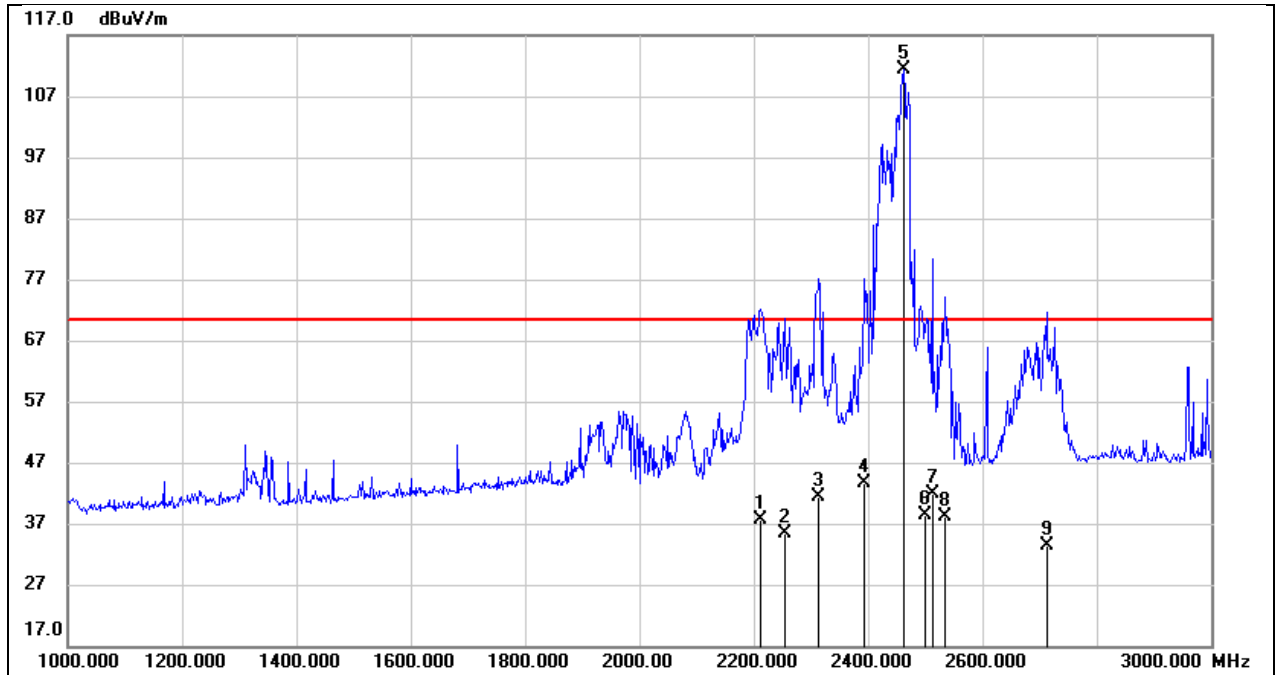


| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2216.000        | 5.23           | 31.97          | 37.20           | 70.46          | -33.26      | AVG           |
| 2   | 2288.000        | 13.73          | 32.37          | 46.10           | 70.46          | -24.36      | AVG           |
| 3   | 2320.000        | 15.06          | 32.54          | 47.60           | 70.46          | -22.86      | AVG           |
| 4   | 2400.000        | 11.52          | 32.98          | 44.50           | /              | /           | ISM frequency |
| 5   | 2472.000        | 81.72          | 32.95          | 114.67          | /              | /           | ISM frequency |
| 6   | 2500.000        | 7.87           | 32.93          | 40.80           | /              | /           | ISM frequency |
| 7   | 2540.000        | 10.82          | 32.88          | 43.70           | 70.46          | -26.76      | AVG           |
| 8   | 2694.000        | 3.57           | 33.13          | 36.70           | 70.46          | -33.76      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result – Limit
3. According to the declaration of the manufacturer, the EUT support maximum operating voltage of nominal supply voltage multiplier 1.1

|               |              |           |          |
|---------------|--------------|-----------|----------|
| Test Mode:    | M01          | Polarity: | Vertical |
| Test Voltage: | AC 132V_60Hz |           |          |



| No. | Frequency (MHz) | Reading (dBuV) | Correct (dB/m) | Result (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Remark        |
|-----|-----------------|----------------|----------------|-----------------|----------------|-------------|---------------|
| 1   | 2212.000        | 5.66           | 31.94          | 37.60           | 70.46          | -32.86      | AVG           |
| 2   | 2254.000        | 3.22           | 32.18          | 35.40           | 70.46          | -35.06      | AVG           |
| 3   | 2314.000        | 8.79           | 32.51          | 41.30           | 70.46          | -29.16      | AVG           |
| 4   | 2394.000        | 10.76          | 32.94          | 43.70           | 70.46          | -26.76      | AVG           |
| 5   | 2462.000        | 78.43          | 32.95          | 111.38          | /              | /           | ISM frequency |
| 6   | 2500.000        | 5.37           | 32.93          | 38.30           | /              | /           | ISM frequency |
| 7   | 2512.000        | 8.89           | 32.91          | 41.80           | 70.46          | -28.66      | AVG           |
| 8   | 2534.000        | 5.22           | 32.88          | 38.10           | 70.46          | -32.36      | AVG           |
| 9   | 2712.000        | 0.21           | 33.19          | 33.40           | 70.46          | -37.06      | AVG           |

Remark:

1. Result = Reading +Correct (Amplifier Factor + Cable Loss + Antenna Factor)
2. Margin = Result – Limit
3. According to the declaration of the manufacturer, the EUT support maximum operating voltage of nominal supply voltage multiplier 1.1

## 7.5. INPUT POWER

### TEST PROCEDURE

- 1) The input power and current was measured using a power source.
- 2) For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs, for ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction there of in excess of 1000 watts,  
A 700ml water load in a beaker was located in the center of the microwave oven and the microwave oven was set to full power.

### TEST ENVIRONMENT

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 25.4°C | Relative Humidity | 56.2% |
| Atmosphere Pressure | 101kPa |                   |       |

### TEST DATE / ENGINEER

|           |                |         |         |
|-----------|----------------|---------|---------|
| Test Date | August 6, 2024 | Test By | Karl Wu |
|-----------|----------------|---------|---------|

### TEST MODE

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M01 |
| Final Test Mode: | M01 |

### TEST RESULTS

| Input Power         |                   |              |                          |                       |
|---------------------|-------------------|--------------|--------------------------|-----------------------|
| Input Voltage (Vac) | Input Current (A) | Power Factor | Measured Input Power (W) | Rated Input Power (W) |
| 120V                | 12.612            | 0.91         | 1379                     | 1350                  |

## 7.6. OUTPUT POWER

### TEST PROCEDURE

- 1) The caloric method was used to determine full output power.
- 2) For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs, For ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction thereof in excess of 1000 watts,  
Load for power output measurement: 1000 milliliters of water in the beaker located in the center of the oven
- 3) The Microwave Oven was set to maximum power and operation 120 seconds, Then measure and record the temperature of the water.
- 4) According to the calculated formula:

$$P = 4.187 * m_{\text{water}} * (T_2 - T_1) / \text{Time}$$

P: the microwave power output(W)

$m_{\text{water}}$ : the mass of the water(g)

$T_1$ : the initial temperature of the water(°C)

$T_2$ : the final temperature of the water(°C)

Time: the heating time (second)

### TEST ENVIRONMENT

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 24.8°C | Relative Humidity | 55.1% |
| Atmosphere Pressure | 101kPa |                   |       |

### TEST DATE / ENGINEER

|           |              |         |         |
|-----------|--------------|---------|---------|
| Test Date | July 4, 2024 | Test By | Karl Wu |
|-----------|--------------|---------|---------|

### TEST MODE

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M01 |
| Final Test Mode: | M01 |

## TEST RESULTS

| Output Power |
|--------------|
|--------------|

| m <sub>water</sub> (g) | T <sub>1</sub> (°C) | T <sub>2</sub> (°C) | Time (second) | P (W)  |
|------------------------|---------------------|---------------------|---------------|--------|
| 1000                   | 25.17               | 50.64               | 120           | 888.69 |

### Field strength limit

| P (W)  | Field strength limit 25 x SQRT (power/500) |             |           |
|--------|--------------------------------------------|-------------|-----------|
|        | (uV/m) @300m                               | dBuV/m@300m | dBuV/m@3m |
| 888.69 | 33.33                                      | 30.46       | 70.46     |

$$\text{dBuV/m} = 20\log(\text{uV/m})$$

$$\text{dBuV/m @3m} = \text{dBuV/m @300m} + 20\log(300\text{m}/3\text{m})$$

## 7.7. RADIATION HAZARD

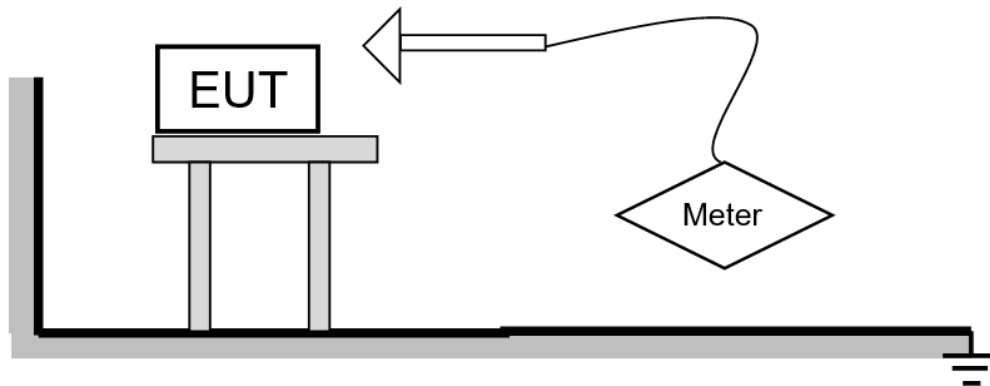
### LIMITS

| Maximum Emission (mW/cm <sup>2</sup> ) |
|----------------------------------------|
| 1.00                                   |

### TEST PROCEDURE

- 1) The EUT was set-up according to the FCC MP-5 and Part 18 for Radiation Hazard Measurement.
- 2) The measurement was using a microwave leakage meter to measure the Radiation leakage in the as-received condition with the oven door closed.
- 3) For ovens rated at 1000 watts or less power output, the beaker shall contain quantities of water as listed in the following subparagraphs. For ovens rated at more than 1000 watts output, each quantity shall be increased by 50% for each 500 watts or fraction thereof in excess of 1000 watts,  
A 700ml water load in a beaker was located in the center of the oven and the Household Microwave Combi Oven was set to maximum power.
- 4) While the oven operating, the microwave survey meter probe was moved slowly around the door seams the check for maximum leakage.

### TEST SETUP



### TEST ENVIRONMENT

|                     |        |                   |       |
|---------------------|--------|-------------------|-------|
| Temperature         | 25.7°C | Relative Humidity | 58.1% |
| Atmosphere Pressure | 101kPa |                   |       |

### TEST DATE / ENGINEER

|           |              |         |         |
|-----------|--------------|---------|---------|
| Test Date | July 4, 2024 | Test By | Karl Wu |
|-----------|--------------|---------|---------|

### TEST MODE

|                  |     |
|------------------|-----|
| Pre-test Mode:   | M02 |
| Final Test Mode: | M02 |

**TEST RESULTS**

|                         |
|-------------------------|
| <b>Radiation Hazard</b> |
|-------------------------|

| Maximum expose value<br>(mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) | Result |
|-----------------------------------------------|-----------------------------|--------|
| 0.612                                         | 1.00                        | Pass   |

---

**END OF REPORT**