

# TEST REPORT

Applicant Name: Whirlpool Microwave Products Development Limited.  
Address: 17th Fl, Elite Centre, 22 Hung To Rd, Kwun Tong, Hong Kong  
Report Number: 2504Z12240E-EM-00A  
FCC ID: PR4FLUSHP2MTY

## Test Standard (s)

FCC PART 18

## Sample Description

Product Name: Household microwave oven  
Model No.: YMMMF8030P  
Trade Mark: MAYTAG, JennAir  
Date Received: 2025-11-19  
Report Date: 2025-12-01

|              |                                            |
|--------------|--------------------------------------------|
| Test Result: | The EUT complied with the standards above. |
|--------------|--------------------------------------------|

## Prepared and Checked By:

Ronour Huang

Ronour Huang  
EMC Engineer

## Approved By:

Bob. Liao

Bob. Liao  
EMC Engineer

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DOCUMENT REVISION HISTORY

| Revision Number | Report Number      | Description of Revision | Date of Revision |
|-----------------|--------------------|-------------------------|------------------|
| Rev.00          | 2504Z12240E-EM-00A | Original Report         | 2025-12-01       |

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

|                                          |                                                                  |
|------------------------------------------|------------------------------------------------------------------|
| Product Name                             | Household microwave oven                                         |
| Tested Model                             | YMMMF8030P                                                       |
| Highest Operating Frequency <sup>#</sup> | 2450MHz                                                          |
| Voltage Range <sup>#</sup>               | AC 120V 60Hz (The power cord line length is 90 cm, with ground.) |
| Microwave Output power <sup>#</sup>      | 850 W                                                            |
| Microwave Input power <sup>#</sup>       | 1500 W                                                           |
| Sample Serial Number                     | 3D6A-1 (CE&RE) (Assigned by ATC, Shenzhen)                       |
| Sample/EUT Status                        | Good condition                                                   |

Objective

This report is in accordance with Part 2-Subpart J, and Part 18-Subparts A, B and C of the Federal Communication Commission’s rules and regulations.

The objective of the manufacturer is to determine compliance with FCC Part 18 limits.

This is a CIIPC application of the device; the differences between the original device (Grant Date: 08/27/2025) and the current one is as follows:

- 1. Change the Computer Board
- 2. Change the Filter Board

Based on above differences, the changes will affect all the test of item, so all the items were performed; we will update the test data and EUT photos.

Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986.

Unless otherwise stated there are no any additions to, deviations, or exclusions from the method.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the Floor 1, KuMaKe Building, Dongzhou Community, Guangming Street, Guangming District, Shenzhen, Guangdong, China.

Accredited by American Association for Laboratory Accreditation (A2LA).The Certificate Number is 4297.01.

Measurement Uncertainty

| Parameter                          |                 | Uncertainty                          |
|------------------------------------|-----------------|--------------------------------------|
| AC Power Lines Conducted Emissions |                 | 2.7 dB(k=2, 95% level of confidence) |
| Radiated emission                  | 9kHz - 30MHz    | 2.1 dB(k=2, 95% level of confidence) |
|                                    | 30MHz - 1GHz    | 4.3 dB(k=2, 95% level of confidence) |
|                                    | 1GHz - 18GHz    | 4.9 dB(k=2, 95% level of confidence) |
|                                    | 18GHz - 26.5GHz | 5.2 dB(k=2, 95% level of confidence) |
| Temperature                        |                 | 1 °C                                 |
| Humidity                           |                 | 7 %                                  |
| Supply voltages                    |                 | 0.4 %                                |

*Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.*

OPERATING CONDITION/TEST CONFIGURATION

Description of Test Configuration

The EUT was operated at maximum (continuous) RF output power. The loads consisted of water in a glass beaker in the amounts specified in the test procedure.

EUT Exercise Software

No exercise software was used.

Special Accessories

No special accessory was used.

Equipment Modifications

No modifications were made to the EUT tested.

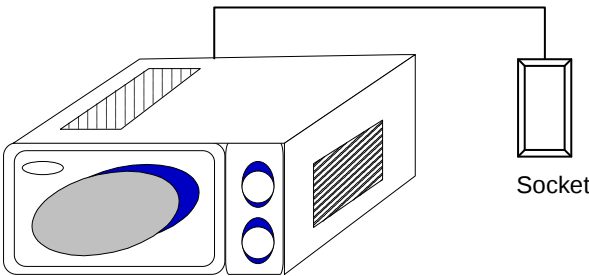
Support Equipment List and Details

| Manufacturer | Description  | Model | Serial Number |
|--------------|--------------|-------|---------------|
| /            | Glass beaker | /     | /             |

External I/O Cable

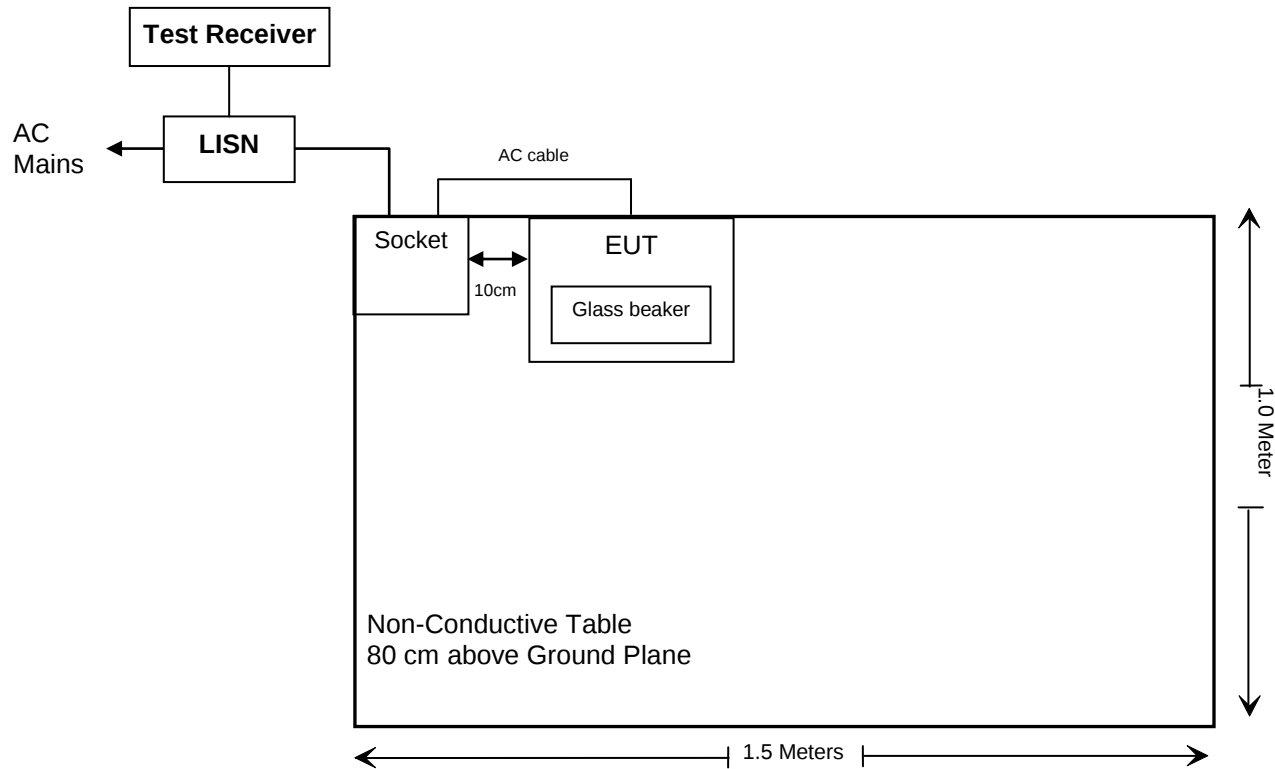
| Cable Description                  | Length (m) | From Port | To  |
|------------------------------------|------------|-----------|-----|
| Unshielded Non-Detachable AC Cable | 0.9        | Socket    | EUT |

Configuration of Test Setup

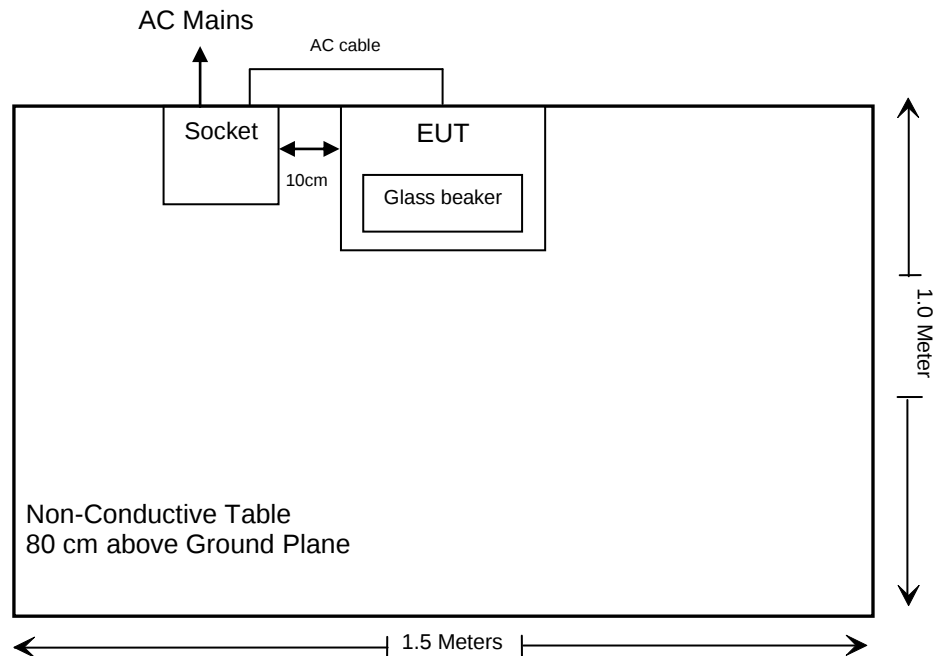


Block Diagram of Test Setup

For Conducted Emission:



For Radiated Emission:



SUMMARY OF TEST RESULT

| FCC Rules                     | Description of Test          | Results    |
|-------------------------------|------------------------------|------------|
| FCC §18.313, §1.1310, §2.1091 | Maximum Permissible Exposure | Compliance |
| FCC §18.307                   | AC Line Conducted Emissions  | Compliance |
| FCC/OST MP-5<br>FCC §18.301   | Radiation Hazard Measurement | Compliance |
| FCC §18.305                   | Field Strength               | Compliance |

## TEST EQUIPMENT LIST

| Manufacturer                                                                  | Description                       | Model           | Serial Number | Calibration Date | Calibration Due Date |
|-------------------------------------------------------------------------------|-----------------------------------|-----------------|---------------|------------------|----------------------|
| <b>Conducted Emissions Test</b>                                               |                                   |                 |               |                  |                      |
| Rohde & Schwarz                                                               | EMI Test Receiver                 | ESCI            | 100784        | 2025/09/17       | 2026/09/16           |
| Rohde & Schwarz                                                               | L.I.S.N.                          | ENV216          | 101314        | 2025/09/17       | 2026/09/16           |
| Anritsu Corp                                                                  | 50 Coaxial Switch                 | MP59B           | 6100237248    | 2025/09/18       | 2026/09/17           |
| Rohde & Schwarz                                                               | Pulse Limiter                     | ESH3-Z2         | 100312        | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.17           | N0350         | 2025/05/30       | 2026/05/29           |
| Test Software: e3 191218 (V9)                                                 |                                   |                 |               |                  |                      |
| <b>Radiated Emission Test (Below 1GHz)</b>                                    |                                   |                 |               |                  |                      |
| Rohde & Schwarz                                                               | Test Receiver                     | ESR             | 102725        | 2025/09/18       | 2026/09/17           |
| SONOMA INSTRUMENT                                                             | Amplifier                         | 310N            | 186131        | 2025/03/26       | 2026/03/25           |
| Schwarzbeck                                                                   | Bilog Antenna                     | VULB9163        | 9163-323      | 2024/08/08       | 2027/08/07           |
| Unknown                                                                       | RF Coaxial Cable                  | No.12           | N040          | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.13           | N300          | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.14           | N800          | 2025/05/30       | 2026/05/29           |
| BACL                                                                          | LOOP ANTENNA                      | 1313-1A         | 3110711       | 2024/01/16       | 2027/01/15           |
| Test Software: e3 191218 (V9)                                                 |                                   |                 |               |                  |                      |
| <b>Radiated Emission Test (Above 1GHz) &amp; Radiation Hazard Measurement</b> |                                   |                 |               |                  |                      |
| Rohde & Schwarz                                                               | Spectrum Analyzer                 | FSV40           | 101949        | 2025/09/17       | 2026/09/16           |
| Decentest                                                                     | Filter Switch Unit                | DT7220FSU       | DQ77927       | 2025/09/18       | 2026/09/17           |
| Decentest                                                                     | Multiplex Switch Test Control Set | DT7220CSU       | DQ77924       | 2025/09/18       | 2026/09/17           |
| A.H. Systems, inc.                                                            | Preamplifier                      | PAM-0118        | 226           | 2025/03/20       | 2026/03/19           |
| Schwarzbeck                                                                   | Horn Antenna                      | BBHA9120D       | 837           | 2023/02/22       | 2026/02/21           |
| Unknown                                                                       | RF Coaxial Cable                  | No.10           | N050          | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.11           | N1000         | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.19           | N500          | 2025/05/30       | 2026/05/29           |
| Schwarzbeck                                                                   | HORN ANTENNA                      | BBHA9170        | 9170-359      | 2023/12/12       | 2026/12/11           |
| BACL                                                                          | Amplifier                         | BACL-1313-A1840 | 4012521       | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.15           | N600          | 2025/05/30       | 2026/05/29           |
| Unknown                                                                       | RF Coaxial Cable                  | No.16           | N650          | 2025/05/30       | 2026/05/29           |
| Test Software: e3 191218 (V9)                                                 |                                   |                 |               |                  |                      |
| MC                                                                            | Thermometer                       | Unknown         | Unknown       | 2025/09/18       | 2026/09/17           |
| YOKOGAWA                                                                      | Digital Power Meter               | WT310E          | C3VD10030E    | 2025/3/26        | 2026/3/25            |
| <b>Maximum Permissible Exposure</b>                                           |                                   |                 |               |                  |                      |
| ETS                                                                           | Microwave Survey Meter            | 1501            | 123654        | 2025/09/18       | 2026/09/17           |

**\* Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

MAXIMUM PERMISSIBLE EXPOSURE

Applicable Standard

FCC §18.313, §1.1310, §2.1091

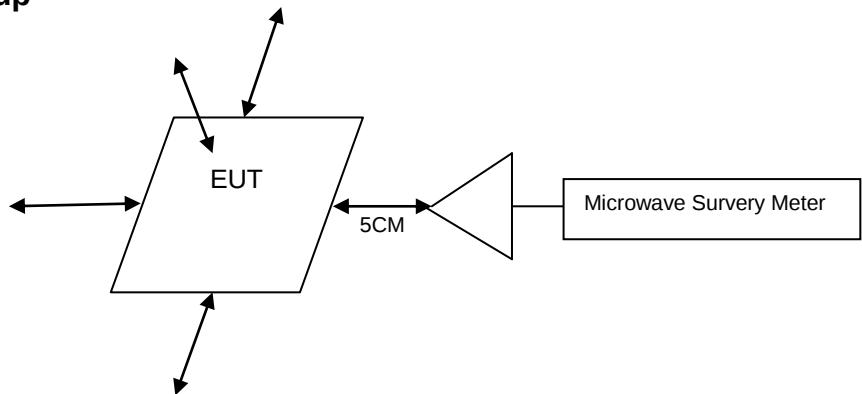
According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission’s guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                          |
|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| Frequency Range (MHz)                                   | Electric Field Strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm <sup>2</sup> ) | Averaging Time (minutes) |
| 0.3–1.34                                                | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34–30                                                 | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | 30                       |
| 30–300                                                  | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300–1500                                                | /                             | /                             | f/1500                              | 30                       |
| 1500–100,000                                            | /                             | /                             | 1.0                                 | 30                       |

f = frequency in MHz; \* = Plane-wave equivalent power density;

EUT Setup



Measurement

Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 22.5 °C   |
| Relative Humidity: | 35 %      |
| ATM Pressure:      | 101.1 kPa |

The testing was performed by Roger Ling on 2025-11-24.

Radiation leakage was measured in the as-received condition with the oven door closed using a microwave leakage meter.

A 275 mL water load was placed in the center of the oven and the oven was operated at maximum output power.

☒ There was no microwave leakage exceeding a power level of 0.1mW/cm<sup>2</sup> observed at any point 5 cm or more from the external surface of the oven.

A maximum of 1.0 mW/cm<sup>2</sup> is allowed in accordance with the applicable Federal Standards. Hence, microwave leakage in the as-received condition with the oven door closed was below the maximum allowed.

**For BT/Wi-Fi Function:**

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For worst case (PCB antenna 2)

| Mode    | Frequency (MHz) | Antenna Gain <sup>#</sup> |           | Tune Up Conducted Power <sup>#</sup> |        | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | MPE Limit (mW/cm <sup>2</sup> ) |
|---------|-----------------|---------------------------|-----------|--------------------------------------|--------|---------------|-------------------------------------|---------------------------------|
|         |                 | (dBi)                     | (numeric) | (dBm)                                | (mW)   |               |                                     |                                 |
| BLE     | 2402-2480       | 4.2                       | 2.63      | 0                                    | 1.00   | 20            | 0.0005                              | 1                               |
| BDR/EDR | 2402-2480       | 4.2                       | 2.63      | 3                                    | 2.00   | 20            | 0.0010                              | 1                               |
| Wi-Fi   | 2412-2462       | 4.2                       | 2.63      | 22                                   | 158.49 | 20            | 0.0829                              | 1                               |

Note 1: Please refer to the certified module of FCC ID: 2AC7Z-RIGEL (Report number: RSHA180913005-00A& RSHA180913005-00B) for the tune up conducted power for the Bluetooth and Wi-Fi.

Note 2: The Bluetooth function can't transmit at the same time with the Wi-Fi function.

Note 3: The Bluetooth / Wi-Fi function can transmit at the same time with Microwave function.

Note 4: Simultaneous transmitting was considerate to be compliant to the limit, since low power density for Bluetooth / Wi-Fi and Microwave functions.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

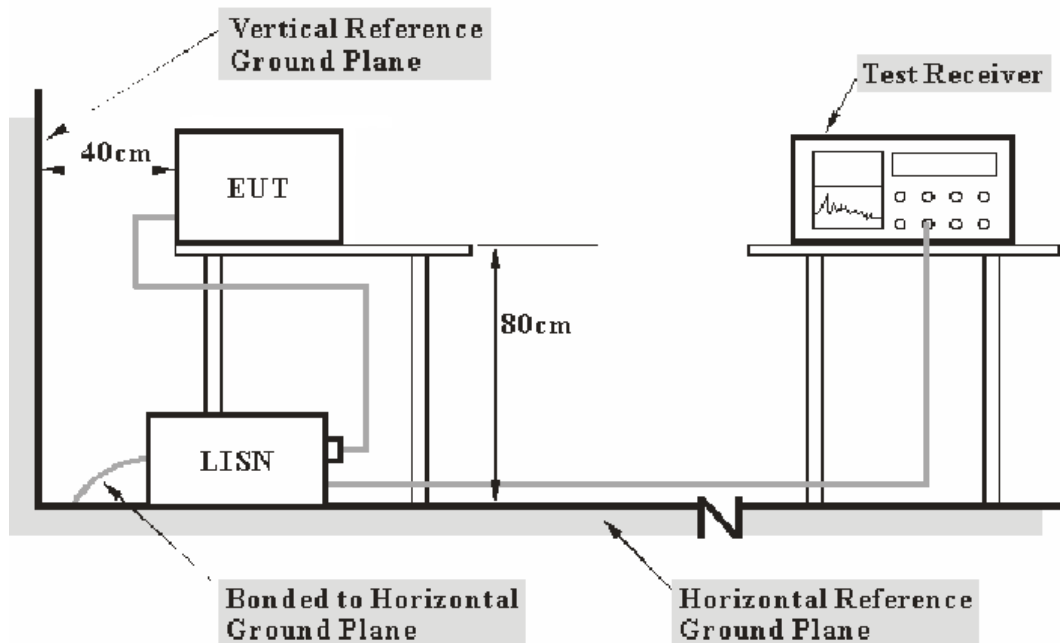
**Result:** Compliant.

## CONDUCTED EMISSIONS

### Applicable Standard

FCC §18.307

### EUT Setup



- Note: 1. Support units were connected to second LISN.  
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with MP-5: 1986 measurement procedure. Specification used was with the FCC Part 18.

The socket was connected to 120 V AC / 60Hz power source.

### EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

| Frequency Range  | IF B/W |
|------------------|--------|
| 150 kHz – 30 MHz | 9 kHz  |

## Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak and average detection mode.

## Calculation

The Factor is calculated by adding LISN VDF (Voltage Division Factor), Cable Loss and Limiter Attenuation. The basic equation is as follows:

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + 10\text{dB Attenuation(Limiter)}$$

The “**Over limit**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for calculation is as follows:

$$\text{Over Limit} = \text{Level} - \text{Limit}$$

$$\text{Level} = \text{Read Level} + \text{Factor}$$

## Test Data

### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 24.3 °C   |
| Relative Humidity: | 36 %      |
| ATM Pressure:      | 101.1 kPa |

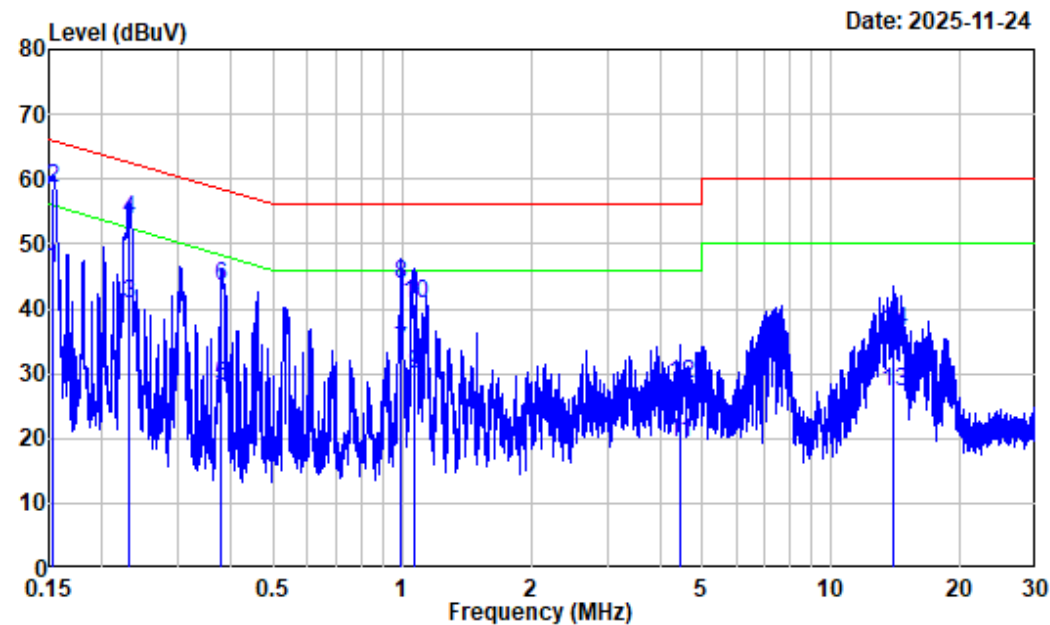
*The testing was performed by Jason Fan on 2025-11-24.*

*The frequency range from 150kHz to 30MHz is investigated.*

*EUT operation mode: Microwave(Maximum output power)*

**Test Result:** Compliance, please refer to the following data.

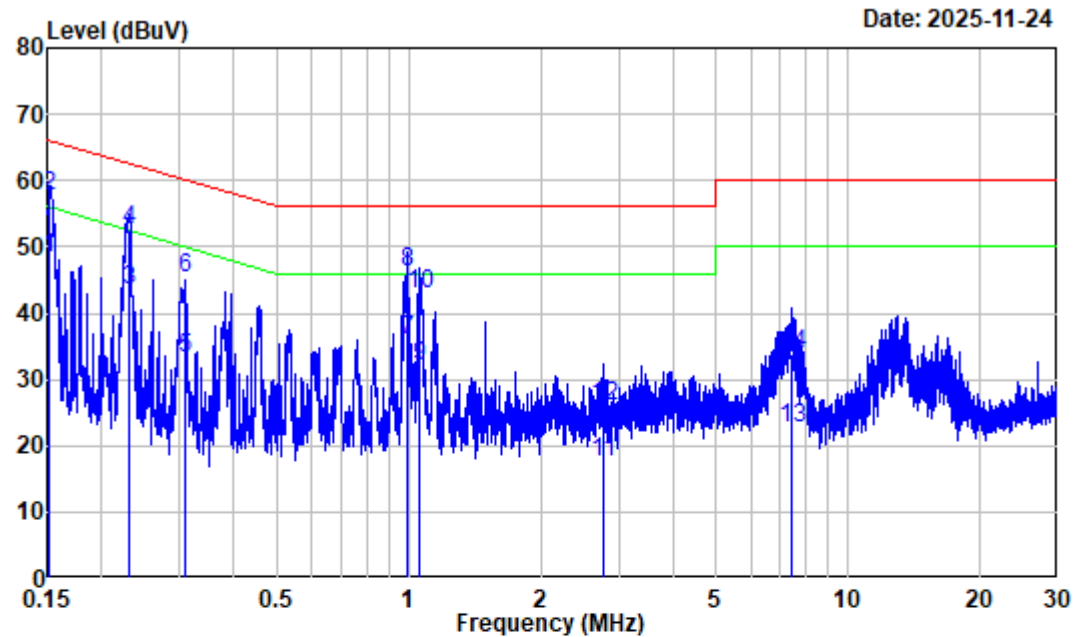
AC 120V 60Hz, Line:



Site : Shielding Room  
Condition : Line  
Job No. : 2504Z12240E-EM  
Test Mode : Microwave  
Tester : Jason Fan  
Receiver Setting: IF B/W 9kHz PK/AV

|    | Freq   | Factor | Read Level | Level | Limit Line | Over Limit | Remark  |
|----|--------|--------|------------|-------|------------|------------|---------|
|    | MHz    | dB     | dBuV       | dBuV  | dBuV       | dB         |         |
| 1  | 0.154  | 19.78  | 26.32      | 46.10 | 55.80      | -9.70      | Average |
| 2  | 0.154  | 19.78  | 38.68      | 58.46 | 65.80      | -7.34      | QP      |
| 3  | 0.231  | 19.88  | 20.73      | 40.61 | 52.40      | -11.79     | Average |
| 4  | 0.231  | 19.88  | 33.80      | 53.68 | 62.40      | -8.72      | QP      |
| 5  | 0.379  | 19.79  | 8.25       | 28.04 | 48.30      | -20.26     | Average |
| 6  | 0.379  | 19.79  | 23.62      | 43.41 | 58.30      | -14.89     | QP      |
| 7  | 0.994  | 20.12  | 13.41      | 33.53 | 46.00      | -12.47     | Average |
| 8  | 0.994  | 20.12  | 23.60      | 43.72 | 56.00      | -12.28     | QP      |
| 9  | 1.065  | 20.13  | 9.70       | 29.83 | 46.00      | -16.17     | Average |
| 10 | 1.065  | 20.13  | 20.77      | 40.90 | 56.00      | -15.10     | QP      |
| 11 | 4.439  | 21.14  | -1.79      | 19.35 | 46.00      | -26.65     | Average |
| 12 | 4.439  | 21.14  | 7.22       | 28.36 | 56.00      | -27.64     | QP      |
| 13 | 14.007 | 20.84  | 6.25       | 27.09 | 50.00      | -22.91     | Average |
| 14 | 14.007 | 20.84  | 15.61      | 36.45 | 60.00      | -23.55     | QP      |

AC 120V 60Hz, Neutral:



Site : Shielding Room  
Condition : Neutral  
Job No. : 2504Z12240E-EM  
Test Mode : Microwave  
Tester : Jason Fan  
Receiver Setting: IF B/W 9kHz PK/AV

|    | Freq  | Factor | Read Level | Level | Limit | Over   | Remark  |
|----|-------|--------|------------|-------|-------|--------|---------|
|    | MHz   | dB     | dBuV       | dBuV  | dBuV  | dB     |         |
| 1  | 0.152 | 19.92  | 28.48      | 48.40 | 55.87 | -7.47  | Average |
| 2  | 0.152 | 19.92  | 37.72      | 57.64 | 65.87 | -8.23  | QP      |
| 3  | 0.230 | 19.93  | 23.48      | 43.41 | 52.45 | -9.04  | Average |
| 4  | 0.230 | 19.93  | 32.50      | 52.43 | 62.45 | -10.02 | QP      |
| 5  | 0.310 | 19.86  | 13.22      | 33.08 | 49.97 | -16.89 | Average |
| 6  | 0.310 | 19.86  | 25.31      | 45.17 | 59.97 | -14.80 | QP      |
| 7  | 0.990 | 20.16  | 15.64      | 35.80 | 46.00 | -10.20 | Average |
| 8  | 0.990 | 20.16  | 25.90      | 46.06 | 56.00 | -9.94  | QP      |
| 9  | 1.054 | 20.18  | 11.69      | 31.87 | 46.00 | -14.13 | Average |
| 10 | 1.054 | 20.18  | 22.77      | 42.95 | 56.00 | -13.05 | QP      |
| 11 | 2.765 | 20.71  | -3.29      | 17.42 | 46.00 | -28.58 | Average |
| 12 | 2.765 | 20.71  | 5.19       | 25.90 | 56.00 | -30.10 | QP      |
| 13 | 7.437 | 21.19  | 1.53       | 22.72 | 50.00 | -27.28 | Average |
| 14 | 7.437 | 21.19  | 12.67      | 33.86 | 60.00 | -26.14 | QP      |

RADIATION HAZARD MEASUREMENT

Applicable Standard

FCC §18.301 & FCC/OST MP-5

1. Input Power & Output Power

Environmental Conditions

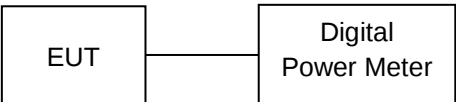
|                    |           |
|--------------------|-----------|
| Temperature:       | 22.5 °C   |
| Relative Humidity: | 35 %      |
| ATM Pressure:      | 101.1 kPa |

The testing was performed by Roger Ling on 2025-11-24.

1.1 Input Power

Input power and current was measured using a power analyzer. A 1000 mL water load was placed in the center of the oven and the oven was operated at maximum output power. A 1000mL water load was chosen for its compatibility with the procedure commonly used by manufacturers to determine their input ratings.

EUT Setup



Result

| Input Voltage<br>(V <sub>AC</sub> ) | Input Current<br>(Amps) | Measured Input Power<br>(Watts) | Rated Input Power<br>(Watts) |
|-------------------------------------|-------------------------|---------------------------------|------------------------------|
| 118.4                               | 10.8                    | 1278.72                         | 1500                         |

☒ Based on the measured input power, the EUT was found to be operating within the intended specifications.

1.2 Load for Household Microwave Ovens

For all measurements, the energy developed by the oven was absorbed by a dummy load consisting of a quantity of tap water in a beaker. If the oven was provided with a shelf or other utensil support, this support was in its initial normal position. For ovens rated at 1000 watts or less power output, the beaker contained quantities of water as listed in the following subparagraphs. For ovens rated at more than 1000 watts output, each quantity was increased by 50% for each 500watts or fraction thereof in excess of 1000 watts. Additional beakers were 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. withl the beaker located in the center of the oven.

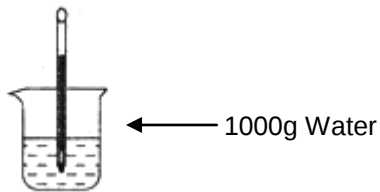
### 1.3 RF Output Power Measurement

A cylindrical container of borosilicate glass is used for the test. It has a maximum thickness of 3 mm, an external diameter of approximately 190 mm and a height of approximately 90 mm. The mass of the container is determined.

At the start of the test, the oven and the empty container are at ambient temperature. Water having an initial temperature is used for the test. The water temperature is measured immediately before it is poured into the container.

A quantity of  $1000 \text{ g} \pm 5 \text{ g}$  of water is added to the container and its actual mass obtained. The container is then immediately placed in the centre of the oven shelf, which is in its lowest normal position. The oven is operated and the time for the water temperature to attain is measured. The oven is then switched off and the final water temperature is measured within 60 s.

**EUT Setup**



**Result**

| $m_w$<br>(g) | $m_c$<br>(g) | $T_0$<br>(°C) | $T_1$<br>(°C) | $T_2$<br>(°C) | $t$<br>(s) |
|--------------|--------------|---------------|---------------|---------------|------------|
| 1000         | 377.0        | 22.5          | 9.5           | 16.7          | 40         |

$$\text{RF Output Power} = (4.187 \times 1000 \times (16.7 - 9.5) + 0.55 \times 377.0 \times (16.7 - 22.5)) / 40 = 723.594 \text{ Watts}$$

P is the microwave power output, in watts;

$m_w$  is the mass of the water, in grams;

$m_c$  is the mass of the container, in grams;

$T_0$  is the ambient temperature, in degrees Celsius;

$T_1$  is the initial temperature of the water, in degrees Celsius;

$T_2$  is the final temperature of the water, in degrees Celsius;

$t$  is the heating time, in seconds, excluding the magnetron filament heating-up time.

☐ The measurement output power was found to be less than 500 watts. Therefore, in accordance with Section 18.305 of Subpart-C, the measured out-of-band emissions were compared to the limit of 25  $\mu\text{V}/\text{meter}$  at a 300-meter measurement distance.

☒ The measured output power was found to exceed 500 watts. Therefore, in accordance with Section 18.305 of Subpart-C:

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

The measured output power was found to exceed 500 watts. Therefore, in accordance with Section 18.305 of Subpart-C, the measured out-of-band emissions were compared with the limit calculated as following:

$$\text{LFS} = 25 \times \text{SQRT} (\text{Power Output}/500)$$

$$\text{LFS} = 25 \times \text{SQRT} (723.594 / 500)$$

$$\text{LFS} = 30.07$$

Where: LFS is the maximum allowable field strength for out-of-band emissions in  $\mu\text{V}/\text{meter}$  at a 300-meter measurement distance. Power Output is the measured output power in watts.

| LFS<br>$\mu\text{V}/\text{m}@300\text{m}$ | $\text{dB}\mu\text{V}/\text{m}@300\text{m}$ | $\text{dB}\mu\text{V}/\text{m}@3\text{m}$ |
|-------------------------------------------|---------------------------------------------|-------------------------------------------|
| 30.07                                     | 29.56                                       | 69.56                                     |

**Note:** Limit ( $\text{dB}\mu\text{V}/\text{m}@3\text{m}$ ) = Limit ( $\text{dB}\mu\text{V}/\text{m}@300\text{m}$ ) + 40(dB)

## 2. Operating Frequency Measurement

### Environmental Conditions

|                           |           |
|---------------------------|-----------|
| <b>Temperature:</b>       | 22.7 °C   |
| <b>Relative Humidity:</b> | 55 %      |
| <b>ATM Pressure:</b>      | 101.1 kPa |

The testing was performed by Roger Ling on 2025-11-27.

### 2.1 Operating frequencies.

According to FCC § 18.301, ISM equipment may be operated on any frequency above 9 kHz except as indicated in §18.303. The following frequency bands, in accordance with § 2.106 of the rules, are designated for use by ISM equipment:

| Table 1 to § 18.301 |             |
|---------------------|-------------|
| ISM frequency       | Tolerance   |
| 6.78 MHz            | ± 15.0 kHz  |
| 13.56 MHz           | ± 7.0 kHz   |
| 27.12 MHz           | ± 163.0 kHz |
| 40.68 MHz           | ± 20.0 kHz  |
| 915 MHz             | ± 13.0 MHz  |
| 2450 MHz            | ± 50.0 MHz  |
| 5800 MHz            | ± 75.0 MHz  |
| 24.125 GHz          | ± 125.0 MHz |
| 61.25 GHz           | ± 250.0 MHz |
| 122.50 GHz          | ± 500.0 MHz |
| 245.00 GHz          | ± 1.0 GHz   |

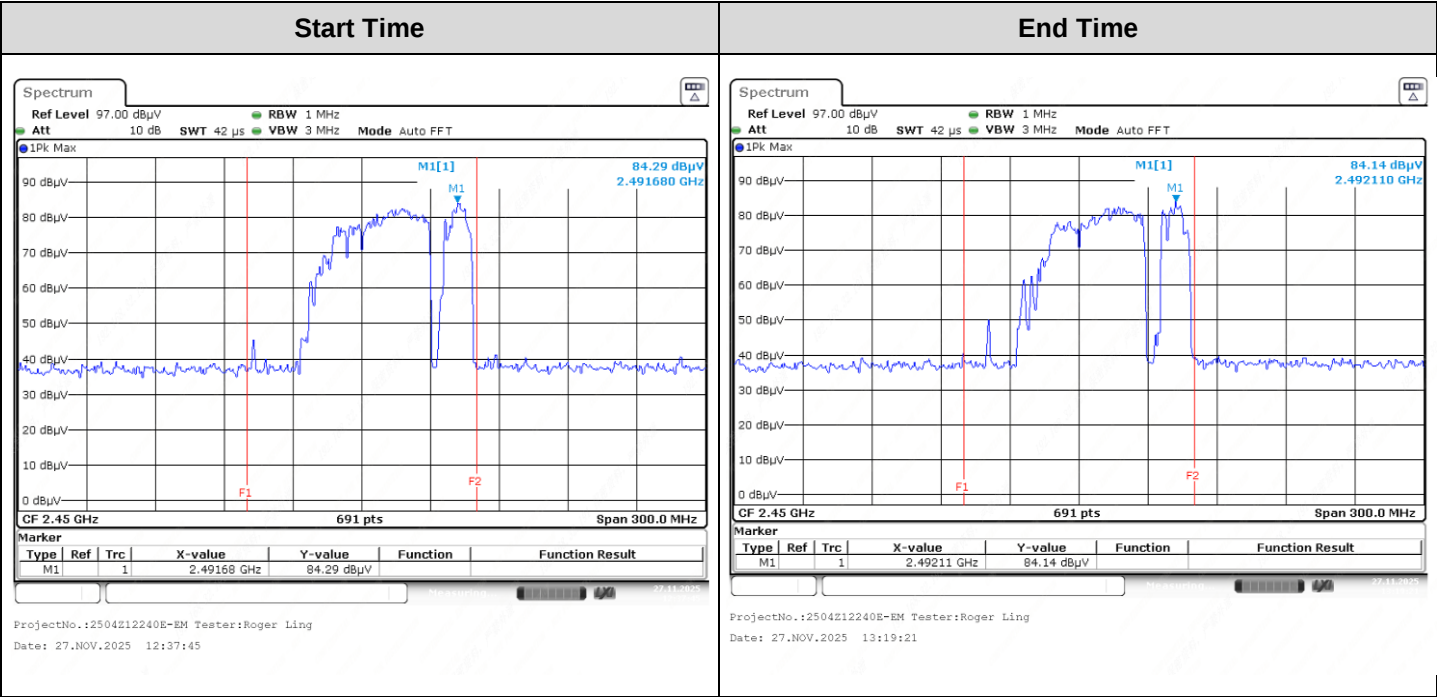
2.2 Variation in Operating Frequency with Time

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.

The results of this test are as follows:

| Frequency at Start time (MHz) | Frequency at End time (MHz) |
|-------------------------------|-----------------------------|
| 2491.68                       | 2492.11                     |

Refer to data pages for details of the variation in operating frequency with time measurement.



2.2 Variation in Operating Frequency with Line Voltage

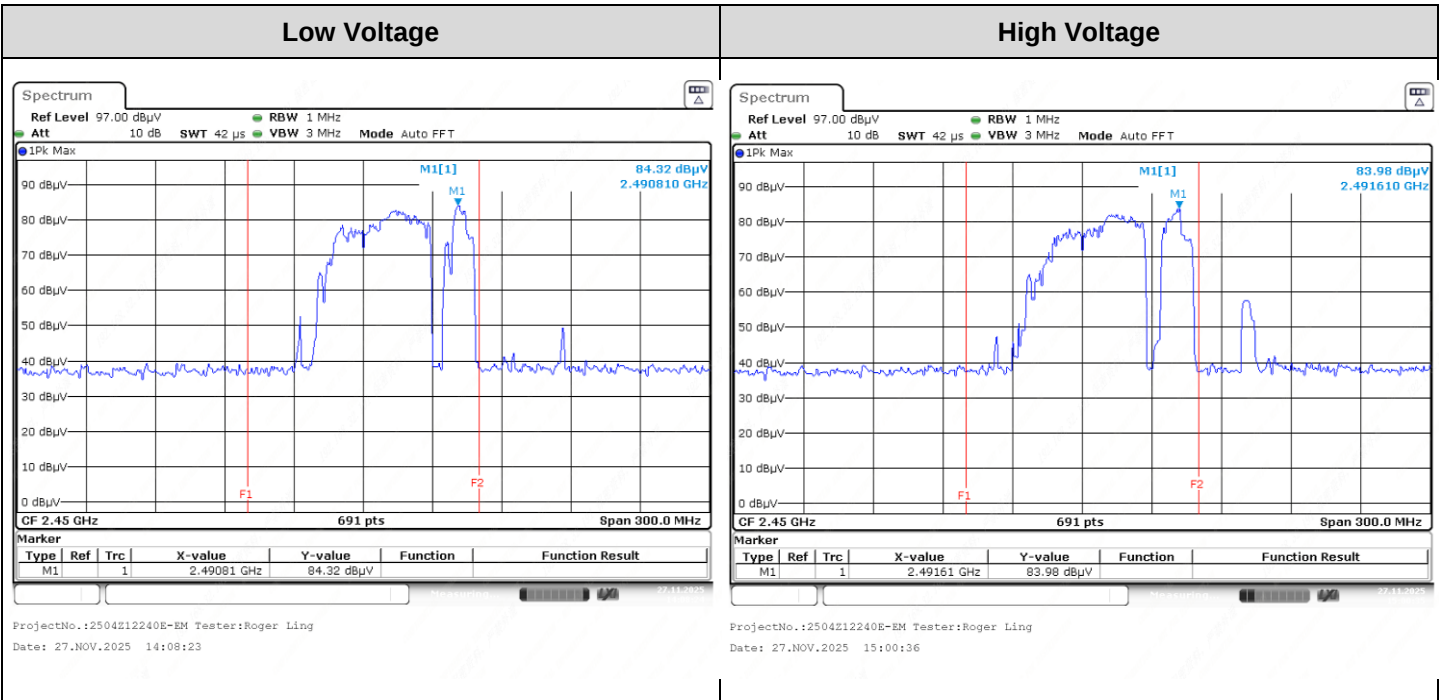
The EUT was operated / warmed by at least 10 minutes of use with a 1000 mL water load at room temperature at the beginning of the test. Then the operating frequency was monitored as the input voltage was varied between 80 and 125 percent of the nominal rating.

The results of this test are as follows:

Line voltage varied from 96 V<sub>AC</sub> to 150 V<sub>AC</sub>.

| (Low voltage) Frequency (MHz) | (High voltage) Frequency (MHz) |
|-------------------------------|--------------------------------|
| 2490.81                       | 2491.61                        |

Please refer to following pages for details of the variation in operating frequency with line voltage measurement.



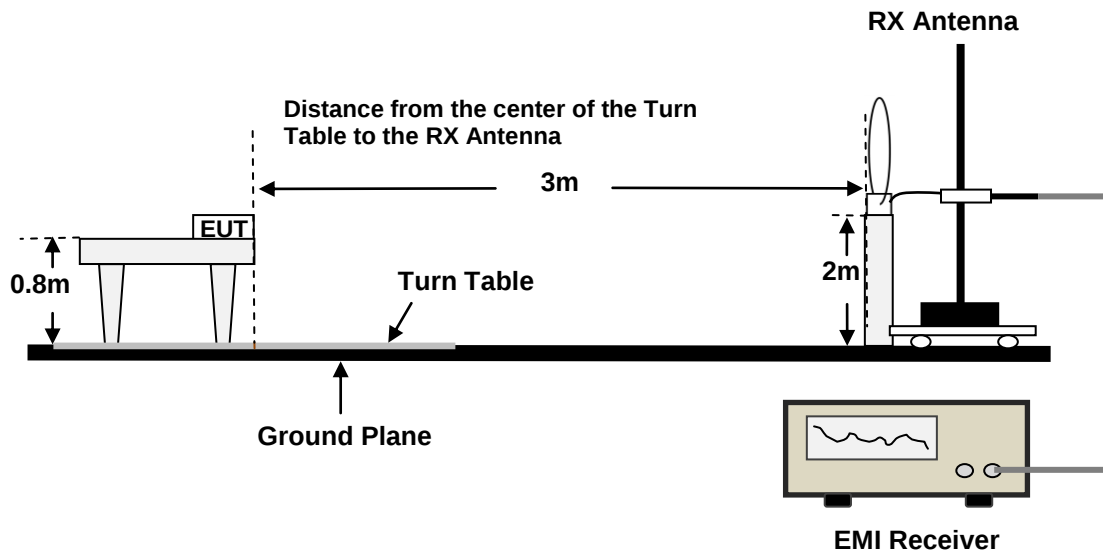
## RADIATED EMISSIONS

### Applicable Standard

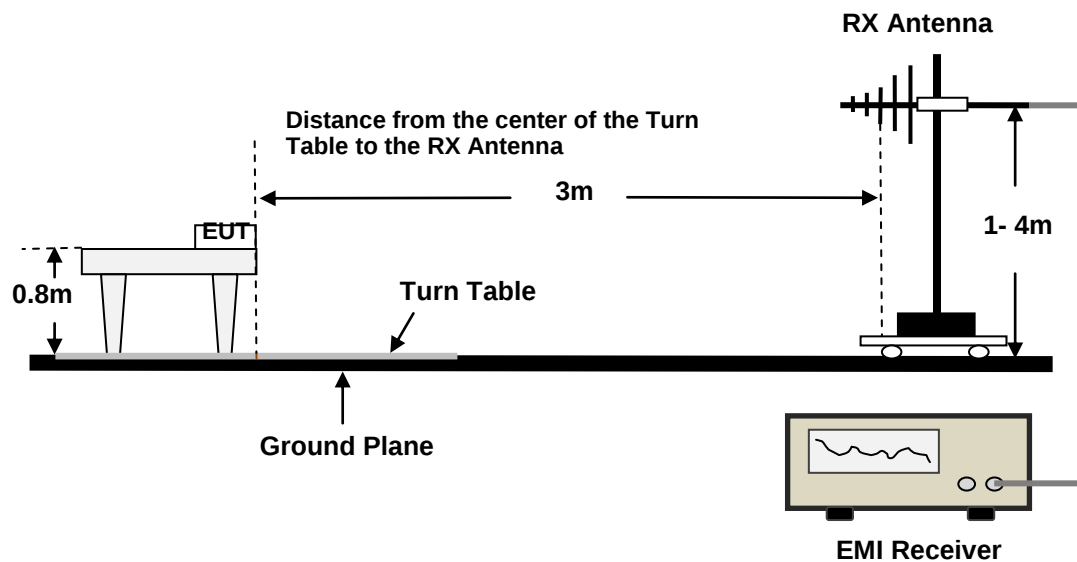
FCC §18.305 and FCC §18.309

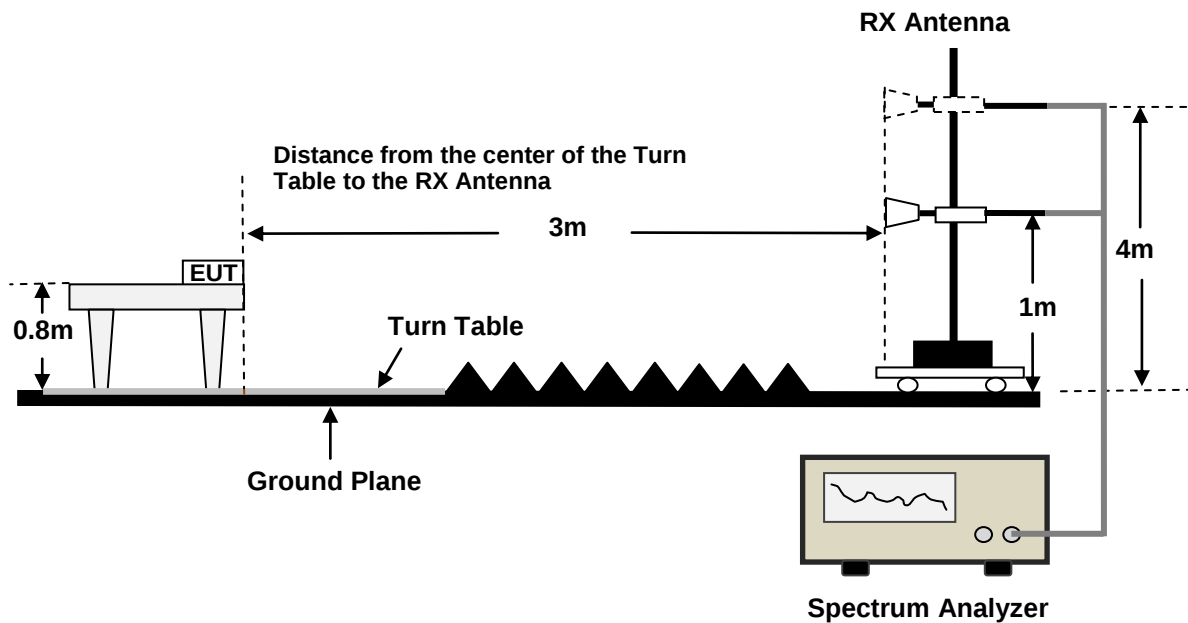
### EUT Setup

9kHz - 30MHz:



30MHz - 1GHz:



**Above 1GHz:**

The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the FCC MP-5. The specification used was the FCC part 18 limits.

The socket was connected to 120 V AC /60 Hz power source.

**EMI Test Receiver Setup and Spectrum Analyzer Setup**

The system was investigated from 9kHz to 25GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

| Frequency Range   | Measurement | RBW     | Video B/W | IF B/W |
|-------------------|-------------|---------|-----------|--------|
| 9 kHz -150 kHz    | PK          | 300 Hz  | 1 kHz     | /      |
| 150 kHz - 30 MHz  | PK          | 10 kHz  | 30 kHz    | /      |
| 30 MHz - 1000 MHz | PK          | 100 kHz | 300 kHz   | /      |
|                   | QP          | /       | /         | 120kHz |
| Above 1GHz        | PK          | 1 MHz   | 3 MHz     | /      |
|                   | AV          | 1 MHz   | 10 Hz     | /      |

All data was recorded in the Quasi-peak detector mode from 30 MHz to 1 GHz, Peak and average detection mode above 1 GHz.

**Test Procedure**

Maximizing procedure was performed on the six (6) highest emissions to ensure that the EUT complied with all installation combinations.

The EUT was in the normal (naïve) operating mode during the final qualification test to represent the worst results.

## Calculation

The **Factor** is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

$$\text{Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

$$\begin{aligned}\text{Over Limit/Margin} &= \text{Level / Corrected Amplitude} - \text{Limit} \\ \text{Level / Corrected Amplitude} &= \text{Read Level} + \text{Factor}\end{aligned}$$

## Test Data and Plots

### Environmental Conditions

|                           |              |
|---------------------------|--------------|
| <b>Temperature:</b>       | 22.7-24.3 °C |
| <b>Relative Humidity:</b> | 52-55 %      |
| <b>ATM Pressure:</b>      | 101.1 kPa    |

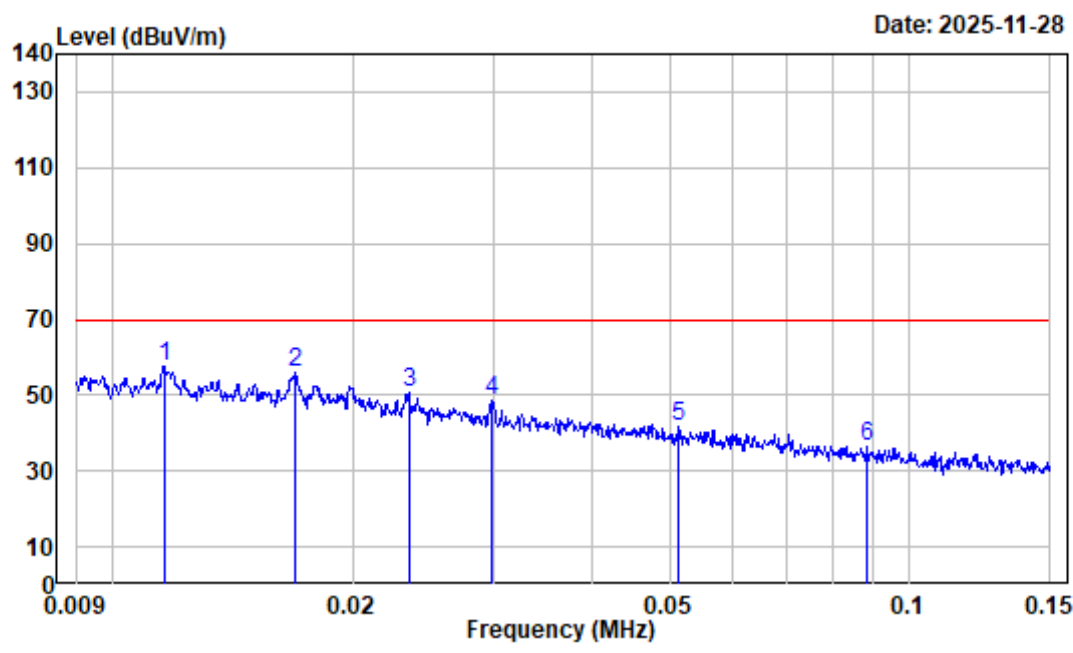
*The Below 1GHz testing was performed by Colin Lin on 2025-11-28.*

*The Above 1GHz testing was performed by Roger Ling on 2025-11-27.*

*EUT operation mode: Microwave(Maximum output power)*

**Test Result:** Compliance, please refer to the following data.

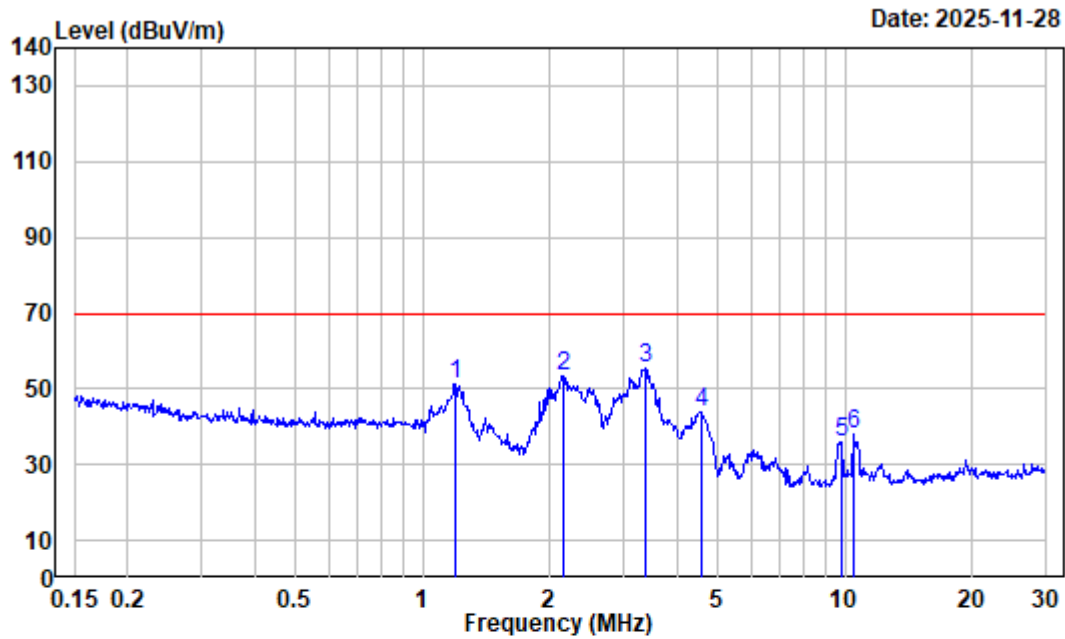
9kHz - 30MHz



Site : chamber  
Condition : 3m  
Job No. : 2504Z12240E-EM  
Polarization : Parallel Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:300Hz VBW:1kHz

|   | Freq Factor |       | Read Level |        | Limit | Over   | Remark |
|---|-------------|-------|------------|--------|-------|--------|--------|
|   | MHz         | dB/m  | dBuV       | dBuV/m | Line  | Limit  |        |
| 1 | 0.012       | 35.11 | 22.74      | 57.85  | 69.56 | -11.71 | Peak   |
| 2 | 0.017       | 32.73 | 23.43      | 56.16  | 69.56 | -13.40 | Peak   |
| 3 | 0.024       | 29.81 | 20.68      | 50.49  | 69.56 | -19.07 | Peak   |
| 4 | 0.030       | 26.99 | 21.45      | 48.44  | 69.56 | -21.12 | Peak   |
| 5 | 0.051       | 22.62 | 19.13      | 41.75  | 69.56 | -27.81 | Peak   |
| 6 | 0.088       | 17.65 | 18.83      | 36.48  | 69.56 | -33.08 | Peak   |

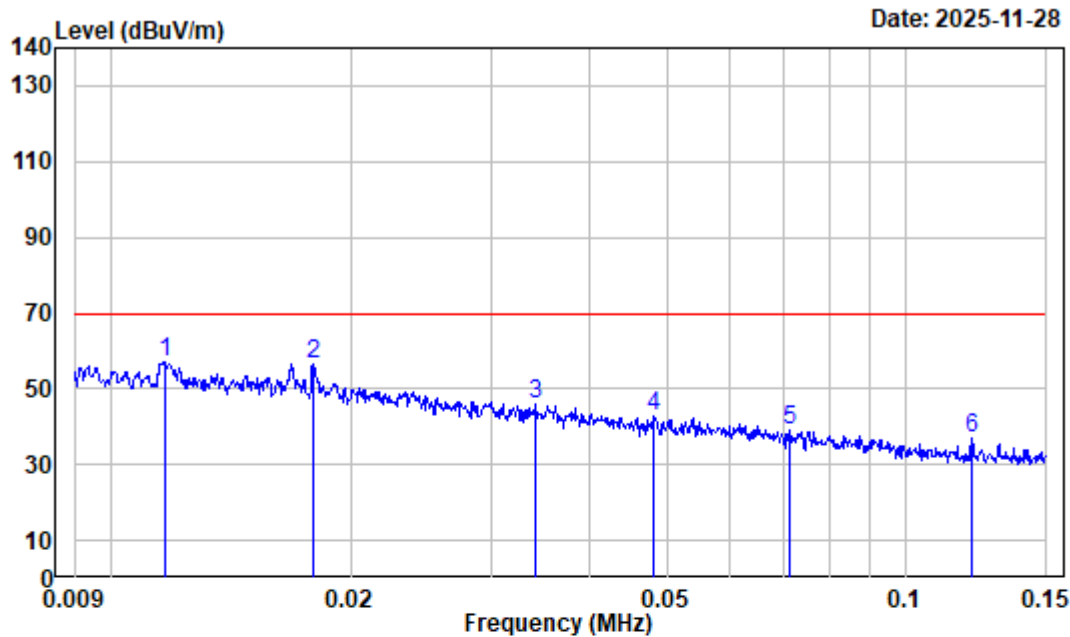
Vertical



Site : chamber  
Condition : 3m  
Job No. : 2504Z12240E-EM  
Polarization : Parallel Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:10kHz VBW:30kHz

|   | Freq   | Factor | Read Level | Level  | Limit Line | Over Limit | Remark |
|---|--------|--------|------------|--------|------------|------------|--------|
|   | MHz    | dB/m   | dBuV       | dBuV/m | dBuV/m     | dB         |        |
| 1 | 1.191  | -2.51  | 53.58      | 51.07  | 69.56      | -18.49     | Peak   |
| 2 | 2.167  | -5.45  | 58.87      | 53.42  | 69.56      | -16.14     | Peak   |
| 3 | 3.364  | -6.00  | 61.44      | 55.44  | 69.56      | -14.12     | Peak   |
| 4 | 4.598  | -6.30  | 50.27      | 43.97  | 69.56      | -25.59     | Peak   |
| 5 | 9.861  | -5.36  | 41.45      | 36.09  | 69.56      | -33.47     | Peak   |
| 6 | 10.452 | -5.24  | 43.05      | 37.81  | 69.56      | -31.75     | Peak   |

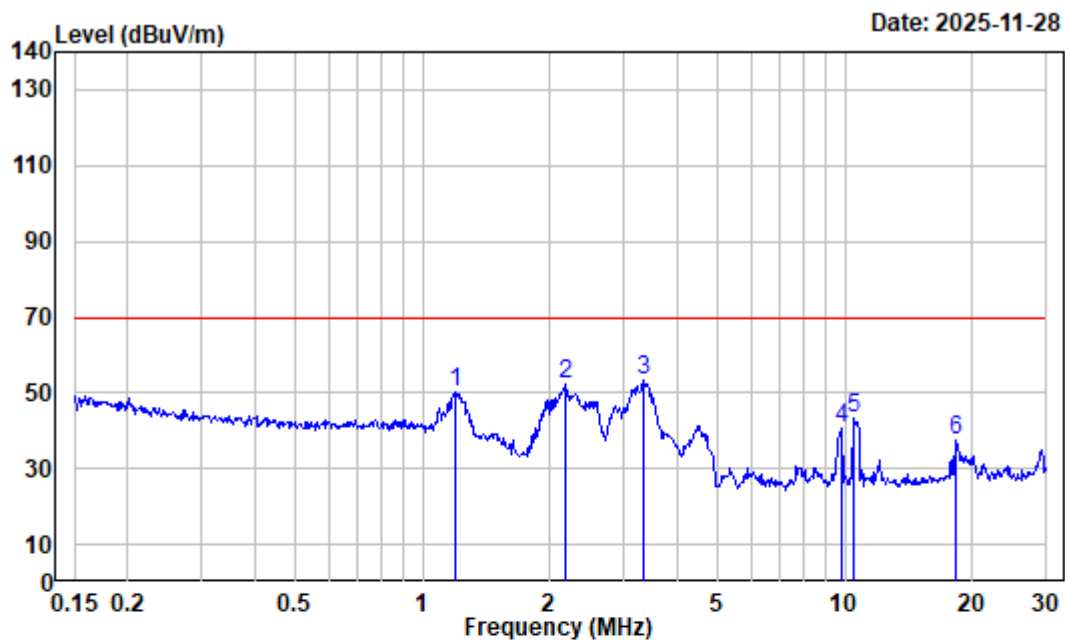
9kHz - 30MHz



Site : chamber  
Condition : 3m  
Job No. : 2504Z12240E-EM  
Polarization : Perpendicular Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:300Hz VBW:1kHz

|   | Freq  | Factor | Read Level | Level  | Limit Line | Over Limit | Remark |
|---|-------|--------|------------|--------|------------|------------|--------|
|   | MHz   | dB/m   | dBuV       | dBuV/m | dBuV/m     | dB         |        |
| 1 | 0.012 | 35.08  | 22.10      | 57.18  | 69.56      | -12.38     | Peak   |
| 2 | 0.018 | 32.31  | 24.17      | 56.48  | 69.56      | -13.08     | Peak   |
| 3 | 0.034 | 26.09  | 19.96      | 46.05  | 69.56      | -23.51     | Peak   |
| 4 | 0.048 | 23.22  | 19.50      | 42.72  | 69.56      | -26.84     | Peak   |
| 5 | 0.071 | 19.76  | 19.38      | 39.14  | 69.56      | -30.42     | Peak   |
| 6 | 0.121 | 15.49  | 21.30      | 36.79  | 69.56      | -32.77     | Peak   |

Vertical



Site : chamber

Condition : 3m

Job No. : 2504Z12240E-EM

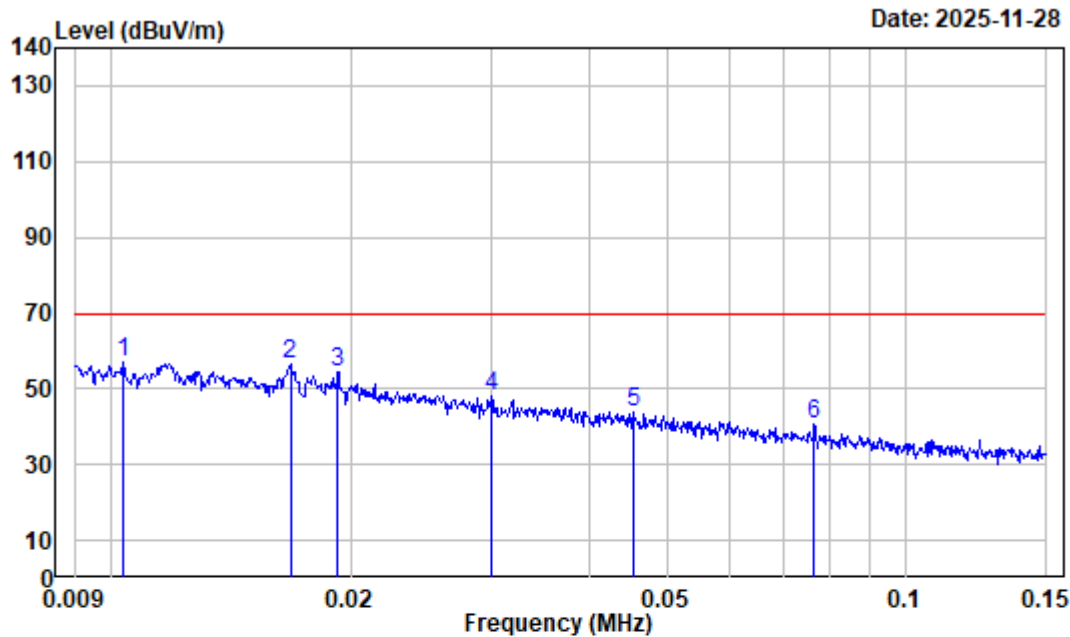
Polarization : Perpendicular Tester: Colin Lin

Test Mode : Microwave

Receiver Setting: RBW:10kHz VBW:30kHz

|   | Freq   | Factor | Read Level | Level  | Limit Line | Over Limit | Remark |
|---|--------|--------|------------|--------|------------|------------|--------|
|   | MHz    | dB/m   | dBuV       | dBuV/m | dBuV/m     | dB         |        |
| 1 | 1.197  | -2.53  | 52.68      | 50.15  | 69.56      | -19.41     | Peak   |
| 2 | 2.190  | -5.46  | 57.53      | 52.07  | 69.56      | -17.49     | Peak   |
| 3 | 3.328  | -5.98  | 59.46      | 53.48  | 69.56      | -16.08     | Peak   |
| 4 | 9.861  | -5.36  | 46.14      | 40.78  | 69.56      | -28.78     | Peak   |
| 5 | 10.452 | -5.24  | 48.50      | 43.26  | 69.56      | -26.30     | Peak   |
| 6 | 18.328 | -3.73  | 41.32      | 37.59  | 69.56      | -31.97     | Peak   |

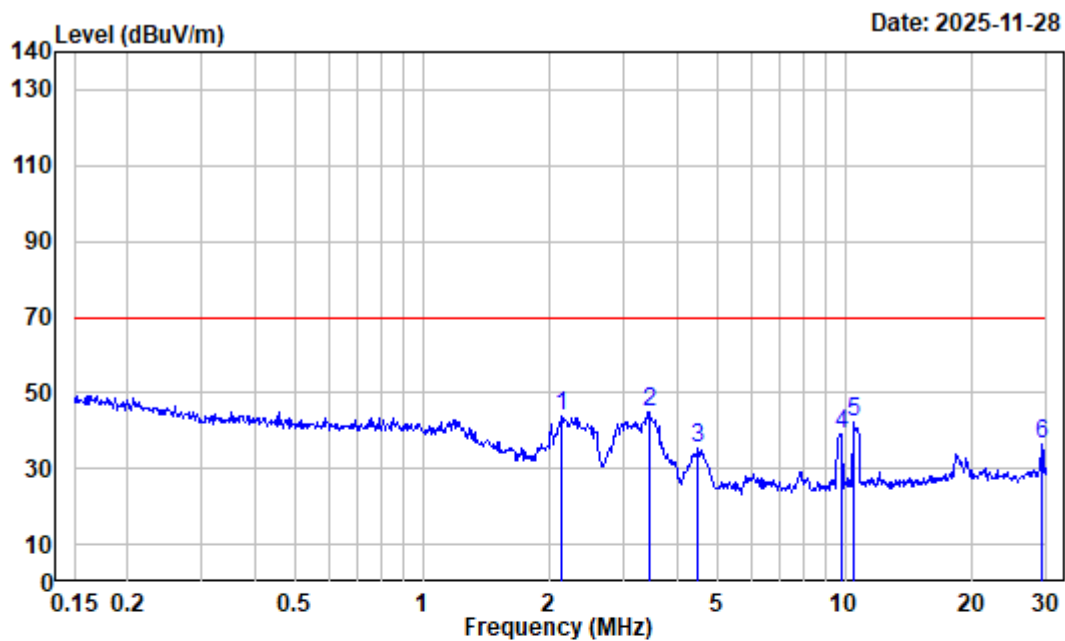
9kHz - 30MHz



Site : chamber  
Condition : 3m  
Job No. : 2504Z12240E-EM  
Polarization : Ground-parallel      Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:300Hz VBW:1kHz

|   | Freq  | Factor | Read Level | Level  | Limit  | Over   | Remark |
|---|-------|--------|------------|--------|--------|--------|--------|
|   | MHz   | dB/m   | dBuV       | dBuV/m | dBuV/m | dB     |        |
| 1 | 0.010 | 35.67  | 21.50      | 57.17  | 69.56  | -12.39 | Peak   |
| 2 | 0.017 | 32.81  | 23.55      | 56.36  | 69.56  | -13.20 | Peak   |
| 3 | 0.019 | 31.71  | 22.81      | 54.52  | 69.56  | -15.04 | Peak   |
| 4 | 0.030 | 26.93  | 21.27      | 48.20  | 69.56  | -21.36 | Peak   |
| 5 | 0.046 | 23.74  | 20.31      | 44.05  | 69.56  | -25.51 | Peak   |
| 6 | 0.077 | 19.02  | 21.47      | 40.49  | 69.56  | -29.07 | Peak   |

Vertical



Site : chamber

Condition : 3m

Job No. : 2504Z12240E-EM

Polarization : Ground-parallel

Test Mode : Microwave

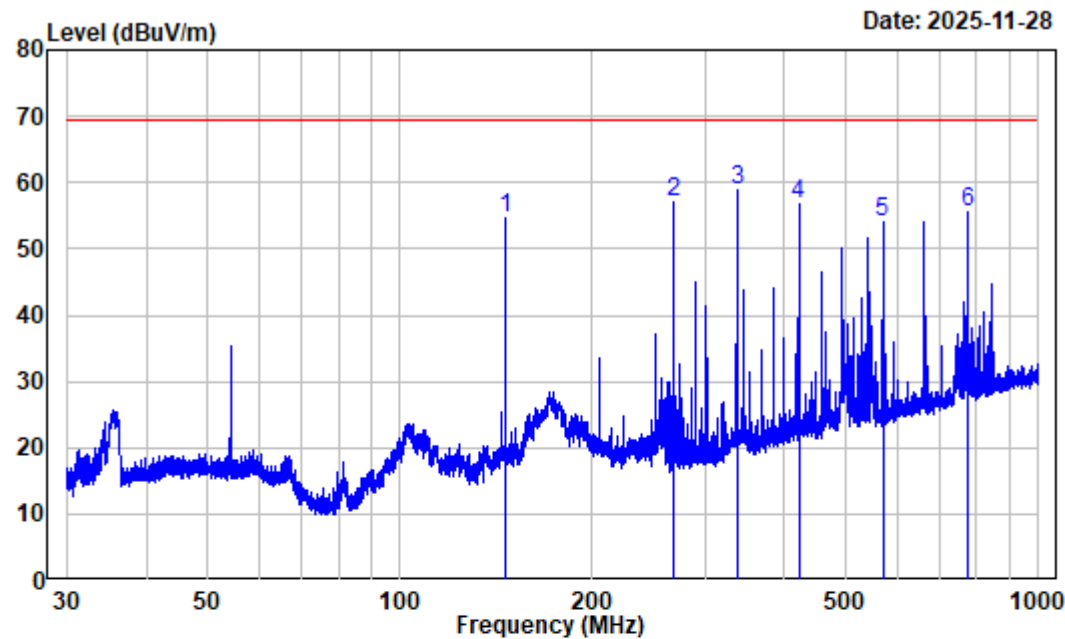
Receiver Setting: RBW:10kHz VBW:30kHz

Tester: Colin Lin

|   | Freq   | Factor | Read Level | Level  | Limit  | Over   | Remark |
|---|--------|--------|------------|--------|--------|--------|--------|
|   | MHz    | dB/m   | dBuV       | dBuV/m | dBuV/m | dB     |        |
| 1 | 2.144  | -5.44  | 49.20      | 43.76  | 69.56  | -25.80 | Peak   |
| 2 | 3.436  | -6.04  | 51.12      | 45.08  | 69.56  | -24.48 | Peak   |
| 3 | 4.501  | -6.30  | 41.79      | 35.49  | 69.56  | -34.07 | Peak   |
| 4 | 9.809  | -5.38  | 44.36      | 38.98  | 69.56  | -30.58 | Peak   |
| 5 | 10.452 | -5.24  | 47.42      | 42.18  | 69.56  | -27.38 | Peak   |
| 6 | 29.371 | -2.38  | 38.62      | 36.24  | 69.56  | -33.32 | Peak   |

30MHz - 1GHz  
Below 1GHz

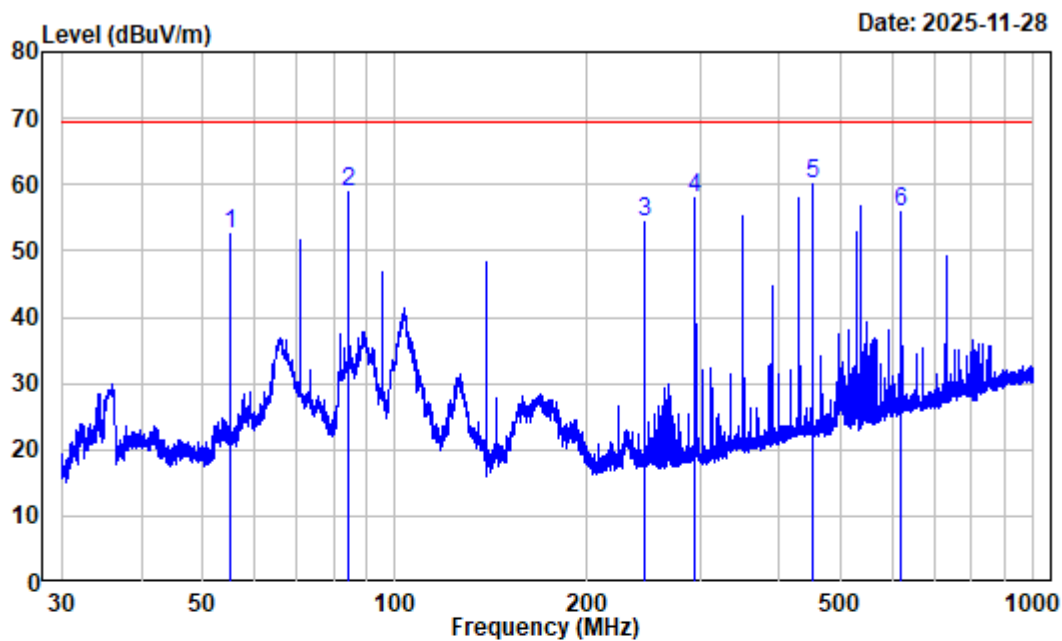
Horizontal



Site : chamber  
Condition : 3m HORIZONTAL  
Job No. : 2504Z12240E-EM      Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:100kHz VBW:300kHz

|   | Freq    | Factor | Read Level | Limit Level | Over Limit | Remark      |
|---|---------|--------|------------|-------------|------------|-------------|
|   | MHz     | dB/m   | dBuV       | dBuV/m      | dBuV/m     | dB          |
| 1 | 146.181 | -14.92 | 69.46      | 54.54       | 69.56      | -15.02 Peak |
| 2 | 267.311 | -9.85  | 66.80      | 56.95       | 69.56      | -12.61 Peak |
| 3 | 337.659 | -7.21  | 65.97      | 58.76       | 69.56      | -10.80 Peak |
| 4 | 421.134 | -5.09  | 61.77      | 56.68       | 69.56      | -12.88 Peak |
| 5 | 570.360 | -3.15  | 57.11      | 53.96       | 69.56      | -15.60 Peak |
| 6 | 776.197 | 0.20   | 55.38      | 55.58       | 69.56      | -13.98 Peak |

Vertical



Site : chamber  
Condition : 3m VERTICAL  
Job No. : 2504Z12240E-EM      Tester: Colin Lin  
Test Mode : Microwave  
Receiver Setting: RBW:100kHz VBW:300kHz

|   | Freq Factor |        | Read Level | Limit Level | Limit Line | Over Limit | Remark |
|---|-------------|--------|------------|-------------|------------|------------|--------|
|   | MHz         | dB/m   | dBuV       | dBuV/m      | dBuV/m     | dB         |        |
| 1 | 55.245      | -10.71 | 63.12      | 52.41       | 69.56      | -17.15     | Peak   |
| 2 | 84.184      | -16.22 | 75.05      | 58.83       | 69.56      | -10.73     | Peak   |
| 3 | 245.628     | -10.02 | 64.24      | 54.22       | 69.56      | -15.34     | Peak   |
| 4 | 295.535     | -8.89  | 66.90      | 58.01       | 69.56      | -11.55     | Peak   |
| 5 | 450.345     | -4.85  | 64.91      | 60.06       | 69.56      | -9.50      | Peak   |
| 6 | 620.710     | -1.74  | 57.68      | 55.94       | 69.56      | -13.62     | Peak   |

**1 GHz - 25 GHz:**

| Frequency<br>(MHz)                      | Measurement       |          | Rx Antenna     | Corrected<br>Factor<br>(dB/m) | Corrected<br>Amplitude<br>(dBμV/m) | Limit<br>(dBμV/m) | Margin<br>(dB) |
|-----------------------------------------|-------------------|----------|----------------|-------------------------------|------------------------------------|-------------------|----------------|
|                                         | Reading<br>(dBμV) | PK/QP/AV | Polar<br>(H/V) |                               |                                    |                   |                |
| 700ml Water                             |                   |          |                |                               |                                    |                   |                |
| 2271.23                                 | 45.48             | AV       | H              | -10.40                        | 35.08                              | 69.56             | -34.48         |
| 2271.23                                 | 44.84             | AV       | V              | -10.40                        | 34.44                              | 69.56             | -35.12         |
| 2545.41                                 | 45.71             | AV       | H              | -10.17                        | 35.54                              | 69.56             | -34.02         |
| 2545.41                                 | 46.18             | AV       | V              | -10.17                        | 36.01                              | 69.56             | -33.55         |
| 4323.50                                 | 46.07             | AV       | H              | -7.52                         | 38.55                              | 69.56             | -31.01         |
| 4323.50                                 | 47.64             | AV       | V              | -7.52                         | 40.12                              | 69.56             | -29.44         |
| 700ml Water (Second and third harmonic) |                   |          |                |                               |                                    |                   |                |
| 4922.75                                 | 45.96             | AV       | H              | -6.48                         | 39.48                              | 69.56             | -30.08         |
| 4922.75                                 | 47.13             | AV       | V              | -6.48                         | 40.65                              | 69.56             | -28.91         |
| 7364.37                                 | 48.37             | AV       | H              | -1.28                         | 47.09                              | 69.56             | -22.47         |
| 7364.37                                 | 48.61             | AV       | V              | -1.28                         | 47.33                              | 69.56             | -22.23         |
| 300ml Water (Second and third harmonic) |                   |          |                |                               |                                    |                   |                |
| 4922.75                                 | 45.76             | AV       | H              | -6.48                         | 39.28                              | 69.56             | -30.28         |
| 4922.75                                 | 47.46             | AV       | V              | -6.48                         | 40.98                              | 69.56             | -28.58         |
| 7364.37                                 | 55.46             | AV       | H              | -1.28                         | 54.18                              | 69.56             | -15.38         |
| 7364.37                                 | 56.15             | AV       | V              | -1.28                         | 54.87                              | 69.56             | -14.69         |

Note 1: Factor = Antenna factor (RX) + Cable Loss - Amplifier Factor

Note 2: Corrected Amplitude = Factor + Reading

Note 3: Margin = Corrected Amplitude - Limit

Note 4: The emission levels of other frequencies that were lower than the limit 20dB not show in test report.

## EXHIBIT A-EUT PHOTOGRAPHS

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Please refer to the Attachment No.1 2504Z12240E-EM EUT External Photos and Attachment No.2 2504Z12240E-EM EUT Internal Photos.

## EXHIBIT B-TEST SETUP PHOTOGRAPHS

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Please refer to the Attachment No.3 2504Z12240E-EM-00A Test Photos.

**\*\*\*\*\* END OF REPORT \*\*\*\*\***