

FCC Test Report

Report No.: RWAZ202300066A
Applicant: Guangdong Welly Electrical Appliances Co.,Ltd
Address: Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province, P. R. China
Product Name: Microwave Oven
Product Model: E25PXP20-A90
Multiple Models: N/A
Trade Mark: N/A
FCC ID: YI4DWE25PXP20
Standards: FCC CFR Title 47 Part 18
Test Date: 2023-12-14 to 2024-03-29
Test Result: Complied
Report Date: 2024-04-02
Reviewed by:

Frank Yin

Frank Yin
Project Engineer

Approved by:

Jacob Kong

Jacob Kong
Manager

Prepared by:

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China



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Revision History

| Version No. | Issued Date | Description |
|-------------|-------------|-------------|
| 00 | 2024-04-02 | Original |

Contents

| | | |
|----------|--|-----------|
| 1 | General Information | 4 |
| 1.1 | Client Information | 4 |
| 1.2 | Product Description of EUT | 4 |
| 1.3 | Related Submittal(s)/Grant(s)..... | 4 |
| 1.4 | Measurement Uncertainty | 4 |
| 1.5 | Laboratory Location..... | 5 |
| 1.6 | Test Methodology | 5 |
| 2 | Description of Measurement..... | 6 |
| 2.1 | Test Configuration..... | 6 |
| 2.2 | Test Auxiliary Equipment | 6 |
| 2.3 | Test Setup..... | 6 |
| 2.4 | Test Procedure | 8 |
| 2.5 | Measurement Method..... | 9 |
| 2.6 | Measurement Equipment | 9 |
| 3 | Test Results | 11 |
| 3.1 | Test Summary..... | 11 |
| 3.2 | Limit | 11 |
| 3.3 | Operating frequencies | 12 |
| 3.4 | Power Output Measurement | 13 |
| 3.5 | AC Line Conducted Emissions Test Data..... | 14 |
| 3.6 | Radiated emission Test Data..... | 18 |
| 3.7 | Radio frequency exposure | 22 |
| 4 | Test Setup Photo..... | 23 |
| 5 | E.U.T Photo | 24 |

1 General Information

1.1 Client Information

| | |
|---------------|--|
| Applicant: | Guangdong Welly Electrical Appliances Co.,Ltd |
| Address: | Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province, P. R. China |
| Manufacturer: | Guangdong Welly Electrical Appliances Co.,Ltd |
| Address: | Fusha Industrial Park, Fusha Town, Zhongshan City, Guangdong Province, P. R. China |

1.2 Product Description of EUT

The EUT is Microwave Oven operate on 2450MHz ISM frequency Band.

| | |
|---|--|
| Sample Serial Number | 19-1(assigned by WATC) |
| Sample Received Date | 2023-12-12 |
| Sample Status | Good Condition |
| Operating Frequency Range | 2450MHz±50.0 MHz |
| Power Supply | AC 120V/60Hz |
| Microwave Rated Input Power [#] | 1350W |
| Microwave Rated Output Power [#] | 900W |
| Modification | Sample No Modification by the test lab |

1.3 Related Submittal(s)/Grant(s)

| |
|----------------------------------|
| No Related Submittal(s)/Grant(s) |
|----------------------------------|

1.4 Measurement Uncertainty

| Parameter | | Expanded Uncertainty (Confidence of 95%(U = 2Uc(y))) |
|--|------------|---|
| AC Power Lines Conducted Emissions | | ±3.14dB |
| Radiated emission | Below 1GHz | ±4.84dB |
| | Above 1GHz | ±5.44dB |
| Frequency Error | | 150Hz |
| <p>Note 1: 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.</p> <p>Note 2: The Decision Rule is based on simple acceptance with ISO Guide 98-4:2012 Clause 8.2 (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)</p> | | |

1.5 Laboratory Location

World Alliance Testing & Certification (Shenzhen) Co., Ltd

No. 1002, East Block, Laobing Building, Xingye Road 3012, Xixiang street, Bao'an District, Shenzhen, Guangdong, People's Republic of China

Tel: +86-755-29691511, Email: qa@watc.com.cn

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 463912, the FCC Designation No. : CN5040.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0160.

1.6 Test Methodology

FCC CFR 47 Part 18

FCC OST MP-5-1986

2 Description of Measurement

2.1 Test Configuration

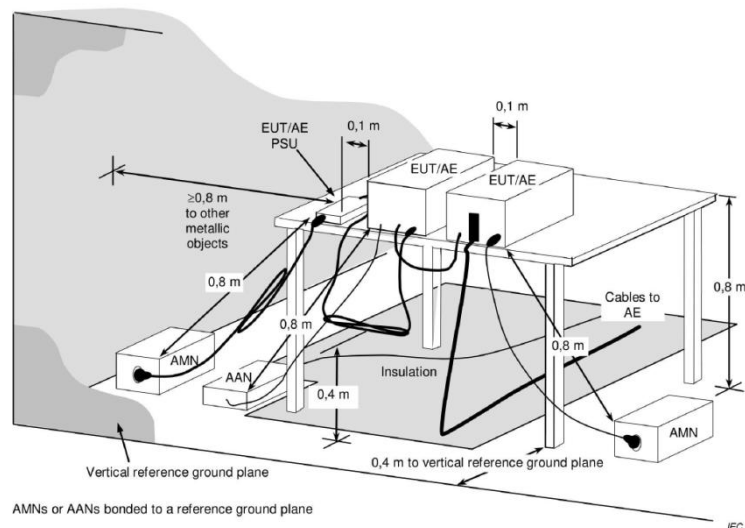
| Test Mode: | |
|------------|---|
| Microwave | The EUT was operate at the maximum microwave output power, according to FCC OST MP-5-1986 section 4.1, a quantity of water in a beaker was put in the oven cooking cavity during test |

2.2 Test Auxiliary Equipment

| Manufacturer | Description | Model | Serial Number |
|--------------|--------------|---------|---------------|
| Xiangbo | Glass Beaker | unknown | unknown |

2.3 Test Setup

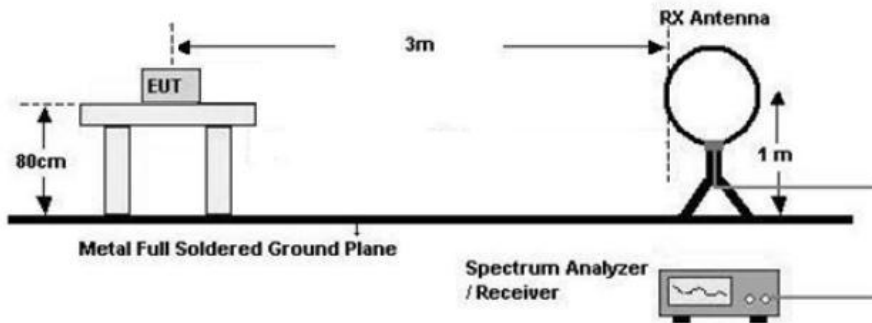
1) Conducted emission measurement:



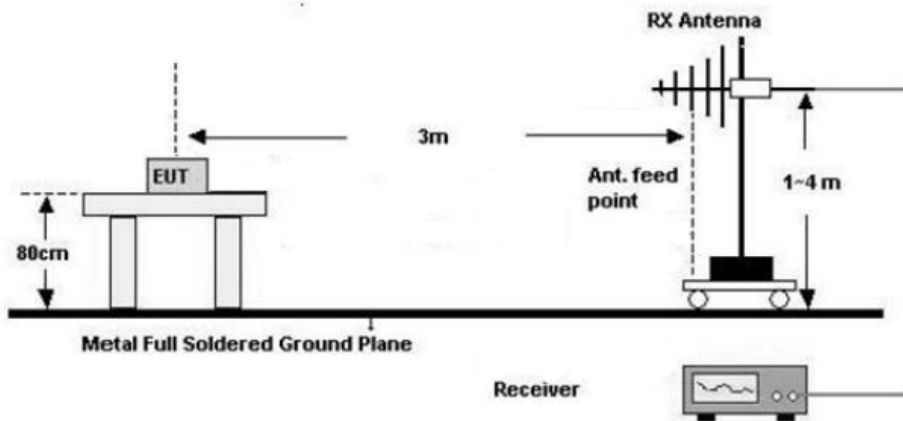
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

2) Radiated emission measurement:

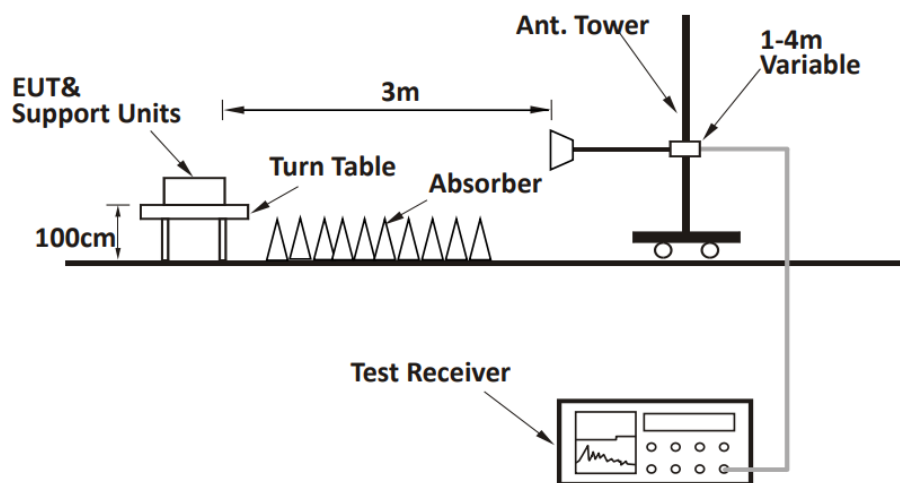
Below 30MHz (3m SAC)

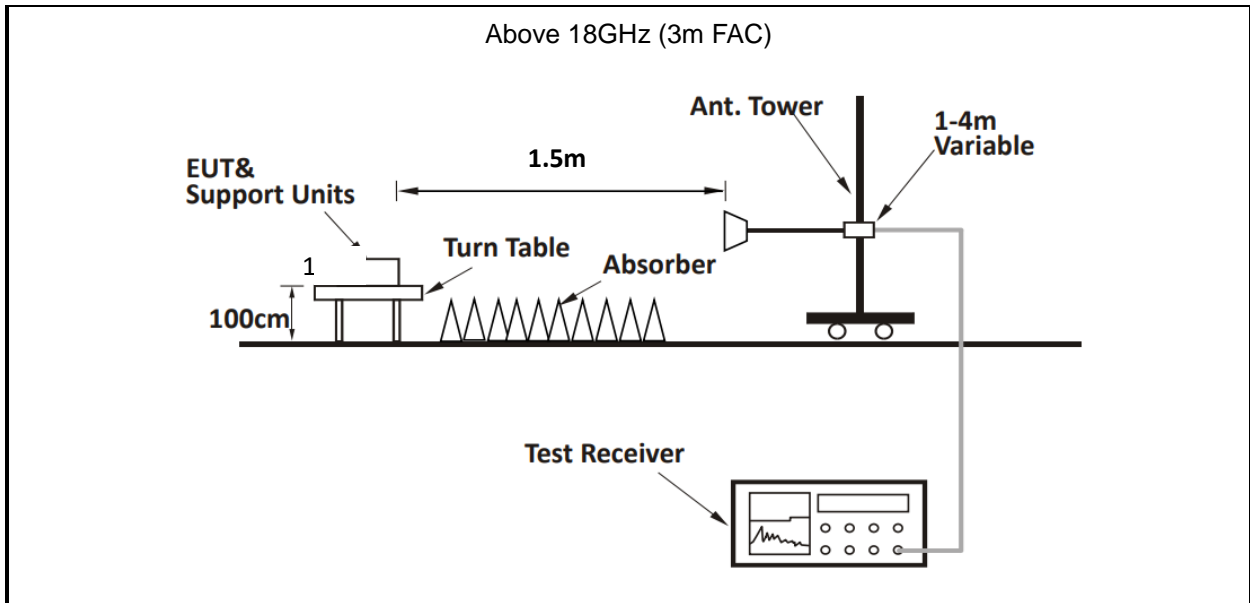


30MHz-1GHz (3m SAC)



Above 1-18GHz(3m FAC)





2.4 Test Procedure

Conducted emission:

1. The E.U.T is placed on a non-conducting table 40cm from the vertical ground plane and 80cm above the horizontal ground plane (Please refer to the block diagram of the test setup and photographs).
2. Both sides of A.C. line are checked for maximum conducted interference.
3. Line conducted data is recorded for both Line and Neutral

Radiated Emission Procedure:

a) For 30MHz-1GHz:

1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.

b) For above 1GHz:

1. The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m fully anechoic room. The measurement distance from the EUT to the receiving antenna is 3 m.
2. EUT works in each mode of operation that needs to be tested, and having the EUT continuously working. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations.
3. Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data.

2.5 Measurement Method

| Description of Test | Measurement Method |
|---------------------------------------|-------------------------------|
| AC Line Conducted Emissions | FCC OST MP-5-1986 Section 7 |
| Radiated emission | FCC OST MP-5-1986 Section 5 |
| Operating frequencies | FCC OST MP-5-1986 Section 4.5 |
| Power Output Measurement | FCC OST MP-5-1986 Section 4.3 |
| Radio frequency exposure requirements | FCC OST MP-5-1986 Section 3.1 |

2.6 Measurement Equipment

| Manufacturer | Description | Model | Management No. | Calibration Date | Calibration Due Date |
|---------------------------------|---------------------------------|--------------------------|------------------|------------------|----------------------|
| AC Line Conducted Emission Test | | | | | |
| ROHDE& SCHWARZ | EMI TEST RECEIVER | ESR | 101817 | 2023/7/3 | 2024/7/2 |
| R&S | LISN | ENV216 | 101748 | 2023/8/1 | 2024/7/31 |
| N/A | Coaxial Cable | NO.12 | N/A | 2023/7/3 | 2024/7/2 |
| Farad | Test Software | EZ-EMC | Ver. EMEC-3A1 | / | / |
| Radiated Emission Test | | | | | |
| R&S | EMI test receiver | ESR3 | 102758 | 2023/7/3 | 2024/7/2 |
| ROHDE& SCHWARZ | SPECTRUM ANALYZER | FSV40-N | 101608 | 2023/7/3 | 2024/7/2 |
| SONOMA INSTRUMENT | Low frequency amplifier | 310 | 186014 | 2023/7/12 | 2024/7/11 |
| COM-POWER | preamplifier | PAM-118A | 18040152 | 2023/8/21 | 2024/8/20 |
| COM-POWER | Amplifier | PAM-840A | 461306 | 2023/8/8 | 2024/8/7 |
| ETS | Passive Loop Antenna | 6512 | 29604 | 2023/7/7 | 2024/7/6 |
| SCHWARZBECK | Log - periodic wideband antenna | VULB 9163 | 9163-872 | 2023/7/7 | 2024/7/6 |
| Astro Antenna Ltd | Horn antenna | AHA-118S | 3015 | 2023/7/6 | 2024/7/5 |
| Ducommun technologies | Horn Antenna | ARH-4223-02 | 1007726-03 | 2023/7/10 | 2024/7/9 |
| Oulitong | Band Reject Filter | OBSF-2400-248 3.5-50N | OE02103119 | 2023/9/15 | 2024/9/14 |
| N/A | Coaxial Cable | N/A | NO.9 | 2023/8/8 | 2024/8/7 |
| N/A | Coaxial Cable | N/A | NO.10 | 2023/8/8 | 2024/8/7 |
| N/A | Coaxial Cable | N/A | NO.11 | 2023/8/8 | 2024/8/7 |
| Audix | Test Software | E3 | 191218 V9 | / | / |

| Operating frequencies | | | | | |
|--------------------------|------------------------|----------|-----------|------------|------------|
| ROHDE & SCHWARZ | SPECTRUM ANALYZER | FSV40-N | 101608 | 2023/7/3 | 2024/7/2 |
| Astro Antenna Ltd | Horn antenna | AHA-118S | 3015 | 2023/7/6 | 2024/7/5 |
| N/A | Coaxial Cable | N/A | NO.9 | 2023/8/8 | 2024/8/7 |
| N/A | Coaxial Cable | N/A | NO.10 | 2023/8/8 | 2024/8/7 |
| N/A | Coaxial Cable | N/A | NO.11 | 2023/8/8 | 2024/8/7 |
| Audix | Test Software | E3 | 191218 V9 | / | / |
| Power Output | | | | | |
| YOKOGAWA | Digital Power Meter | 253503 | 25BW3075 | 2023/8/24 | 2024/8/23 |
| Victor | Digital Thermometer | 6801 | 100730669 | 2023/12/1 | 2024/11/30 |
| Radio frequency exposure | | | | | |
| ETS | Microwave Survey Meter | 1501 | 3640274 | 2023/10/11 | 2024/10/10 |

Note: All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or International standards.

3 Test Results

3.1 Test Summary

| FCC Rules | Description of Test | Result |
|----------------------------------|---------------------------------------|----------------|
| FCC §18.307 | AC Line Conducted Emissions | Compliance |
| FCC §18.305 | Radiated emission | Compliance |
| FCC §18.301 FCC OST MP-5 §3.2 | Operating frequencies | Compliance |
| FCC OST MP-5 §4.3 | Power Output Measurement | Reporting only |
| FCC §18.313, §2.1091; §1.1310 | Radio frequency exposure requirements | Compliance |

3.2 Limit

| Test items | Limit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|-------------------------------------|---|-------------------------------------|--------------------------|--|-------------------|--------------------------|-------------------------------|-------------|----------|------|------|--------|-----|---------|-------|--------|------------------------|-----|--------|------|-------|-----|-----|-----------|--|--|--------|-----|---------------|--|--|-----|-----|
| AC Line Conducted Emissions | <table border="1"> <thead> <tr> <th rowspan="2">Frequency of emission (MHz)</th> <th colspan="2">Conducted limit (dBµV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15–0.5</td> <td>66 to 56 *</td> <td>56 to 46 *</td> </tr> <tr> <td>0.5–5</td> <td>56</td> <td>46</td> </tr> <tr> <td>5–30</td> <td>60</td> <td>50</td> </tr> </tbody> </table> <p>* Decreases with the logarithm of the frequency.</p> | Frequency of emission (MHz) | Conducted limit (dBµV) | | Quasi-peak | Average | 0.15–0.5 | 66 to 56 * | 56 to 46 * | 0.5–5 | 56 | 46 | 5–30 | 60 | 50 | | | | | | | | | | | | | | | | | | | | | |
| Frequency of emission (MHz) | Conducted limit (dBµV) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Quasi-peak | Average | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.15–0.5 | 66 to 56 * | 56 to 46 * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.5–5 | 56 | 46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5–30 | 60 | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Radiated emission | <table border="1"> <thead> <tr> <th>Equipment</th> <th>Operating frequency</th> <th>RF Power generated by equipment (watts)</th> <th>Field strength limit (µV/m)</th> <th>Distance (meters)</th> </tr> </thead> <tbody> <tr> <td>Any type unless otherwise specified (miscellaneous)</td> <td>Any ISM frequency</td> <td>Below 500 500 or more</td> <td>25 25 × SQRT(power/500)</td> <td>300 1300</td> </tr> </tbody> </table> | Equipment | Operating frequency | RF Power generated by equipment (watts) | Field strength limit (µV/m) | Distance (meters) | Any type unless otherwise specified (miscellaneous) | Any ISM frequency | Below 500 500 or more | 25 25 × SQRT(power/500) | 300 1300 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Equipment | Operating frequency | RF Power generated by equipment (watts) | Field strength limit (µV/m) | Distance (meters) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Any type unless otherwise specified (miscellaneous) | Any ISM frequency | Below 500 500 or more | 25 25 × SQRT(power/500) | 300 1300 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating frequencies | <p>§18.301 Within ISM frequency band 2400-2500MHz</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Radio frequency exposure requirements | <p>§1.1310</p> <table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Electric field strength (V/m)</th> <th>Magnetic field strength (A/m)</th> <th>Power density (mW/cm²)</th> <th>Averaging time (minutes)</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="text-align: center;">(ii) Limits for General Population/Uncontrolled Exposure</td> </tr> <tr> <td>0.3–1.34</td> <td>614</td> <td>1.63</td> <td>*(100)</td> <td><30</td> </tr> <tr> <td>1.34–30</td> <td>824/f</td> <td>2.19/f</td> <td>*(180/f²)</td> <td><30</td> </tr> <tr> <td>30–300</td> <td>27.5</td> <td>0.073</td> <td>0.2</td> <td><30</td> </tr> <tr> <td>300–1,500</td> <td></td> <td></td> <td>f/1500</td> <td><30</td> </tr> <tr> <td>1,500–100,000</td> <td></td> <td></td> <td>1.0</td> <td><30</td> </tr> </tbody> </table> <p>f = frequency in MHz. * = Plane-wave equivalent power density.</p> | Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) | (ii) Limits for General Population/Uncontrolled Exposure | | | | | 0.3–1.34 | 614 | 1.63 | *(100) | <30 | 1.34–30 | 824/f | 2.19/f | *(180/f ²) | <30 | 30–300 | 27.5 | 0.073 | 0.2 | <30 | 300–1,500 | | | f/1500 | <30 | 1,500–100,000 | | | 1.0 | <30 |
| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm ²) | Averaging time (minutes) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (ii) Limits for General Population/Uncontrolled Exposure | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0.3–1.34 | 614 | 1.63 | *(100) | <30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.34–30 | 824/f | 2.19/f | *(180/f ²) | <30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30–300 | 27.5 | 0.073 | 0.2 | <30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 300–1,500 | | | f/1500 | <30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,500–100,000 | | | 1.0 | <30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3.3 Operating frequencies

| | | | |
|-------------------------------|--|-----------------|---------|
| Test Date: | 2023-12-15 | Test By: | Luke Li |
| Environment condition: | Temperature: 23.0°C; Relative Humidity:60%; ATM Pressure: 100.7kPa | | |

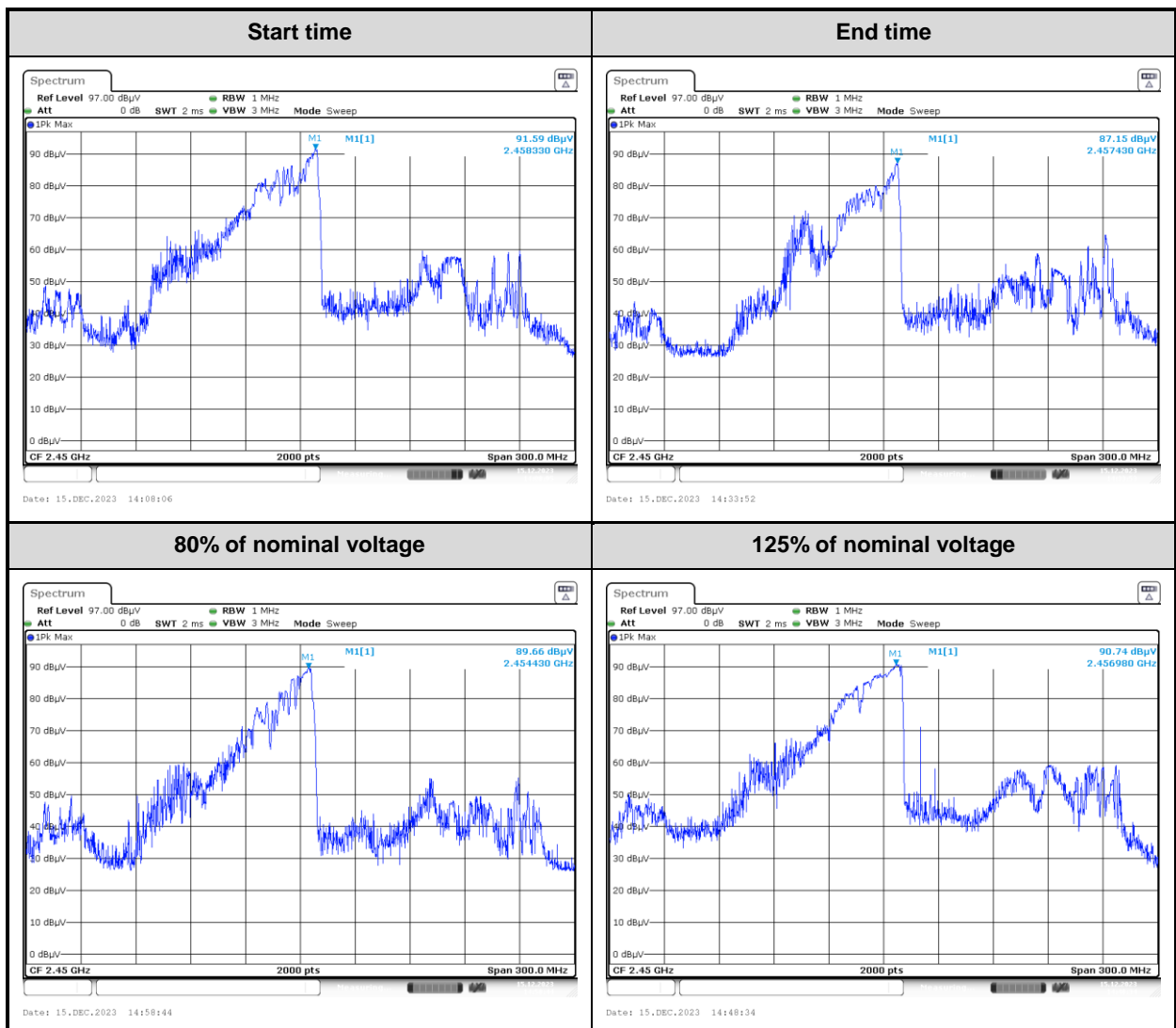
Variation in Operating Frequency with Time

| Frequency at Start time(MHz) | Frequency at End time(MHz) | Limit(MHz) |
|------------------------------|----------------------------|------------------|
| 2458.330 | 2457.430 | Within 2400~2500 |

Variation in Operating Frequency with Line Voltage

| Frequency at 80% of nominal voltage(MHz) | Frequency at 125% of nominal voltage(MHz) | Limit(MHz) |
|--|---|------------------|
| 2454.430 | 2456.980 | Within 2400~2500 |

Test Plot:



3.4 Power Output Measurement

| | | | |
|-------------------------------|--|-----------------|----------|
| Test Date: | 2023-12-14 | Test By: | Lirou Li |
| Environment condition: | Temperature: 24.2°C; Relative Humidity:70%; ATM Pressure: 100.5kPa | | |

Power Input:

| Input Voltage(V _{AC}) | Input Current(A) | Input Power(W) | Rated Input Power(W) |
|---------------------------------|------------------|----------------|----------------------|
| 112.8 | 11.9 | 1342.3 | 1350 |

Note:

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

Power Output:

| Quantity of Water (ml) | Mass of the container (g) | Ambient temperature (°C) | Initial temperature (°C) | Final temperature (°C) | Heating time (s) | Power output (W) |
|------------------------|---------------------------|--------------------------|--------------------------|------------------------|------------------|------------------|
| 1000 | 487 | 24.2 | 24.8 | 36.8 | 60 | 894 |

Formula:

$$P = \frac{4,187 \cdot m_w (T_2 - T_1) + 0,55 \cdot m_c (T_2 - T_0)}{t}$$

Note:

P is the microwave power output(W)

m_w is the mass of the water(ml)

m_c is the mass of the container(g)

T₀ is the ambient temperature(°C)

T₁ is the initial temperature of water(°C)

T₂ is the final temperature of water(°C)

t is the water heating time(s), excluding the magnetron filament heating-up time

According to FCC § 18.305, the field strength limit of the outside band emissions is:

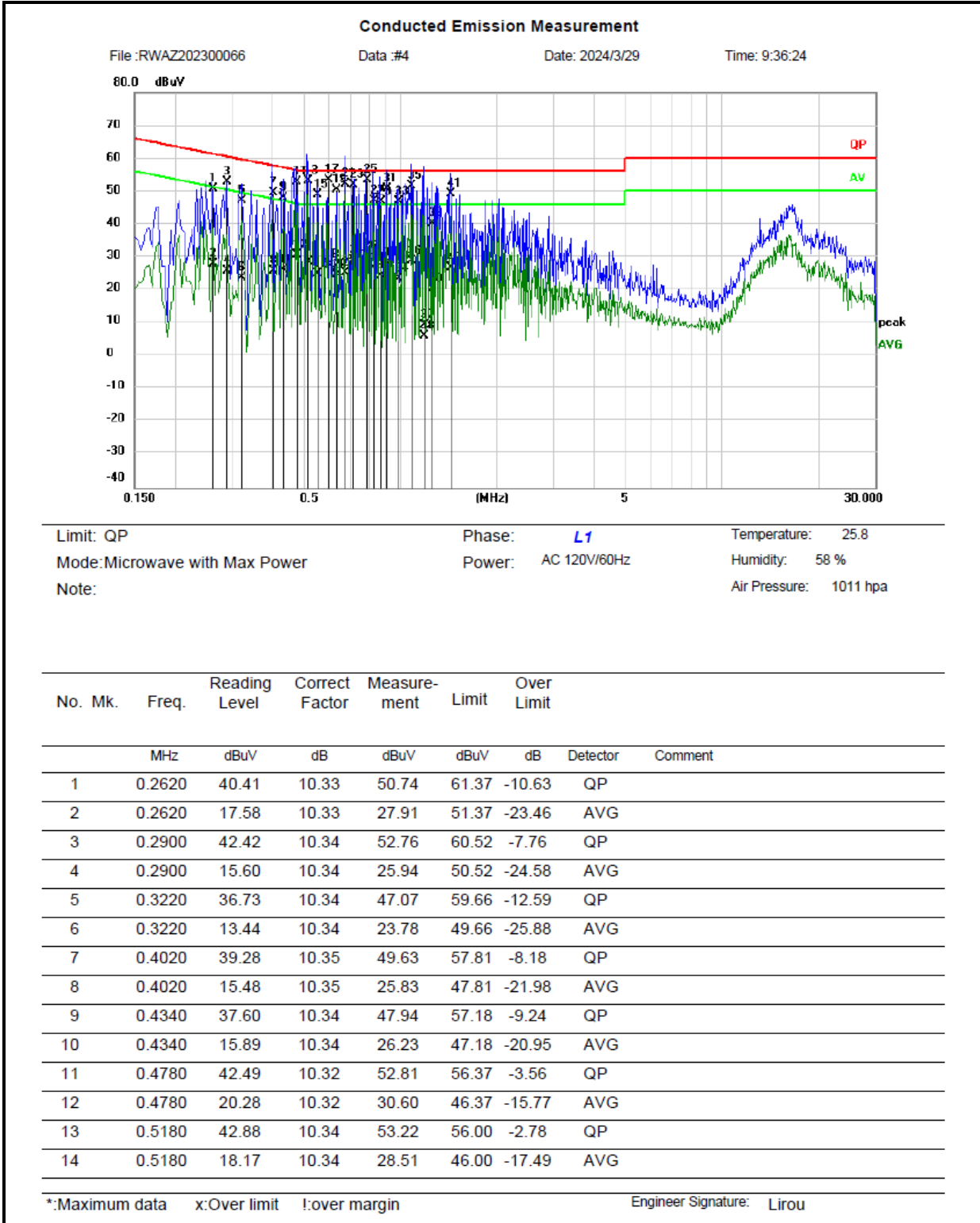
$$\text{Limit} = 20\lg(25 \cdot \text{SQRT}(\text{Power}/500)) + 20\lg(300/3)$$

$$= 20\lg(25 \cdot \text{SQRT}(894/500)) + 20\lg(300/3)$$

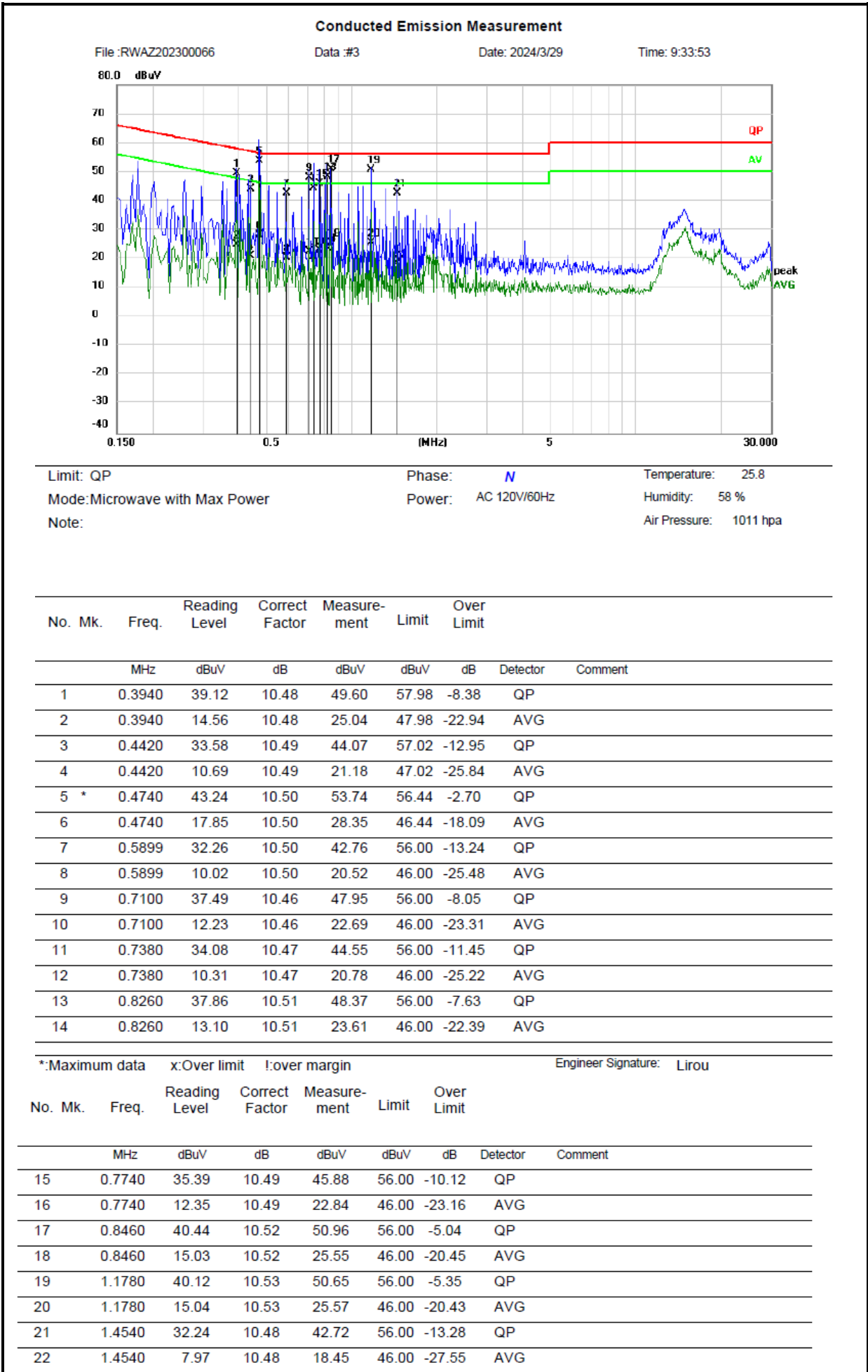
$$= 70.5\text{dBuV/m @3m distance}$$

3.5 AC Line Conducted Emissions Test Data

| | | | |
|-------------------------------|--|-----------------|----------|
| Test Date: | 2024-03-29 | Test By: | Lirou Li |
| Environment condition: | Temperature: 25.8°C; Relative Humidity:58%; ATM Pressure: 101.1kPa | | |



| No. Mk. | Freq. | Reading Level | Correct Factor | Measurement | Limit | Over Limit | Detector | Comment |
|---------|--------|---------------|----------------|-------------|-------|------------|----------|---------|
| | MHz | dBuV | dB | dBuV | dBuV | dB | | |
| 15 | 0.5540 | 38.66 | 10.38 | 49.04 | 56.00 | -6.96 | QP | |
| 16 | 0.5540 | 14.71 | 10.38 | 25.09 | 46.00 | -20.91 | AVG | |
| 17 | 0.5980 | 42.87 | 10.44 | 53.31 | 56.00 | -2.69 | QP | |
| 18 | 0.5980 | 17.11 | 10.44 | 27.55 | 46.00 | -18.45 | AVG | |
| 19 | 0.6340 | 40.06 | 10.48 | 50.54 | 56.00 | -5.46 | QP | |
| 20 | 0.6340 | 14.24 | 10.48 | 24.72 | 46.00 | -21.28 | AVG | |
| 21 | 0.6740 | 41.79 | 10.52 | 52.31 | 56.00 | -3.69 | QP | |
| 22 | 0.6740 | 14.66 | 10.52 | 25.18 | 46.00 | -20.82 | AVG | |
| 23 | 0.7140 | 41.53 | 10.56 | 52.09 | 56.00 | -3.91 | QP | |
| 24 | 0.7140 | 18.58 | 10.56 | 29.14 | 46.00 | -16.86 | AVG | |
| 25 * | 0.7900 | 42.76 | 10.60 | 53.36 | 56.00 | -2.64 | QP | |
| 26 | 0.7900 | 19.75 | 10.60 | 30.35 | 46.00 | -15.65 | AVG | |
| 27 | 0.8300 | 36.55 | 10.61 | 47.16 | 56.00 | -8.84 | QP | |
| 28 | 0.8300 | 16.06 | 10.61 | 26.67 | 46.00 | -19.33 | AVG | |
| 29 | 0.8700 | 36.11 | 10.63 | 46.74 | 56.00 | -9.26 | QP | |
| 30 | 0.8700 | 13.71 | 10.63 | 24.34 | 46.00 | -21.66 | AVG | |
| 31 | 0.9100 | 40.19 | 10.63 | 50.82 | 56.00 | -5.18 | QP | |
| 32 | 0.9100 | 17.76 | 10.63 | 28.39 | 46.00 | -17.61 | AVG | |
| 33 | 0.9860 | 36.30 | 10.66 | 46.96 | 56.00 | -9.04 | QP | |
| 34 | 0.9860 | 12.75 | 10.66 | 23.41 | 46.00 | -22.59 | AVG | |
| 35 | 1.0859 | 40.94 | 10.63 | 51.57 | 56.00 | -4.43 | QP | |
| 36 | 1.0859 | 18.34 | 10.63 | 28.97 | 46.00 | -17.03 | AVG | |
| 37 | 1.1860 | -1.30 | 10.60 | 9.30 | 56.00 | -46.70 | QP | |
| 38 | 1.1860 | -4.64 | 10.60 | 5.96 | 46.00 | -40.04 | AVG | |
| 39 | 1.2620 | 29.58 | 10.56 | 40.14 | 56.00 | -15.86 | QP | |
| 40 | 1.2620 | 9.94 | 10.56 | 20.50 | 46.00 | -25.50 | AVG | |
| 41 | 1.4380 | 38.90 | 10.49 | 49.39 | 56.00 | -6.61 | QP | |
| 42 | 1.4380 | 16.17 | 10.49 | 26.66 | 46.00 | -19.34 | AVG | |



Remark:

Measurement (dBuV)= Reading Level (dBuV) + Correct Factor(dB)

Correct Factor (dB)= LISN Voltage Division Factor (dB)+ Cable loss(dB)

Over Limit = Measurement – Limit

3.6 Radiated emission Test Data

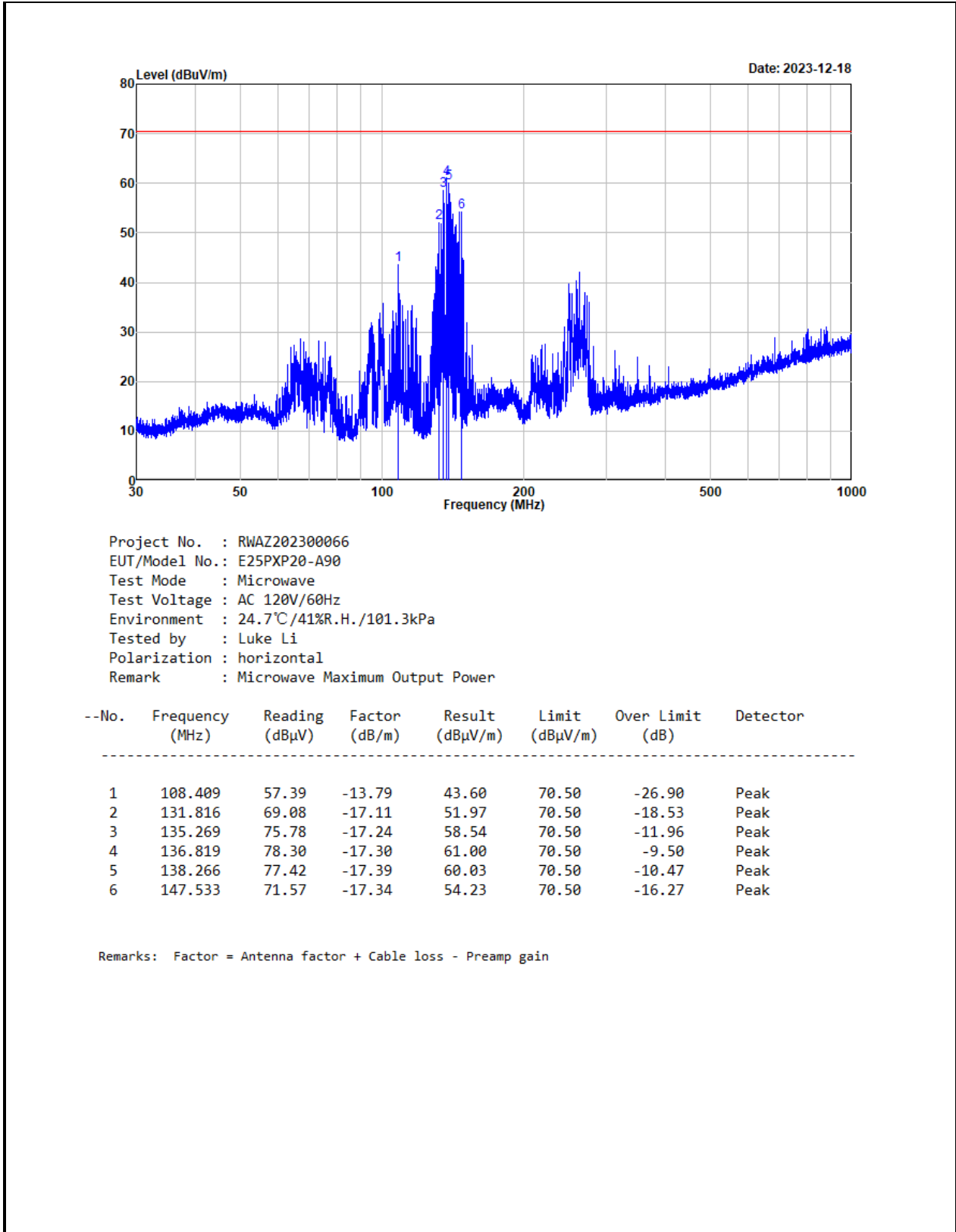
9 kHz-30MHz:

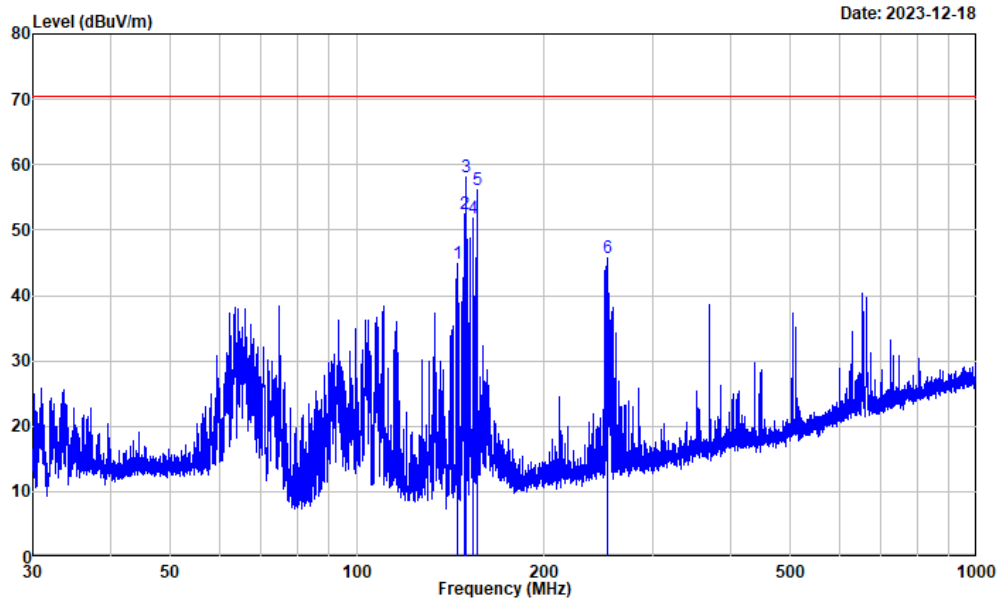
| | | | |
|-------------------------------|--|-----------------|---------|
| Test Date: | 2023-12-18 | Test By: | Luke Li |
| Environment condition: | Temperature: 24.7°C; Relative Humidity:41%; ATM Pressure: 101.3kPa | | |

For radiated emissions below 30MHz, there were no emissions found within 20dB of limit.

30MHz-1GHz:

| | | | |
|-------------------------------|--|-----------------|---------|
| Test Date: | 2023-12-18 | Test By: | Luke Li |
| Environment condition: | Temperature: 24.7°C; Relative Humidity:41%; ATM Pressure: 101.3kPa | | |





Project No. : RWAZ202300066
 EUT/Model No.: E25XP20-A90
 Test Mode : Microwave
 Test Voltage : AC 120V/60Hz
 Environment : 24.7°C/41%R.H./101.3kPa
 Tested by : Luke Li
 Polarization : vertical
 Remark : Microwave Maximum Output Power

| --No. | Frequency (MHz) | Reading (dBμV) | Factor (dB/m) | Result (dBμV/m) | Limit (dBμV/m) | Over Limit (dB) | Detector |
|-------|-----------------|----------------|---------------|-----------------|----------------|-----------------|----------|
| 1 | 145.096 | 62.34 | -17.36 | 44.98 | 70.50 | -25.52 | Peak |
| 2 | 148.832 | 69.80 | -17.25 | 52.55 | 70.50 | -17.95 | Peak |
| 3 | 150.274 | 75.35 | -17.20 | 58.15 | 70.50 | -12.35 | Peak |
| 4 | 153.873 | 68.90 | -17.02 | 51.88 | 70.50 | -18.62 | Peak |
| 5 | 156.115 | 72.96 | -16.90 | 56.06 | 70.50 | -14.44 | Peak |
| 6 | 253.392 | 57.81 | -12.13 | 45.68 | 70.50 | -24.82 | Peak |

Remarks: Factor = Antenna factor + Cable loss - Preamp gain

Remark:

$Result = Reading + Factor$

$Factor = Antenna\ factor + Cable\ loss - Amplifier\ gain$

$Over\ Limit = Result - Limit$

Above 1GHz:

| | | | |
|-------------------------------|--|-----------------|---------|
| Test Date: | 2023-12-15 | Test By: | Luke Li |
| Environment condition: | Temperature: 23.0°C; Relative Humidity:60%; ATM Pressure: 100.7kPa | | |

| Frequency (MHz) | Reading level (dBμV) | Polar | Corrected Factor (dB/m) | Corrected Amplitude (dBμV/m) | Limit (dBμV/m) | Margin (dB) | Remark |
|---------------------------|----------------------|------------|-------------------------|------------------------------|----------------|-------------|---------|
| 2309.655 | 42.83 | horizontal | -1.83 | 41.00 | 70.50 | -29.50 | Average |
| 2564.782 | 41.69 | horizontal | -1.76 | 39.93 | 70.50 | -30.57 | Average |
| 8543.271 | 39.03 | horizontal | 4.95 | 43.98 | 70.50 | -26.52 | Average |
| 2335.167 | 41.36 | vertical | -1.78 | 39.58 | 70.50 | -30.92 | Average |
| 2564.782 | 40.90 | vertical | -1.76 | 39.14 | 70.50 | -31.36 | Average |
| 8577.289 | 38.66 | vertical | 4.92 | 43.58 | 70.50 | -26.92 | Average |
| Second and third harmonic | | | | | | | |
| 700ml Water | | | | | | | |
| 4903.452 | 49.12 | horizontal | 0.55 | 49.67 | 70.50 | -20.83 | Average |
| 7369.685 | 40.48 | horizontal | 3.10 | 43.58 | 70.50 | -26.92 | Average |
| 4920.460 | 47.51 | vertical | 0.66 | 48.17 | 70.50 | -22.33 | Average |
| 7378.189 | 38.69 | vertical | 3.09 | 41.78 | 70.50 | -28.72 | Average |
| 300ml Water | | | | | | | |
| 4885.093 | 50.72 | horizontal | 0.46 | 51.18 | 70.50 | -19.32 | Average |
| 7343.322 | 42.49 | horizontal | 3.09 | 45.58 | 70.50 | -24.92 | Average |
| 4885.093 | 48.34 | vertical | 0.46 | 48.80 | 70.50 | -21.70 | Average |
| 7331.166 | 38.87 | vertical | 3.05 | 41.92 | 70.50 | -28.58 | Average |

Remark:

Corrected Amplitude= Reading level + corrected Factor

Corrected Factor = Antenna factor + Cable loss – Amplifier gain

Margin = Corrected Amplitude – Limit

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

For emissions in 18GHz-25GHz range, all emissions were investigated and in the noise floor level.

3.7 Radio frequency exposure

| | | | |
|-------------------------------|--|-----------------|----------|
| Test Date: | 2023-12-14 | Test By: | Lirou Li |
| Environment condition: | Temperature: 24.2°C; Relative Humidity:70%; ATM Pressure: 100.5kPa | | |

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

A 275mL 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 0.18mW/cm² observed at any point 5 cm or more from the external surface of the oven.

A maximum of 1.0mW/cm² 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.

4 Test Setup Photo

Please refer to the attachment RWAZ202300066 Test Setup photo.

5 E.U.T Photo

Please refer to the attachment RWAZ202300066 External photo and RWAZ202300066 Internal photo.

---End of Report---