FCC Test Report

Report No.:	2405X53215EA-A5
Applicant:	Guangdong Midea Kitchen Appliances Manufacturing Co., Ltd
Address:	No.6, Yong An Road, Beijiao, Shunde, Foshan, Guangdong, China
Product Name:	Microwave Oven
Product Model:	EM048K6DM-P
Multiple Models:	EM048K##-P, EM048K***-P(# and *=0~9,A~Z or blank)
Trade Mark:	Midea
FCC ID:	VG8EAM048KYY
Standards:	FCC CFR Title 47 Part 18
Test Date:	2024-09-27 to 2024-09-30
Test Result:	Complied
Report Date:	2024-10-09

Reviewed by: **Approved by:**

Abel Chen
Project Engineer

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

NVLAP TESTING NVLAP LAB CODE 600335-0

ilac-MRA

This report may contain data that are not covered by the NVLAP accreditation and shall be marked with an asterisk "★"

Announcement

1. This test report shall not be reproduced except in full, without the written approval of World Alliance Testing & Certification (Shenzhen) Co., Ltd

2. The results in this report apply only to the sample tested.

3. This sample tested is in compliance with the limits of the above regulation.

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

5. The information marked "#" is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report. Customer model name, addresses, names, trademarks etc. are included.

Revision History

Version No.	Issued Date	Description
00	*2024-10-09*	*Original*

Contents

1 General Information

1.1 Client Information

Applicant:	Guangdong Midea Kitchen Appliances Manufacturing Co., Ltd
Address:	No.6, Yong An Road, Beijiao, Shunde, Foshan, Guangdong, China
Manufacturer:	Guangdong Midea Kitchen Appliances Manufacturing Co., Ltd
Address:	No.6, Yong An Road, Beijiao, Shunde, Foshan, Guangdong, China

1.2 Product Description of EUT

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

Sample Serial Number	2S5Y-1 (assigned by WATC)
Sample Received Date	2024-09-26
Sample Status	Good Condition
Operating Frequency Range	2450MHz±50.0 MHz
Power Supply	AC 120V/60Hz
Microwave Rated Input Power#	1550W
Microwave Rated Output Power#	1000W
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 30MHz	±2.78dB
	Below 1GHz	±4.84dB
	Above 1GHz	±5.44dB
Frequency Error		150Hz

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.

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.)

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

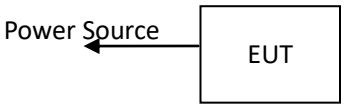
2.2 Test Auxiliary Equipment

Manufacturer	Description	Model	Serial Number
Xiangbo	Glass Beaker	unknown	unknown

2.3 Interconnecting Cables

Manufacturer	Description	Length(m)	From	To
Midea	AC Power Cable	1.0	Power Source	EUT

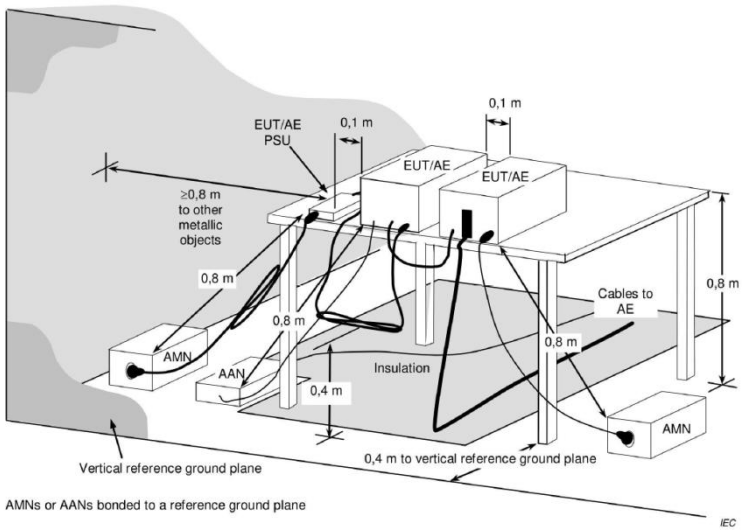
2.4 Block Diagram of Connection between EUT and AE



Note: for reference only, the actual connection setup used for testing please refer to the test photos.

2.5 Test Setup

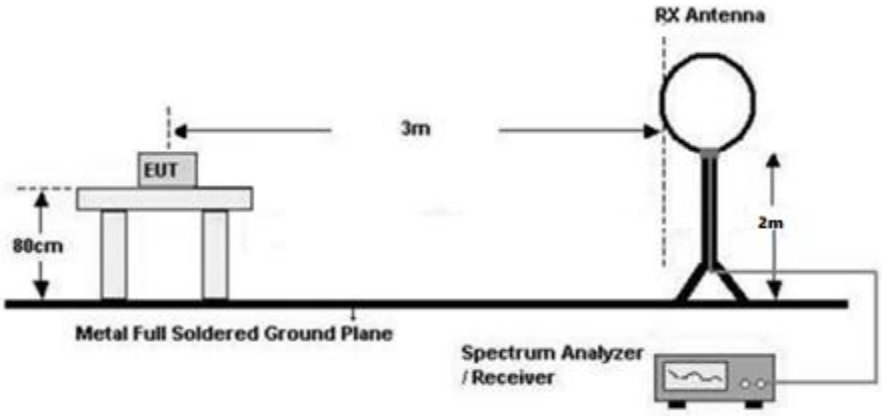
1) Conducted emission measurement:



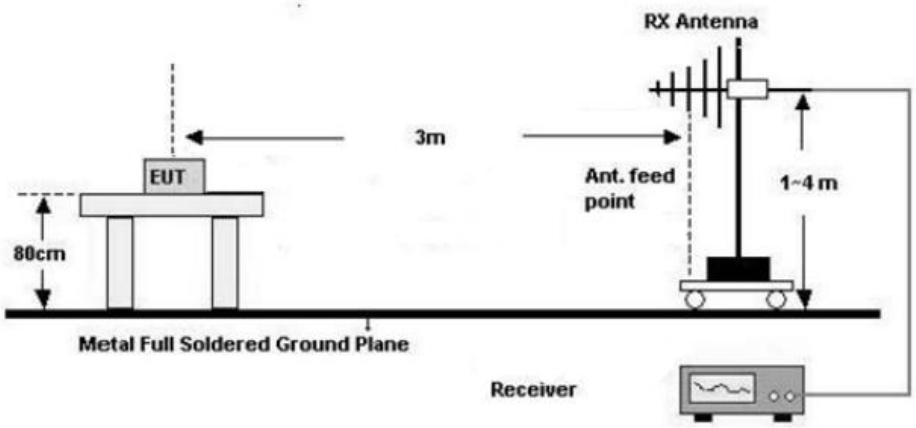
Note: The 0.8 m distance specified between EUT/AE/PSU and AMN/AAN, is applicable only to the EUT being measured. If the device is AE then it shall be >0.8 m.

2) Radiated emission measurement:

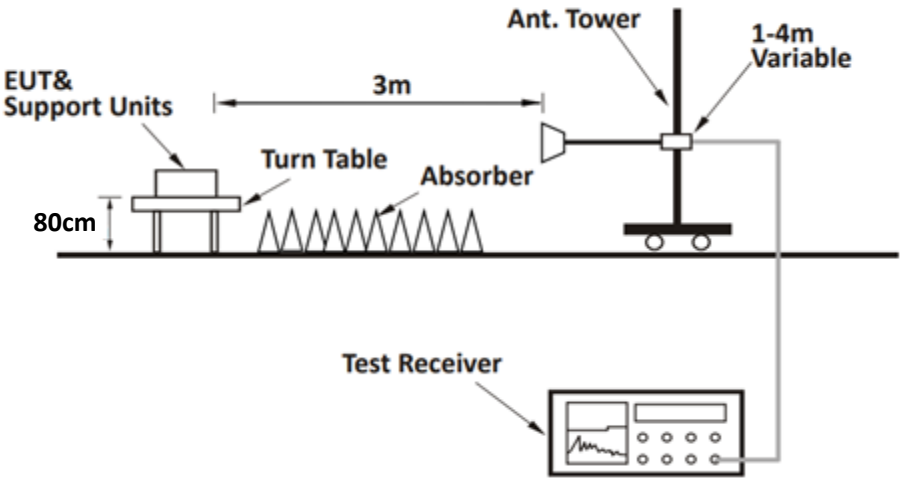
Below 30MHz (3m SAC)



30MHz-1GHz (3m SAC)



Above 1GHz(3m FAC)



2.6 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. The receiver is set to 9kHz resolution bandwidth, final data was recorded in the Quasi-peak and average detection mode.
4. Line conducted data is recorded for both Line and Neutral

Radiated Emission Procedure:

a) For 9kHz-30MHz:

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. Loop antenna was used, the antenna height set at around 2 meters. 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°.
3. The RBW/VBW of receiver is set to 300Hz/1kHz for 9kHz to 150kHz range, to 10kHz/30kHz for 150kHz to 30MHz range for scan Peak emission, 200Hz/9kHz IF BW was used for final measurement in the average detection mode for frequency range 9~150kHz/150kHz~30MHz respectively.
4. If the Peak emission complies with the average limit, then perform final measurement is optional.

b) 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.
3. The RBW/VBW of receiver is set to 100kHz/300kHz for scan Peak emission, 120kHz IF BW was used for final measurement in the average detection mode.
4. If the Peak emission complies with the average limit, then perform final measurement is optional.

c) 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.
4. Measurements may be performed at a distance closer than that specified in the regulations, in this case the distance correct factor should apply to the result.
5. The RBW/VBW of spectrum analyzer is set to 1MHz/3MHz for scan Peak emission, for measured average emission, reduce the VBW to 10Hz.
6. If the Peak emission complies with the Average limit, then perform average measurement is optional.

2.7 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

2.8 Measurement Equipment

Manufacturer	Description	Model	Management No.	Calibration Date	Calibration Due Date
AC Line Conducted Emission Test					
ROHDE& SCHWARZ	EMI TEST RECEIVER	ESR	101817	2024/6/4	2025/6/3
R&S	LISN	ENV216	101748	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.12	N/A	2024/6/4	2025/6/3
Farad	Test Software	EZ-EMC	Ver. EMEC-3A1	/	/
Radiated Emission Test					
R&S	EMI test receiver	ESR3	102758	2024/6/4	2025/6/3
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2024/6/4	2025/6/3
SONOMA INSTRUMENT	Low frequency amplifier	310	186014	2024/6/4	2025/6/3
A.H. Systems	PREAMPLIFIER	PAM-0118P	531	2024/6/4	2025/6/3
COM-POWER	Amplifier	PAM-840A	461306	2024/8/7	2025/8/6
BACL	Loop Antenna	1313-1A	4010611	2024-2-7	2027-2-6
SCHWARZBECK	Log - periodic wideband antenna	VULB 9163	9163-872	2023/7/7	2026/7/6
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5
Ducommun technologies	Horn Antenna	ARH-4223-02	1007726-03	2023/7/10	2026/7/9
Oulitong	Band Reject Filter	OBSF-2400-248 3.5-50N	OE02103119	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.9	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.13	N/A	2024/8/7	2025/8/6
N/A	Coaxial Cable	NO.15	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.16	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.17	N/A	2024/6/4	2025/6/3
Audix	Test Software	E3	191218 V9	/	/
Operating frequencies					
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2024/6/4	2025/6/3
Astro Antenna Ltd	Horn antenna	AHA-118S	3015	2023/7/6	2026/7/5
N/A	Coaxial Cable	NO.9	N/A	2024/6/4	2025/6/3
N/A	Coaxial Cable	NO.15	N/A	2024/6/4	2025/6/3
Audix	Test Software	E3	191218 V9	/	/
ROHDE& SCHWARZ	SPECTRUM ANALYZER	FSV40-N	101608	2024/6/4	2025/6/3
Power Output					
YOKOGAWA	Digital Power Meter	253503	25BW3075	2024/8/23	2025/8/22
Victor	Digital Thermometer	6801	100730669	2023/12/1	2024/11/30
Radio frequency exposure					
ETS	Microwave Survery 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

Note: This is a Class II Permissive Change test report. The applicant declared the difference between EUT and original device (Granted on 2022/01/19) as below:

1. Change the test model
2. Change the multiple model
3. Change the appearance
4. Update the computer board

The microwave frequency, rated input& output power was not change

3.2 Limit

<table>
<tr><th>Test items</th><th>Limit</th></tr>
<tr><td>AC Line Conducted Emissions</td><td>
<table>
<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>
<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>
</table>
* Decreases with the logarithm of the frequency.
</td></tr>
<tr><td>Radiated emission</td><td>
<table>
<tr><th>Equipment</th><th>Operating frequency</th><th>RF Power generated by equipment (watts)</th><th>Field strength limit (uV/m)</th><th>Distance (meters)</th></tr>
<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
[1]300</td></tr>
</table>
</td></tr>
<tr><td>Operating frequencies</td><td>§18.301
Within ISM frequency band 2400-2500MHz</td></tr>
<tr><td>Radio frequency exposure requirements</td><td>§1.1310
<table>
<tr><th>Frequency range (MHz)</th><th>Electric field strength (V/m)</th><th>Magnetic field strength (A/m)</th><th>Power density (mW/cm^2)</th><th>Averaging time (minutes)</th></tr>
<tr><td colspan="5">(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/f^2)</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>
</table>
f = frequency in MHz. * = Plane-wave equivalent power density.
</td></tr>
</table>

3.3 Operating frequencies

Test Date:	2024-09-30	Test By:	Luke Li
Environment condition:	Temperature: 25.0°C; Relative Humidity:65%; ATM Pressure: 100.1kPa		

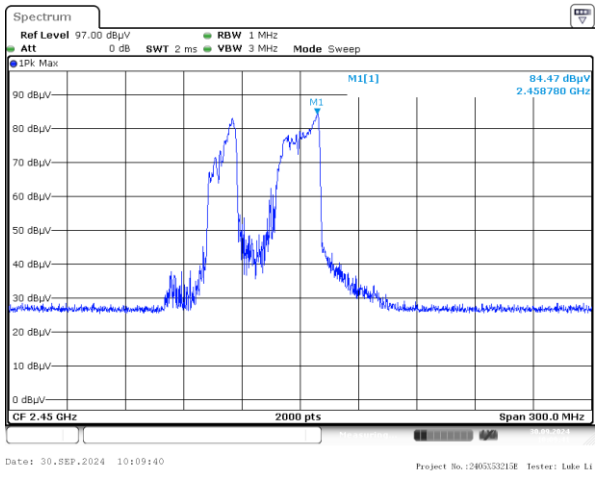
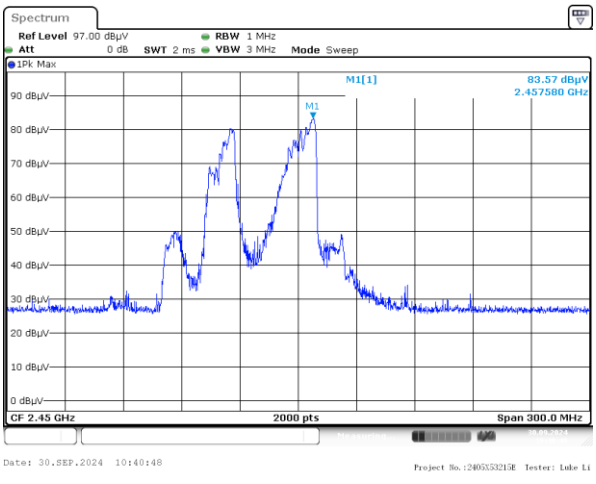
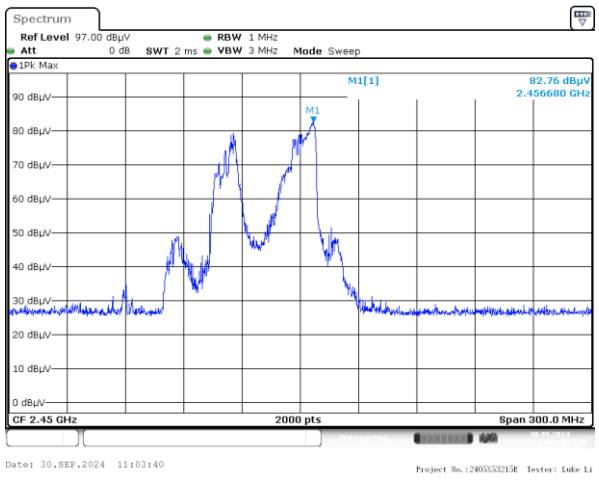
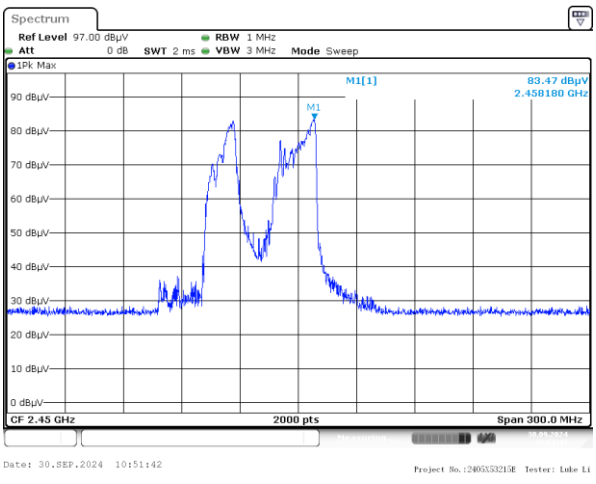
Variation in Operating Frequency with Time

Frequency at Start time(MHz)	Frequency at End time(MHz)	Limit(MHz)
2458.78	2457.58	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)
2456.68	2458.18	Within 2400~2500

Test Plot:

Start time	End time
	
80% of nominal voltage	**125% of nominal voltage**
	

3.4 Power Output Measurement

Test Date:	2024-09-27	Test By:	Lirou Li
Environment condition:	Temperature: 23.2°C; Relative Humidity:61%; ATM Pressure: 101.3kPa		

Power Input:

Input Voltage(V_{AC})	Input Current(A)	Input Power(W)	Rated Input Power(W)
116.3	13.4	1558.4	1550

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 (℃)	Initial temperature (℃)	Final temperature (℃)	Heating time (s)	Power output (W)
1000	487	23.2	23.9	37.1	60	983

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(g)

m_c is the mass of the container(g)

T_0 is the ambient temperature(℃)

T_1 is the initial temperature of water(℃)

T_2 is the final temperature of water(℃)

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:

Limit=20lg(25*SQRT(Power/500))+20lg(300/3)

=20lg(25*SQRT(983/500))+20lg(300/3)

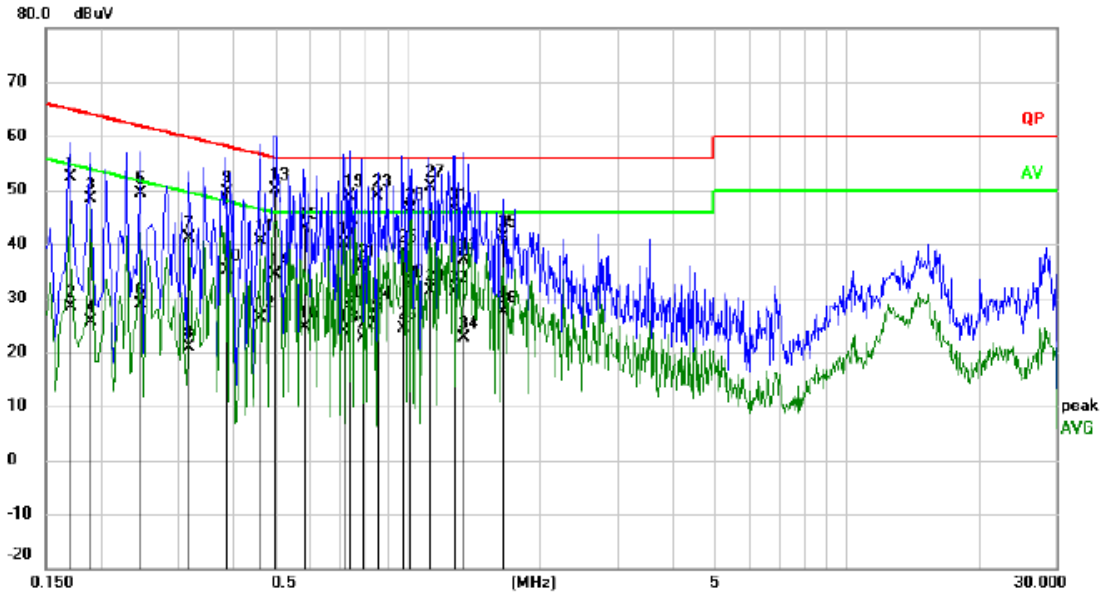
=70.9dBuV/m @3m distance

3.5 AC Line Conducted Emissions Test Data

Test Date:	2024-09-27	Test By:	Lirou Li
Environment condition:	Temperature: 23.2°C; Relative Humidity:61%; ATM Pressure: 101.3kPa		

Conducted Emission Measurement

File :2405X53215E Data :#2 Date: 2024/9/27 Time: 9:48:10



Limit: QP
Mode:Microwave
Note:

Phase: L1
Power: AC 120V/60Hz

Temperature: 23.2 ℃
Humidity: 61 %
Air Pressure: 1013 hpa

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over Limit		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1700	42.12	10.37	52.49	64.96	-12.47	QP	
2		0.1700	18.08	10.37	28.45	54.96	-26.51	AVG	
3		0.1900	38.01	10.33	48.34	64.04	-15.70	QP	
4		0.1900	15.26	10.33	25.59	54.04	-28.45	AVG	
5		0.2460	39.02	10.35	49.37	61.89	-12.52	QP	
6		0.2460	18.48	10.35	28.83	51.89	-23.06	AVG	
7		0.3180	30.80	10.42	41.22	59.76	-18.54	QP	
8		0.3180	10.53	10.42	20.95	49.76	-28.81	AVG	
9		0.3860	39.23	10.47	49.70	58.15	-8.45	QP	
10		0.3860	24.55	10.47	35.02	48.15	-13.13	AVG	
11		0.4620	30.25	10.50	40.75	56.66	-15.91	QP	
12		0.4620	15.77	10.50	26.27	46.66	-20.39	AVG	
13		0.4980	39.59	10.51	50.10	56.03	-5.93	QP	
14		0.4980	23.87	10.51	34.38	46.03	-11.65	AVG	

*:Maximum data x:Over limit !:over margin

Engineer Signature: Lirou

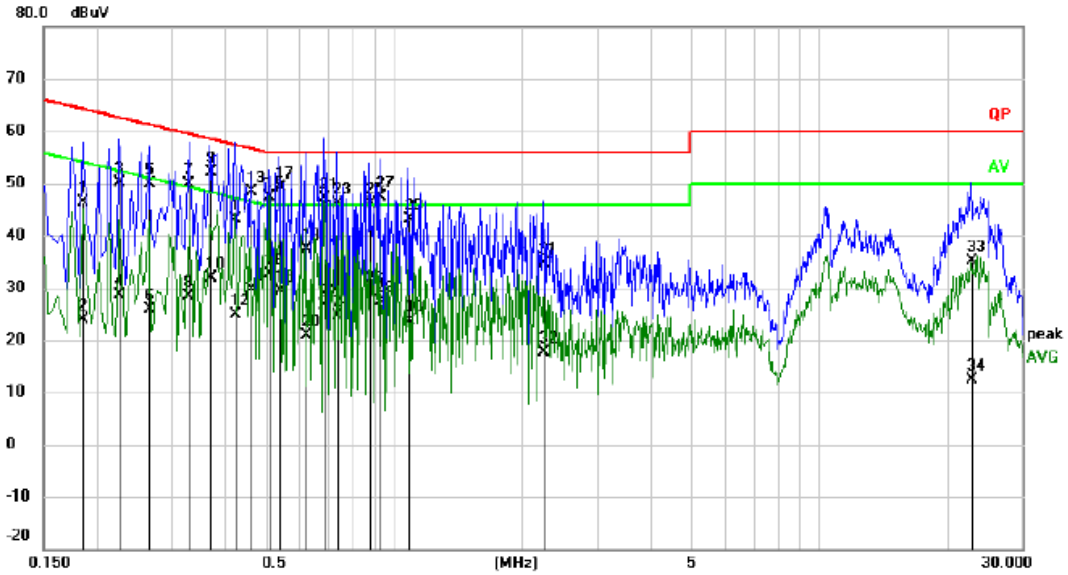
Limit: QP	Phase:	*L1*	Temperature: 23.2 ℃
Mode: Microwave	Power:	AC 120V/60Hz	Humidity: 61 %
Note:			Air Pressure: 1013 hpa

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over Limit		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
15		0.5820	32.47	10.53	43.00	56.00	-13.00	QP	
16		0.5820	14.12	10.53	24.65	46.00	-21.35	AVG	
17		0.7140	29.45	10.56	40.01	56.00	-15.99	QP	
18		0.7140	13.21	10.56	23.77	46.00	-22.23	AVG	
19		0.7380	38.36	10.57	48.93	56.00	-7.07	QP	
20		0.7380	17.74	10.57	28.31	46.00	-17.69	AVG	
21		0.7900	25.34	10.60	35.94	56.00	-20.06	QP	
22		0.7900	12.03	10.60	22.63	46.00	-23.37	AVG	
23		0.8540	38.33	10.62	48.95	56.00	-7.05	QP	
24		0.8540	17.57	10.62	28.19	46.00	-17.81	AVG	
25		0.9740	27.90	10.65	38.55	56.00	-17.45	QP	
26		0.9740	13.81	10.65	24.46	46.00	-21.54	AVG	
27	*	1.1220	39.92	10.67	50.59	56.00	-5.41	QP	
28		1.1220	20.81	10.67	31.48	46.00	-14.52	AVG	
29		1.0100	35.61	10.66	46.27	56.00	-9.73	QP	
30		1.0100	21.37	10.66	32.03	46.00	-13.97	AVG	
31		1.2820	35.64	10.70	46.34	56.00	-9.66	QP	
32		1.2820	20.45	10.70	31.15	46.00	-14.85	AVG	
33		1.3420	26.32	10.70	37.02	56.00	-18.98	QP	
34		1.3420	11.96	10.70	22.66	46.00	-23.34	AVG	
35		1.6460	30.62	10.74	41.36	56.00	-14.64	QP	
36		1.6460	16.66	10.74	27.40	46.00	-18.60	AVG	

*:Maximum data x:Over limit !:over margin Engineer Signature: Lirou

Conducted Emission Measurement

File :2405X53215E Data :#1 Date: 2024/9/27 Time: 9:34:48



Limit: QP Phase: N Temperature: 23.2 ℃

Mode: Microwave Power: AC 120V/60Hz Humidity: 61 %

Note: Air Pressure: 1013 hpa

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over Limit		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1860	36.13	10.28	46.41	64.21	-17.80	QP	
2		0.1860	13.72	10.28	24.00	54.21	-30.21	AVG	
3		0.2260	39.82	10.34	50.16	62.60	-12.44	QP	
4		0.2260	18.27	10.34	28.61	52.60	-23.99	AVG	
5		0.2660	39.55	10.37	49.92	61.24	-11.32	QP	
6		0.2660	15.43	10.37	25.80	51.24	-25.44	AVG	
7		0.3300	39.54	10.43	49.97	59.45	-9.48	QP	
8		0.3300	17.93	10.43	28.36	49.45	-21.09	AVG	
9	*	0.3700	41.76	10.46	52.22	58.50	-6.28	QP	
10		0.3700	21.42	10.46	31.88	48.50	-16.62	AVG	
11		0.4220	32.64	10.49	43.13	57.41	-14.28	QP	
12		0.4220	14.48	10.49	24.97	47.41	-22.44	AVG	
13		0.4620	37.97	10.50	48.47	56.66	-8.19	QP	
14		0.4620	19.14	10.50	29.64	46.66	-17.02	AVG	

*:Maximum data x:Over limit !:over margin Engineer Signature: Lirou

Limit: QP	Phase:	*N*	Temperature: 23.2 ℃
Mode:Microwave	Power:	AC 120V/60Hz	Humidity: 61 %
Note:			Air Pressure: 1013 hpa

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over Limit		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
15		0.5100	36.79	10.50	47.29	56.00	-8.71	QP	
16		0.5100	22.25	10.50	32.75	46.00	-13.25	AVG	
17		0.5380	38.56	10.50	49.06	56.00	-6.94	QP	
18		0.5380	18.90	10.50	29.40	46.00	-16.60	AVG	
19		0.6180	26.83	10.48	37.31	56.00	-18.69	QP	
20		0.6180	10.35	10.48	20.83	46.00	-25.17	AVG	
21		0.6860	36.75	10.46	47.21	56.00	-8.79	QP	
22		0.6860	16.21	10.46	26.67	46.00	-19.33	AVG	
23		0.7340	35.70	10.47	46.17	56.00	-9.83	QP	
24		0.7340	14.12	10.47	24.59	46.00	-21.41	AVG	
25		0.8780	35.66	10.53	46.19	56.00	-9.81	QP	
26		0.8780	18.55	10.53	29.08	46.00	-16.92	AVG	
27		0.9300	36.73	10.54	47.27	56.00	-8.73	QP	
28		0.9300	16.79	10.54	27.33	46.00	-18.67	AVG	
29		1.0859	32.59	10.57	43.16	56.00	-12.84	QP	
30		1.0859	13.02	10.57	23.59	46.00	-22.41	AVG	
31		2.2460	24.02	10.65	34.67	56.00	-21.33	QP	
32		2.2460	7.09	10.65	17.74	46.00	-28.26	AVG	
33		22.7580	24.99	10.25	35.24	60.00	-24.76	QP	
34		22.7580	2.23	10.25	12.48	50.00	-37.52	AVG	

*:Maximum data x:Over limit !:over margin Engineer Signature: Lirou

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

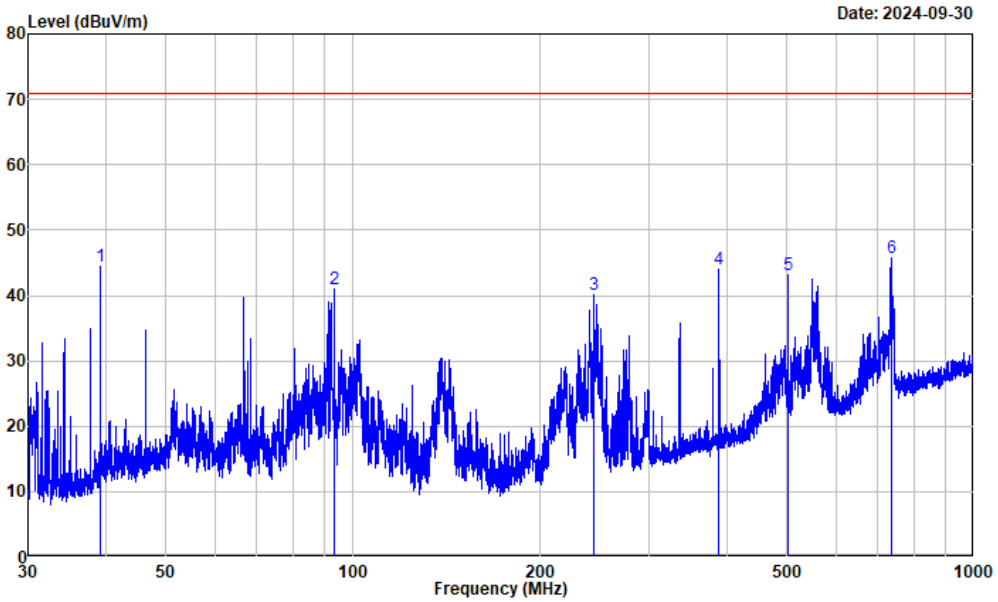
9 kHz-30MHz:

Test Date:	2024-09-30	**Test By:**	Bard Huang
Environment condition:	Temperature: 23.9°C; Relative Humidity:62%; ATM Pressure: 100.5kPa		

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

30MHz-1GHz:

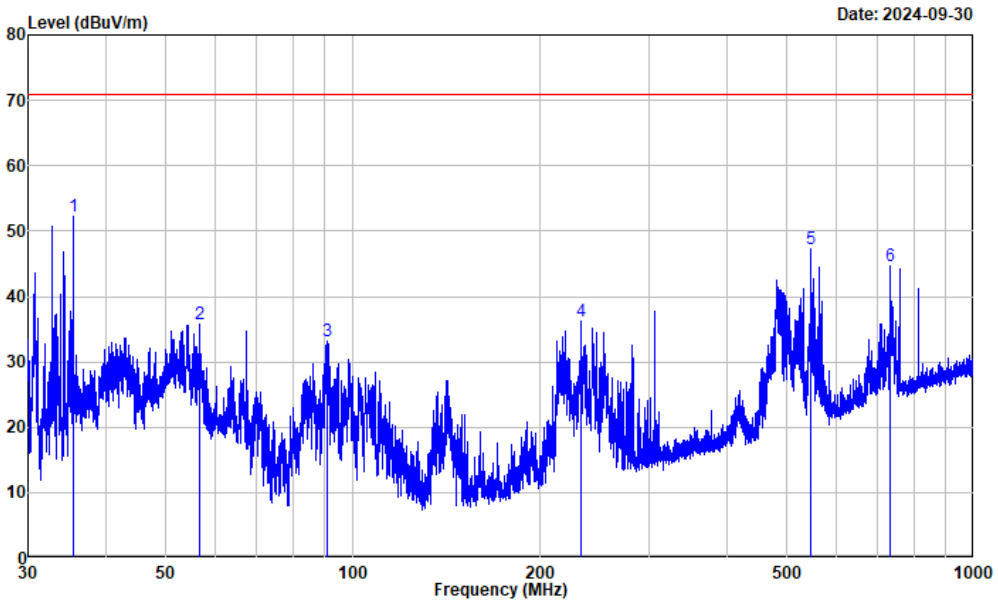
Test Date:	2024-09-30	Test By:	Bard Huang
Environment condition:	Temperature: 23.9°C; Relative Humidity:62%; ATM Pressure: 100.5kPa		



Project No. : 2405X53215E
Test Mode : Microwave
Test Voltage : AC 120V/60Hz
Environment : 23.9℃/62%R.H./100.5kPa
Tested by : Bard Huang
Polarization : horizontal
Remark : maximum microwave output power

--No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Detector
1	39.282	58.23	-13.71	44.52	70.90	-26.38	Peak
2	93.399	55.61	-14.71	40.90	70.90	-30.00	Peak
3	243.911	51.85	-11.82	40.03	70.90	-30.87	Peak
4	389.184	51.78	-7.80	43.98	70.90	-26.92	Peak
5	501.839	48.83	-5.79	43.04	70.90	-27.86	Peak
6	735.458	46.70	-0.98	45.72	70.90	-25.18	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit



Project No. : 2405X53215E
Test Mode : Microwave
Test Voltage : AC 120V/60Hz
Environment : 23.9℃/62%R.H./100.5kPa
Tested by : Bard Huang
Polarization : vertical
Remark : maximum microwave output power

--No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Detector
1	35.422	67.24	-14.92	52.32	70.90	-18.58	Peak
2	56.667	48.74	-12.94	35.80	70.90	-35.10	Peak
3	91.095	48.37	-15.13	33.24	70.90	-37.66	Peak
4	233.349	48.45	-12.17	36.28	70.90	-34.62	Peak
5	546.618	52.14	-4.92	47.22	70.90	-23.68	Peak
6	734.491	45.62	-1.02	44.60	70.90	-26.30	Peak

Remarks: Factor = Antenna factor + Cable loss - Preamp gain
Result = Reading + Factor
Over Limit = Result - Limit

Above 1GHz:

Test Date:	2024-09-30	**Test By:**	Luke Li
Environment condition:	Temperature: 25.0°C; Relative Humidity:65%; ATM Pressure: 100.1kPa		

Frequency (MHz)	**Reading level (dBμV)**	**Polar**	**Corrected Factor (dB/m)**	**Corrected Amplitude (dBμV/m)**	**Limit (dBμV/m)**	**Margin (dB)**	**Remark**
2362.732	37.52	horizontal	-3.20	34.32	70.90	-36.58	Average
2535.550	38.03	horizontal	-2.91	35.12	70.90	-35.78	Average
8330.665	47.84	horizontal	-0.66	47.18	70.90	-23.72	Average
2364.380	37.01	vertical	-3.20	33.81	70.90	-37.09	Average
2544.900	38.35	vertical	-2.90	35.45	70.90	-35.45	Average
8313.657	52.16	vertical	-0.55	51.61	70.90	-19.29	Average
Second and third harmonic							
700ml Water							
4911.956	49.98	horizontal	-2.18	47.80	70.90	-23.10	Average
7369.685	53.64	horizontal	-2.00	51.64	70.90	-19.26	Average
4917.956	49.06	vertical	-2.17	46.89	70.90	-24.01	Average
7369.685	48.04	vertical	-2.00	46.04	70.90	-24.86	Average
300ml Water							
4913.457	51.24	horizontal	-2.17	49.07	70.90	-21.83	Average
7371.686	53.29	horizontal	-1.99	51.30	70.90	-19.60	Average
4913.457	49.32	vertical	-2.17	47.15	70.90	-23.75	Average
7371.686	50.70	vertical	-1.99	48.71	70.90	-22.19	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:	2024-09-27	Test By:	Lirou Li
Environment condition:	Temperature: 23.2°C; Relative Humidity:61%; ATM Pressure: 101.3kPa		

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 **0.1**mW/cm^2 observed at any point 5 cm or more from the external surface of the oven.

A maximum of 1.0mW/cm^2 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 2405X53215E-A5 Test Setup photo.

5 E.U.T Photo

Please refer to the attachment 2405X53215E-A5 External photo and 2405X53215E-A5 Internal photo.

---End of Report---