

# RF Exposure Evaluation Report

**Report No.:** RWAZ202300050C

**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:** NN-SV79MS

**Multiple Models:** AM236A##-PVH(PAN), AM236A\*\*\*-PVH(PAN), NN-S#79##,  
AM236A2DU-PVH(PAN)

**Trade Mark:** Midea, Panasonic

**FCC ID:** VG8XM236AYYW-PV5

**Standards:** 47 CFR §1.1310  
KDB 447498 D01 General RF Exposure Guidance v06

**Test Date:** 2024-01-09

**Test Result:** Complied

**Report Date:** 2024-01-16

**Reviewed by:**

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## Revision History

Version No.	Issued Date	Description
00	2024-01-16	Original

# Contents

<b>1</b>	<b>General Information .....</b>	<b>4</b>
1.1	Client Information .....	4
1.2	Product Description of EUT .....	4
1.3	Laboratory Location .....	4
<b>2</b>	<b>RF Exposure Evaluation .....</b>	<b>5</b>
2.1	Standard .....	5
2.2	Result.....	6

# 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	S-1(assigned by WATC)
Sample Received Date	2023-12-22
Sample Status	Good Condition
Operating Frequency Range	2450MHz±50.0 MHz
Power Supply	AC 120V/60Hz
Microwave Rated Input Power <sup>#</sup>	1400W
Microwave Rated Output Power <sup>#</sup>	1200W
Modification	Sample No Modification by the test lab

## 1.3 Laboratory Location

World Alliance Testing and 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](mailto: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.

## 2 RF Exposure Evaluation

### 2.1 Standard

According to §1.1310, radio frequency devices shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Table 1 to § 1.1310(e)(1)–Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(i) Limits for Occupational/Controlled Exposure</b>				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30–300	61.4	0.163	1.0	<6
300–1,500			f/300	<6
1,500–100,000			5	<6
<b>(ii) Limits for General Population/Uncontrolled Exposure</b>				
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
300–1,500			f/1500	<30
1,500–100,000			1.0	<30

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

#### Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$  = 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 simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

## 2.2 Result

Radio	Frequency (MHz)	Maximum Conducted Power including Tune-up Tolerance		Antenna Gain		Min. test separation distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )	Verdict
		(dBm)	(mW)	(dBi)	(numeric)				
2.4G WLAN	2412-2462	24.5	281.84	3.0	2.00	20	0.1121	1.0	Pass
BT	2402-2480	9.0	7.94	3.0	2.00	20	0.0032	1.0	Pass
BLE	2402-2480	6.5	4.47	3.0	2.00	20	0.0018	1.0	Pass

Note: The device contains a certified Wi-Fi module(Model: RIGEL, FCC ID: 2AC7Z-ESP32PICOZERO), the Maximum Conducted Power including Tune-up Tolerance and Antenna Gain in above table was refer from the module report.

For microwave oven, refer report RWAZ202300050A, the maximum tested microwave leakage is 0.1mW/cm<sup>2</sup>, the limit is 1.0mW/cm<sup>2</sup>

Simultaneously transmit Consideration:

Microwave Oven + Wi-Fi module

The ratio=0.1121/1.0+0.1/1.0=0.2121<1

**Result: Complied.**

**---End of Report---**