中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

RF EXPOSURE

EVALUATION REPORT

Applicant: **Yunjing Intelligence Innovation (Shenzhen) Co., Ltd.**

Address: Room A2901, Building 1, Vanke Yuncheng VI, Dashi 2nd Road, Nanshan District, Shenzhen, Guangdong, China

FCC ID: **2A942YJCC018**

IC: **30051-YJCC018**

HVIN: **YJCC018**

Product Name: **Robot Vacuum and Mop**

Standard(s): **47 CFR §1.1307**
RSS-102 Issue 5 March 2015,Amendment 1 (February 2, 2021)

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR231061349-00C**

Date Of Issue: **2023/11/29**

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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

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. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231061349-00C	Original Report	2023/11/29

1. RF EXPOSURE EVALUATION

1.1 MPE-Based Exemption

1.1.1 Applicable Standard

According to §1.1307(b)(3)(i)

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least $\lambda/2\pi$, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

1.1.2 Measurement Result

Radio	Frequency (MHz)	λ /2Π (mm)	Distance (mm)	Exemption ERP (mW)	Maximum Conducted Power including Tune-up Tolerance (dBm)	Antenna Gain (dBi)	ERP	
							dBm	mW
BLE	2402-2480	19.88	200	768	1	1.00	-0.15	0.97
Wi-Fi	2412-2462	19.80	200	768	22	1.00	20.85	121.62

Note:
The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.
The BLE and Wi-Fi can`t transmission simultaneously.

Result: The device meet FCC MPE at 20 cm distance.

1.2 Exemption Limits for Routine Evaluation – RF Exposure Evaluation

1.2.1 Applicable Standard

According to RSS-102 § (2.5.2):

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the e.i.r.p. was derived.

1.2.2 Calculated Data:

Mode	Frequency (MHz)	Antenna Gain	Conducted output power including Tune-up Tolerance	EIRP		Exemption limits (mW)	Exemption
		(dBi)	(dBm)	(dBm)	(mW)		
BLE	2402-2480	1	1	2	1.58	2676	Yes
Wi-Fi	2412-2462	1	22	23	199.53	2684	Yes

Note:
The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.
The BLE and Wi-Fi can`t transmission simultaneously.

So the device is compliance exemption from Routine Evaluation Limits –RF exposure Evaluation.

Result: Compliant

===== END OF REPORT =====