



FCC RF EXPOSURE REPORT

CERTIFICATION TEST REPORT

For

Robotic Vacuum Cleaner

MODEL NUMBER: Q100TSC

REPORT NUMBER: 4790648002-2-RF-2

ISSUE DATE: January 5, 2023

FCC ID:2AN2O-Q100TSC02

Prepared for

Beijing Roborock Technology Co., Ltd.

**Floor 6, Suite 6016, 6017, 6018, Building C, Kangjian Baosheng Plaza, No. 8
Heiquan Road, Haidian District, Beijing, P.R. China**

Prepared by

UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch

Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone Dongguan, 523808, People's Republic of China

Tel: +86 769 22038881

Fax: +86 769 33244054

Website: www.ul.com



Revision History

Rev.	Issue Date	Revisions	Revised By
V0	January 5, 2023	Initial Issue	



TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS	4
2. TEST METHODOLOGY	5
3. FACILITIES AND ACCREDITATION	5
4. REQUIREMENT	6



1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Beijing Roborock Technology Co., Ltd.
Address: Floor 6, Suite 6016, 6017, 6018, Building C, Kangjian Baosheng Plaza, No. 8 Heiquan Road, Haidian District, Beijing, P.R. China

Manufacturer Information

Company Name: Beijing Roborock Technology Co., Ltd.
Address: Floor 6, Suite 6016, 6017, 6018, Building C, Kangjian Baosheng Plaza, No. 8 Heiquan Road, Haidian District, Beijing, P.R. China

EUT Information

EUT Name: Robotic Vacuum Cleaner
Model: Q100TSC
Brand: roborock
Sample Received Date: November 30, 2022
Sample Status: Normal
Sample ID: 5583806
Date of Tested: November 30, 2022 to January 5, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	PASS

Prepared By:

Kebo Zhang
Senior Project Engineer

Checked By:

Denny Huang
Senior Project Engineer

Approved By:

Stephen Guo
Operations Manager



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p>A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p>FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules</p> <p>ISED (Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320 and the test lab Conformity Assessment Body Identifier (CABID) is CN0046.</p> <p>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. Facility Name: Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011</p>
---------------------------	---

Note: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China.



4. REQUIREMENT

LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR 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.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (Minutes)
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 -- 1500	--	--	f/1500	30
1500 -- 100,000	--	--	1.0	30

CALCULATION METHOD

$$S = PG / 4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna



CALCULATED RESULTS

Worst Case					
Mode	Output Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm ²	mW/cm ²	--
WIFI 2.4G	17.5	2.54	0.02008	1.0	Complies

Note:

1. The Power comes from report operation description.
2. The EUT cannot support simultaneous emission.
3. The minimum separation distance of the device is greater than 20 cm.
3. Calculate by WORST-CASE mode.

END OF REPORT