



## FCC RF EXPOSURE REPORT

## CERTIFICATION TEST REPORT

*For*

**WIFI+BLE module**

**MODEL NUMBER: RM002**

**FCC ID: 2BAII-RM002**

**REPORT NUMBER: 4790728609-1-RF-3**

**ISSUE DATE: March 14, 2023**

*Prepared for*

**Shenzhen Waterworld Information Co., Ltd.**

**1F, Building 3, Dexinchang Wisdom Park, No. 23 Heping Road, Longhua district, Shenzhen city, 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](http://www.ul.com)**



Revision History

Rev.	Issue Date	Revisions	Revised By
V0	March 14, 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: Shenzhen Waterworld Information Co., Ltd.  
Address: 1F, Building 3, Dexinchang Wisdom Park, No. 23 Heping Road, Longhua district, Shenzhen city, China

### Manufacturer Information

Company Name: Shenzhen Waterworld Information Co., Ltd.  
Address: 1F, Building 3, Dexinchang Wisdom Park, No. 23 Heping Road, Longhua district, Shenzhen city, China

### EUT Information

EUT Name: WIFI+BLE module  
Model: RM002  
Sample Received Date: January 31, 2023  
Sample Status: Normal  
Sample ID: 5748055  
Date of Tested: February 8, 2023 to March 14, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	PASS

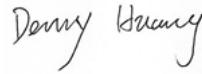
Prepared By:



Kebo Zhang

Senior Project Engineer

Checked By:



Denny Huang

Senior Project Engineer

Approved By:



Stephen Guo

Laboratory 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 and KDB447498D01v06.

## 3. FACILITIES AND ACCREDITATION

Accreditation Certificate	<p><b>A2LA (Certificate No.: 4102.01)</b> UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA.</p> <p><b>FCC (FCC Designation No.: CN1187)</b> 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><b>ISED (Company No.: 21320)</b> 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><b>VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)</b> 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.</p> <p>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 <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (Minutes)
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 -- 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	Max Tune Up Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
BLE	11	1.65	0.00366	1.0	Complies

Worst Case					
Mode	Max Tune Up Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm <sup>2</sup>	mW/cm <sup>2</sup>	--
WIFI 2.4G	18.5	1.65	0.02059	1.0	Complies

## Note:

1. The Power comes from report operation description.
2. BT and WIFI cannot support simultaneous emission.
3. The minimum separation distance of the device is greater than 20 cm, and 20cm separation distance was set for calculation.
4. Calculate by WORST-CASE mode.

---

**END OF REPORT**