



FCC RF EXPOSURE REPORT
CERTIFICATION TEST REPORT

For

Wifi Module

MODEL NUMBER: SI01B

FCC ID: 2AR82-SI01B

IC: 24728-SI01B

REPORT NUMBER: 4790081441-2

ISSUE DATE: October 25, 2021

Prepared for

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Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
V0	11/04/2021	Initial Issue	



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Guangzhou Shirui Electronics Co., Ltd.
Address: 192 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District, Guangzhou, Guangdong, China

Manufacturer Information

Company Name: Guangzhou Shirui Electronics Co., Ltd.
Address: 192 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District, Guangzhou, Guangdong, China

EUT Information

EUT Name: Wifi Module
Model: SI01B
Sample Received Date: August 31, 2021
Sample Status: Normal
Sample ID: 4175727
Date of Tested: September 1, 2021 ~ November 3, 2021

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	PASS

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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	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. 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 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. 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
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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**

Mode	Output Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm ²	mW/cm ²	--
BLE	4	3.18	0.00104	1.0	Complies

Mode	Output Power	Antenna Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm ²	mW/cm ²	--
BT	4	3.18	0.00104	1.0	Complies

Mode	Output Power	Directional Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm ²	mW/cm ²	--
WIFI 2.4G	19	3.18	0.03287	1.0	Complies

Mode	Output Power	Directional Gain	Power Density	Power Density Limit	Test Result
	dBm	dBi	mW/cm ²	mW/cm ²	--
WIFI 5G	15	4.36	0.01717	1.0	Complies

Note:

1. The Power comes from report operation description.
2. The minimum separation distance of the device is greater than 20 cm.
3. $BT + 2.4GHz = 0.00104 + 0.03287 = 0.03391$ (mW/ cm²), $BT + 5GHz = 0.00104 + 0.01717 = 0.01821$ (mW/ cm²)
4. Therefor the maximum calculations of above situations are less than the "1" limit.
5. Calculate by WORST-CASE mode.

END OF REPORT