



**FCC RF EXPOSURE REPORT  
CERTIFICATION TEST REPORT**

*For*

**WiFi Module**

**MODEL NUMBER: SI06**

**FCC ID: 2AFG6-SI06**

**REPORT NUMBER: 4789609364.2-19**

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*Prepared for*

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*Prepared by*

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Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
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# 1. ATTESTATION OF TEST RESULTS

## Applicant Information

Company Name: Guangzhou Shirui Electronics Co Ltd  
Address: 192 Kezhu Road, Scientech Park, Guangzhou Economic Technology Development District Guangzhou China

## Manufacturer Information

Company Name: Guangzhou Shirui Electronics Co Ltd  
Address: 192 Kezhu Road, Scientech Park, Guangzhou Economic Technology Development District Guangzhou China

## EUT Information

EUT Name: WiFi Module  
Model: SI06  
Sample Received Date: August 27, 2020  
Sample Status: Normal  
Sample ID: 3283003  
Date of Tested: August 27, 2020~ November 12, 2020

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	<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 Industry Canada. The Company Number is 21320.</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. 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>
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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 <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**

SKI.W7613E.1

WIFI 5G (Worst case)					
Operating Mode	Max. Tune up Power	Directional Gain		Power density	Limit
	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
802.11ac	20.5	6.51	4.48	0.09994	1

SKI.WB8821CU.1

BT (Worst case)					
Operating Mode	Max. Tune up Power	Antenna Gain		Power density	Limit
	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
3DH5	7	3.50	2.24	0.00223	1

BLE (Worst case)					
Operating Mode	Max. Tune up Power	Antenna Gain		Power density	Limit
	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
BLE-1M	5.5	3.50	2.24	0.00158	1

WIFI 2.4G (Worst case)					
Operating Mode	Max. Tune up Power	Antenna Gain		Power density	Limit
	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
802.11b	17	3.50	2.24	0.02232	1

WIFI 5G (Worst case)					
Operating Mode	Max. Tune up Power	Antenna Gain		Power density	Limit
	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	
802.11a	12.5	3.50	2.24	0.00792	1

Note: 1. The calculated distance is 20cm.

2. SKI.W7613E.1 WIFI 5GHz+ SKI.WB8821CU.1 BT 2.4GHz  
 $=0.09994+0.00223 =0.10217$  (mW/ cm<sup>2</sup> )  
 SKI.W7613E.1 WIFI 5GHz+ SKI.WB8821CU.1 BLE 5GHz  
 $=0.09994+0.00158 =0.10152$  (mW/ cm<sup>2</sup> )  
 SKI.W7613E.1 WIFI 5GHz+ SKI.WB8821CU.1WIFI 2.4GHz  
 $=0.09994+0.02232 =0.12226$  (mW/ cm<sup>2</sup> )  
 SKI.W7613E.1 WIFI 5GHz+ SKI.WB8821CU.1WIFI 5GHz  
 $=0.09994+0.00792 =0.10786$ (mW/ cm<sup>2</sup> )

Therefore the maximum calculations of above situations are less than the “1” limit.

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**END OF REPORT**