ACCREDITED
CERTIFICATE #5473.01

Test Report No.:
FCC2022-0033-H

TEST REPORT

FCC ID	:	2AR82-SKIWB921AU1
Applicant	:	Guangzhou Shikun Electronics Co., Ltd
Product Name	:	Module
Mode No.	:	SKI.WB921AU.1

CVC Testing Technology Co., Ltd.

Applicant	**Name:** Guangzhou Shikun Electronics Co., Ltd **Address:** NO.6 Liankun Road,Huangpu District,Guangzhou,China
Manufacturer	**Name:** Guangzhou Shikun Electronics Co., Ltd **Address:** NO.6 Liankun Road,Huangpu District,Guangzhou,China
Equipment Under Test	**Product Name :** Module **Model No. :** SKI.WB921AU.1 **Trade mark :** / **Serial no. :** B4ADA3CE77D8 **Sampling :** —

Date of Receipt.	**2022.06.02**	Date of Testing	**2022.06.02~2022.06.20**

Test Specification	**Test Result**
47 CFR § 2.1091(2021) 47 CFR § 1.1310(2021) KDB 447498 D01 General RF Exposure Guidance v07	PASS
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied. **Seal of CVC** **Issue Date: 2022.08.11**

Tested by: Xu Zhenfei — **Xu Zhenfei**

Reviewed by: Liu yonghai — **Liu Yonghai**

Approved by: Chen Huawen — **Chen HuaWen**

Other Aspects: NONE.

Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested

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1. General Product Information

1.1 General information

Product Name	Module	
Model No.	SKI.WB921AU.1	
Power Supply	Adapter	/
	Battery	/
	Other	DC 3.3V
Antenna Type	External Antenna	
Antenna Gain	3.5 dBi (provided by client)	
Beamforming gain	Unsupported	
Frequency Range	2402MHz~2480MHz	
Operate Temp.Range	-40°C to +125°C	

Note：
1. The information of the EUT is declared by the manufacturer.
2. The laboratory is not responsible for the product technical specification provided by the client.

2. Human Exposure Assessment

Due to the design and insallation of this product,it is not possible to conduct SAR evaluation.This is because client either manufactures or supplies the antenna(s) that will be used in the installation of this product.Therefore,this product will be evaluated as a mobile device per 47 CFR § 1.1310 titled “Radiofrequency radiation exposure limits”,generally referred to as MPE limits.

In 47 CFR § 2.1091,paragraph(b) defines a mobile device as “a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 cm is normally maintained between the transmitter’s radiating structure(s) and the bod of the user or nearby persons. ” This product is intended to be installed into a trampoline such that the unit is physically secured at one location. In the installation guide supplied with the product.

Client has made the following statement:”IMPORTANT:To meet the FCC’s RF Exposure Guidelines,the antenna should be installed so there is at least 20 cm of separation between the body of the user and nearby persons and the antenna”.Based on the installation of the transceiver and the antenna,the transmiitters radiating structure is more than 20 cm from the user.Thus,this product is a “mobile device” as defined in section § 2.1091 paragraph(b).

Exposure evaluation
$$s = \frac{\mathrm{PG}}{4\pi R^2}$$
Where S:power density in mW/cm^2 P:power input to the antenna in mW 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 in cm

3. RF Output Power

The tuned conducted Average Power (declared by client)

Frequency Band	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
Bluetooth (BT)	17.00	+-2	15.00	19.00
Bluetooth (LE)	17.00	+-2	15.00	19.00
WIFI 2.4GHz	20.00	+-2	18.00	22.00
U-NII-1: 5150-5250MHz	18.00	+-2	16.00	20.00
U-NII-2A:5250-5350MHz	18.00	+-2	16.00	20.00
U-NII-2C:5470-5725MHz (without 5600~5650MHz)	18.00	+-2	16.00	20.00
U-NII-3: 5725-5850MHz	18.00	+-2	16.00	20.00

The conducted power turn-up tolerance reference manufacturer specification.

Band	Result[dBm]
Bluetooth (BT)	17.47
Bluetooth (LE)	18.92
WIFI 2.4GHz	21.10
U-NII-1: 5150-5250MHz	17.90
U-NII-2A:5250-5350MHz	17.50
U-NII-2C:5470-5725MHz (without 5600~5650MHz)	18.70
U-NII-3: 5725-5850MHz	19.20

Note:The relevant measured result has the offset with cable loss already.

4. Test Results

Band	Distance [R](m)	Max tune-up Power (upper limit) (dBm)	Max Output Power (mW)[P]	ANT Gain [dBi]	Numeric Gain[G]	Power Density[S] (mw/cm ^{2})	Limit (mw)/cm ^{2}
Bluetooth (BT)	0.2	19.00	79.433	3.50	2.24	0.0354	1
Bluetooth (LE)	0.2	19.00	79.433	3.50	2.24	0.0354	1
WIFI 2.4GHz	0.2	22.00	158.490	3.50	2.24	0.0706	1
U-NII-1: 5150-5250MHz	0.2	20.00	100.000	5.00	3.16	0.0629	1
U-NII-2A:5250-5350MHz	0.2	20.00	100.000	5.00	3.16	0.0629	1
U-NII-2C:5470-5725MHz (without 5600~5650MHz)	0.2	20.00	100.000	5.00	3.16	0.0629	1
U-NII-3: 5725-5850MHz	0.2	20.00	100.000	5.00	3.16	0.0629	1

Note:

1. Mobile or fixed location transmitters,minmum separation distance is 20 cm,even if calculations indicate MPE distance is less.
2. The Numenric Gain calculated by 10^(ant.Gain*(dBi)/10).
3. Each band max power which perform MPE of any configurations.