FCC RF EXPOSURE REPORT

FCC ID: 2BBLK-WL2079T

Test Report No……..:	RF230809011-01-006
Product(s) Name……...:	WiFi+BT Module
Model(s)……..:	WL00024
Trade Mark……....:	MTK
Applicant……..…:	Huizhou Speed Wireless Technology Co., Ltd
Address……..…...:	No. 138 Huize Road, Hi-Tech Industrial Park of East River, Zhongkai Hi-tech District, Huizhou City, Guangdong Province, China
Receipt Date……..:	2023.08.09
Test Date……....:	2023.10.07~2023.10.24
Issued Date……..…:	2023.10.24
Standards……..:	CFR47 FCC Part 1: Section 1.1310 CFR47 FCC Part 2: Section 2.1091 FCC KDB Publication 447498 v06 FCC KDB Publication 865664 D02 v01r02
Testing Laboratory……:	Shenzhen Haiyun Standard Technical Co., Ltd.

Prepared By:	Checked By:	Approved By:	
Black Ding	Tim Zhang	Misue Su	
Black Ding	Tim.zhang	Misue Su	

History of this test report

Original Report Issue Date: 2023.10.24

● No additional attachment

○ Additional attachments were issued following record

Attachment No.	Issue Date	Description

1. TEST FACILITY

Company:	Shenzhen Haiyun Standard Technical CO., Ltd.
Address:	No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China
CNAS Registration Number:	CNAS L18252
CAB identifier:	CN0145
A2LA Certificate Number:	6823.01
Telephone:	0755-26024411

2. MPE CALCULATION METHOD

➢ **Product Classification**

This device defined 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 20 cm is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

➢ **Radio Frequency Exposure Limit**

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)
300-1,500	--	--	f/1500
1,500-100,000	--	--	1.0

➢ **Radio Frequency Exposure Calculation Formula**

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density (in appropriate units, e.g. mW/cm^2)
P = power input to the antenna (in appropriate units, e.g., 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 (appropriate units, e.g., cm)

or:

$$S = \frac{EIRP}{4\pi R^2}$$

where: EIRP = equivalent (or effective) isotropically radiated power

- **Table for Filed Antenna**

For BDR+EDR & BLE

Ant.	Brand	Antenna Type	Connector	Gain (dBi)
1	N/A	PCB	N/A	-6.71

For 2.4G WIFI

Ant.	Brand	Antenna Type	Connector	Gain (dBi)
1	N/A	PCB	N/A	3.6
2	N/A	PCB	N/A	2.4

For 5G WIFI

Ant.	Brand	Antenna Type	Connector	Gain (dBi)
1	N/A	PCB	N/A	3.7
2	N/A	PCB	N/A	3.2

3. TEST RESULTS

Worse case data:

Mode	*Measured RF Output Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	FCC Limit (mW/cm²)
Bluetooth	4.99	-6.71	20	0.0001	1.0
BDR+EDR	8.02	-6.71	20	0.0003	1.0
2.4G Wi-Fi ant1	18.70	3.6	20	0.0338	1.0
2.4G Wi-Fi ant2	18.04	2.4	20	0.0220	1.0
5G Wi-Fi ant1	16.33	3.7	20	0.0200	1.0
5G Wi-Fi ant2	15.82	3.2	20	0.0159	1.0

Note: 1. The calculated distance is 20 cm.
2. The Wifi function and Bluetooth function can transmit at the same time, The 2.4G Wifi function and 5G Wifi function can not transmit at the same time

Simultaneous transmission MPE(worst case):

The ratio= $MPE_{2.4G\ Wifi\ ant1}$/limit+ $MPE_{2.4G\ Wifi\ ant2}$/limit + $MPE_{BDR+EDR}$/limit =0.0338/1+0.0220/1+0.0003/1=0.0661<1.0

Test Result: Complies.

Statement

1. The report is invalid without the official seal or special seal of Shenzhen Haiyun Standard Technology Co., Ltd. (hereinafter referred to as the unit).

2. The report is invalid without the signature of the approver.

3. The report is invalid if altered arbitrarily.

4. The report shall not be partially copied without the written approval of the unit.

5. The reported test results are only valid for the tested samples.

6. If there is any objection to the test report, it shall be submitted to the test unit within 15 days from the date of receiving the report, and the overdue shall not be accepted.

Shenzhen Haiyun Standard Technology Co., Ltd.

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（END OF REPORT）