

# The user manual of WIFI、Bluetooth module

## 1. The product description

The user can achieve wireless connection to WIFI net and Bluetooth, through this module

## 2. Basic parameters

| Feature Description   | Feature Description  |
|-----------------------|--|
| Model                 | MHCWBT1P-B   |
| Product Name          | 2.4GHz WIFI+Bluetooth dual-mode module   |
| Major Chipset         | RTL8723DS  |
| WLAN Standard         | IEEE 802.11b/g/n   |
| BT Standard           | BT2.1/4.2; v4.2 BR/EDR, v4.0 BLE   |
| WLAN Frequency Range  | 2.4GHz~2.4835GHz   |
| BT Frequency Range    | 2402MHz~2480MHz  |
| Spread Spectrum       | IEEE 802.11b: DSSS (Direct Sequence Spread Spectrum)<br>IEEE802.11g/n: OFDM (Orthogonal Frequency Division Multiplexing) |
| Modulation Method     | DBPSK/DQPSK/CCK(DSSS); BPSK/QPSK/16QAM/64QAM(OFDM)   |
| Data Transfer Rate    | 11b:1,2,5.5, 11Mbps<br>11g: 6,9,12,18,24,36,48,54Mbps<br>11n:HT20MCS0~HT20MCS7<br>HT40MCS0~HT40MCS7                      |
| Antenna Reference     | MHCWBT1P-B:WIFI/BT Internal Printed ANT  |
| Interface             | SDIO1.1/2.0,HS-UART  |
| Supply Voltage        | 3.3V±0.3V  |
| Dimension             | 18 (mm) *20 (mm) *2.5 (mm)   |
| Operating Temperature | 0° C to 70° C  |
| Storage Temperature   | -40° C to 125° C   |

### RF output power

|      | Band            | Limited Power(dBm) |
|------|-----------------|--------------------|
| BT   | 2402MHz-2480MHz | 0-20               |
| WLAN | 2412MHz-2472MHz | <20                |

## 3. The display method of Model approved code

In the factory, the model approve code is lasered on the shielding case.

## 4. FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### Low Temperature Operation

When the external temperature is lower than 0°C, the IC may be damaged to a certain extent, which will affect the operation of the module.

Please ensure that the operation temperature meets the requirements.

FCC ID: 2AFZZ-MHCWBT1P-B

## **5. Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of FCC RF Rules. This equipment should be installed and operated with minimum distance of 20 in (50cm) between the radiator and your body. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter

**CAUTION:**

To comply with the limits of the Class B digital device pursuant to Part 15 of the FCC Rules, this device is compliant with Class B limits. All peripherals must be shielded and grounded. Operation with non-certified peripherals or non-shielded cables may result in interference to radio or reception

**MODIFICATION**

To assure continued compliance, Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the device.

**5. Radiation Exposure Statement**

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 50 cm (8 in) between the radiator and your body. NOTE To satisfy FCC exterior labeling requirements, the following text must be placed on the exterior of the end product: Contains Transmitter module FCC ID: \*\*\*\*\* To satisfy IESD exterior labeling requirements, the following text must be placed on the exterior of the end product: "Contains Transmitter module IC:\*\*\*\*\*"

**Manufacturer: Xiao Communications Co.,Ltd.**

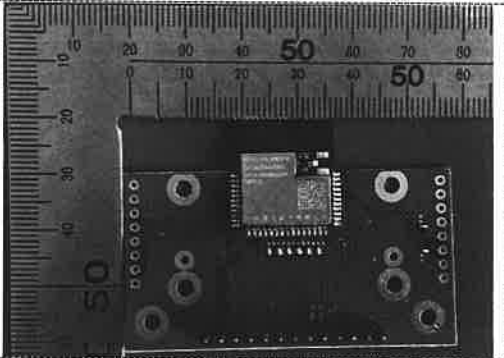
**Address: #019,9<sup>th</sup> Floor, Building 6, 33 Xierqi Middle Road, Haidian District, Beijing, 100085 China**

A voltage stabilizing element or circuit is required on the power supplies to the module, and then the power supply is sent to the module

This equipment may be operated in all European countries.

# EU DECLARATION OF CONFORMITY

It is hereby declared that following designated product:

|                      |  |  |
|----------------------|--|--|
| Product Type:        | 2.4GHz WIFI+Bluetooth dual-mode module | Product colour image<br> |
| Model No:            | MHCWBT1P-B                             |  |
| Product Description: | 2.4GHz WIFI+Bluetooth dual-mode module |  |
| Software version:    | v1.0                                   |  |
| Hardware version:    | v1.1                                   |  |

**Complies with** the essential protection requirements of Directives on Radio Equipment Directive 2014/53/EU. The assessments were based on the following regulations and standards:

| Requirement       | Standard  | Report No.   | Assessment Body  |
|-------------------|---|--|--|
| Health and safety | IEC 62368-1: 2014 and/or<br>EN 62368-1:2014+ A11:2017<br>EN 62311:2020;<br>EN 50383:2010;<br>EN 50385:2017<br>1999/519/EC | SRTC2021-9003(R)-0064<br>SRTC2021-9004(R)-21071201(I)  | PHOENIX Test Lab<br>(Notified body 0700)<br>certificate: |
| EMC               | ETSI EN 301 489-1 V2.2.3 (2019-11)<br>ETSI EN 301 489-17 V3.2.4(2020-09)  | SRTC2021-9003(R)-0063  |  |
| Radio Spectrum    | ETSI EN 300 328 V2.2.2 (2019-07)  | SRTC2021-9004(R)-21071201(D)<br>SRTC2021-9004(R)-21071201 (E)<br>SRTC2021-9004(R)-21071201 (F) |  |

This declaration is the responsibility of the manufacturer:

Xiaomi Communications Co.,Ltd.

Address: #019,9th Floor, Building 6,33 Xi'erqi Middle Road, Haidian District,Beijing, China

Authorised person signing for the company:

Hao Sheng Certification Manager of Xiaomi Communications Co.,Ltd.

*Name in block letters & position in the company*  
#019,9th Floor, Building 6,33 Xi'erqi Middle Road, Haidian District, Beijing, 100085,China, Oct 18,2021

*Sheng hao*

Place & date

Legally valid signature