

WFBLE.DTU.Bar-07B

Product Specification

| Documnt version | Modification content | Modifier | Date | Remarks |
|------------------------|-----------------------------|-----------------|-------------|----------------|
| 1.0 | First Release | Mico | 2025-05-06 | |

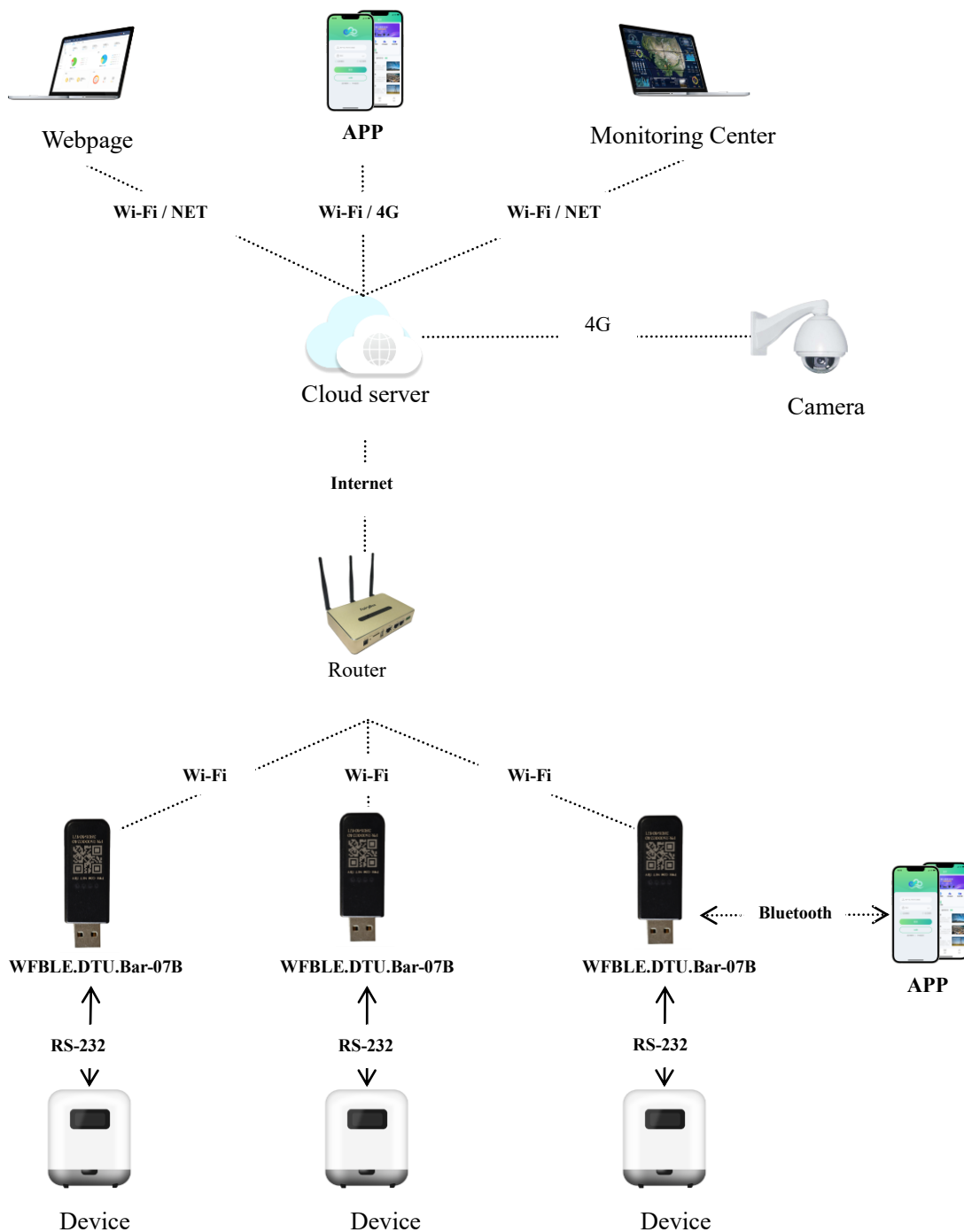
Contents

| | |
|--|---|
| 1. PRODUCT OVERVIEW | 4 |
| 2. PRODUCT FEATURES | 5 |
| 2.1 EASY TO USE | 5 |
| 2.2 STABLE | 5 |
| 2.3 FLEXIBLE | 5 |
| 3. OVERALL DIMENSIONS OF PRODUCTS..... | 6 |
| 4. PRODUCT INTERFACE | 7 |
| 5. PRODUCT SPECIFICATIONS | 8 |

1. Product Overview

WFBLE.DTU.Bar-07B digital sensor products are used to expand the Wi-Fi wireless network data transmission channel of the device, it connects and communications with the device through the Aviation Head interface (RS-232), with easy installation, strong anti-interference ability, no additional configuration of power supply and other advantages; Support device remote control, remote debugging, remote upgrade and other functions; Connect router to cloud server with blue-tooth configuration. It can provide users with a low cost, visual, remote operable complete monitoring solution.

Typical networking scheme of WFBLE.DTU.Bar-07B



2. Product Features

2.1 Easy to use

- (1) Easy installation: USB interface, plug and play;
- (2) Easy replacement: external plug-in type, no need to disassemble the device, safe and fast;
- (3) Easy maintenance: remote debugging, remote firmware upgrade;
- (4) Easy to use: one power on, two networking, three registration;
- (5) Convenient power supply: power can be directly taken from the device side without the need for an external power source;
- (6) Easy troubleshooting: Four LED lights indicate the operation status, providing a visual understanding of the working status.

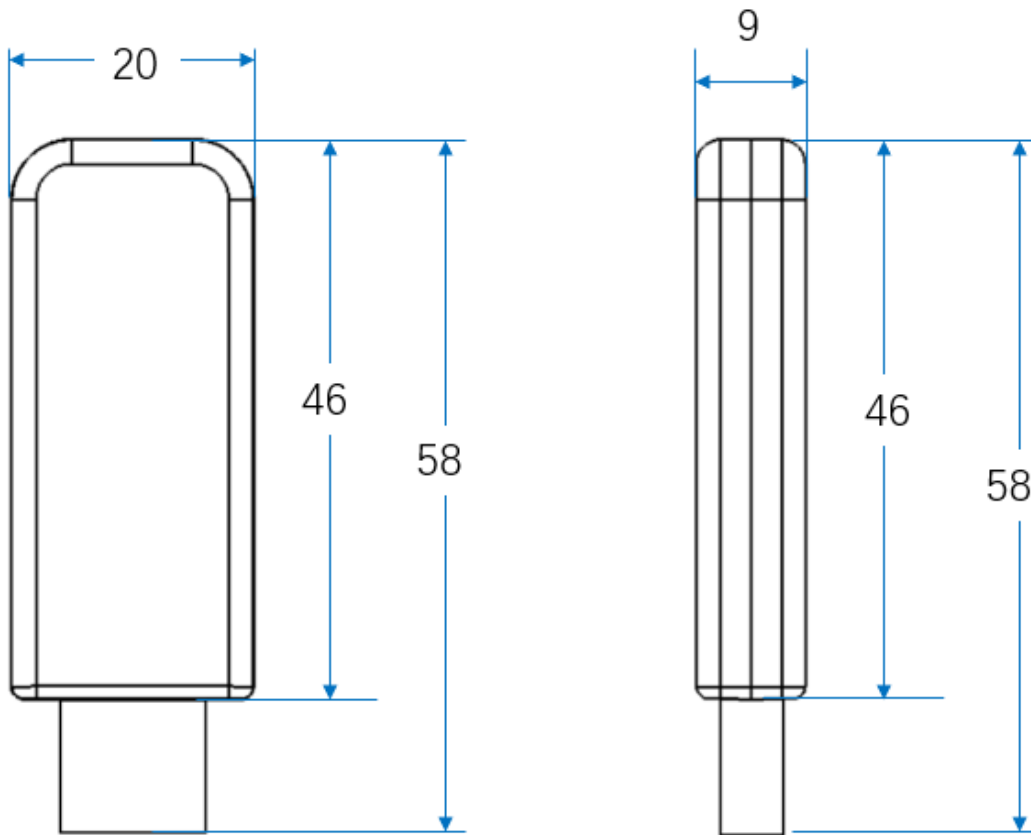
2.2 Stable

- (1) Selection of devices: industrial grade components, can work for a long time at $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$;
- (2) Protective measures: under-voltage protection, double protection of software watchdog + hardware watchdog;
- (3) Stability mechanism: Heart beat detection, network retry, device disconnection repair automatically;
- (4) Data security: Private protocols, data validation.

2.3 Flexible

- (1) Protocol adaptation: support automatic identification of multiple communication protocols;
- (2) Field configuration parameters: cooperate with APP to view and configure equipment parameters on sit;
- (3) Remote monitoring: can be viewed remotely through the APP.
- (4) Local monitoring: Connect local WiFi devices and use an app to achieve local monitoring.

3. Overall dimensions of products



尺寸：58*20*9±0.2mm



4. Product Interface

4.1 Port Definition



| Pin | Pin definition | Description |
|-----|----------------|-------------------------|
| 1 | VCC | Input DC Voltage 5V~12V |
| 2 | RS232-TX | RS232- Send |
| 3 | RS232-RX | RS232 receiver |
| 4 | GND | Power source GND |

4.2 Definition of indicator light

| Number | Indicator light color | Silk screen printing | Description |
|--------|-----------------------|---------------------------------|--|
| 1 | white | PWR/Power status | Light on: external power input Light off: abnormal external power input |
| 2 | green | COM/Device communication status | Light on: Device communication succeeded Light off: Device communication failed |
| 3 | blue | NET/Network linked status | Light on: Network linked succeeded Light off: Network linked failed |
| 4 | yellow | SRV/Server linked status | Light on: Server linked succeeded Light off: Server linked failed |

5. Product Specifications

| Content | item | parameter |
|---------------------|---|--|
| Universal parameter | Dimensions (length/width/height) | 58*20*9 ± 0.2mm |
| | Weight | 10g ± 2g |
| | Protection Level | IP21 |
| | Rated voltage | DC5V~12V |
| | Maximum Current | 500mA(DC5V) |
| | Operating temperature | -40℃ ~ +85℃ |
| | Storage temperature | -40℃ ~ +90℃ |
| Universal parameter | USB | Used for communication and power supply |
| | Work indicator light | Pilot lamp: Power supplies, devices, routers, and servers are normally on, but not abnormally on |
| Bluetooth part | Bluetooth standard | BLE5.0 |
| | Bluetooth distance | 10meter |
| | Bluetooth local monitoring refresh rate | 1seconds |
| | Bluetooth local monitoring of the command cycle | 2seconds |
| | Connect Bluetooth local monitoring | First data in 5 seconds |
| Hardware part | Data entry mode | RS-232 |
| | Data output mode | Wi-Fi |
| | RS-232 Baud rate | 2400/4800/9600/19200/38400/57600/115200 (default 9600bps) |
| | Hardware watchdog | support |
| Wi-Fi part | Working frequency | 2.412GHz-2.484GHz |
| | Wireless standard | 802.11 b/g/n |
| | Antenna gain | 2.5dBi |
| | Antenna | Internal Antenna |
| | Data rate | 11Mbps@11b, 54Mbps@11g, 72Mbps@11n |
| | Hardware encryption | WEP, WPA/WPA2 |
| | Communication distance | 30meter (Open environment) |
| | Operating mode | AP+STA(Coexistence mode) |
| Software part | Work pattern | Transparent mode |
| | Wireless operation mode | STA/AP/AP+STA |
| | Security mechanism | WEP/WPA-PSK/WPA2-PSK |
| | Support cloud platform | Value of cloud, customers custom platform |
| | Restart mechanism | The system automatically restarts after 12 hours of continuous operation |
| | Software watchdog | support |
| other | Number of connected devices | 1set |
| | Certificates | CE, RoHS |