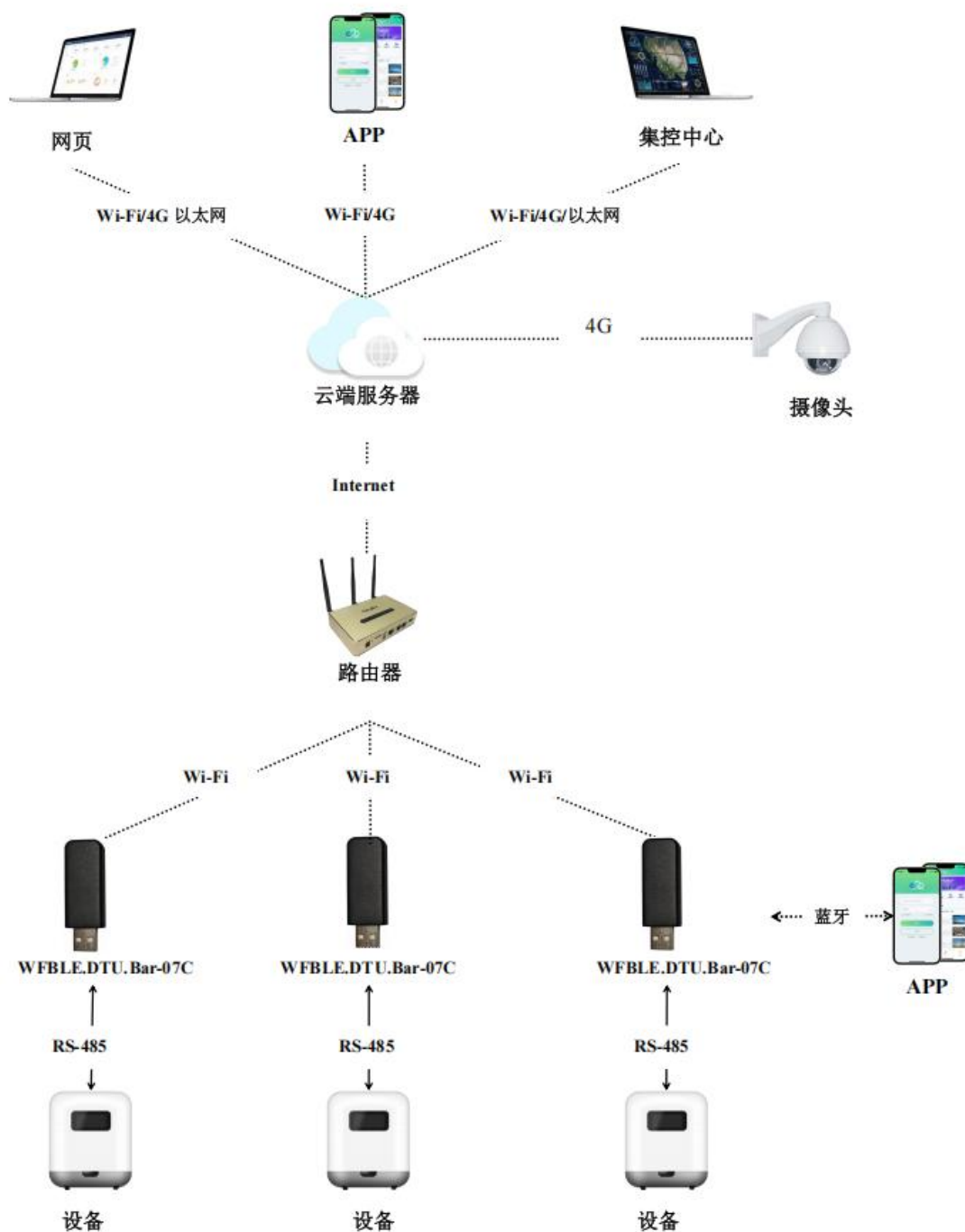


WFBLE.DTU.Bar-07C Product Specification

Documnt version	Modification content	Modifier	Date	Remarks
1.0	First Release	Mico	2025-08-08	

1 Product Overview

WFBLE.DTU.Bar-07C 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-485), with easy installation, strong anti-interference ability, no additional configuration of power supply and other advantages; Support equipment remote control, remote debugging, remote upgrade and other functions; Connect router to cloud server with BLE configuration. It can provide users with a low cost, visual, remote operable complete monitoring solution.





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.

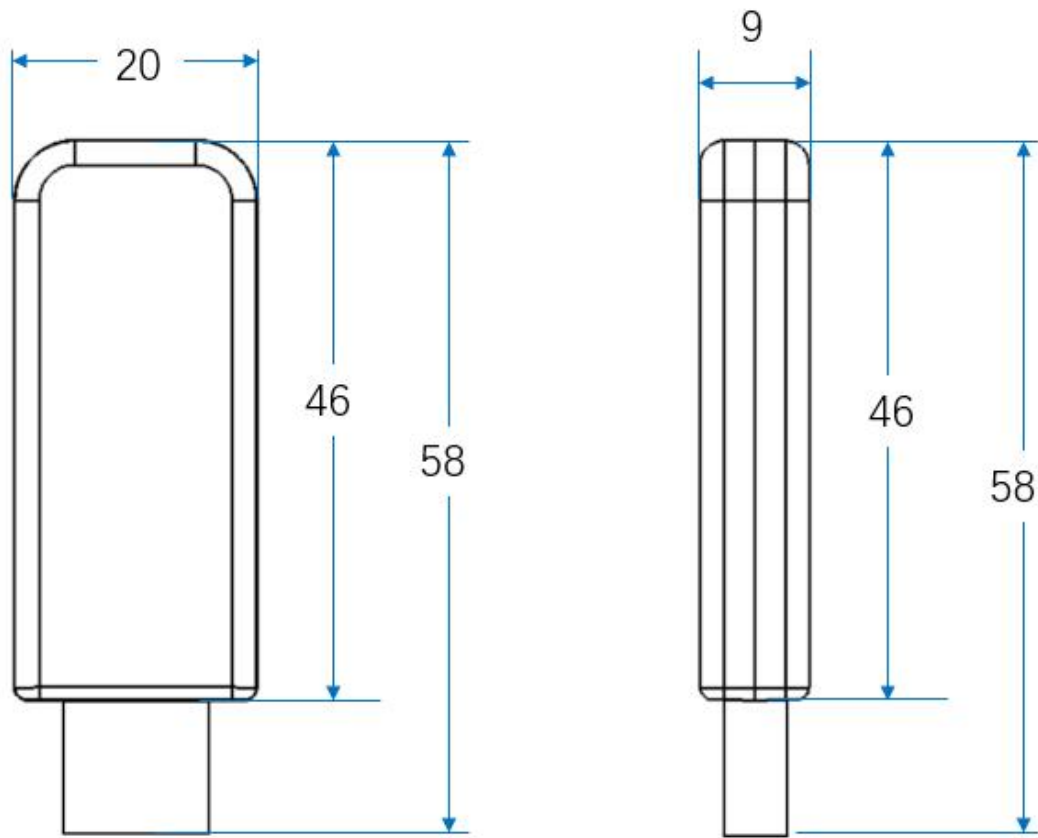
2.2 Stable

- (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	RS485B/-	RS485 interface B-
3	RS485A/+	RS485 interface A+
4	GND	Power source GND

4.2 Definition of indicator light

Number	Silk screen printing	Description
1	PWR / Power status	Light on: external power input Light off: abnormal external power input
2	COM / Device communication status	Light on: Device communication succeeded Light off: Device communication failed
3	NET / Network linked status	Light on: Network linked succeeded Light off: Network linked failed Twinkle: WiFi or Bluetooth is already connected (by another device)
4	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-485
	Data output mode	Wi-Fi
	RS-485 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 24 hours of continuous operation
	Software watchdog	support
other	Number of connected devices	1set

	Authentication	CE, RoHS
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FCC Caution:

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. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.