

USB/RS232/RS485
Serial Bluetooth Adapter

Please read the product manual carefully before using the product.

I. Product Description

While traditional wired serial communication is simple to implement, its reliance on physical cabling presents significant limitations, severely restricting usage scenarios and reducing the flexibility of equipment deployment and maintenance. Addressing this industry pain point, wireless communication solutions have emerged as an ideal alternative. The widespread adoption of Bluetooth technology, with its low cost and low power consumption, provides an efficient and feasible solution for the wireless upgrade of traditional serial devices. Given that serial ports are a widely used standard communication interface in industrial applications, the need for protocol conversion between serial ports and Bluetooth is increasingly prominent. This product is a high-performance Bluetooth serial port module that supports broadcast, master, and slave operating modes. It utilizes the Bluetooth BLE 5.4 protocol and is backward compatible with earlier Bluetooth specifications, ensuring interoperability between different devices. It also supports serial AT command configuration and allows flexible adjustment of Bluetooth communication parameters in slave mode. The serial port baud rate supports 2400bps~460800bps, meeting high-speed data transmission requirements. In slave mode, users can also customize parameters such as Bluetooth name and manufacturer information. It supports both APP visual configuration and serial command configuration modes, offering convenient and efficient operation. In addition, the module is compact in size, easy to integrate and carry, and can be widely used in many fields such as equipment debugging, logistics data collection, surveying instrument interconnection, medical equipment communication, and intelligent attendance systems.

This series has 3 different interfaces.

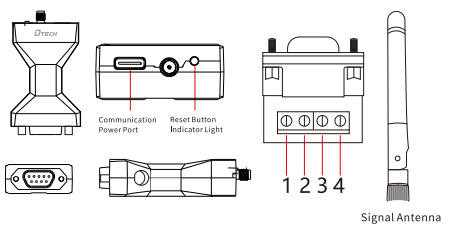
Product Name	Interface
IOT5064(CH)	USB Interface
IOT5064A(CH)	RS485 Interface
IOT5064B(CH)	RS232 Interface

II. Product Parameters

- Supports broadcast mode, master mode, slave mode, master-slave hybrid mode, one-to-one, and one-to-many.
- Bluetooth version 5.4, backward compatible with all versions.
- Supports configuration software and AT configuration.
- Supports automatic reconnection after disconnection.
- Supports UUID information viewing.
- Supports MAC address binding between products, solving directional connection functionality in multi-slave environments.
- Supports Beacon broadcasting and Serial Port Protocol (SPP).
- Supports ID pass-through function (works well when RS232 devices do not have their own address for communication).
- Supports Bluetooth host connections from Windows/Linux/Android/iOS systems.
- In open, interference-free environments: transmission distance of 600 meters using a glue stick antenna and 1200 meters using a suction cup antenna.
- Product transmit power 23dB.
- Serial port baud rate: Supports 2400bps~460800bps (supports USB/RS232/RS485).
- Supports data length of 1024 bytes.
- Electrostatic discharge protection: +15kV, 1EC61000-4-2.
- Environmental adaptability: -20°C~80°C, relative humidity 5%~95%.
- Power supply voltage: USB model DC 5V, RS232/485 model DC 5~38V; Current: 30mA.
- Features master/slave status indicator lights for easy status monitoring and field use.

III. Interface Description

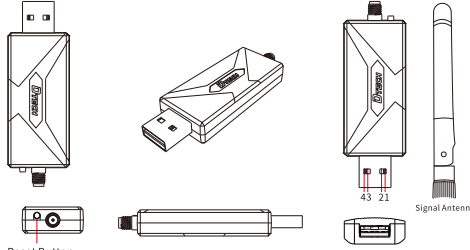
RS232-DB9 Pin Type



Pin No	Signal
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	NC
8	NC
9	DC5-38V IN

Indicator Light Status:
1. Flashing green light: Serial port data transmission
2. Flashing yellow light: Serial port data reception
3. Flashing blue light: Bluetooth in slave mode
4. Solid blue light: Bluetooth in master mode
5. No blue light: Bluetooth master/slave integrated mode

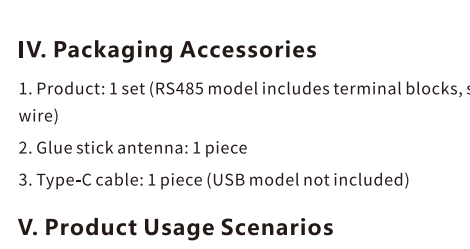
RS485 Pin Type



Pin No	Signal
1	RS485 A
2	RS485 B
3	GND
4	DC5V-38V IN

Indicator Light Status:
1. Flashing green light: Serial port data transmission
2. Flashing yellow light: Serial port data reception
3. Flashing blue light: Bluetooth in slave mode
4. Solid blue light: Bluetooth in master mode
5. No blue light: Bluetooth master/slave integrated mode

USB



Pin No	Signal
1	USB 5V
2	D-
3	D+
4	GND

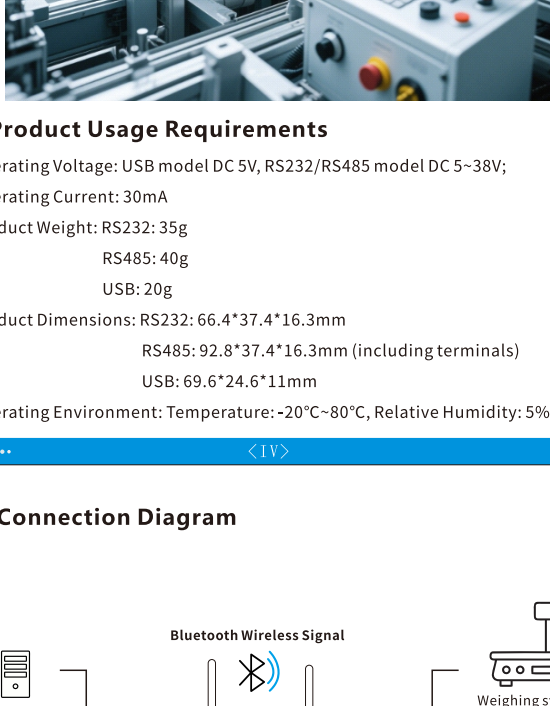
Indicator Light Status:
1. Flashing green light: Serial port data transmission
2. Flashing yellow light: Serial port data reception
3. Flashing blue light: Bluetooth in slave mode
4. Solid blue light: Bluetooth in master mode
5. No blue light: Bluetooth master/slave integrated mode

IV. Packaging Accessories

- Product: 1 set (RS485 model includes terminal blocks, screwdriver, and electronic wire)
- Glue stick antenna: 1 piece
- Type-C cable: 1 piece (USB model not included)

V. Product Usage Scenarios

In some industrial settings, it is necessary to wirelessly connect devices with serial communication capabilities (such as sensors and controllers) to enable remote monitoring and data acquisition. A serial-to-Bluetooth module can convert the serial data from these devices into Bluetooth signals, which can then be transmitted to nearby Bluetooth receiving devices (such as mobile phones, tablets, or computers), facilitating real-time monitoring and control by personnel.



VI. Product Usage Requirements

- Operating Voltage: USB model DC 5V, RS232/RS485 model DC 5~38V;
- Operating Current: 30mA
- Product Weight: RS232: 35g
RS485: 40g
USB: 20g
- Product Dimensions: RS232: 66.4*37.4*16.3mm
RS485: 92.8*37.4*16.3mm (including terminals)
USB: 69.6*24.6*11mm
- Operating Environment: Temperature: -20°C~80°C, Relative Humidity: 5%~95%

VII. Connection Diagram



VIII. Setup and Usage

Scan the QR code on the left to learn about configuring serial port parameters and data communication on the Bluetooth adapter; scan the QR code on the right to install the USB Bluetooth adapter driver.



Scan the QR code to download the Bluetooth adapter software and configuration.



Scan the QR code to download the USB Bluetooth adapter driver.

Product Warranty Card

Customer Information

Model:	
Date of purchase:	
User telephone:	
User address:	
Distributor:	
Agency address:	
User telephone:	Dealer stamp valid

Intenance Records

Repair times	Date	Fault	Treatment measures	Repair work NO.

Electronic products are guaranteed for one year, and other products are guaranteed for two years. Damage caused by human factors or product burnout caused by improper operation is not included in the scope of warranty.