



USB to RS485 422  
serial cable

Please read the product manual carefully before using the product

# USB 2.0 to RS422/RS485 cable

## 1. Overview

With the continuous development of the PC industry, USB interfaces are gradually replacing various low-speed peripheral interfaces of old PC's interface, however, many important equipment in the current industrial environment still use RS422/RS485 interface design.

Therefore, many users use USB to RS422/RS485 converters to realize data transmission between PCs and RS422/RS485 devices.

This universal USB2.0 TO RS422/RS485 converter requires no external power supply and is compatible with USB2.0,RS422 and RS485 standards, which can convert single-ended USB signals into balanced differential RS422 or RS485 signal provides 350W surge protection power per line, as well as surge voltages generated on the line due to various reasons. The extremely small inter-electrode capacitance ensures high-speed transmission of the RS422/RS485 interface. The RS422 and RS485 ends are connected through the DB9 male connector. device connection. The converter has zero-delay automatic transceiver conversion, and a unique I/O circuit automatically controls the direction of data flow without any handshake signals (such as RTS, DTR, etc.) without jumper wire settings to achieve full duplex (RS422 ), half-duplex (RS485) mode conversion, plug and play. Ensures compatibility with all existing communications software and interface hardware.

The USB to RS422/485 interface converter can provide reliable connections for point-to-point and point-to-multipoint communications. Each point-to-multipoint converter can allow the connection of 256 RS485 interface devices, with a data communication rate of 300-3000000bps, with There are power indicator lights and data flow indicator lights to indicate fault conditions. The supported communication methods include USB2.0 to RS422 and USB2.0 to RS485 conversion.

## 2. Main functions

**USBA to RS422/485 interface converter supports the following four communication**

methods:

1. Point-to-point/four-wire full duplex;
2. Point-to-multipoint/four-wire full-duplex;
3. Point-to-point/two-line half-duplex;
4. Point-to-multipoint/two-line half-duplex.

## 3. Hardware installation and application

Before installing the USB to RS485/422 interface converter, please read the product manual carefully and connect the communication cable provided with the product to the USB interface. This product uses USB/DB9 and universal connectors as input and output interfaces, and does not require jumpers to set the automatic To achieve RS422 or RS485 communication, twisted pair or shielded wire can be used, which is very convenient to connect and disassemble. Point-to-point, point-to-multipoint, full-duplex communication connects to four lines T/R+, T/R-, RXD+,RXD-, point-to-point, point-to-multipoint, and half-duplex communication connects to two lines T/ R+./T/R-.

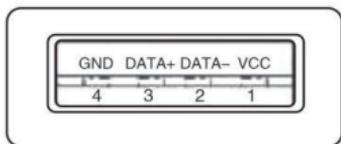
## 4. Performance parameters

1. Full-speed USB device interface, compatible with USB V2.0/V1.1;
- 2.USB signal: VCC, DATA+, DATA-.GND
- 3.RS422 signal: T/R+.T/R-, RXD+.RXD-, GND;
- 4.RS485 signal: T/R+.T/R-, GND;
- 5.RS485 supports baud rate 300-3000000bps and automatically detects the serial port signal rate
6. Load capacity: supports point to multipoint, each converter can be connected to 256 or RS485 interface devices
7. Transmission distance: 1200 meters for RS422/485 end, USB cable not more than 5 meters
8. Circuit integrated ESD protection  
±20KV IEC1000-4-2 air gap discharge  
±15KV IEC1000-4-2 contact discharge
- 9.RS485 422 surge protection: 350W
- 10.Use environment: -25C to 70C, relative humidity 5% to 95%
- 11.Support Windows /Linux /MAC operating system;

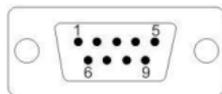
## 5. Connectors and signals

DB9 pin RS422RS485 output signal and wiring pin assignment			
DB9 pin	output signal	RS422 full-duplex wiring	RS485 half-duplex wiring
1	T/R+	TXD(A+)	RS485(A+)
2	T/R-	TXD(B-)	RS485(B-)
3	RXD+	RXD(A+)	N/A
4	RXD-	RXD(B-)	N/A
5	GND	GND	GND

USB signal input and pin distributor

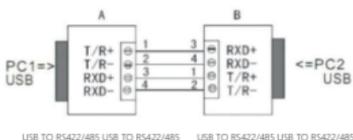
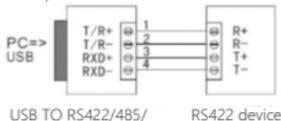


DB9 type

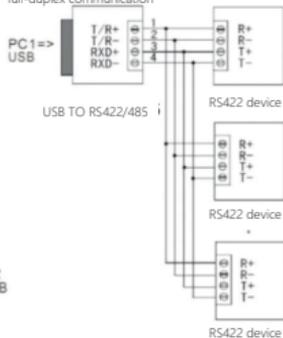


## USB to RS422 conversion

1. RS422 point-to-point/four-wire full-duplex communication

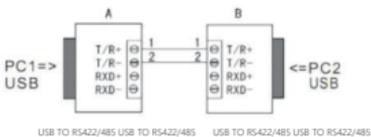
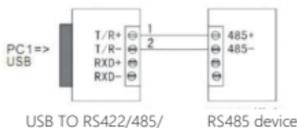


2. RS422 point-to-multipoint/four-wire full-duplex communication

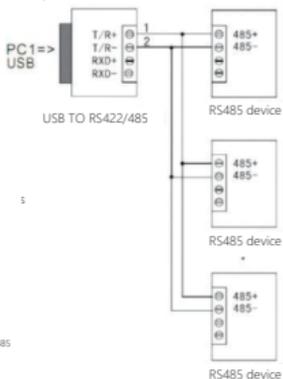


## USB to RS485 conversion

1. RS485 point-to-point/four-wire full-duplex communication



2. RS485 point-to-multipoint/four-wire full-duplex communication



## 6. Scan the QR code to download the driver



Scan the QR code with your browser to download the 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.