# USB 2.0 to TTL/RS232/RS485 multi-function serial cable

Please read the product manual carefully before using the product

## Ⅰ. Overview

With the continuous development of PC industry, various larger peripheral interfaces (such as DB9 serial interface) of old PCs are being gradually eliminated, but many important devices in the industrial environment have to use RS485 interface for data communication, so many users have to use USB to TTL/RS232/485 converter to realize the PC and TTL/RS232/485 devices between data transfer between PC and TTL/RS232/485 devices.

This universal USB2.0 to TTL/RS232/485 converter requires no external power supply and is compatible with USB2.0 and TTL/RS232/485 standards, capable of converting single-ended USB signals to TTL/RS232/485 signals, providing 600W per line surge protection power, as well as surge voltage generated on the line for various reasons and very small The inter-pole capacitance ensures high speed transmission of the TTL/RS232/485 interface, and the TTL/RS232/485 end is connected via a DB9 male connector. The converter is internally equipped with zero delay automatic transceiver conversion and unique I/0 circuitry to automatically control the data flow direction.

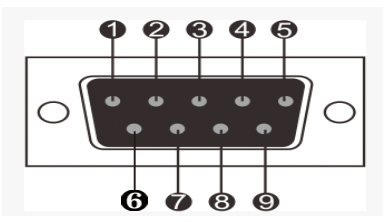
USB to TTL/RS232/485 converter can provide reliable connection for point-to-point and point-to-multipoint communication, RS485 point-to-multipoint can connect up to 256 RS485 devices per converter, TTL/RS485 communication rate 300bps to 3Mbps, RS232 communication number rate 300bps to 115200bps. The products are widely used in industrial automation control system, access control system, time and attendance system, swipe card system, building automation system, electric power system, data acquisition system.

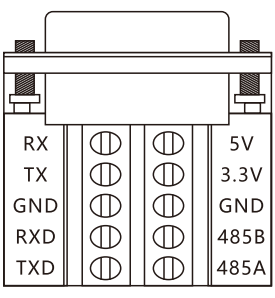
## Ⅱ. Product parameters

1.TTL/RS485 communication rate 300bps to 3Mbps
2.RS232 communication rate 300bps to 115200bps
3.RS485 can allow a maximum of 256 RS485 devices to be connected
4.Data bits: 5, 6, 7, 8
5.Check bits: Even, Odd, None, Mark, Space
6.Stop bit: 1, 1.5, 2
7.send and receive buffer: receive 512 bytes, send 512 bytes
8.±10KV, IEC61000-4-2 contact discharge
±10KV, IEC61000-4-2 air gap discharge
9. support DC5V, 3.3V power output (output current size by the computer USB output decision)
10. support: WindowsXP/7/8/10, 11, Mac, Linux (Linux kernel 4.0 or more drive-free)
11.Using environment: -20C~80C, relative humidity is 5%~95%



## Ⅲ. Pin Definition



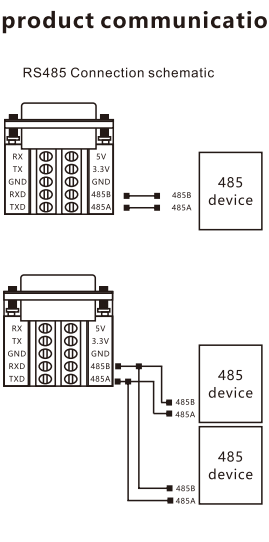



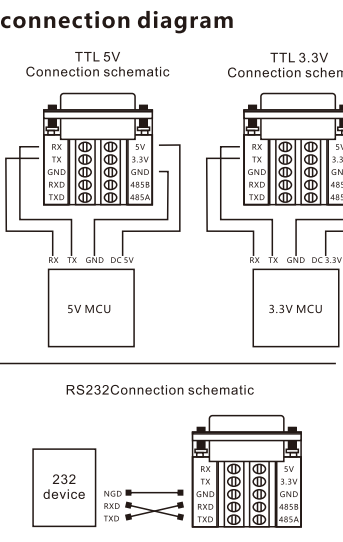

| Db9 male pinout definition | | | |
|---|---|---|---|
| Pins | Definition | Pins | Definition |
| ❶ | TTL-RX | ❻ | RS485-A |
| ❷ | RS232-RXD | ❼ | RS485-B |
| ❸ | RS232-TXD | ❽ | DC 3.3V |
| ❹ | TTL-TX | ❾ | DC 5V |
| ❺ | GND | | |

| Terminal Pin Definition | | | |
|---|---|---|---|
| Location | Definition | Location | Definition |
| RX | TTL-RX communication interface | 5V | DC5V power supply positive output |
| TX | TTL-TX communication interface | 3.3V | DC3.3V power supply positive output |
| GND | Signal/power ground | GND | Signal/power ground |
| RXD | RS232-RXD Communication Interface | 485B | RS485- communication interface |
| TXD | RS232-TXD Communication Interface | 485A | RS485+ communication interface |



## Ⅳ. product communication connection diagram







## Ⅴ. Packaging and accessories

1. Product 1 Article
2. Terminal block 4pcs



# Product Warranty Card

## Customer Information

| | |
|---|---|
| Model: | |
| Date of purchased: | |
| User telephone: | |
| User address: | |
| Distributor: | |
| Agency address: | |
| User telephone: | Dealer stamp valid |

## Intenance Records

| Repair times | Date | Fault | Treatment measures | Repair work NO. |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |