



Model: UT-8511P Series
USB to RS-232 Serial Cable
User Manual

1. Overview

With the continuous development of the PC industry, the USB interface is gradually replacing the various low-speed peripheral interfaces of the old-fashioned PCs. However, in the current industrial environment, many important devices still use the RS-232 interface design. Therefore, many users use USB to RS-232 serial converters to achieve data transmission between PC machines and RS-232 devices. The UT-8511P Series does not require an external power supply, is compatible with USB and RS-232 standards, and can convert single-ended USB signals into RS-232 signals. The converter has zero-delay automatic transmission and reception conversion inside, and the unique I/O circuit automatically controls the direction of the data flow without any handshake signals (such as RTS, DTR, etc.). It does not require any jumper settings to achieve full-duplex (RS-232) mode conversion, plug-and-play, and is suitable for all existing communication software and interface hardware. UT-8511P Series supports USB to RS-232 conversion, with a communication rate of 300bps - 2Mbps.

2. Main function

UT-8511P Series converter supports below communication mode:
Point to point RS-232 full-duplex

3. Hardware installation & application

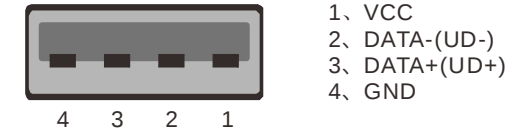
Before installing the UT-8511P Series converter, please read the product manual carefully. Connect the communication cable of the product's USB end to the USB interface of the computer. This product adopts USB/DB9M and universal connectors as input/output interfaces. No settings are required, and it automatic realize RS-232 communication mode. It can use twisted pair or shielded wire, and the connection and disconnection are very convenient. The converter is a 9-wire system, with full signal connections including DCD, RXD, TXD, DTR, GND, DSR, RTS, CTS, and RI.

4. Features

- Compliant with USB V1.0, 1.1, and 2.0 standards, and compatible with TIA/EIA standards
- Main chip: Adopts PL2303GT chip, which supports a maximum communication rate of up to 2 Mbps. Supports automatic identification and dynamic adaptation of communication baud rates.
- USB signal: VCC, DATA-, DATA-, GND, FG
- RS-232 signal: DCD, RXD, TXD, DTR, GND, DSR, RTS, CTS, RI
- Input Voltage: Powered from the computer. The operating voltage is 5V ± 5%
- Transmission medium: Twisted pair or shielded wire
- Working mode: RS-232 full-duplex, point to point
- Direction Control: Utilizes automatic data flow control technology to automatically identify and regulate the direction of data transmission.
- Transmission rate: RS-232(300bps-2Mbps)
- Interface protection level: RXD/TXD contact ±4KV ESD protection, air ±4KV ESD protection
RXD/TXD differential mode ±500V lightning surge protection
USB port input overcurrent protection
- Interface type: USB Type-A connector, DB9 male connector
- Transmission distance: 15m for RS-232, no more than 5m for USB
- Dimension: See ordering table
- Working environment: -40°C~+85°C, relative humidity is 5% to 95%
- Supports Win7/10/11/Linux

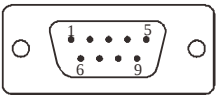
5. Connector & signal

5.1. USB-A: USB signal input & PIN assignment



5.2.DB9 PIN assignment

DB9 male(PIN)	Output signal
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

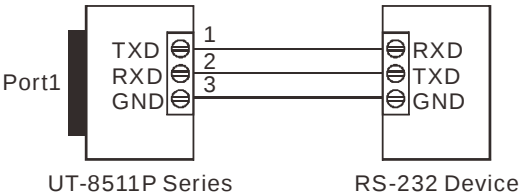


6.Ordering

Model	Dimension(L×W×H)	Cable length tolerance
UT-8511P-0.5	500mm×33mm×15mm	±20mm
UT-8511P-1	1000mm×33mm×15mm	
UT-8511P-1.5	1500mm×33mm×15mm	
UT-8511P-2	2000mm×33mm×15mm	±30mm
UT-8511P-3	3000mm×33mm×15mm	

7.Communication connection diagram

RS-232 mode(3-wired for example)



8. Faults and Troubleshooting

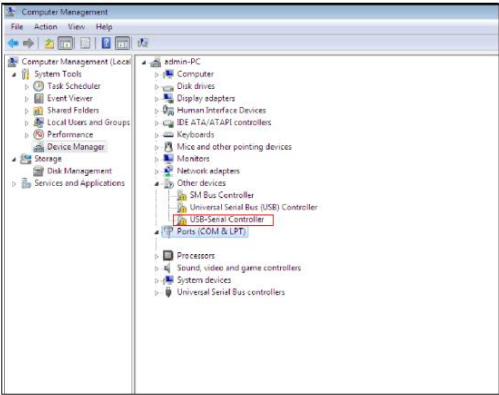
1. Data communication failed
 - A. Check whether the wiring of the RS-232 output interface is correct.
 - B. Check if the USB interface is properly plugged in.
2. Data loss or errors
 - A. Check whether the data rates and formats at both ends of the data communication equipment are consistent.

9.Product appearance picture

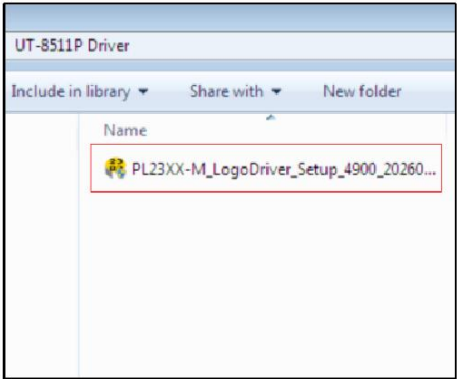


10. Installation of driver procedure

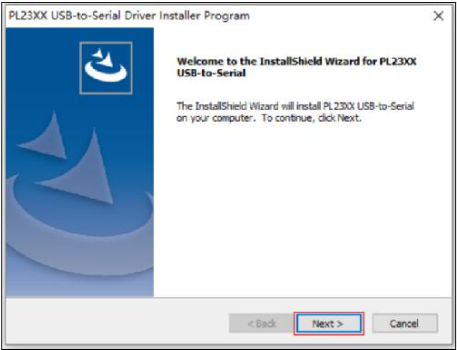
10.1. Take Windows 10 as an example. Insert the USB serial cable, open the Device Manager, click "Other Devices", and you will see an unknown USB device: "USB-Serial Controller"



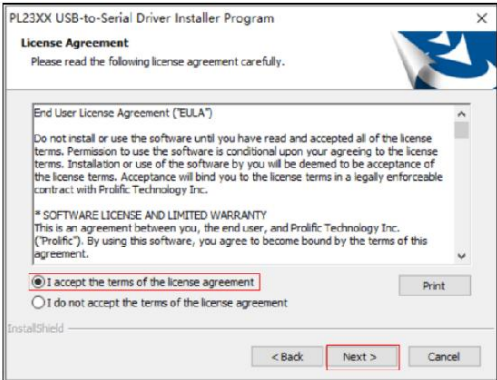
10.2. Double-click on "PL23XX-M_Logo Driver_Setup" in the driver installation software.



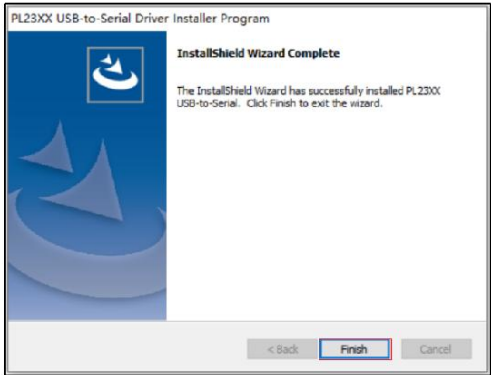
10.3. Click "Next"



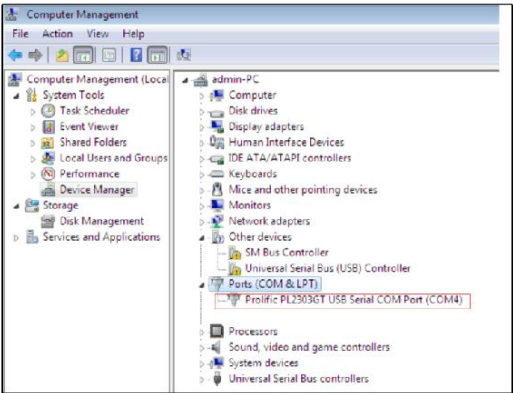
10.4. Select "I accept the terms of the license agreement", click "Next", wait for a moment.



10.5. Click "Finish"



10.6. The port shows Prolific PL2303GT USB Serial COM port (COM4), indicating that the driver has been successfully installed and the product can be used normally the serial port number may vary depending on the different computers).



Driver software download and detailed specifications and manual cleaning code

