



Model: UT-8511C 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-8511C 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-8511C Series supports USB to RS-232 conversion, with a communication rate of 300bps-921.6Kbps.

2. Main function

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

3. Hardware installation & application

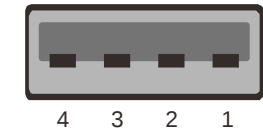
Before installing the UT-8511C Series converter, please read the product manual carefully. Connect the communication cable of the product's USB end to the USB interface of the computer. This product adopts USB/DB9M and universal connectors as input/output interfaces. No settings are required, and it 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 chipset: adopts chip CH343P to achieve USB-to-high-speed asynchronous serial conversion. Supports automatic identification and dynamic adaptation of communication baud rate.
- 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: Adopts automatic data flow control technology to automatically identify and regulate the direction of data transmission
- Transmission rate: RS-232(300bps-921.6Kbps)
- Interface protection level: RXD/TXD signal 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

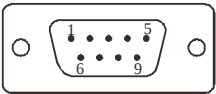
5.1. USB-A: USB signal input & PIN assignment



- 1、VCC
- 2、DATA-(UD-)
- 3、DATA+(UD+)
- 4、GND

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

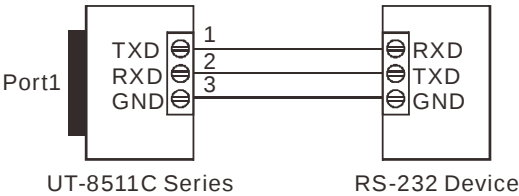


6.Ordering

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

7.Communication connection diagram

RS-232 mode(3-wired for example)



8. Faults and Troubleshooting

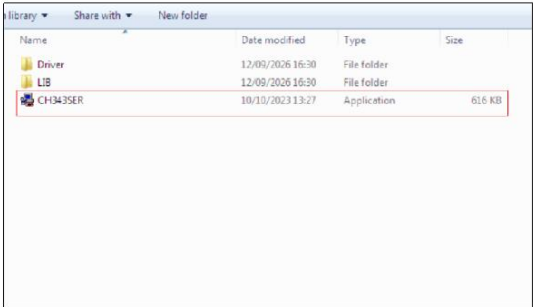
1. Data communication failed
 - A. Check whether the wiring of the RS-232 output interface is correct.
 - B. Check if the USB interface is properly plugged in.
2. Data loss or errors
 - A. Check whether the data rates and formats at both ends of the data communication equipment are consistent.

9.Product appearance picture

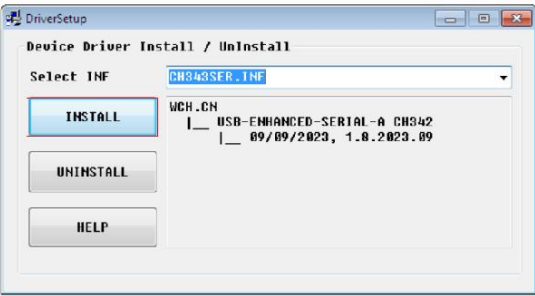


10. Installation of driver procedure

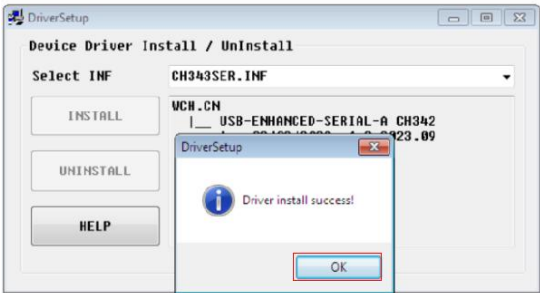
10.1. Take Windows 7 as an example. Double-click on CH343SER.EXE in the driver installation software.



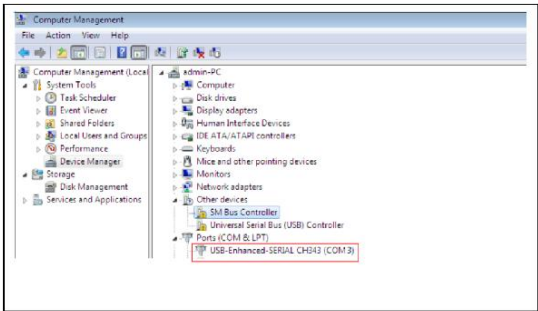
10.2. Click "Install" and wait for a moment.



10.3. Driver installed successfully. Then click "OK".



10.4. In the Ports section of the Device Manager, there is a virtual serial port labeled USB-Enhanced-SERIAL CH343 (COM3) [This port is automatically generated by the computer and can be modified]. Once this port is present, the device can be worked.



Driver software download and detailed specifications and manual cleaning code

