

USB TO 8CH RS485

Overview

Introduction

USB TO 8CH RS485, an industrial USB to RS485 isolated converter with a rail-mount case, features the original CH348L chip and built-in protection circuits such as power isolation, ADI magnetical isolation and TVS. This converter is easier to operate due to its fully automatic transceiver circuit with no delay. Boasting characteristics of fast communication, stability, reliability, and safety, it is an ideal choice for various industrial control devices and applications with high communication requirements.

Features

- Supports USB to 8CH RS485, convenient for expanding multiple RS485 industrial serial devices.
- Supports direct power supply via Type-C port, with reserved 5V~36V DC wide voltage screw terminal for auxiliary power input.
- Onboard unibody power supply isolation, provides stable isolated voltage.
- Onboard unibody digital isolation, allows signal isolation, high reliability, strong anti-interference, low power consumption.
- Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightningproof & anti-electrostatic.
- Onboard self-recovery fuse and protection diodes, ensures the current/voltage stable outputs, provides over-current/over-voltage proof, improves shock proof performance.
- Built-in 120R terminal resistor on the RS485 ports, configurable via jumper for flexible switching.
- LEDs for indicating the power, device configuration status and transceiver status.
- Rail-mount case design, support stackable combination, easy to install and safer to use.

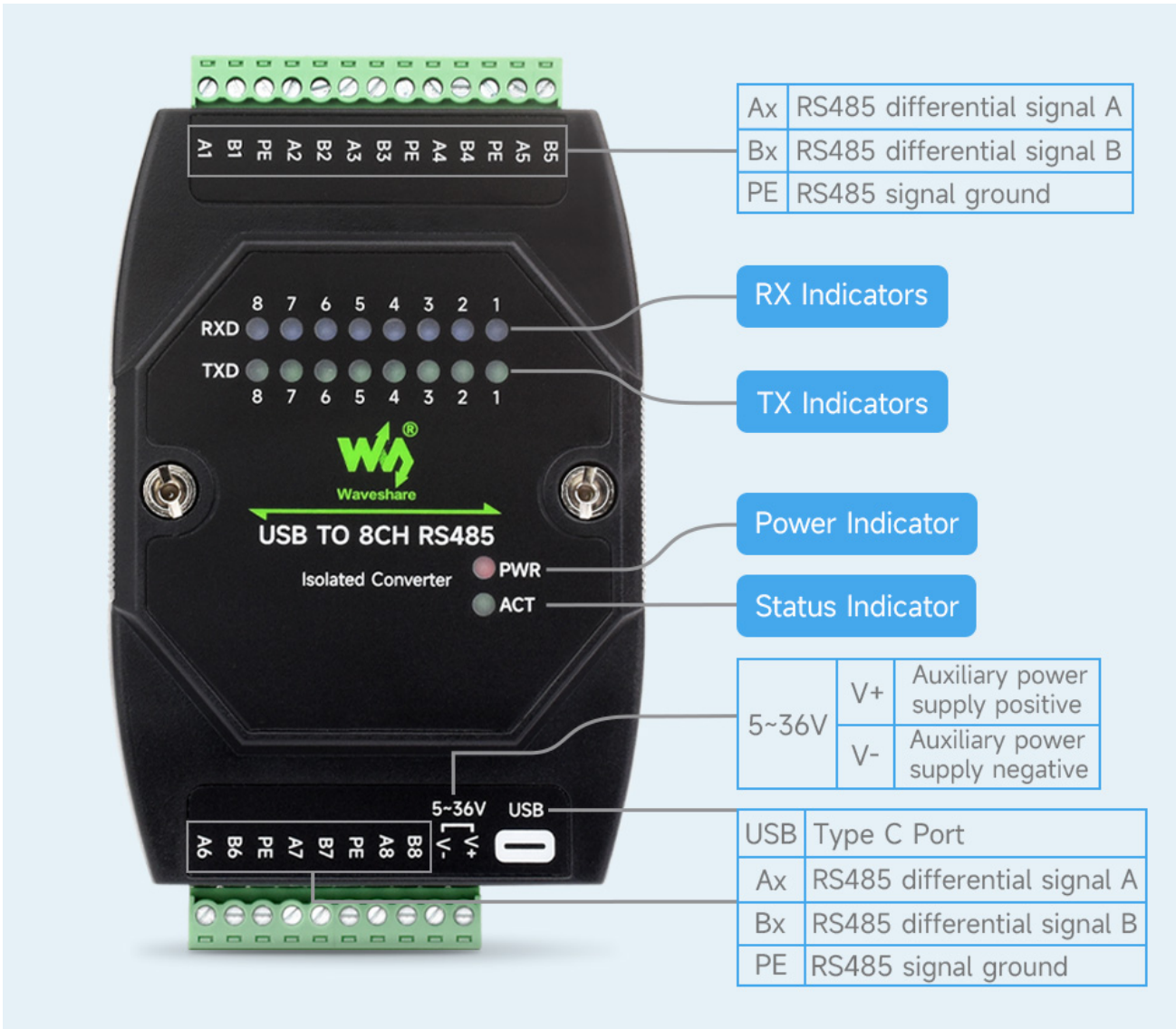
Parameters

Product Type	Industrial Isolated USB to RS485 converter
Host Interface	USB

Device Interface	RS485	
Power Supply	USB Type-C (5V), screw terminal (5V~36V)	
USB Interface	Operating Level	5V
	Connector	USB-C
	Interface Protection	200mA self-recovery fuse, isolated output
	Transmission Distance	About 5m
Isolated RS485 Interface	Connector	Screw Terminal
	Direction Control	Hardware automatic control
	Protection	600W lightningproof and surge-suppress, 15KV ESD protection (onboard 120R balancing resistor)
	Transmission Distance	About 1.2km (low rate)
	Transmission Mode	Point-to-multipoints (up to 32 nodes, it is recommended to use repeaters for 16

		nodes or more)
	Baud Rate	1200bps ~ 921600bps
Indicator	PWR	Red power indicator, lights up when there is USB connection and voltage is detected
	ACT	Status indicator, lights up green when the driver is detected.
	TXD	Green TX indicator, lights up when the USB port sends data
	RXD	Blue RX indicator, lights up when the device ports send data back
Operating Environment	Temperature	-15 ~ 70°C
	Humidity	5% ~ 95%RH
Operating System	MacOS, Linux, Android, Windows 11/10/8.1/8/7	

Onboard Interface

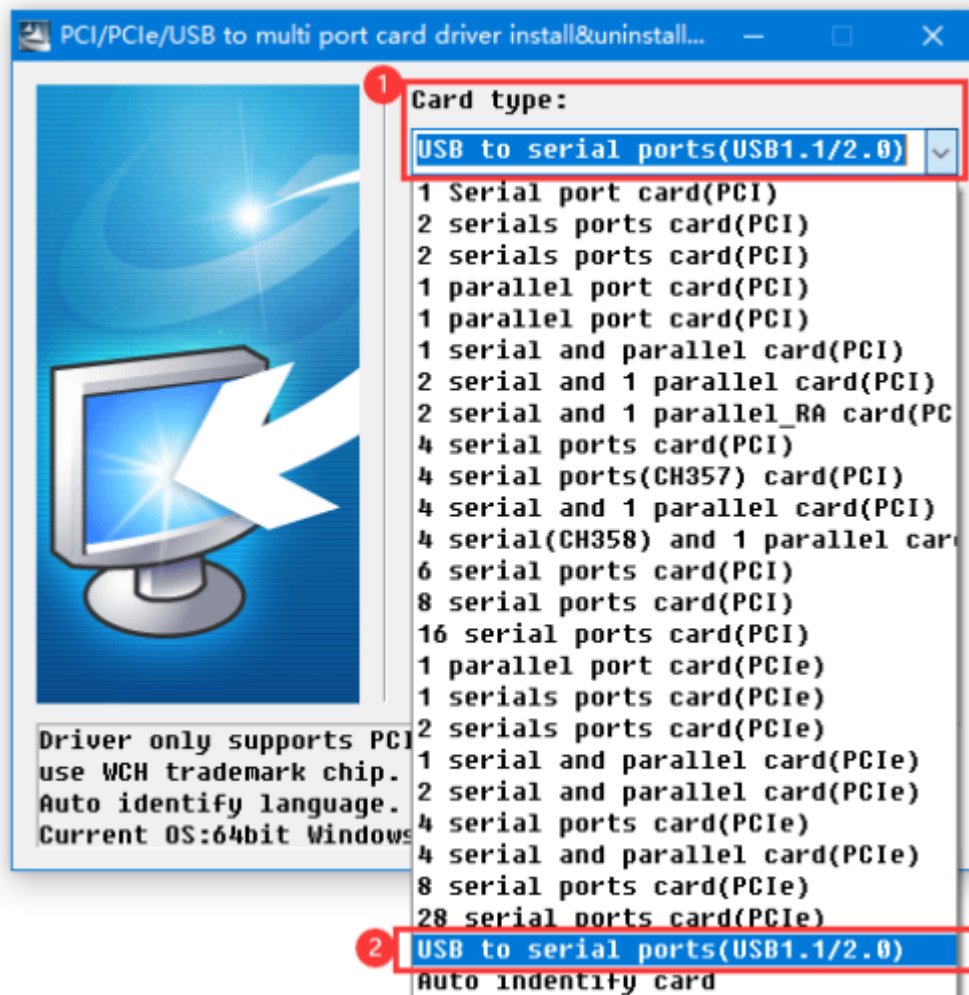


Dimensions

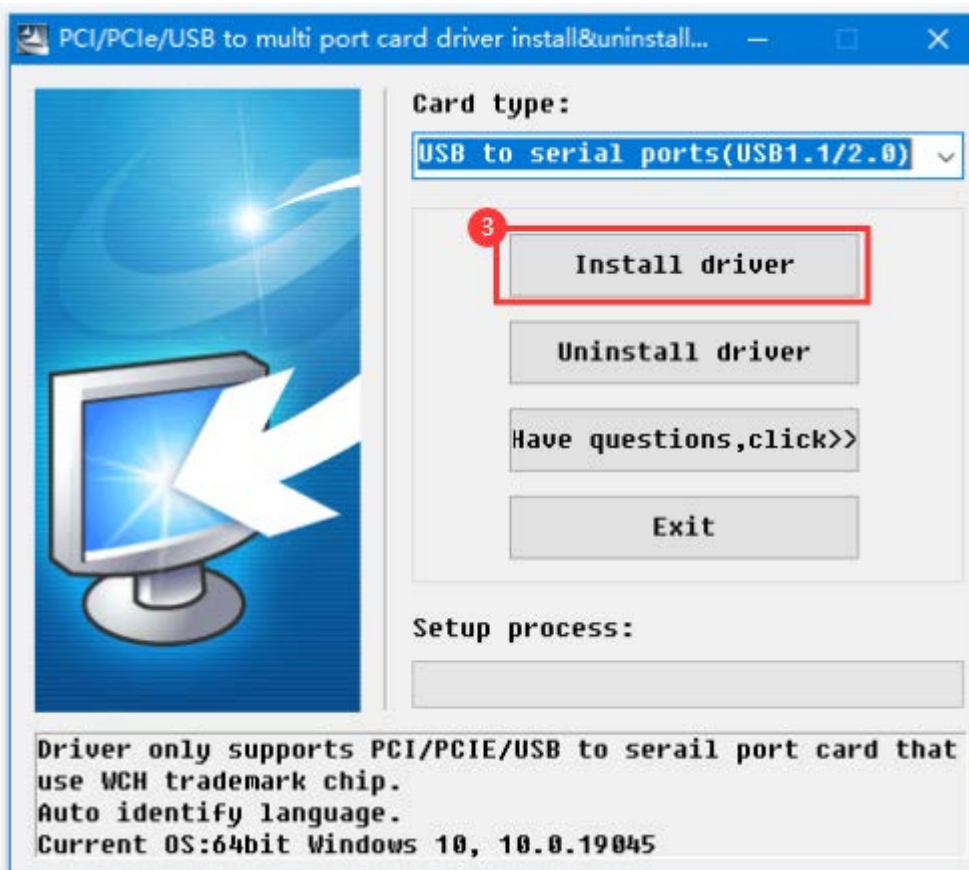


Driver Installation

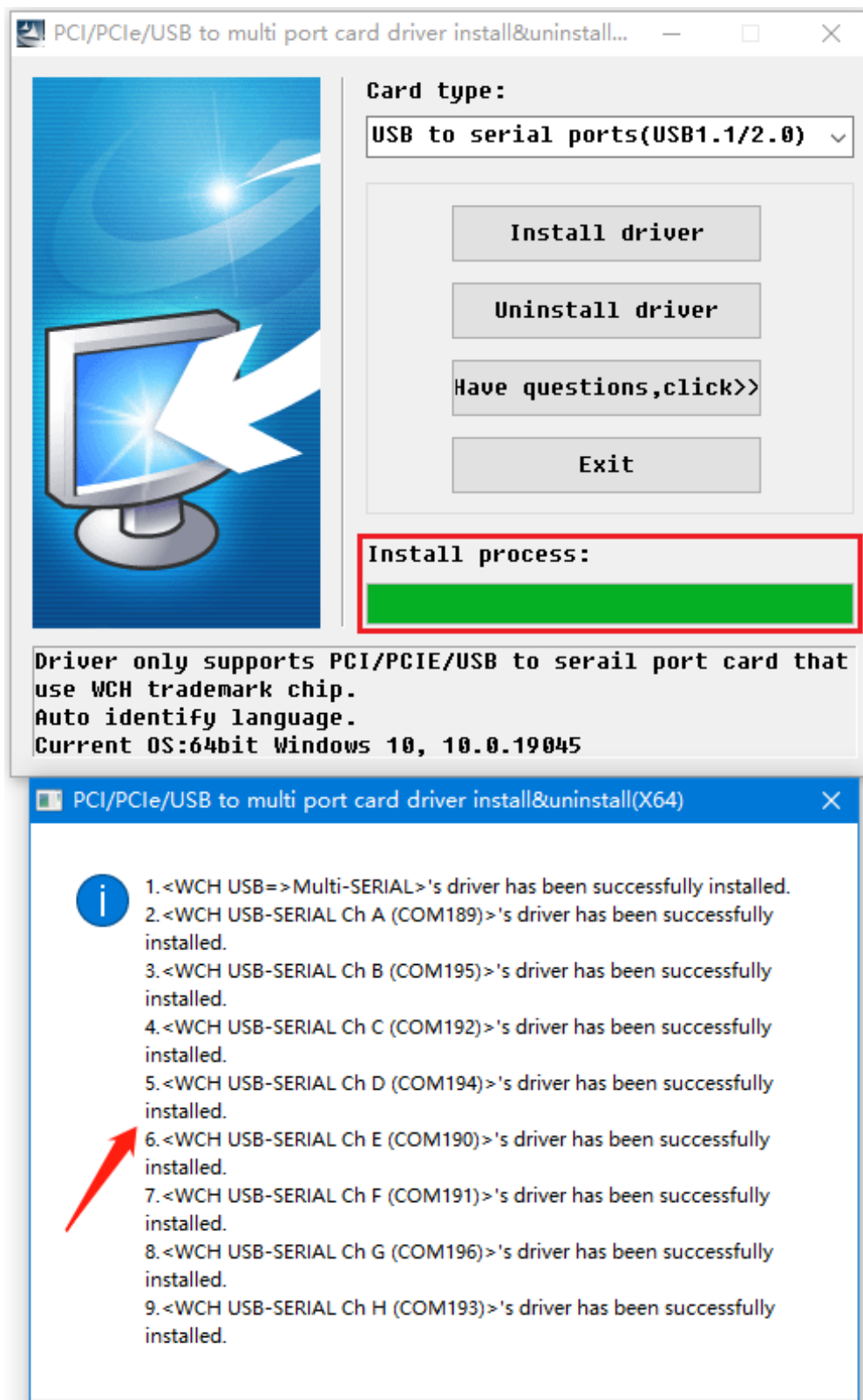
- First, download the driver file [USBMESR](#).
- Double-click **USBMESR.exe** and install it by steps.
- Select **USB to serial ports (USB 1.1/2.0)** as card type.



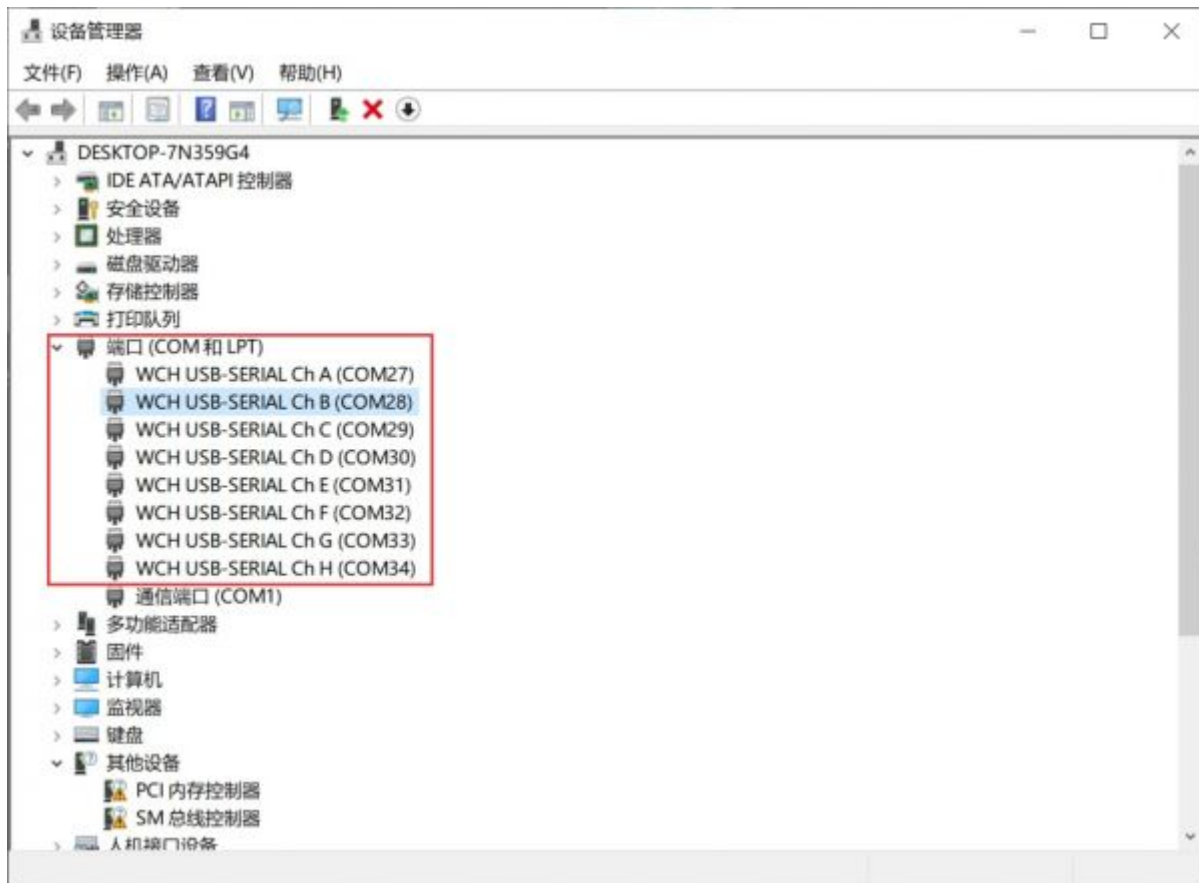
- Click on **Install Driver**.



- When the progress bar is loaded, a pop-up window will appear to indicate that the driver has been installed successfully.



- After connecting to the computer, you can find the available ports and their corresponding COM port. (Also, you can assign the COM port number through the serial port manager tool).



Communication Operation

- Open [SSCOM software](#).
- Generally, it can identify 8 COM port.

RS485 Communication

The following displays how to perform the communication between two channels.

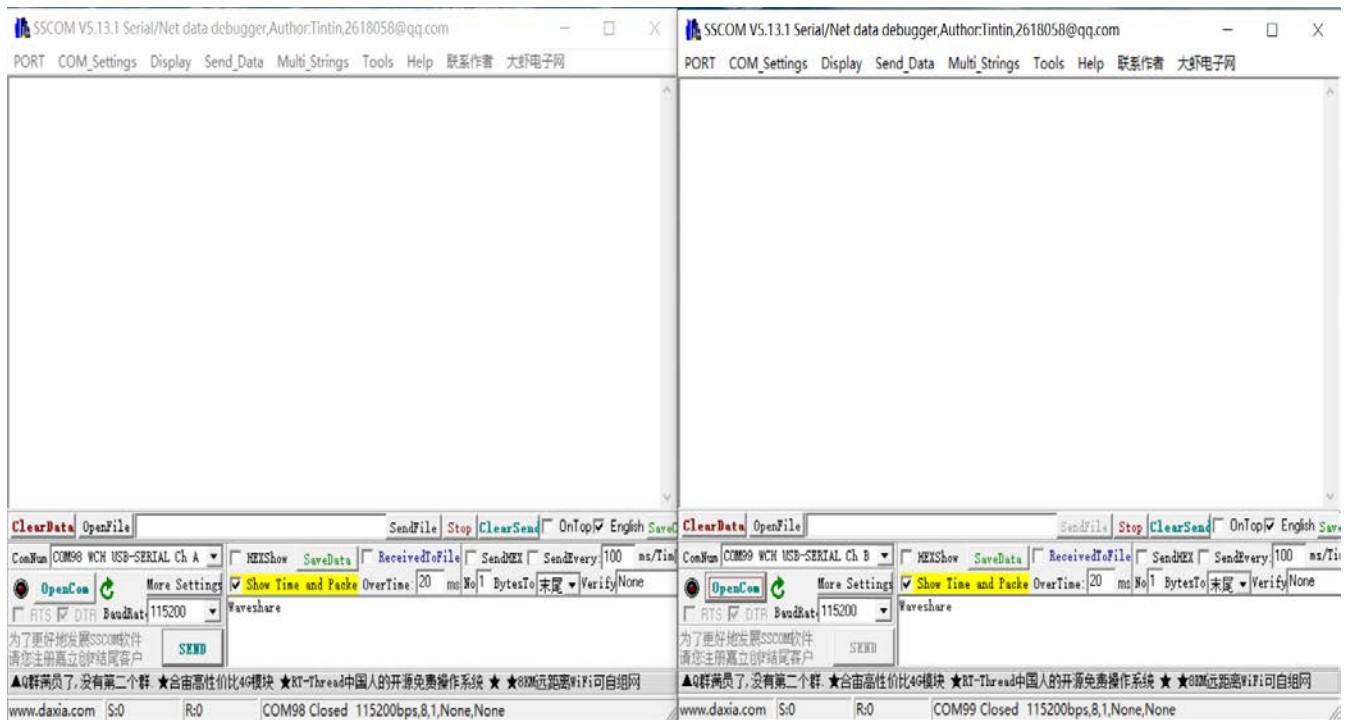
Hardware Connection

USB TO 8CH RS485

A1	A2
B1	B2

Software Operation

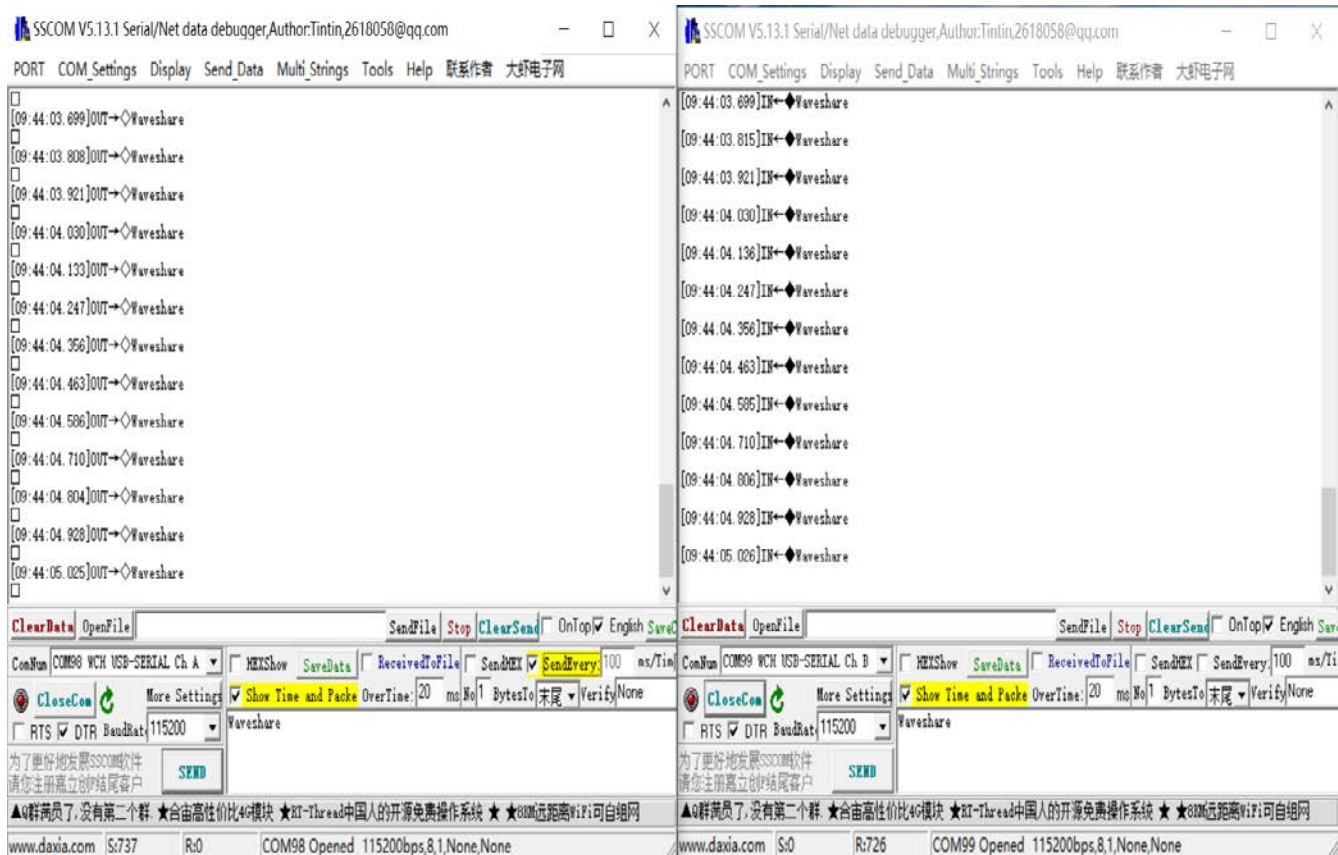
- Open two SSCOM interfaces.
- Select the corresponding COM port of channel A and channel B, respectively.



- Select the baud rate as **115200**, input the characters you want to send, check **Show time and packet**, and click on **Open COM**.



- Select 100ms intervals in two SSCOM interfaces, and you can see they transmit and receive data normally, the effects as shown below:



Resource

Datasheet

- [CH348L Manual](#)

Software and Drivers

- [SSCOM Assistant](#)
- Windows [USBMESR](#) driver (or download from [WCH website](#))
- [Linux Driver](#)