

USB TO RS485 Bidirectional Converter

Industrial USB to RS485 bidirectional converter with original FT232RL and SP485EEN chip. Due to its stable communication, it is an ideal choice for industrial control equipments and/or applications with high communication requirement.

Industrial Grade
Industrial Converter
Original Imported Chip

↔
USB to RS485
Bi-directional
Transmission

TVS
Transient Voltage
Suppressor

600w
600w
Lightningproof
& Anti-surge

1.2KM
Up to 1.2km
RS485 Transmission
Distance



Features At A Glance

- Support USB to RS485 bidirectional conversion
- Onboard Original FT232RL and SP485EEN chip. Fast communication, stable and reliable, better compatibility
- Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightningproof & anti-electrostatic
- Onboard resettable fuse and protection diodes, ensures the current/voltage stable outputs, provides over-current/over-voltage proof, improves shock resistance
- 3 LEDs for indicating the power and transceiver status

PRODUCT TYPE	Industrial Grade USB to RS485 converter	
HOST PORT	USB	
DEVICE PORT	RS485	
BAUDRATE	300bps ~ 921600bps	
USB	Operating voltage	5V
	Connector	USB-A
	Protection	200mA self-recovery fuse, ESD protection
	Transmission distance	About 5m
RS485	Connector	Screw terminal
	Pins	A+, B-, GND
	Direction control	Hardware automatic control
	Protection	600W lightningproof and surge-suppress, 15KV ESD protection (onboard 120R)
	Transmission distance	About 1.2km(low rate)
	Transmission mode	Point-to-multipoints (up to 32 nodes, it is recommended to use repeaters for 16 n
LED INDICATORS	PWR	Red power indicator, light up when there is USB connection and voltage is detected
	TXD	Red TX indicator, light up when the USB port sends data
	RXD	Red RX indicator, light up when the device ports send data back
OPERATING ENVIRONMENT	Temperature	-15°C ~ 70°C
	Humidity	5%RH ~ 95%RH
OPERATING SYSTEM	Mac, Linux, Android, WinCE, Windows 10 / 8.1 / 8 / 7 / XP	

Specifications

Onboard Original Chips

Onboard Original FT232RL And SP485EEN Chips, Providing Better Stability And Compatibility, Built-In Lightningproof Tube, Resettable Fuse, ESD And TVS Protection Circuits, Etc.



Transmission Distance Up To 1.2km

The USB Signal Can Be Converted Into A Balanced Differential RS485 Signal And The Transmission Rate Is Stable. The Reliable Speed Is 300-921600bps, The Transmission Distance Is About 1.2km For RS485, And About 5 Meters For USB.



Multi System Support

Supports Mac, Linux, Android, WinCE, Win11/10/8.1/8/7/XP, Etc.



Working Status Indicators

Onboard 3 LEDs For Indicating The Power And Transceiver Status



1

PWR: Light up Red
Power Connected

2

TXD: Blinking Red
Data Transmitting

3

RXD: Blinking Red
Data Receiving

Outline Dimensions



Unit:mm

USB TO RS485



Introduction

This is an industrial USB to RS485 converter with original FT232RL inside. It features embedded protection circuits such as lightning-proof, resettable fuse, ESD protection, and TVS diode, etc. It's pretty small in size.

[More](#)

Features

- USB to RS485 communication
- Adopt original FT232RL, fast communicating, stable and reliable, better compatibility
- Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightning-proof & anti-electrostatic
- Onboard self-recovery fuse and protection diodes, ensures the current/voltage stable outputs, provides over-current/over-voltage proof, improves shock resistance
- 3 LEDs for indicating the power and transceiver status

Specification

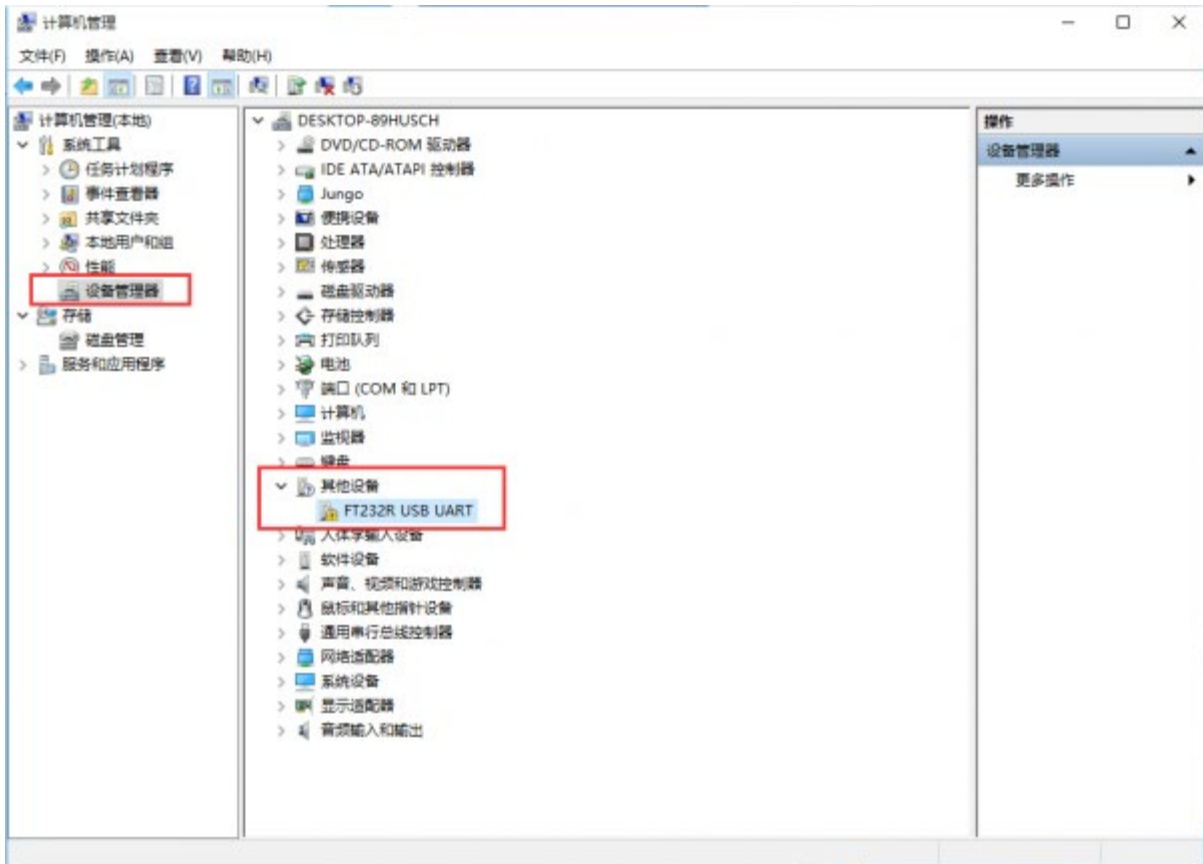
- Product type: industrial converter
- Baudrate: 300-921600bps
- Host port: USB
- Device port: RS485

- USB:
 - Operating voltage: 5V
 - Connector: USB-A
 - Protection: 200mA self-recovery fuse, ESD protection
 - Transmission distance: about 5m
- RS485:
 - Connector: screw terminal
 - Pins: A+, B-, GND
 - Direction control: hardware automatic control
 - Protection: 600W lightning-proof and surge-suppress, 15KV ESD protection (onboard 120R balancing resistor)
 - Transmission distance: about 1200m (low rate)
 - Transmission mode: point-to-multipoints (up to 32 nodes, it is recommended to use repeaters for 16 nodes or more)
- LED indicators:
 - PWR: red power indicator, light up when there is USB connection and voltage is detected
 - TXD: red TX indicator, light up when the USB port sends data
 - RXD: red RX indicator, light up when the device ports send data back
- Operating environment:
 - Temperature: -15°C ~ 70°C
 - Humidity: 5%RH ~ 95%RH
- Operating system: Mac, Linux, Android, WinCE, Windows 10 / 8.1 / 8 / 7 / XP

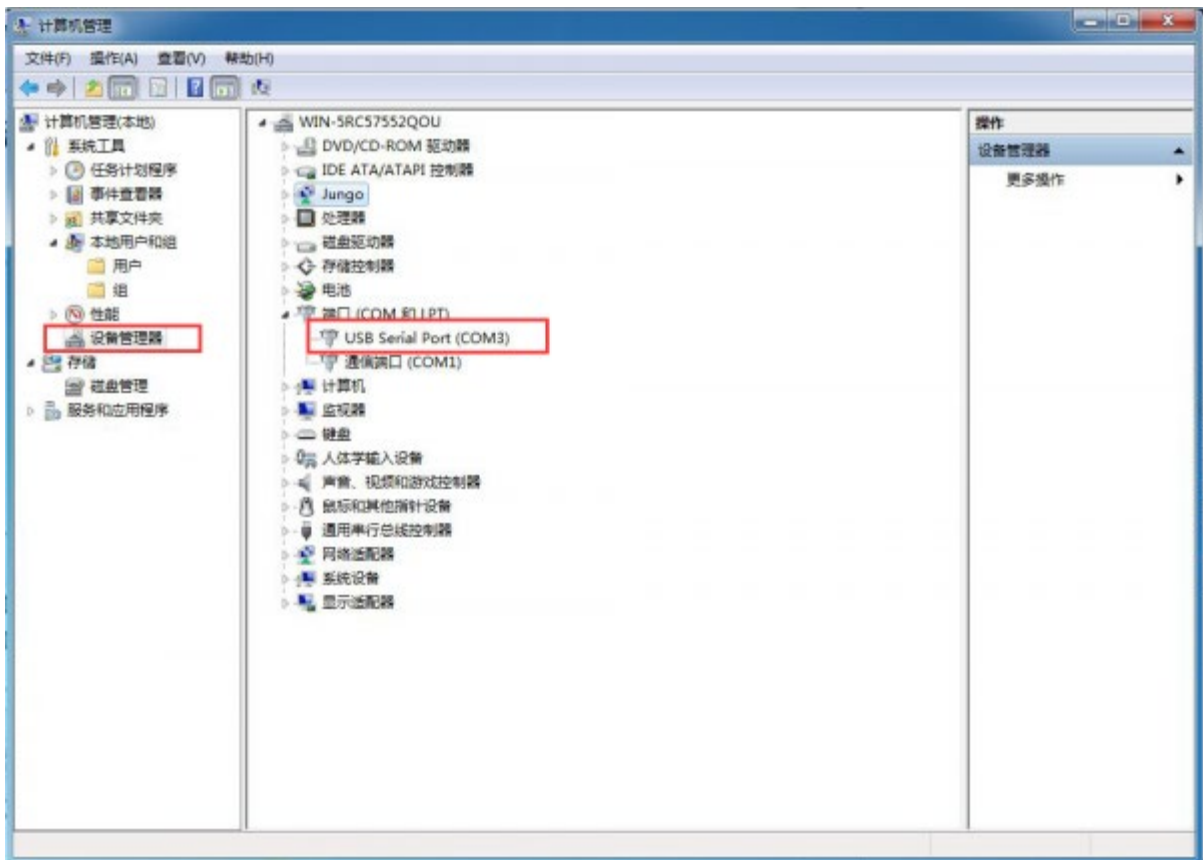
User guide

Driver installation

- Connect the module to host PC, check Device Manager, if the device is listed with the yellow exclamation mark, it means that the driver was not installed.



- Download the driver from [#Resources](#), unzip, and install it.
- After installing, you can find that the mark disappeared and a COM device is listed

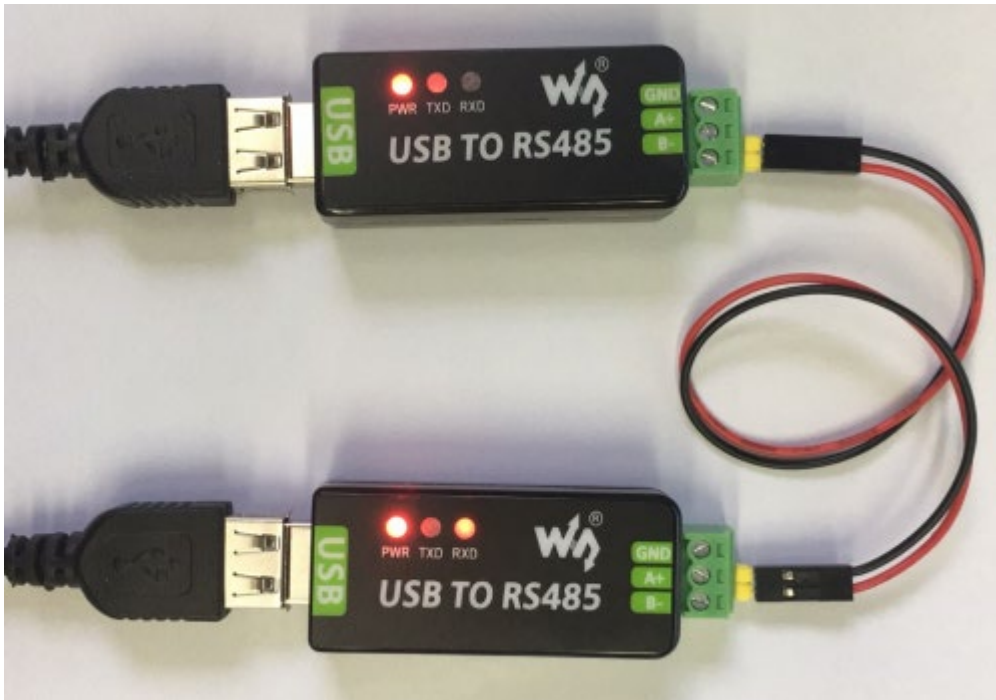


Testing

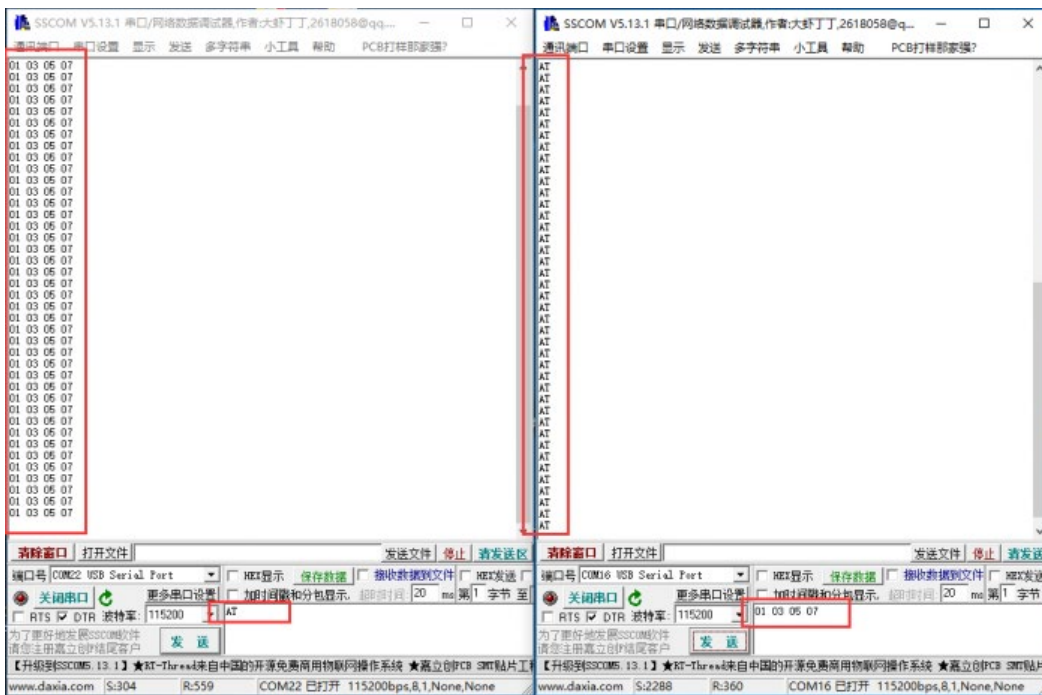
RS485

- You should prepare two RS485 device
- Connect A+ to A+, B- to B-, and connect them to host PC.

Run SSCOM software to test.



- Expected result



Resources

- [Driver](#)
- [Driver from FTDI website](#)
- [SSCOM software](#)

- [FT232R datasheet](#)
- [SP481E_SP485E SP485 datasheet](#)

Support

If you require technical support, please go to the [Support](#) page and open a ticket.