# RS485 TO POE ETH (B)

From Waveshare Wiki Jump to: navigation, search

# Overview

There are two versions of this product, the two are the same in software functions, and the differences in hardware are as follows:

- RS485 TO ETH (B): Common Ethernet connector, 9~24V wide voltage power supply via terminal block.
- RS485 TO POE ETH (B): Hardware upgrade version, can support PoE network port power supply, can also support 6~36V wide voltage via terminal block, with electrical isolation.

#### RS485 TO POE ETH (B)

**PoE Ethernet port + Electrical isolation** 



(https://www.waveshare.com/rs485to-eth-b.htm?sku=23273)

> RS485 to Ethernet serial server RS485 TO ETH (B) (/wiki/RS485\_TO\_ETH\_(B)) Common Ethernet port



(http://www.waveshare.com/RS485-TO-ETH-B.htm)



More (http://www.waveshare.com/RS485-TO-ETH-B.htm)

# Introduction

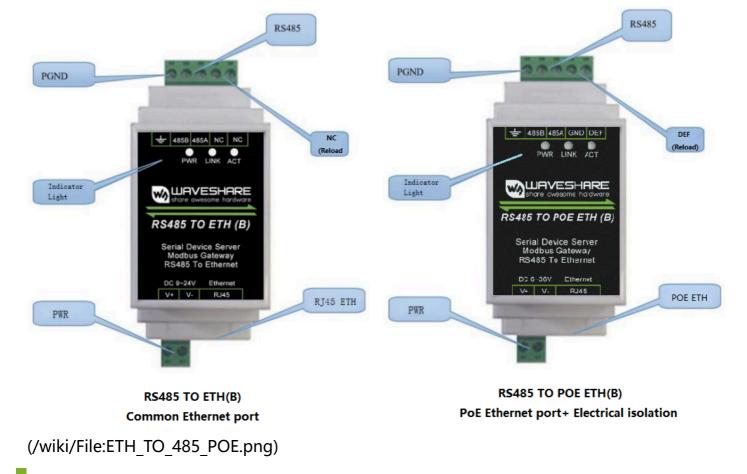
This is an RS485 device data collector/IoT gateway specially designed for the industrial environment, which combines serial server, Modbus gateway, MQTT gateway, RS485 to JSON, and other functions. It has an RS485 interface and an Ethernet interface. It adopts the rail-type installation, which is compact and easy to install. It is very suitable for the

collection of various RS485 instruments and sensors in the industrial field, including the collection of the local network or the autonomous collection of uploading to the cloud server.

### Parameters

Model	RS485 TO ETH (B)	RS485 TO POE ETH (B)
Product Types	Serial server, Modbus gateway,	MQTT gateway
Basic Functions	Realize RS485 to Ethernet bidir	ectional transparent transmission
Communication Interface	RS485 × 1, Network Port × 1	
Power Supply	Screw Terminal DC 9~24V	Screw terminal DC 6~36V or PoE port
Isolation Protection	No Isolation	Power isolation, signal isolation protection
	Communication	ו Port
Féli ann aé	Normal Network Port	PoE port, support IEEE 802.3af standard
Ethernet	10 / 100M self-adaptive RJ45 p	oort, 2 KV grade anti-surge protection
Serial Port	RS485	Isolated RS485
	UART Parame	eter
Baud Rate	300 ~ 115200 bps	
Parity Bit	None, odd parity, even parity, r	mark, space
Data Bit	5 ~ 9 bit	
Flow Control	No Flow Control	
	Software	
Protocol	Ethernet, IP, TCP, UDP, HTTP, AR	P, ICMP, DHCP, DNS
Config Way	Host computer configuration,	WEB browser, device management function library
Communication Way	TCP/IP direct communication,	virtual serial port mode
Working Mode	TCP server, TCP client (the TCP	server also coexists), UDP, UDP multicast
	Others	
Operating Temperature	-40℃ ~ 85℃	
Humidity Range	5% ~ 95% relative humidity	
Dimensions	L × W × H: 87 × 36 × 59 mm	

# **Hardware Description**



### **Software Features**

- Support TCP server, TCP client, UDP mode, and UDP multicast. When acting as a TCP client, it also supports TCP server-side functions. Supports 30 TCP connections as a TCP server and 7 destination IPs as a TCP client.
- The baud rate supports 1200~115200bps, the data bit supports 5~9 bits, and the check digit can be no check, odd check, even check, mark, or space.
- Support the function of sending MAC address when the device is connected, which is convenient for cloud management of the device.
- Provides a secondary development kit DLL development library for searching and configuring devices on the computer side.
- Support Web browser configuration, support DHCP to obtain IP dynamically, and DNS protocol to connect domain name server address.
- Support cloud remote search for devices, the configuration of device parameters, and device program upgrades.
- Support remote viewing of the device's TCP connection status, and serial port data sending and receiving status through software. The virtual serial port supports the data monitoring function.

# **Advanced Software Function**

 Support Modbus gateway function, support Modbus RTU to Modbus TCP. It can support storage-type Modbus, and can automatically collect device data and store it; it also supports a non-storage mode Modbus gateway.

- Support multi-host function: In the query mode of one question and one answer, the support network port allows multiple computers to access the same serial device at the same time.
- Support MQTT gateway function.
- Support JSON to Modbus RTU and 645-meter protocol, support HTTP POST, and HTTP GET format to upload data.
- Support NTP protocol to obtain network time, which is used for serial output, and the latter is used for protocol content upload.
- Support custom heartbeat package and registration package function: It is convenient to communicate with the cloud and identify devices.
- It supports the function that password authentication is required to establish a connection through TCP to ensure connection security.
- It supports the function of data submission and delivery in HTTP mode, and the cloud can directly use the HTTP GET command to interact with the serial port data of the device.

# Application

- As an IoT gateway as a communication bridge between devices and the cloud.
- Power, Smart Meter, and Energy Monitoring.
- Remote monitoring and program download of various automation PLCs.
- Various configuration software and equipment communication interfaces.
- Access control security field equipment networking.

# **Quick Test**

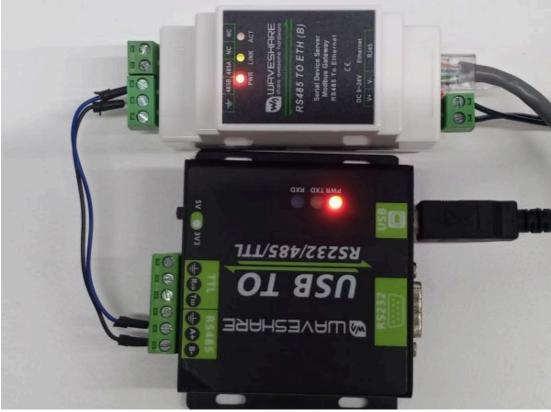
### **Hardware Connection**

 Here RS485 TO ETH (B) is taken as an example, and RS485 TO POE ETH (B) is connected in the same way.

Generally speaking, the serial server only needs to connect the power supply, serial port, and network cable. Among them, the power supply can use the field 2-wire power supply, which can be directly connected to the positive and negative terminals of the power supply. The serial port needs to be connected according to the user's serial port device. Connect 485 positive to 485A and 485 negative to 485B. The Ethernet port is connected to a common network cable, which can be directly connected to the computer or connected to the network through a switch.



### (/wiki/File:RS485\_TO\_ETH\_(B)010.jpg)



(/wiki/File:RS485\_TO\_ETH\_(B)011.jpg)

# **Software Installation**

Vircom can be used to configure parameters such as device IP and create virtual serial ports. If you don't need the virtual serial port function, you can just download the free version configuration software.

VirCom (https://files.waveshare.com/upload/4/42/VirCom\_en.rar)

Virtual serial port driver (/wiki/File:Virtual-serial-port-control3.5.rar)

The driver installation needs to be decompressed. Double-click the software to install. If the virtual serial port in Vircom is not displayed, restart it and check it again.

# Examples

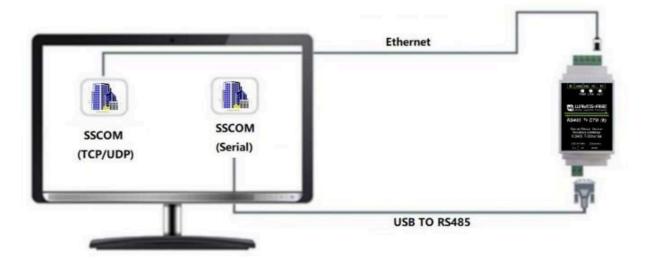
### **TCP Communication Test**

#### **Software Preparation**

- VirCom (https://files.waveshare.com/upload/4/42/VirCom\_en.rar)
- Sscom5.13.1 (https://files.waveshare.com/upload/b/b3/Sscom5.13.1.zip)

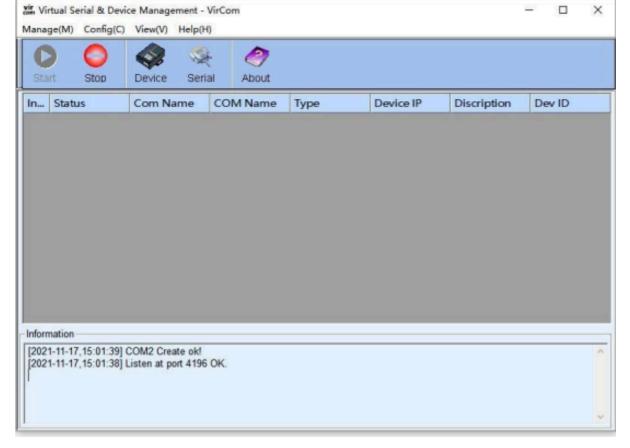
### **Operating Steps**

After Vircom is installed and the device hardware connection is finished, the software is run as shown in the figure, and then you can click "Device Management" as shown in the figure. With Vircom, it is very convenient to search and configure device parameters in different network segments, as long as the device and the computer running Vircom are under the same switch. The following tests also require a USB TO RS485 device (https://ww w.waveshare.com/usb-to-rs485-b.htm).



(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual01010.jpg)

The serial port to the Ethernet port and the Ethernet port to the serial port data transparent forwarding function of the serial port server. Assuming that the COM port (USB TO RS485) of the PC is now connected to the serial port of the serial port server, then open the serial port debugging assistant window and open the corresponding COM port, as shown below:



(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual100.png)

In addition, open another serial port debugging assistant window and use it as a TCP client mode, fill in the destination IP as the IP of the serial port server (currently 192.168.1.200), the destination port as 4196, and then click the "Open" button, as shown in the figure below:

evice	e Man	agement											3
In	Ty	Name	Dev IP	Loc	Dest IP	Work	TCP	Virtual	Vircom St	Dev ID	TX	RX	
1	Su	WSDEV	192.168.1.200	4196	192.168.1.3	TCP Ser	Not	Haven't	Not Linked	6FD794A7	0	0	
													Auto Searc
													Add Manua
													Search Se
													P2P Devic
													Edit Devic
													Edit Devic
													Search Li
													Gearch
													Back

(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual102.png)

Device Info	Network		Advanced Settings	1	
Virtual Serial Not Use 💌	IP Mode	Static	DNS Server IP	8.8.4.	4
Dev Type	IP Address	192 . 168 . 1 . 200	Dest. Mode	Dynamic	
Dev Name WSDEV0001	Port	4196	Transfer Protocol	None	
Dev ID 285B6FD794A7 []	Work Mode	TCP Server	Keep Alive Time	60	(s)
Firmware Ver V1.452	Net Mask	255 . 255 . 255 . 0	Reconnet Time	12	(s)
	Gateway	192 . 168 . 1 . 1	Http Port	80	
Function of the device	Dest. IP/Domain	192.168.1.3 Local IP	UDP Group IP	230 . 90 . 76 .	1
	Dest. Port	4196	Register Pkt:	Г	AS
ONS System	Serial		Restart for no da	ata every 300	S
REAL_COM Protocol	Baud Rate	115200	Enable send pa	rameter every 5	м
Modbus TCP To RTU	Data Bits		More Adv	aced Settings	1
R Serial Commnad				iced Gettings	1
DHCP Support	Parity	None	- Framing Rule		
Storage Extend	Stop Bits	1 _	Max Frame Length	1300	(B)
Multi-TCP Connection	Flow Control	None 💌	Max Interval(Smalle	ar will better) 3	(M

#### (/wiki/File:RS485\_TO\_ETH\_(B)\_Manual103.png)



(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual104.jpg)

In the serial debugging assistant SSCOM2 set as TCPClient, enter "TCPClient: Waveshare Test" and click send, then the data will be transferred to the RS485 interface through the serial server's network port, and then sent to the USB TO RS485, and then displayed in the serial debugging assistant SSCOM1 out; conversely, enter "USB TO RS485: Waveshare Test" in SSCOM1, click send, you can also send to SSCOM2, and display it.

### Virtual Serial Port Test

The SSCOM2 in the figure communicates directly with the serial port server through TCP. In order to allow the user's already developed serial port software to communicate with the serial port server, a virtual serial port needs to be added between the user program and the serial port server. As shown in the figure, Vircom, and user programs run on one computer, Vircom virtualizes a COM port and makes this COM port correspond to the serial port server. When the user program opens COM communication, it can be sent to the user's serial device through the Vircom serial server. The steps to do this are shown below:



(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_102.jpg)

Click the "UART management" in the Vircom interface, click "add", and then choose COM2. Among them, COM5 is the COM port that did not exist in the computer.

COM Number:	COM2 -	TCP Client Mode Settings:		
Name This COM:	TEST	Client Mode Start Connec	ction Now: 🔽	
Serial Param Auto Adapt:	As Globle Setting(Def.) -	Dest. IP or Domain:	192.168.1.200	
Vircom Work Mode:	Bind ID(Def.)	Dest. Port:	4196	
TCP Server Mode Listen Port:	22343	Vircom Register ID:		
Batch Create:	1	Vircom Login Key:		
Number of Batch Creation:	1	Heart Beat Pakcet:		
Batch Increase Mode:	IP Increase	Heart Beat Interval:	0	(s)
	ок	Cancel		

(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_103.png)

Then enter the device management, and double-click the device that needs to be bound to COM2. As shown in the figure, select COM2 in the "Virtual Serial Port" list in the upper left corner. Then click "Modify Settings", click "Restart Device", and return to the main interface of Vircom. It can be seen that COM2 has been connected to the device whose IP is 192.168.1.200. In this case, COM2 can be used instead of SSCOM2 for communication.

<b>D</b> Start	Stop	Q Device	Seria	About				
n Statu	IS	Com Na	me	COM Name	Туре	Device IP	Discription	Dev ID
Conr	nected	COM2		TEST	Bind ID	192.168.1.2	Name :WSD	6FD794A7
nformation								

(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_104.png)

Open SSCOM to simulate the user's serial port program, open COM2 (the virtual serial port above), open another SSCOM to simulate a serial port device, and open COM3 (hardware serial port). At this time, the data link sent by COM2 is as follows: COM2 -> Vircom -> the Ethernet port of the serial server -> the serial port of the serial server -> COM3. Conversely, COM3 to COM2 can also transmit data: COM3 -> the serial port of the serial server -> the Ethernet port of the serial server -> Vircom -> Vircom -> the serial port of the serial server -> the Ethernet port of the serial server -> Vircom -> COM3. Conversely, com3 to com2 can also transmit data: COM3 -> the serial port of the serial server -> the Ethernet port of the serial server -> Vircom -> COM2. As shown in the figure below, both parties send and receive data. If COM4 is replaced with the user serial device, then COM5 can realize the communication with the user device.



(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_105.jpg)

### **MODBUS TCP Test**

By default, the data between the serial port and the Ethernet port is transparently transmitted. If you need to convert Modbus TCP to RTU, you need to select the conversion protocol as "Modbus TCP <--> RTU" in the device settings dialog box, as shown in the

Device Info	Network		Advanced Settings	
Virtual Serial COM2 <	IP Mode	Static	DNS Server IP	8.8.4.4
Dev Type	IP Address	192 . 168 . 1 . 200	Dest. Mode	Dynamic
Dev Name WSDEV0001	Port	502	Transfer Protocol	Modbus_TCP Protocol
Dev ID 285B6FD794A7 []	Work Mode	TCP Server	Keep Alive Time	60 (s
Firmware Ver V1.452	Net Mask	255 . 255 . 255 . 0	Reconnet Time	12 (s
	Gateway	192 . 168 . 1 . 1	Http Port	80
Function of the device	Dest. IP/Domain	192.168.1.3 Local IP	UDP Group IP	230 . 90 . 76 . 1
DNS System	Dest. Port	4196	Register Pkt:	T AS
	Serial		Restart for no da	ata every 300 S
REAL_COM Protocol     Modbus TCP To RTU	Baud Rate	115200 -	Enable send pa	rameter every 5 N
Serial Commnad	Data Bits	8	More Adv	aced Settings
DHCP Support	Parity	None -		
Storage Extend	Stop Bits	1	- Framing Rule Max Frame Length	1300 (B
Multi-TCP Connection	Flow Control	None 💌	Max Interval(Smalle	

(/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_050.png)

If the user's Modbus TCP software is used as a slave station (Slave), it is necessary to select the conversion protocol, then change the working mode to the client, the destination IP to the IP of the computer where the Modbus TCP software is located, and the destination port to 502, as shown in the figure below.

Network		
IP Mode	Static	
IP Address	192 . 168 . 1 . 200	
Port	4196	
Work Mode	TCP Server	(/wiki/File:RS485 TO ETH (B) Manual 051.png)
Net Mask	255 . 255 . 255 . 0	(,, ,
Gateway	192 . 168 . 1 . 1	
Dest. IP/Domain	192.168.1.3 Local IP	
Dest. Port	4196	

### **WEB** Configuration

Using Vircom, you can search and configure device parameters in different network segments. For Web configuration, you must first ensure that the computer and the serial server are in the same IP segment, and you need to know the IP address of the serial server in advance. But web configuration can be done on any computer without Vircom. 1. Enter the IP address of the serial server in the browser, such as http://192.168.1.200 (http://192.168.1.200).

RS48	35 TO POE ETH (B)
Passwor	Please enter password.
	www.waveshare.com

#### (/wiki/File:RS485-TO-POE-ETH-B-5.jpg)

2. Enter a password in Password: There is no login password set by default in the factory, you can enter a password at will, and click the Login button to log in. After setting the password to log in, the settings at "Modify webpage login password" will take effect:

Device Information									
Device Name	WSDEV0001		Firware Version	V1. 452			Device MAC	28-58-6F-D7-9	4-A7
Network Settings									
Device IP	192.168.1.200		Device Port	4156			Device Web Port	80	
Work Mode	TCP Server	*	Subnet Mask	255 255 255 0			Gateway	192.168.1.1	
Destination IP/DNS	192 168 1 3		Destination Port	4196			IP mode	Static	÷
Serial Settings									
Baundrate	115200	٠	Databits	8	٠		Parity	None	٠
Stopbits	1	*	Flow control	None	*				
Advaced Settings									
No-Data-Restart	Disable	*	No Data Restart Time	300 second		5-1270	Reconnect-time	12	1~255 second
Milti-Host Settings									
Protocol	None	*	Instruction Time out			32~8000ms	Enable Multi-host	No	•
RS485 Conflict Time Gep	¢ 5-255ms								
NOTE: 1. Multi-host is a	always enabled whe	in Proto	col is Modbus TCP to RTU.	2. Time out is alwa	iys 0 wł	hen Multi-host	is disabled.		
3. Time out only can be	set as mulitpy of 3.	2							
Modify Web Login H	Cay								
New Key			Input Key Again						

#### (/wiki/File:RS485\_TO\_ETH\_(B)\_Manual\_052.png)

3. The serial server parameters can be modified on the web page that appears. For the relevant parameters, please refer to Table 4 for the meaning of the parameters.

4. After modifying the parameters, click the "Submit Modification" button.

5. If configuring and downloading MQTT and Jetson Modbus firmware overwrites the webpage file of the configuration interface, resulting in the failure to open the configuration webpage, please follow the steps below to re-download the webpage file:

Configure web file (https://files.waveshare.com/upload/4/40/2043\_waveshare\_web\_zx.zi
 p) to RS485 TO ETH (B):

Webpage directly download mode Webpage directly in local PC: E:\FAQ-QUECTEL\RS485 TO ETH B 2043_waveshare_web_zx
Special configs: Clear all
MB config MQTT confic JSON confic Reg packet
Code file download mode Select code file:
C:\firmware.bin
Download through the network
Device IP address or domain: 192.168.10.61 Serial port: COM1
Download port (Don't modify): 1092 Baundrate: 115200
Device modual/type: 2003   DevID: 285FCAD56BAD Bind ID
Flash size: 256 V KB
Please close the opened webpage of the modual in the browser, before start download.

(/wiki/File:Web-config-tool.png)

# Resource

# Documentation

 User Manual (https://www.waveshare.com/wiki/RS485\_TO\_POE\_ETH\_(B)\_MQTT\_And\_JSO N\_User\_Manual)

# Software

- Vircom (https://files.waveshare.com/wiki/RS232-TO-RS485-(B)/Tool/VirCom6.17\_en\_ne.ex e.zip)
- Virtual serial port control (https://www.waveshare.com/wiki/File:Virtual-serial-port-contr ol3.5.rar)
- SSCOM (https://files.waveshare.com/upload/b/b3/Sscom5.13.1.zip)
- TCPIP/UDP debug tool (https://files.waveshare.com/upload/7/75/TCP%26UDPDebug.zip)

Modbus Slave (https://www.waveshare.com/wiki/File:Modbus\_Slave\_7.3.0.1402\_x64.zip)

# Certificate

 CE EMC (https://files.waveshare.com/upload/e/e2/RS485\_TO\_ETH\_%28B%29\_CE\_EMC.pd f)

# **Related Application**

 RS485 TO ETH (B) Connect Alibaba Cloud And EMQX (https://www.waveshare.com/wiki/R S485\_TO\_ETH\_(B)\_Connect\_Alibaba\_Cloud\_And\_EMQX)

# FAQ

Question:RS485 TO ETH (B)LINK is yellow, what should I do if I cannot access the network?

#### Answer:

• Set static IP, for example:

RS485 TO ETH (B) set to 192.168.1.200 port number 1111.

The computer is set to 192.168.1.199 port number 1111.

- Tested with the TCP server shared by the Internet community: 120.79.100.197 port number 10002.
- If it still doesn't work, please reset to factory settings.

### Question:RS485 TO ETH (B) How to restore factory settings?

Answer:

### 1) Short the NC pin for 5 seconds:



2) Get the default parameters and modify the settings:

	8 8	010000000	On-stie	in the de	Not Use 🔻	Virtual Serial
4.4	0.0.	DNS Server IP	Static 💌	IP Mode		
	Dynamic	Dest. Mode	192 . 168 . 1 . 200	IP Address	ZLSN2007	Dev Type
•	None	Transfer Protocol	4196	Port	ZLDEV0001	Dev Name
(s)	60	Keep Alive Time	TCP Server 🔹	Work Mode	285FCAD56BAD []	Dev ID
(s)	12	Reconnet Time	255 . 255 . 255 . 0	Net Mask	V1.452	Firmware Ver
	80	Http Port	192 . 168 . 1 . 1	Gateway		
76 . 1	230 . 90 .	UDP Group IP	192.168.1.3 Local IP	Dest. IP/Domain		Function of the
AS		Register Pkt:	4196	Dest. Port		Veb Down
300 Se	ata every	Restart for no d		Serial		DNS System
5 M	rameter every	Enable send pa	115200 -	Baud Rate		REAL_CON
	aced Settings	More Adv	8 •	Data Bits		
			None 💌	Parity		
300 (B)	1:	Framing Rule Max Frame Length	1 •	Stop Bits		
	er will better) 3	Max Interval(Smalle	None 💌	Flow Control	Connection	Multi-TCP 0
300	aced Settings	More Adv Framing Rule Max Frame Length	8 • None • 1 •	Baud Rate Data Bits Parity Stop Bits	P To RTU mnad port tend	Modbus TC Serial Com DHCP Supp Storage Ext

### Question:What is the power of RS485 TO ETH (B)?

**Answer:** 

The detailed data is as follows:

	Input Voltage (V)	Input Current (A)	Power			
Specifications	9V	0.020	0.18W			
Specifications	12V	0.015	0.18W			
	24V	0.008	0.19W			
(/wiki/File:RS485-TC	(/wiki/File:RS485-TO-ETH-B-POWER-EN.png)					

# Question:What should I do if the web configuration interface cannot be opened?

#### **Answer:**

Configuration and download other firmware such as MQTT and Jetson Modbus cover the configuration interface web page file, you need to re-download

2043\_waveshare\_web\_zx.zip configuration interface web file (https://files.waveshare.com/ upload/4/40/2043\_waveshare\_web\_zx.zip) to RS485 TO ETH (B):

Webpage directly download mode Webpage directly in local PC:	
E:\FAQ-QUECTEL\RS485 TO ETH B 2043_waveshare_web_zx	•
Special configs: Clear all	
MB config MQTT config JSON config Reg packet	
Code file download modeSelect code file:	
C:\firmware.bin	<b>•</b>
Download through the network	
Device IP address or domain: 192.168.10.61 Serial port: COM1	
Download port (Don't modify): 1092 Baundrate:	
Device modual/type: 2003   DevID: 285FCAD56BAD Bind ID	
Flash size: 256 V KB	
Please close the opened webpage of the modual in the browser, before start download.	
Download	
(/wiki/File:Web-config-tool.png)	

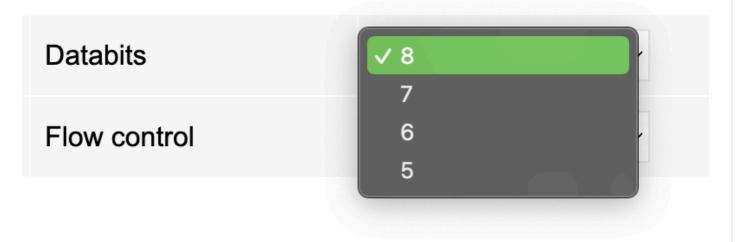
**Question:Why the IP destination does not match my configuration?** 

Answer:

There is no destination IP in server mode. If you want to set the destination IP, please change the mode to client, and then set the destination IP.

Dev Type       IP Address       192.168.10.8         Dev Name       test108         Dev ID       28685ECF0F35         Firmware Ver       V1.490         Function of the device       Net Mask         Web Download       Dest. IP/Domain         Post       4196         Dest. IP/Domain       192.168.10.1         Dest. Port       4196         Web Download       Dest. IP/Domain         Post. Port       4196         Dest. IP/Domain       192.168.10.1         Dest. Port       4196         Dest. Port       4196         Dest. Port       90.76.1         UDP Group IP       230.90.76.1         UDP Group IP       230.90.76.1         Dest. Port       4196         Dest. Port       4196         Dest. Port       4196         Dest. Port       4196         Dest. Port       90.76.1         Register Pkt:       Asscil         Restart for no data       every         Serial       Baud Rate       15200         Parity       None       Parity         Parity       None       Praming Rule         Max Frame Length       1300	Device Info	Network		-Advanced Settings		Se
Dev Type       IP Address       192 . 168 . 10 . 8       Dest. Mode       Dynamic       Image: Constraint of the device         Function of the device       Veb Download       Work Mode       TCP Server       Image: Constraint of the device       Reconnet Time       12       (s)         Function of the device       Dest. IP/Domain       192.168.10.1       Local IP       UDP Group IP       230.90.76.1         Web Download       Dest. Port       4196       Image: Constraint of the device       Restart for no data       every 300       Sec.         P REAL_COM Protocol       Serial       Baud Rate       115200       Image: Constraint of the device       Restart for no data       every 300       Sec.         P Modbus TCP To RTU       Data Bits       B       Image: Constraint of the device       Framing Rule       Framing Rule       More Advaced Settings       Framing Rule         P DHCP Support       Stop Bits       1       Image: Constraint of the device       1300       (Byte)	Virtual Serial Not Use	IP Mode	Static	DNS Server IP	8.8.4.	. 4
Dev ID       28685ECF0F35       Image: Second Secon	Dev Type	IP Address	192 . 168 . 10 . 8	Dest. Mode	Dynamic	
Dev ID       28685ECF0F35       Work Mode       TCP Server       Keep Alive Time       60       (s)         Firmware Ver       V1.490       Net Mask       255 . 255 . 255 . 0       Reconnet Time       12       (s)         Function of the device       Dest. IP/Domain       192 . 168 . 10 . 1       Local IP       UDP Group IP       230 . 90 . 76 . 1       Http Port       80         Web Download       Dest. IP/Domain       192 . 168 . 10 . 1       Local IP       UDP Group IP       230 . 90 . 76 . 1       Register Pkt:       ASCII         Veb Download       Dest. Port       4196       IS200       Restart for no data       every 300 Sec.         Veb Nobus TCP To RTU       Data Bits       B       More Advaced Settings       More Advaced Settings       Framing Rule         Veb DHCP Support       Stop Bits       1       More       Max Frame Length       1300 (Byte)	Dev Name test108	Port	4196 client	Transfer Protocol	None	• E
Firmware Ver       V1.490       Net Mask       255.255.255.0       Reconnet Time       12       (s)         Function of the device       Gateway       192.168.10.1       Local IP       UDP Group IP       230.90.76.1         Web Download       Dest. IP/Domain       192.168.10.1       Local IP       UDP Group IP       230.90.76.1         Web Download       Dest. Port       4196       Image: Restart for no data       every       300         V REAL_COM Protocol       Serial       Baud Rate       115200       Image: Restart for no data       every       300       Sec.         V Modbus TCP To RTU       Data Bits       8       Image: Restart for no data       every       5       Min.         V DHCP Support       Parity       None       Image: Restart for no data       every       5       Min.         Storage Extend       Stop Bits       1       Image: Restart for no data       framing Rule       Max Frame Length       1300       (Byte)	Dev ID 28685ECF0F35 []	Work Mode	TCP Server	Keep Alive Time	60	
Function of the device       Dest. IP/Domain       192.168.10.1       Local IP         Web Download       Dest. Port       4196       Image: Register Pkt:       Image: Ascillation of the device         Image: Provide the device       Serial       Image: Pkt:       Image: Pkt: <td></td> <td>Net Mask</td> <td>255 . 255 . 255 . 0</td> <td>Reconnet Time</td> <td>12</td> <td>(s) s</td>		Net Mask	255 . 255 . 255 . 0	Reconnet Time	12	(s) s
Web Download       Dest. IP/Domain       192.168.10.1       Local IP         DNS System       Dest. Port       4196       Register Pkt:       ASCII         REAL_COM Protocol       Serial       Baud Rate       Restart for no data       every 300       Sec.         Modbus TCP To RTU       Data Bits       B       More Advaced Settings       More Advaced Settings       More Advaced Settings       Framing Rule         Storage Extend       Stop Bits       1       Image: Storage Length       1300 (Byte)	Eurotian of the device	Gateway	192 . 168 . 10 . 1	Http Port	80	
Dest. Port       4196       Register Pkt:       ASCI         IF REAL_COM Protocol       Serial       Restart for no data       every 300 Sec.         IF Modbus TCP To RTU       Baud Rate       115200       Enable send parameter       every 5         IF Serial Commnad       Data Bits       B       More Advaced Settings       More Advaced Settings       Framing Rule         IF Storage Extend       Stop Bits       1       Max Frame Length       1300 (Byte)		Dest. IP/Domain	192.168.10.1 Local IP	UDP Group IP	230 . 90 . 76 .	1
Image: Restant for no data       every 300 Sec.         Image: Restant for no data       every 5 Min.         Image: Restant for no data       eve		Dest. Port	4196	Register Pkt:		ASCII
Modbus TCP To RTU       Baud Rate       115200       Image: Constraint of the send parameter every 6       Min.         If Serial Command       Data Bits       B       Image: Constraint of the send parameter every 6       Min.       More Advaced Settings       Image: Constraint of the send parameter every 6       Min.         If DHCP Support       Parity       None       Image: Constraint of the send parameter every 6       Min.       Image: Constraint of the send parameter every 6       Min.         If Storage Extend       Stop Bits       1       Image: Constraint of the send parameter every 6       Min.       Image: Constraint of the send parameter every 6       Min.         If Storage Extend       Stop Bits       1       Image: Constraint of the send parameter every 6       Min.       Image: Constraint of the send parameter every 6       Min.		Serial		Restart for no d	ata every 300	Sec.
Modebuls ICP To RTO     Data Bits     B     More Advaced Settings       If Storage Extend     Stop Bits     1     Image: Framing Rule Max Frame Length     1300 (Byte)		Baud Rate	115200	Enable send pa	rameter every 5	Min.
Parity     None       Stop Bits     1         Framing Rule       Max Frame Length     1300 (Byte)		Data Bits		More Adv	aced Settings	1 -
E Storage Extend Stop Bits 1 Max Frame Length 1300 (Byte)		Parity				
(D)(B)		Stop Bits	1		1300	(Pute)
Multi-TCP Connection     Flow Control     None     Max Interval(Smaller will better)     (Ms)		Flow Control	None			

Question:Why we cannot seem to select 9 bits in the settings with the web interface. How do we select 9 bits?



### (/wiki/File:RS485\_TO\_POE\_ETH\_(B)FAQ.png)

#### **Answer:**

After communicating with the development engineer of the host computer, in addition to 8 data bits, this also implies a check bit; 9-bit data can be sent, 8 data is, the ninth bit is the check digit, and the check digit has 4 states that can be set, base parity, even parity, always 1, always 0. The parity bit can be no parity, odd parity, even. There are five ways to check, mark, and space.

# Support

### **Technical Support**

If you need technical support or have any feedback/review, please click the **Submit Now** button to submit a ticket, Our support team will check and reply to you within 1 to 2 working days. Please be patient as we make every effort to help you to resolve the issue. Working Time: 9 AM - 6 PM GMT+8 (Monday to Friday)

Submit Now (https://service.w aveshare.com/)

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