# RS232/485 TO ETH

## 1. Method 1: Access router or switch test

- Connect the RS232/485 TO ETH to the computer and the switch or router connected to the LAN respectively (in this way, firstly, the network cable of the computer does not need to be unplugged to avoid network disconnection; secondly, the RS232/485 TO ETH connected to the Internet can be connected to the public network TCP Server communication), fixed IP of RS232/485 TO ETH.
- Control Panel (File Explorer) -> Network Connections -> Double-click the network card -> Details -> See the computer IP (here is 192.168.11.121).



 Click the device factory IP: 192.168.0.7->set the static IP to the same frequency band IP as the computer ()->subnet mask default->set the corresponding gateway->click set.



• Double-click the upper right corner of the webpage -> enter the account and password (the initial value is: admin).

n EthernetTool					>
Device 中文				Version-V1.0.11 T	vne+H7.4
DevicelF	NAC 90 X5 25 73 61 65	7011	Yeb	Wŷ	WAVESHARE -share awesome hardware-
				Current Status	parameter Module Name: RS232485 TO ETH
				Local IP Config RS232	Firmware Revision: V1.0.11 Current IP Address: 192.168.11.66
				RS485	Preferred DNS Server: 114.114.114.114 Standby DNS Server: 223.5.5.5
				Web to Serial	MAC Address: 9C-A5-25-F3-61-65 Run Time: Oday: Ohour: 4min
			>	Misc Config Module Mange	PORT Status: RS232  Conn Status A(ETH): CONNECTING TX Count A(ETH): 0 bytes RX Count A(ETH): 0 bytes
IP Type: static IP ModuleStaticIP: 192.168.1	1.06				Conn Status B(ETH): IDLE TX Count B(ETH): 0 bytes RX Count B(ETH): 0 bytes
SubnetHask: 255.255.2 Gateray: 192.168.1	55.0				
S	jave .				
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## Method 2: Test directly with the computer

If you only have one network cable and no router or switch, you can connect the computer and RS232/485 TO ETH through a single network cable (similar to one-to-one communication between two computers through a network cable).

 Control Panel (File Explorer)->Network Connections->Double-click the network card->Properties->Internet Protocol Sakamoto 4 (TCP/IPV4)->Use the following IP address->Set the IP of the same frequency band as RS232/RS485 TO ETH -> OK.

常规					
如果网络支持此功能,则可以获取自动措派的 IP 设置。否则,你需要从网络支持进动能,则可以获取自动措派的 IP 设置。否则,你需要从网			重命名此连接	查看此连接的状态	更改此连接的设置
<ul> <li>□ 自动获得 IP 地址(Q)</li> <li>□ 直动获得 IP 地址(Q)</li> <li>□ 使用下面的 IP 地址(S);</li> <li>IP 地址(I):</li> <li>子网掩码(U):</li> <li>默认网关(D):</li> </ul>	192.168.0.253         255.255.255.0         192.168.0.1		以太网 未识别的 Realtek	网络 USB GbE Family C	
○ 自动获得 DNS 服务器地址(B)					
●使用下面的 DNS 服务器地址(E):					
首选 DNS 服务器(P):					
备用 DNS 服务器( <u>A</u> ):	· · ·				
□ 退出时验证设置(L)	高级()				
	确定取消				

# **RS232 TCP communication**

- Hardware connection
  - Connect <u>RS232/485 TO ETH</u> and <u>USB TO RS232/485/TTL</u> via female to female crossover serial cable:



• Open the <u>TCPIP/UDP debugging software</u>, set the computer as the server, RS232/485 TO ETH as the client,

			$\sim$
Ma ПСР&ОDP-Debug			$\sim$
Operate( <u>O</u> ) View( <u>V</u> ) Windows( <u>W</u> ) Help( <u>H</u> )	Language		
🗄 🚰 CreateConnn 📚 CreateServer   踷 StartServe	r 😤 🔕   😪 Connect 😪   🛬 DisconnAll   💥 DeleteConn 🗞   🧕	≈ .	
Properties	4 ×		
Client Mode			
🗄 🖳 Server Mode			
-28 Local(192.168.11.121):1111			

Version:V1.0.11 Typ	/pe:H7-4	主文			
₩¢ <sup>®</sup>	WAVESHARE -share awesome hardware-				
Current Status	Parameter	Help			
Local IP Config	Baud Rate: 115200 bps(600~921600)	Local Port			
RS232	Data bit: 8 🔻 bit	1~65535. when			
RS485	Parity: None V	this to 0 means			
Web to Serial	Stop bit: 1 V bit Flow ctrl: NONE V	port			
Misc Config	UART Packet Time: 0 (0~255)ms	1~65535			
Module Mange	UART Packet Length: 0 (0~1460)chars	Packet     time/length			
	Sync Baudrate(RF2217 Similar): 🕑	default 0/0,			
	Enable Uart Heartbeat Packet:	packet			
	Socket A Parameters	mechanism; you can modify it as a			
	Work Mode: TCP Client None	none-zero value			
	Remote Server Addr: [192.168.11.121]				
	Local/RemotePort Number: 1111 1111 (1~65535)				
	Timeout Reconnection : 0 (0~99999)s				
	PRINT:				
	Modbus Poll: Response Timeout: 200 (10~9999)ms				
	Modbus TCP Exception:				
	Enable Net Heartbeat Packet:				
	Registry Type: None    Location Connect With				
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 Start the server -> open the serial port assistant -> select the corresponding serial port



# Resources

• <u>Code</u>

- <u>Software</u>
- AT Command manual

## FAQ

**Question:** Why can't the configuration web page be opened in the computer's browser and cannot communicate with TCP?

#### Answer:

Set the IP of RS232/485 TO ETH and computer to the same network address and different node address IP:

For example, If RS232/485 TO ETH IP is 192.168.0.7; computer IP is 192.168.0.8

**Question:** Why can I use USB TO RS232/RS485 to communicate normally, but cannot send and receive data when connecting to sensors and other devices through 485/232?

#### Answer:

 After confirming that the network communication is normal, you can observe whether the 232RX (485RX) light is flashing. If it does not flash, it means that there is no data in the RS232/485 TO ETH. Check whether the RS232/RS485 wiring is correct.

If the RXD and TXD of some RS232 lines are not cross-connected, they cannot communicate (check with a multimeter, if 2 and 2 are connected, 3 and 3 are directly connected to the serial line; if 2 and 3 are connected, 3 and 2 are connected. .), you can replace the crossover serial cable:

• If the indicator light is normal, please turn off the tool and then turn it on to test.



#### Here use Raspberry Pi instead of sensors and other devices.



11 22 33 44 55 66 77 88 99 22 33 22 33 22 99 AA FF

Question: How can I restore the factory settings?

**Answer:** 

After the module is powered on, press and hold the reload button for more than 5 seconds to restore the factory settings:



After power on, press this button for 5 secondsto restore the factory settings