

RS232/RS485/RS422 to TCP/IP Serial Sever Manual

Please read the product manual carefully before using the product

I. Product introduction

This product is a RS232 / RS485 / RS422 TCP/IP serial port SERVER, internal integration TCP/IP protocol stack, which can realize network packets and two-way serial data transmission, TCP CLIENT, TCP, UDP CLIENT and SERVER four work modes such as UDP SERVER, support serial port baud rate up to 921600 BPS, can through the PC software of this product is installed with easy configuration, convenient and quick. Products are widely used in industrial automation control system, access control system, attendance system, card system, POS system, building automation system, power system, monitoring system, data acquisition system and banking self-service system.

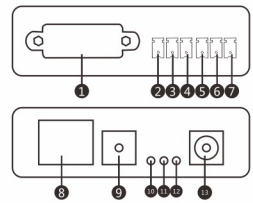
II. Product parameter

- 1: internal Ethernet media transmission layer (MAC) and physical layer (PHY).
- 2: DHCP(Dynamic Host Configuration Protocol) this function enables the serial Server to obtain its dynamically assigned IP Address through DHCP Server, which can avoid IP Address conflicts in the internal network segment.
- 3: Realize two-way transparent transmission of serial port data and network data.
- 4: support DHCP to obtain IP address automatically, support DNS domain name access.
- 5: baud rate of serial port supports 300bps ~ 921600bps.
- 6: support serial RS232, full duplex RS422 and half duplex RS485 communication.
- 7: support 10/100m, full duplex/half duplex adaptive Ethernet interface, compatible with 802.3 protocol.
- 8: support POE power supply (4, 5, 7, 8 power supply mode switches).
- 9: support Modbus RTU/TCP bidirectional passthrough.

III. Product factory default parameters

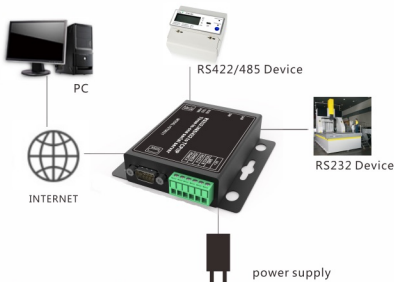
- (1) Operation mode:TCP SRVER MODE
- (2) Equipment IP:192.168.1.200
- (3) Subnet mask:255.255.255.0
- (4) Default gateway:192.168.1.1
- (5) Port 1:RS485,RS422;Port 2:RS232
- (6) Module port:2000
- (7) Destination IP:192.168.1.100
- (8) Destination Port:1000
- (9) Number of reconnection:not limited
- (10) Baud rate:9600
- (11) Timeout:0
- (12) Date bit:8;Stop bit:1; Check:None
- (13) Empty serial port buffer:never empty

IV. Interface introduction



number	name	introduction
1	RS232	Rs232 interface
2	DC+	Positive terminal of dc power supply
3	GND	Ground connection
4	RS422 B	Rs422 B communication interface
5	RS422 A	Rs422 A communication interface
6	RS485 B	Rs485 B communication interface
7	RS485 A	Rs485 A communication interface
8	LAN	Internet port
9	SW	Reset button
10	RXD	Receiving light
11	TXD	Sending light
12	PWR	Power light
13	AC/DC 12-70V	Power interface

V. Product diagram



VI. Product accessories

- 1.Product 1pcs
- 2.Power adapter 1pcs
- 3.Product specification 1pcs
- 4.3.81*6P terminal 1pcs

IOT9031 Configure the Settings of the Tool Manual

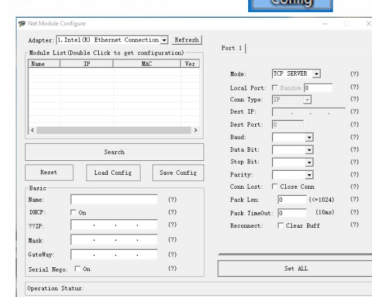
You can download the tool from:

https://www.dtechelectronics.com/front/downloads/downloadssearch/user_downloadscaat_id/0/search_value/IOT9031

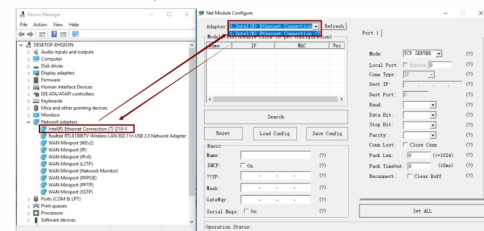
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Configure the Settings of the tool

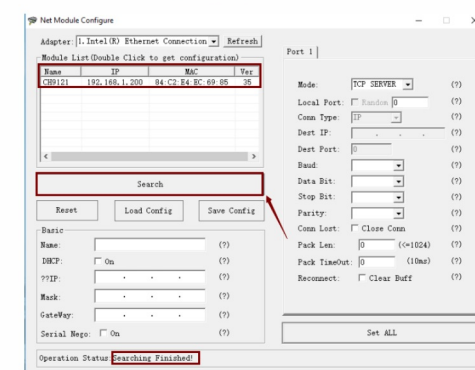
- ◆ Step 1: open"NetModuleConfig" APP.
- ◆ Step 2: open the interface as follows.



- ◆ Step 3: Match the adapter of the configuration software to the local network adapter of the device manager (if there is no NIC information displayed, you can press "Refresh NIC").



- ◆ Step 4: Click "Search for device", and display "Device search completed" in the lower left corner to see the device IP address and other information in the "Device list".

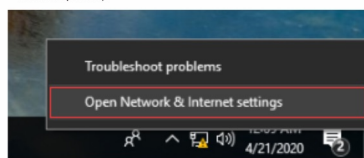


- ◆ Step 5: Double-click "Device", the lower left corner displays "get config" -ration successful" to display the detailed parameter information of the device (as shown in the figure below), where: 'Basic' information is the factory default parameters of 9031; The factory default parameter for 9031 is 2000

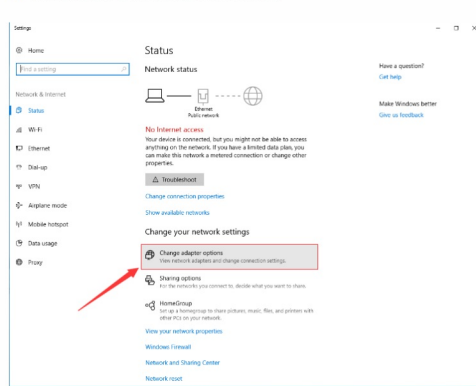
Note: Before testing, you need to change the network mode and change the default "TCP CLIENT" to "TCP SERVER".

Network adapter settings, take win7 x32 as an example

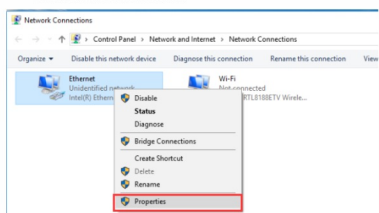
- ◆ Step 1: Right-click the network icon and click "Open Network and Sharing Center" (you can also find "Network and Sharing Center" in the control panel).



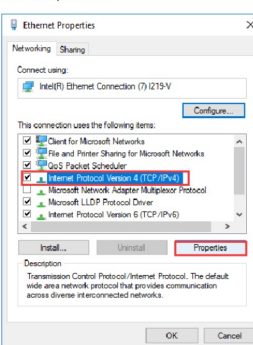
- ◆ Step 2: Click "Change adapter settings".



- ◆ Step 3: Right-click the "Local Area Connection" icon and click "Properties" on the left mouse button.

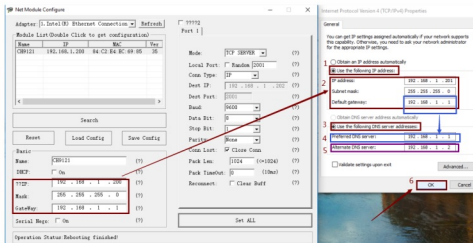


- ◆ Step 4: Click "Internet Protocol Version 4 (TCP / IPv4)" with the mouse, then click "Properties".

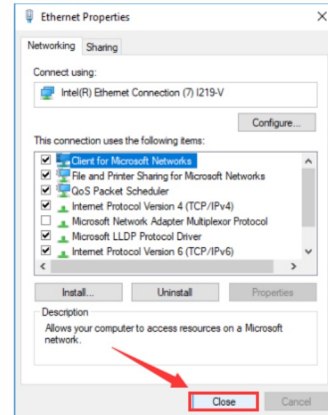


- ◆ Step 5: Set the TCP / IPv4 properties of the computer's network adapter:

- 1 Click "Use the following IP address";
- 2 Corresponding the computer's "IP address", "subnet mask", "default gateway" with 9031 parameters;
- Note: The last data of "IP address" should be different from 9031;
- 3 Click "Use the following DNS server address";
- 4 Set "preferred DNS server", corresponding to the default gateway;
- 5 Set up "standby DNS server", the last data of pre-preferred DNS can be different;
- 6 Click "OK";



- ◆ Step 6: Click Close to complete the setting.



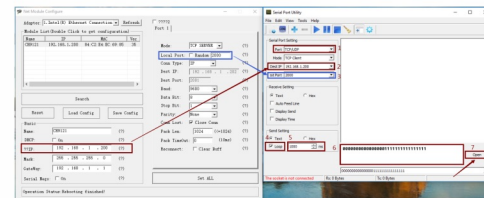
Serial debugging assistant tool

- ◆ Step 1: first short-circuit the 232A and 232B of the RS232 end of the device and then open the "Serial Port Utility" software.



- ◆ Step 2: Set test parameters:

 - 1 First set the port and click the triangle icon on the right side of "port", then click "TCP / UDP" on the drop-down window;
 - 2 Set "Dest IP" to correspond to 9031 "Device IP", set to "192.168.1.200" (this is the factory default device IP);
 - 3 Set the "destination address" to correspond to the local port of 9031, set to "2000" (this is the factory default local port);
 - 4 "√" before "Auto Resend" in the sending settings;
 - 5 Enter "1000" in the blank space on the left side of "ms" in the sending settings;
 - 6 In the blank area on the left side of the "Open" icon, fill in "00000000000000001111111111111111" (a total of 16 "0" and 16 "1")
 - 7 Finally click "Open", the test begins.



- ◆ Step 3: When you see multiple sets of "00000000000000001111111111111111" data in the blank area in the middle of the window, also see that the values in "Rx:" and "Tx:" at the bottom of the window must be the same, and the lower left corner becomes "green text" "Connection is established" means that the RS232 end of test 9031 is normal. Carry out a short-circuit test on RS422/RS485 (where the brown wire is connected to 485A, 422A, 485B to 422B).The test method is the same as that of RS232.

