Chengdu Ebyte Electronic Technology Co.,Ltd

# Wireless Modem

## User Manual




# E810-DTU(RS485)

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# 1. Product Introduction

## 1.1. Introduction




E810-DTU (RS485) is a single serial port server that converts 485 to Ethernet, which realizes transparent data transmission between RJ45 network port and RS485. The module is equipped with M0+ series 32-bit processor, which has fast running speed and high efficiency. It has four communication mechanisms: adaptive network rate (up to 100M full-duplex), TCP Server , TCP Client, UDP Server, and UDP Client. E810-DTU (RS485 ) is easy to operate , and users can directly configure the module parameters through the host computer . Easily realize data transmission.

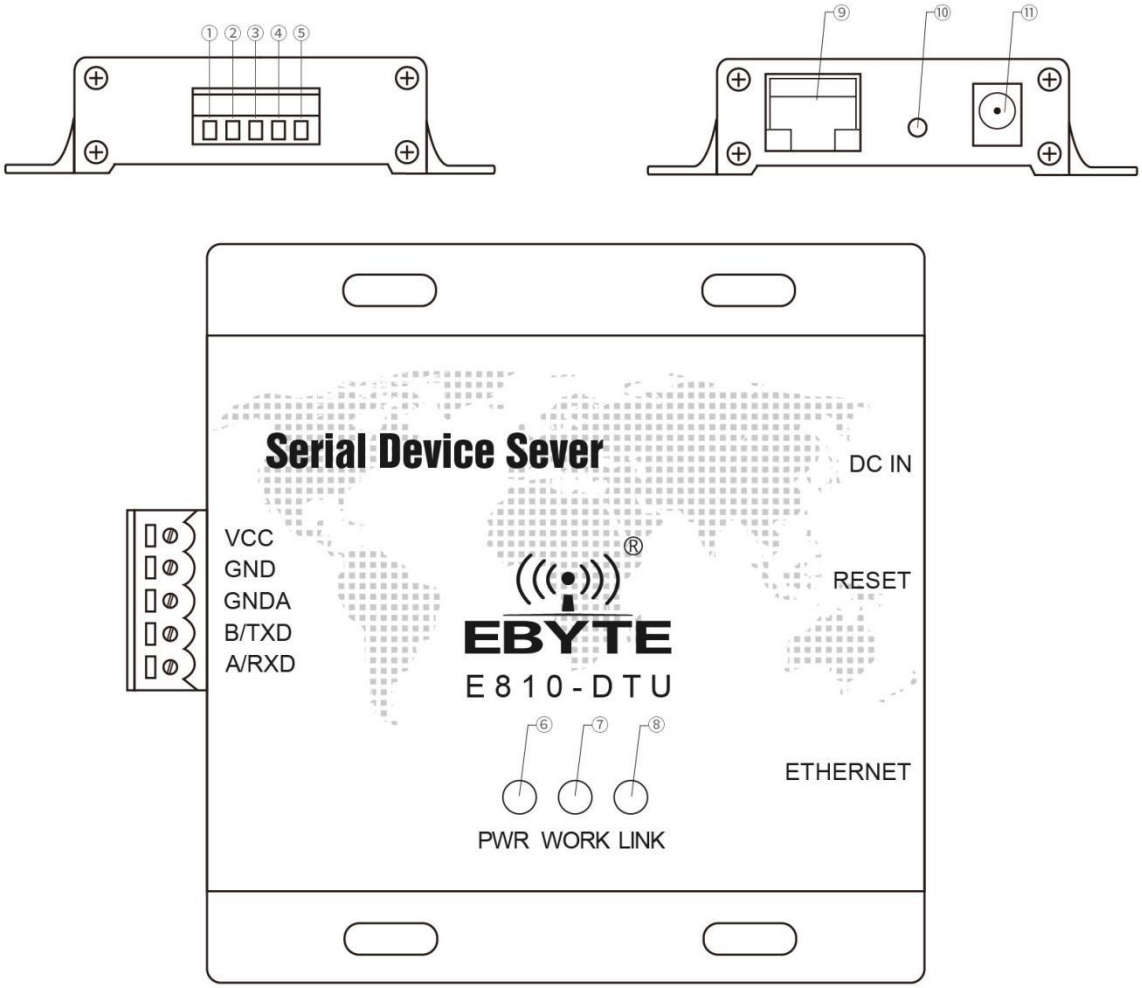
## 1.2 Product Specifications and Features

| NO. | Parameters | Description |
|---|---|---|
| 1 | Module size | 66 * 66 *21.6mm |
| 2 | Average weight - | 7 9 ± 1 g |
| 3 | PCB Process | 2-layer board, lead-free process, machine mounting |
| 4 | Interface | RS485/RS232 : 1*5*3.81mm, crimping method |
| 5 | Supply voltage | 8~ 28 V DC, note: voltage higher than 28 V will cause permanent damage to the module |
| 6 | Serial port standard | 300 ~ 300 000 bps |
| 7 | Serial communication level | 3.3V, if connected to 5V, level conversion is required |
| 8 | Network port specifications | RJ45, 10/100Mbps |
| 9 | Network Protocol | IP, TCP/UDP, ARP, ICMP, IPV4 |
| 10 | How to obtain IP | Static IP, DHCP |
| 11 | Domain name resolution | support |
| 12 | User Configuration | Host computer software configuration, AT command configuration, web page configuration |
| 13 | Simple transparent transmission method | TCP Server , TCP Client , UDP Server , UDP Client , Cloud Transmission |
| 14 | TCP Server Connection | Supports up to 6 TCP connections |
| 16 | Supporting Software | Parameter configuration software |
| 17 | Packaging mechanism | 200 bytes packet length |
| 18 | Working current | 77.0314mA@12V ( RS485) , 74.5635mA@12V (RS232) |
| 19 | Operating temperature | -40 ~ +85℃, industrial grade |
| 20 | Operating humidity | 10% ~ 90%, relative humidity, non-condensing |
| 21 | Storage temperature | -40 ~ +125℃, industrial grade |

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# 2. Hardware parameters and design introduction

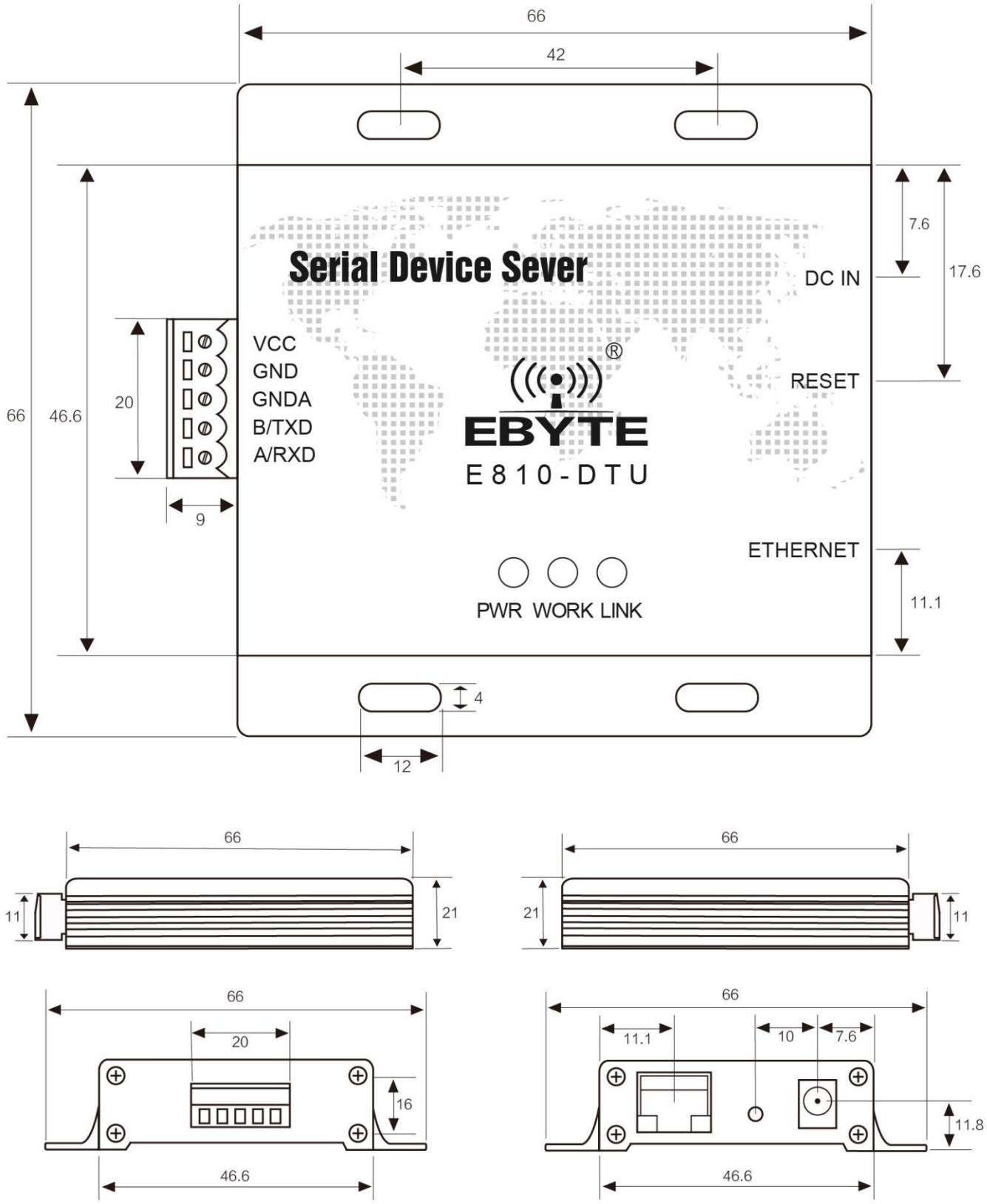
## 2.1. Design Introduction




| Pin number | Pin Name | Pin Purpose |
|---|---|---|
| 1 | VCC | Power supply, default power supply 8~28V (standard 5V version can be customized) |
| 2 | GND | Ground |
| 3 | GNDA | RS232 common terminal, connected to the GND of other RS232 devices |
| 4 | B/TXD | Connect to the B terminal/RS232 output terminal of other RS485 devices, or connect to the RXD terminal of other RS232 devices |
| 5 | A/RXD | Connect to the A terminal/RS232 input terminal of other RS485 devices, or connect to the TXD terminal of other RS232 devices |
| 6 | PWR | Power indicator |
| 7 | LED1 | Remote connection indicator |
| 8 | LED2 | Serial port receiving and sending indicator |
| 9 | RJ45 | RJ45 interface with network transformer |
| 10 | SWITCH | All configuration parameters of the module are restored to factory settings |
| 11 | VCC | DC power port, it is recommended to use standard 12 V or 24 V power supply |

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## 2.2. Dimensions

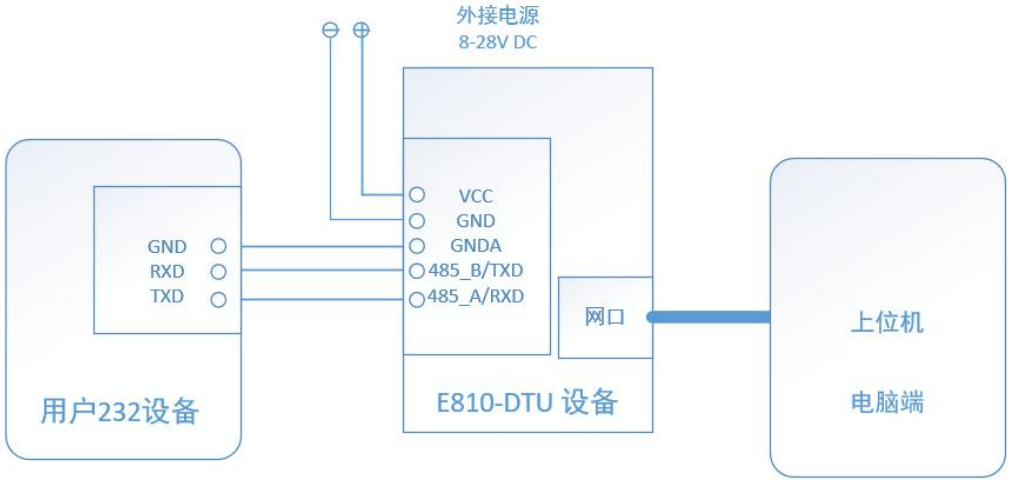




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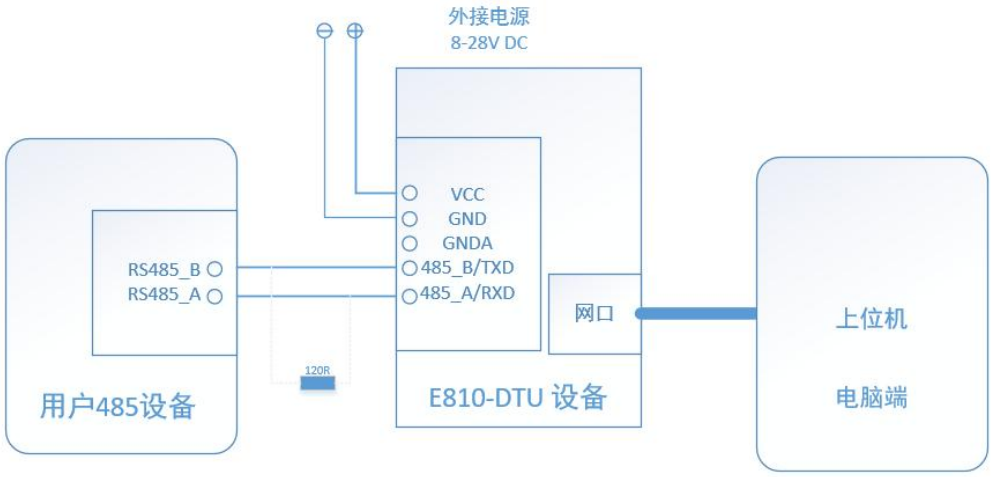
## 2.3. Connection method

### 2.3.1. RS232 connection method




### 2.3.2. RS485 connection method

In RS485 communication, attention should be paid to matching A and B first. If abnormal communication is found, a 120R resistor should be added between A and B lines.




# 3. Introduction to basic network functions

## 3.1. IP Address/Subnet Mask/Gateway

1. The IP address is the module's identity in the LAN and is unique in the LAN, so it cannot be repeated with other devices in the same LAN.

E810-DTU (RS485 ) : static IP and DHCP.

(1) Static IP

Static IP needs to be set manually by the user. During the setting process, remember to write the IP, subnet mask and gateway at the same time. Static IP is suitable for scenarios where IP and device statistics need to be kept and they must correspond one to one.

Advantages: Devices that cannot automatically assign IP addresses can be searched through the full network segment broadcast mode;

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Disadvantages: Different IP segments in different LANs will result in the inability to perform normal TCP/UDP communication.

(2) DHCP

The main function of DHCP is to dynamically obtain information such as IP address, Gateway address, DNS server address, etc. from the gateway host, thereby eliminating the tedious steps of setting the IP address. It is suitable for scenarios where there is no requirement for IP and there is no requirement for one-to-one correspondence between IP and module.

Advantages: Devices with DHCP servers such as routers can communicate directly, reducing the trouble of setting IP address gateway and subnet mask.

Disadvantages: When connected to a network without DHCP Server, such as directly connected to a computer, E810-DTU (RS485 ) will not work properly.

2. The subnet mask is mainly used to determine the network number and host number of the IP address, indicating the number of subnets and judging whether the module is in the subnet. The subnet mask must be set. The commonly used C-class subnet mask is: 255.255.255.0, the network number is the first 24 bits, the host number is the last 8 bits, the number of subnets is 255, and the module IP is within the range of 255, then the module IP is considered to be in this subnet.

3. Gateway refers to the network number of the network where the module's current IP address is located. If you connect to a device such as a router when connecting to the external network, the gateway is the router IP address. If the setting is wrong, you cannot correctly connect to the external network. If you do not connect to a device such as a router, you do not need to set it and the default is fine.

4. Software Setup

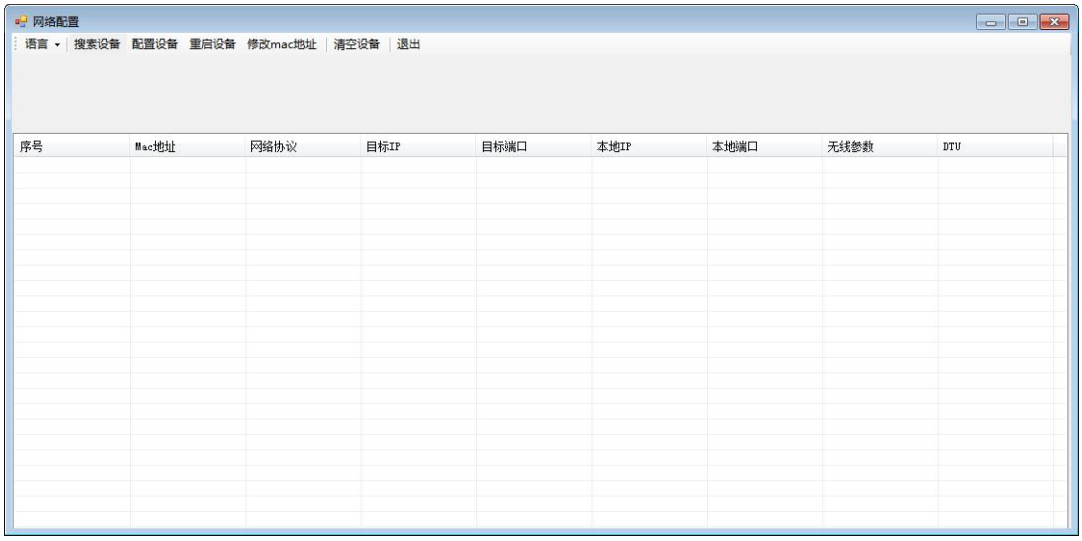
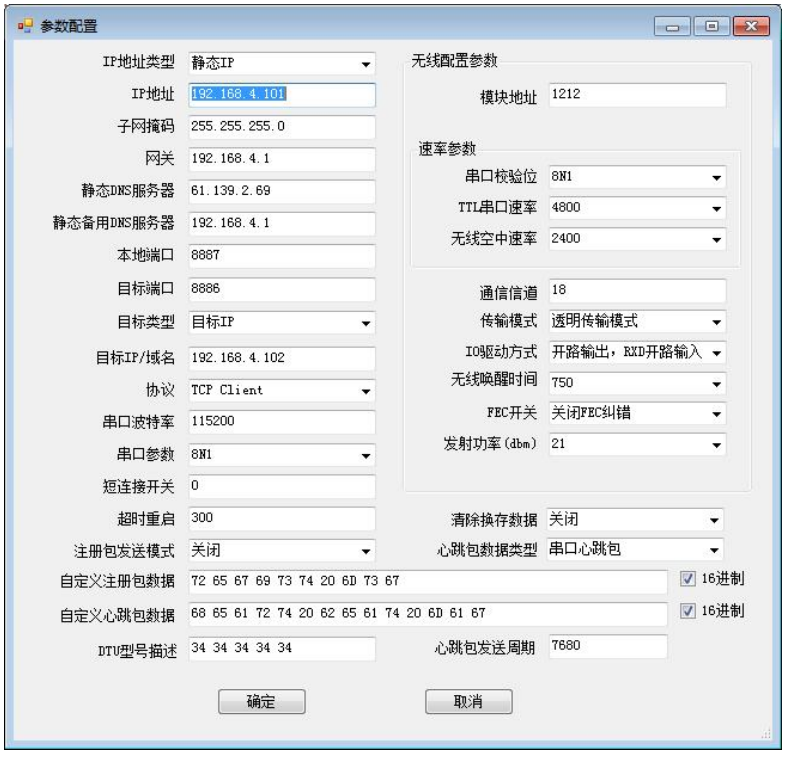



Figure 1 Parameter setting software




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Figure 2 Parameter setting interface

## 3.2. DNS server addresses

The DNS server is mainly used to convert domain names into IP addresses that can be recognized by the network. The DNS server address can be set, which can achieve domain name resolution when the local domain name server is imperfect. Users can also set the address of a specific DNS server according to their needs. When E810-DTU (RS485 ) needs domain name resolution, it will submit a resolution request to the set DNS server. It is more flexible and reliable to use.

In static IP mode, the default primary DNS server address is 61.139.2.69, and the backup DNS server address is 192.168.4.1. In DHCP mode, the DNS server address is automatically obtained. The module supports setting the domain name server address.

# 4. Socket Features

E810-DTU (RS485 ) are divided into four types: TCP Client, TCP Server, UDP Client, and UDP Server. They can be set through the host computer software. The setting interface is as follows:

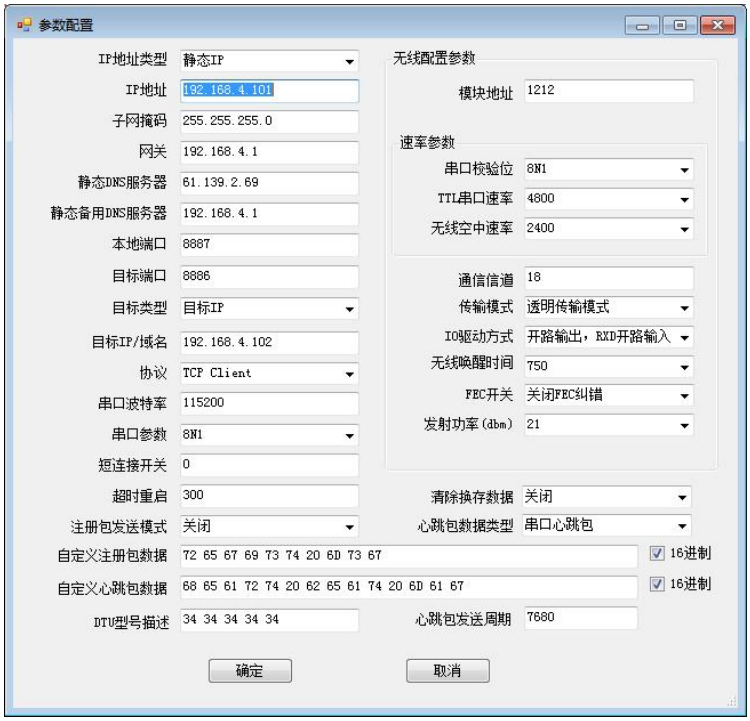



Figure 4-1 Settings interface

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## 4.1. TCP Server Mode Features

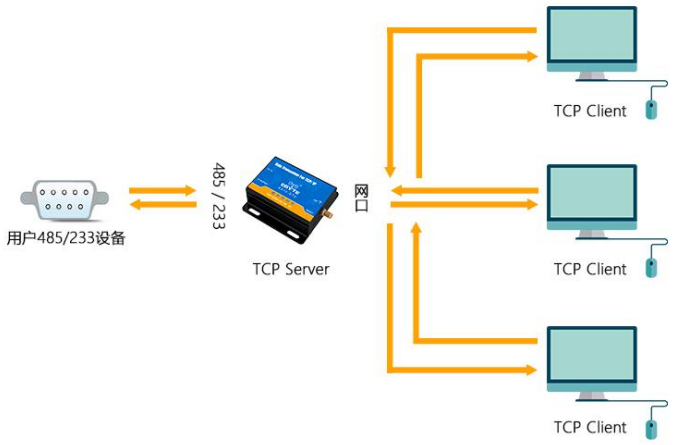



Figure 4-2 TCP Server

(1) TCP Server. In TCP Server mode, E810-DTU (RS485 ) listens to the local port, accepts and establishes a connection for data communication when a connection request is sent, and when the E810-DTU (RS485 ) serial port receives data, it will simultaneously send the data to all client devices that have established a connection with E810-DTU (RS485 ) .

(2) Usually used for communication with TCP clients in a local area network. Suitable for scenarios where there is no server in the local area network and multiple computers or mobile phones request data from the server. Like TCP Client, it has the distinction between connection and disconnection to ensure reliable data exchange.

(3) When E810-DTU (RS485 ) acts as a TCP Server, it can accept up to 6 client connections. The local port number is a fixed value and cannot be set to 0.

## 4.2. TCP Client Mode Features




Figure 4-3 TCP Client

(1) TCP Client provides client connection for TCP network service. It actively initiates connection request to the server and establishes connection, which is used to realize the interaction between serial port data and server data. According to the relevant provisions of TCP protocol, TCP Client has the distinction between connection and disconnection, so as to ensure the reliable exchange of data. It is usually used for data interaction between devices and servers, and is the most commonly used network communication method.

(2) When E810-DTU (RS485 ) attempts to connect to the server in TCP Client mode and the local port is 0, it initiates a connection with a random port each time.

(3) This mode supports short connection function.

(4) In the same LAN, if E810-DTU (RS485 ) is set to a static IP, please keep the IP of E810-DTU (RS485 ) and the gateway in the same network segment and set the gateway IP correctly, otherwise normal communication will not be possible.

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## 4.3. UDP Server Mode Features

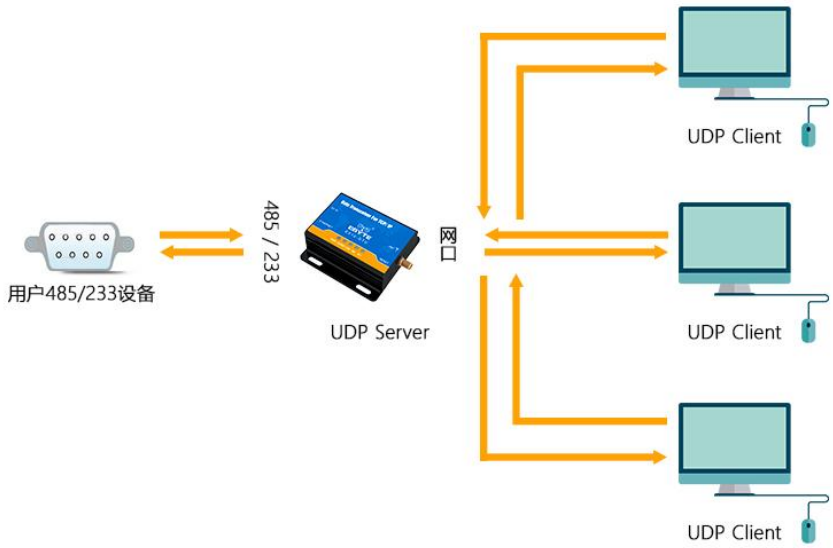



Figure 4-4 UDP Server

(1) UDP Server means that the source IP address is not verified on the basis of ordinary UDP. After receiving each UDP data packet, the target IP is changed to the data source IP and port number. When sending data, it is sent to the IP and port number of the most recent communication.

(2) This mode is usually used in data transmission scenarios where multiple network devices need to communicate with the module and do not want to use TCP due to the high speed and frequency.

## 4.4. UDP Client Mode Features




Figure 4-5 UDP Client

(1) UDP Client is a connectionless transmission protocol that provides simple, unreliable information transmission services for transactions. There is no connection establishment or disconnection. Data can be sent to the other party by specifying an IP and port. It is usually used in data transmission scenarios where there is no requirement for packet loss rate, the data packets are small and the sending frequency is fast, and the data needs to be transmitted to a specified IP.

(2) In UDP Client mode, E810-DTU (RS485 ) will only communicate with the target port of the target IP. If the data does not come from this channel, the data will not be received by E810-DTU (RS485 ) .

(3) In UDP Client mode, if the destination address is set to 255.255.255.255, the UDP full-segment broadcast effect can be achieved, and broadcast data can also be received . The E810-DTU (RS485 ) module supports broadcasting within the network segment, such as the broadcasting mode of xxx.xxx.xxx.255.

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# 5. Special Features

## 5.1. Short connection

The use of TCP short connections is mainly to save server resources and is generally used in multi-point to point scenarios. Using short connections can ensure that existing connections are useful connections, and no additional control measures are required for screening.

The TCP short connection function is used in TCP Client mode. After the short connection function is turned on, if the serial port or network port does not receive data within the set time, the connection will be automatically disconnected. The short connection function is turned off by default, and the disconnection time can be set after the function is turned on. The setting range is 2~255S.

## 5.2. Registration package mechanism

In network transparent transmission mode, users can choose to let the module send a registration package to the server. The registration package is to enable the server to identify the data source device or as a password to obtain server function authorization.

E810-DTU (RS485 ) has 4 registration package mechanisms:

- Send MAC when connecting: When establishing a connection, the module will send its own MAC address to the device once
- Send custom data when connecting: When establishing a connection, the module will send user-defined data to the device once
- Each packet of data sends MAC: The module's MAC address is added before each frame of data sent by the module
- Send custom data in each packet: User-defined data will be added before each frame of data sent by the module




Figure 5-1 Sending MAC when connecting




Figure 5-2 Sending custom data when connecting




Figure 5-3 Sending MAC in each packet

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Figure 5-4 Sending custom data in each packet

Establishing a connection and sending a registration packet is mainly used to connect to a server that needs to be registered. Data carrying registration packets refer to the registration packet being connected at the front end of the data when sending data, which is mainly used for protocol transmission. User-defined data packets default to hexadecimal data (ASCII code is optional), and the maximum packet length is 40 bytes.

## 5.3. Heartbeat Packet Mechanism

In the network transparent transmission mode, users can choose to let E810-DTU (RS485 ) send heartbeat packets. Heartbeat packets can be sent to the network server or to the serial device, but not at the same time.

Network heartbeat packet: Send heartbeat packets to the network end. In the set heartbeat sending period, the module sends heartbeat packet data to the network server to maintain the connection with the network server. It is only effective in TCP Client and UDP Client modes.

Serial port data packet: The module sends heartbeat packet data to the serial port at the set heartbeat sending cycle. The user can do corresponding processing after receiving the heartbeat data at the serial port.

In applications where the server sends fixed query commands to the device, in order to reduce communication traffic, the user can choose to send a heartbeat packet (query command) to the serial port device instead of sending the query command from the server.

The user-defined data packet defaults to hexadecimal data (ASCII code is optional). The E810-DTU (RS485 ) module supports a maximum of 40 bytes of customized heartbeat packet content.

## 5.4. Timeout Restart

The timeout restart (no data restart) function is mainly used to ensure the long-term stable operation of E810-DTU (RS485 ) . When the network port does not receive data for a long time, or the network does not receive data for a long time, E810-DTU (RS485 ) will restart after exceeding the set time, so as to avoid abnormal conditions affecting communication. The normal working time of this function is set to 60~65535S, and the default value is 300S. When the set time is less than 60S, it is set to zero by default, that is, the function is turned off.

## 5.5. TCP multiple connections function

The TCP multi-connection function is mainly used to solve the problem that in TCP Sever mode, users have multiple clients connected to E810-DTU (RS485 ) and send and receive data at the same time. When E810-DTU (RS485 ) acts as a TCP Server, up to 6 connections can be established at the same time. The TCP Server will send data to multiple (no more than 6) TCP Clients connected at the same time. When the number of established connections exceeds 6, the old connection established at the beginning will be actively disconnected, that is, the old connection will be kicked off.

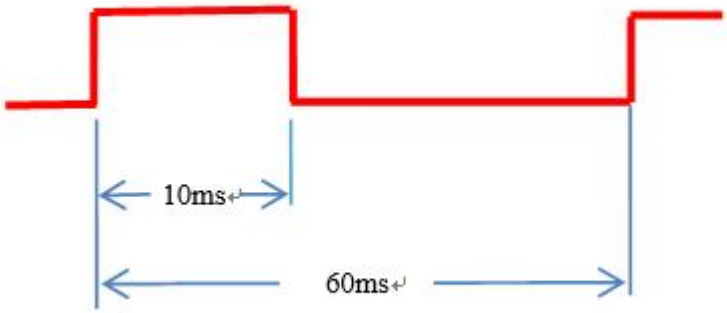
## 5.6. Clear cache data

When the TCP connection is not established, the data received by the serial port will be placed in the buffer area. The E810-DTU (RS485 ) serial port receiving buffer is 400 bytes. When the TCP connection is established, the serial port buffer data can be set to be cleared according to customer needs.

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## 5.7. Link and data transfer instructions

Link indicates the network connection status of the module. In TCP mode, when the network is not connected, Link is off. When the connection is established, Link is always on. In UDP mode, the Link indicator is always on. The other is a data transmission indicator, which shows the transmission status of the serial port data of the module. When there is no data transmission on the serial port, the data transmission indicator is off. When there is data transmission on the serial port, the flashing indication cycle is 60ms, and the indicator is on for 10ms, as shown in the figure below.




## 5.8. Web page configuration function

The module can be accessed through a browser to perform web page configuration. When accessing the web page, the access end and the module need to be in the same LAN. After entering the user name and password, enter the web configuration page.




## 5.9. KeepAlive Function

Keep-Alive is a mechanism for detecting dead connections in TCP connections. When the user does not send any data, the TCP link will periodically send "Keep-Alive" information to maintain idle links and avoid dead connections consuming unnecessary system resources. This

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setting is effective under TCP, and users can customize the Keep-Alive switch and other parameters.

Keepalive parameter description:

time: the number of seconds after which the TCP link starts a detection message without any data packet transmission;

intv: the time interval between the previous detection message and the next detection message;

probes: The maximum number of probe failures. When the sniffing fails to reach this number, the TCP connection will be disconnected.

## 5.10. Modbus TCP to RTU function

The device supports the conversion between Modbus RTU and Modbus TCP. After the function is turned on, the device receives data and detects whether the data meets the Modbus RTU ( Modbus TCP) protocol requirements. After the verification is successful, the Modbus RTU data will be converted to Modbus TCP , and the Modbus TCP data will be converted to Modbus RTU data.

## 5.11. Restore factory settings

There are two ways to restore the module to factory settings: software factory settings and hardware factory settings. In the hardware factory settings mode, pull down the factory settings Restore pin for 5s to 15s, and then pull it high to restore the factory settings parameters.

# 6. Quick Start Guide

## 6.1. Parameter Setting Instructions

1. DTU supports users to configure across network segments on the computer without setting up the computer Ethernet card. Connect the E810-DTU (RS 485 ) to the PC through the serial port and network cable, open the network configuration software to search for the device, and the software automatically obtains the device information:




Figure 6-1 Searching for devices

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2. Click the device in the list with the left mouse button, and then double-click the device to be configured to enter the configuration parameter interface.

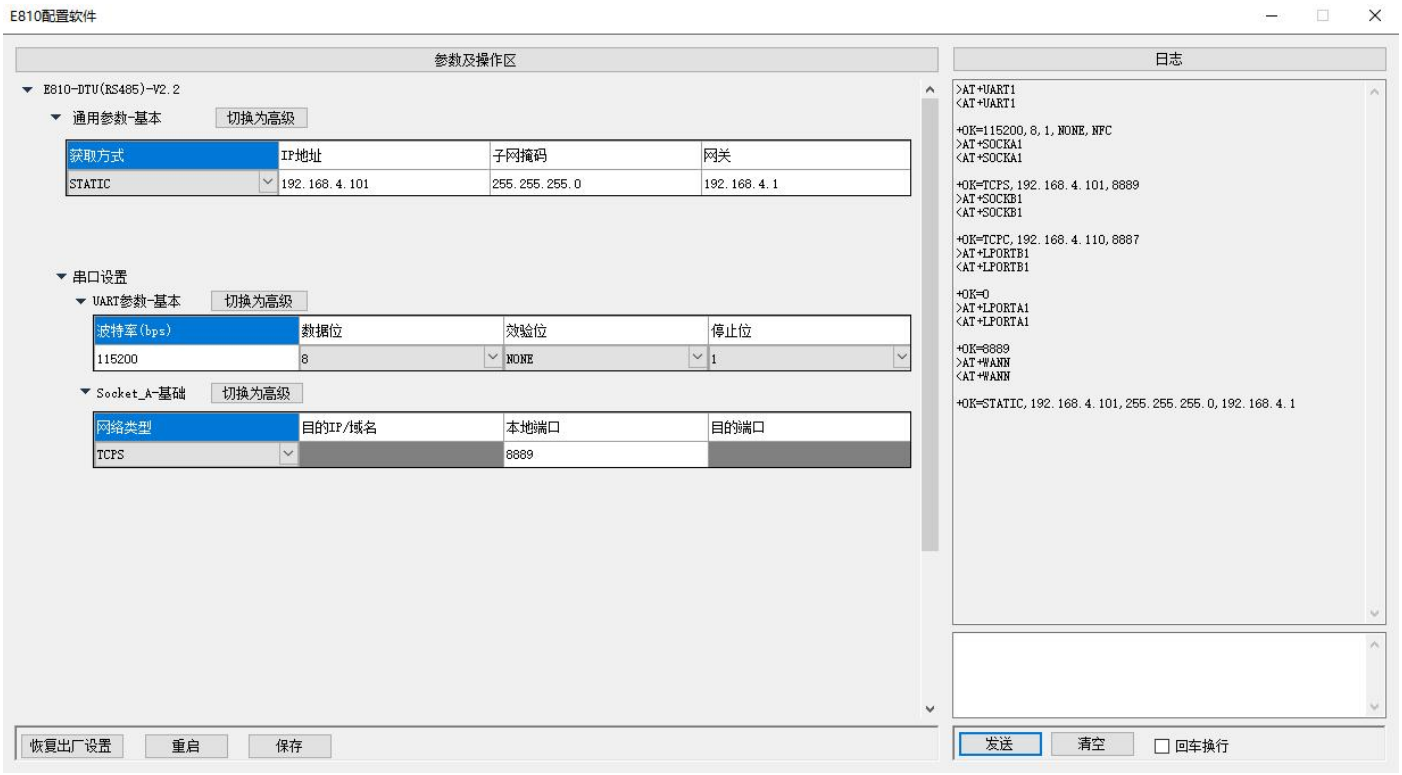
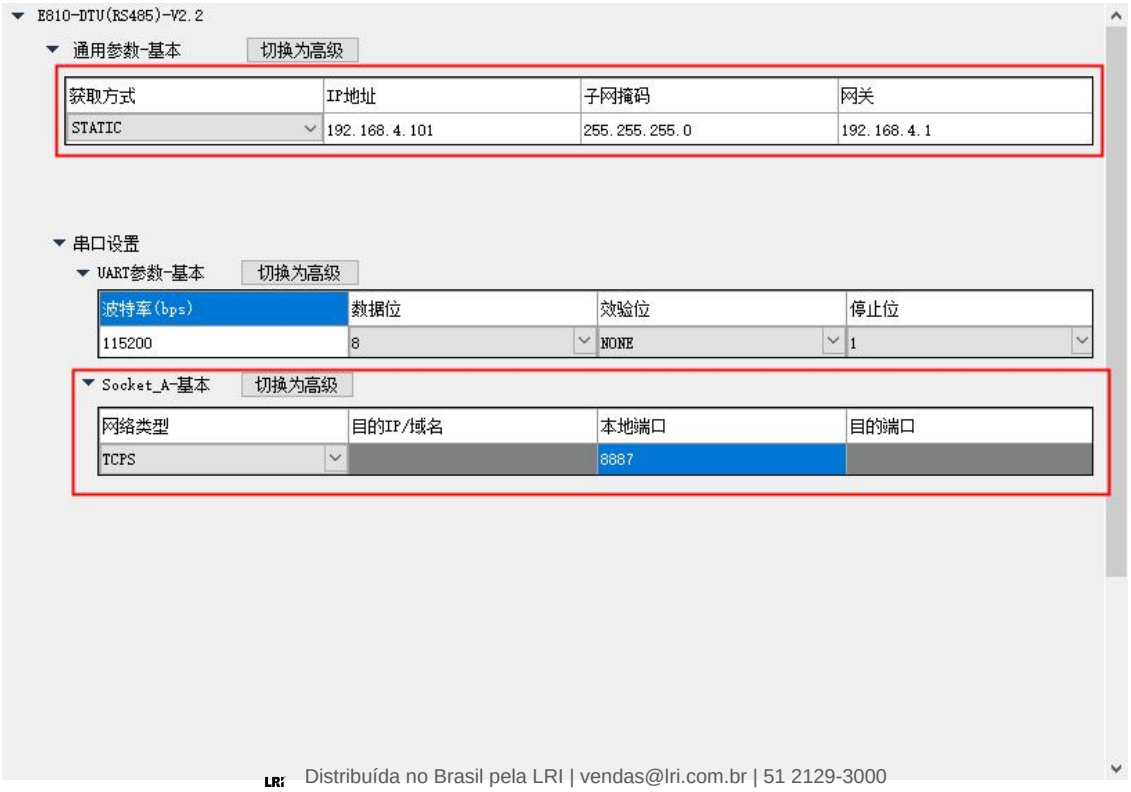



Figure 6-2 Configuration parameters

## 6.2. Socket Usage Instructions

### 6.2.1. TCP Server Usage Instructions

(1) Enter the parameter setting interface, set the module to TCP Server mode, set the module IP address to 192.168.4.101, set the module local port to 8887, set the serial port parameters, click the OK button after the settings are completed, then restart the device and search again to see if the parameter modification is successful.




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Figure 6-3 Parameter settings

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(2) Open the serial port debugging assistant and the network debugging assistant, set the parameters of the serial port assistant to be consistent with the parameters just set for the module, open the serial port, set the network debugging assistant protocol type to TCP Client, set the server IP address of the network debugging assistant to the IP address of the module, set the server port of the network debugging assistant to the local port of the module, and click Connect.

(3) Enter a string of data in the sending area of the serial port debugging assistant and click Send. You can see that the network assistant has received the same data in the sending area of the serial port. Enter a string of data in the sending area of the network debugging assistant and the serial port assistant has also received the same data in the sending area of the network, thus achieving two-way transparent transmission.




Figure 6-4 Data transparent transmission

## 6.2.2. TCP Client Usage Instructions

(1) Enter the setting interface, set the module to TCP Client mode, set the module target IP address to 192.168.4.200, set the module target port to 8886, set the serial port parameters, click the OK button after the settings are completed, then restart the device and search again to see if the parameter modification is successful.




Figure 6-5 Parameter settings

(2) Open the serial port debugging assistant and the network debugging assistant, set the parameters of the serial port assistant to be consistent with the parameters just set for the module, open the serial port, set the network debugging assistant protocol type to TCP Server, set the local IP address of the network debugging assistant to the destination IP address of the module, set the local port of the network debugging assistant to the destination port of the module, and click Connect.

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(3) Enter a string of data in the sending area of the serial port debugging assistant and click Send. You can see that the network assistant has received the same data in the sending area of the serial port. Enter a string of data in the sending area of the network debugging assistant and the serial port assistant has also received the same data in the sending area of the network, thus achieving two-way transparent transmission.

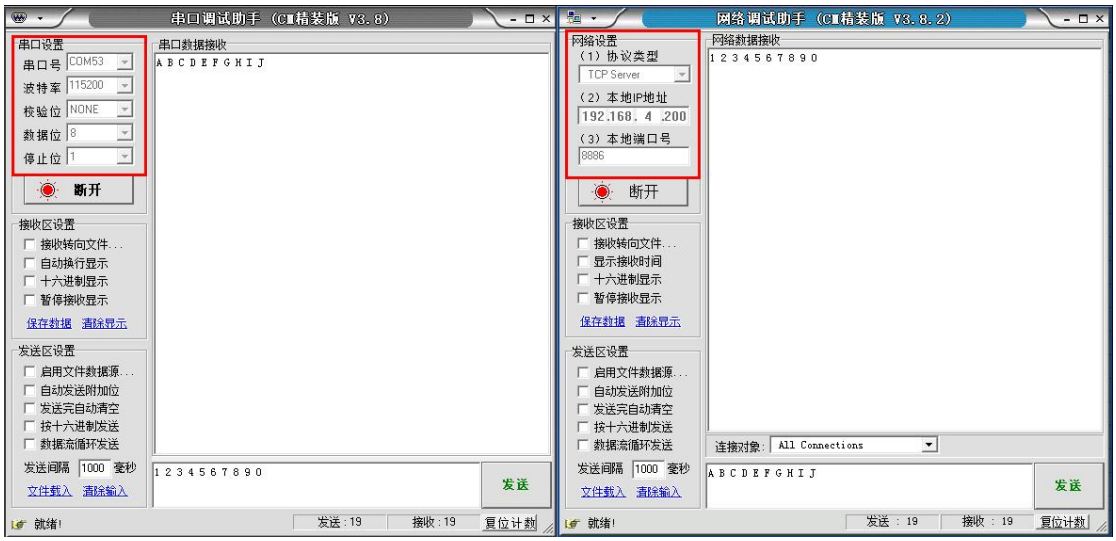



Figure 6-6 Data transparent transmission

## 6.2.3. UDP Server Usage Instructions

（1） Enter the parameter setting interface, set the module to UDP Server mode, set the module IP address to 192.168.4.101, set the module local port to 8887, set the serial port parameters, click the OK button after the settings are completed, then restart the device and search again to see if the parameter modification is successful.




Figure 6-7 Parameter settings

(2) Open the serial port debugging assistant and the network debugging assistant, set the parameters of the serial port assistant to be consistent with the parameters just set for the module, open the serial port, set the network debugging assistant protocol type to UDP, set the local IP address of the network debugging assistant to the local IP address of the PC, set the local port of the network debugging assistant to 8700, and click Connect.

(3) Enter a string of data in the sending area of the serial port debugging assistant and click Send. You can see that the network assistant has received the same data in the sending area of the serial port. Enter a string of data in the sending area of the network debugging assistant and the serial port assistant has also received the same data in the sending area of the network, thus achieving two-way transparent transmission.

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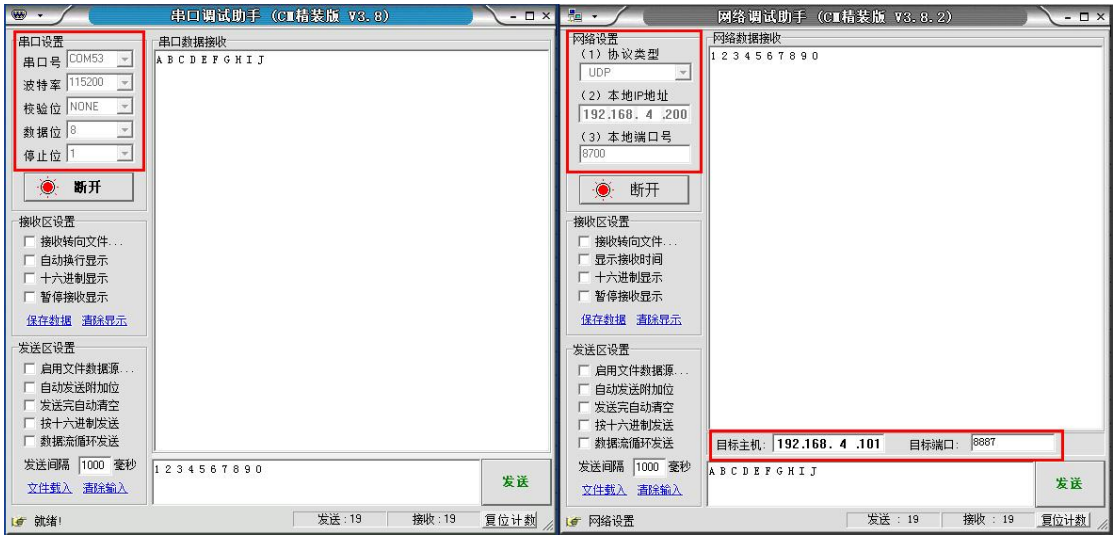



Figure 6-8 Data transparent transmission

## 6.2.4. UDP Client User Guide

（1） Connect E810-DTU (RS485) to the PC through the serial port and network cable, open the network configuration software to search for the device, and the searched device will be displayed in the device list. Double-click the device to be configured in the list to enter the setting interface, set the module to UDP Client mode, set the module target IP address to 192.168.4.200, set the module target port to 8886, set the parameters of the serial port, click the OK button after the settings are completed, and then restart the device and search again to check whether the parameter modification is successful.




Figure 6-9 Parameter settings

（2） Open the serial port debugging assistant and the network debugging assistant, set the parameters of the serial port assistant to be consistent with the parameters just set for the module, open the serial port, set the network debugging assistant protocol type to UDP, set the local IP address of the network debugging assistant to the target IP address of the module, set the local port of the network debugging assistant to the target port of the module, and click Connect.

（3） Enter a string of data in the sending area of the serial port debugging assistant and click Send. You can see that the network assistant has received the same data in the sending area of the serial port. Enter a string of data in the sending area of the network debugging assistant and the serial port assistant has also received the same data in the sending area of the network, thus achieving two-way transparent transmission.

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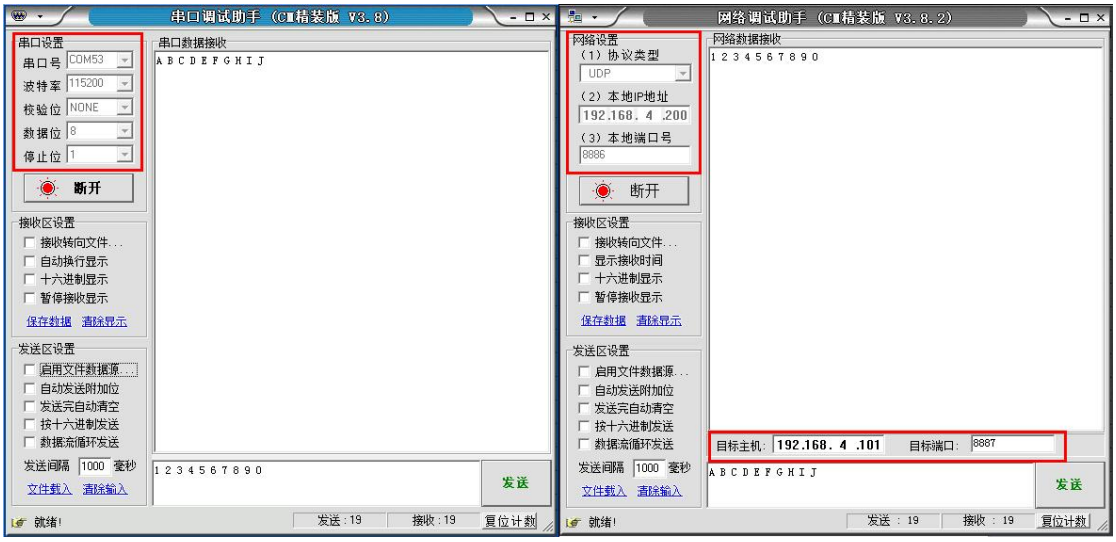



Figure 6-10 Data transparent transmission

# 6.3. Special function instructions

## 6.3.1. Short connection instructions

The TCP short connection function is applied in TCP Client mode. After the short connection function is turned on, if there is no data received by the serial port or network port within the set time, the connection will be automatically disconnected. The short connection function is turned off by default. The disconnection time can be set after the function is turned on. The setting range is 2~255s. You can directly enter it. The setting diagram is as follows:

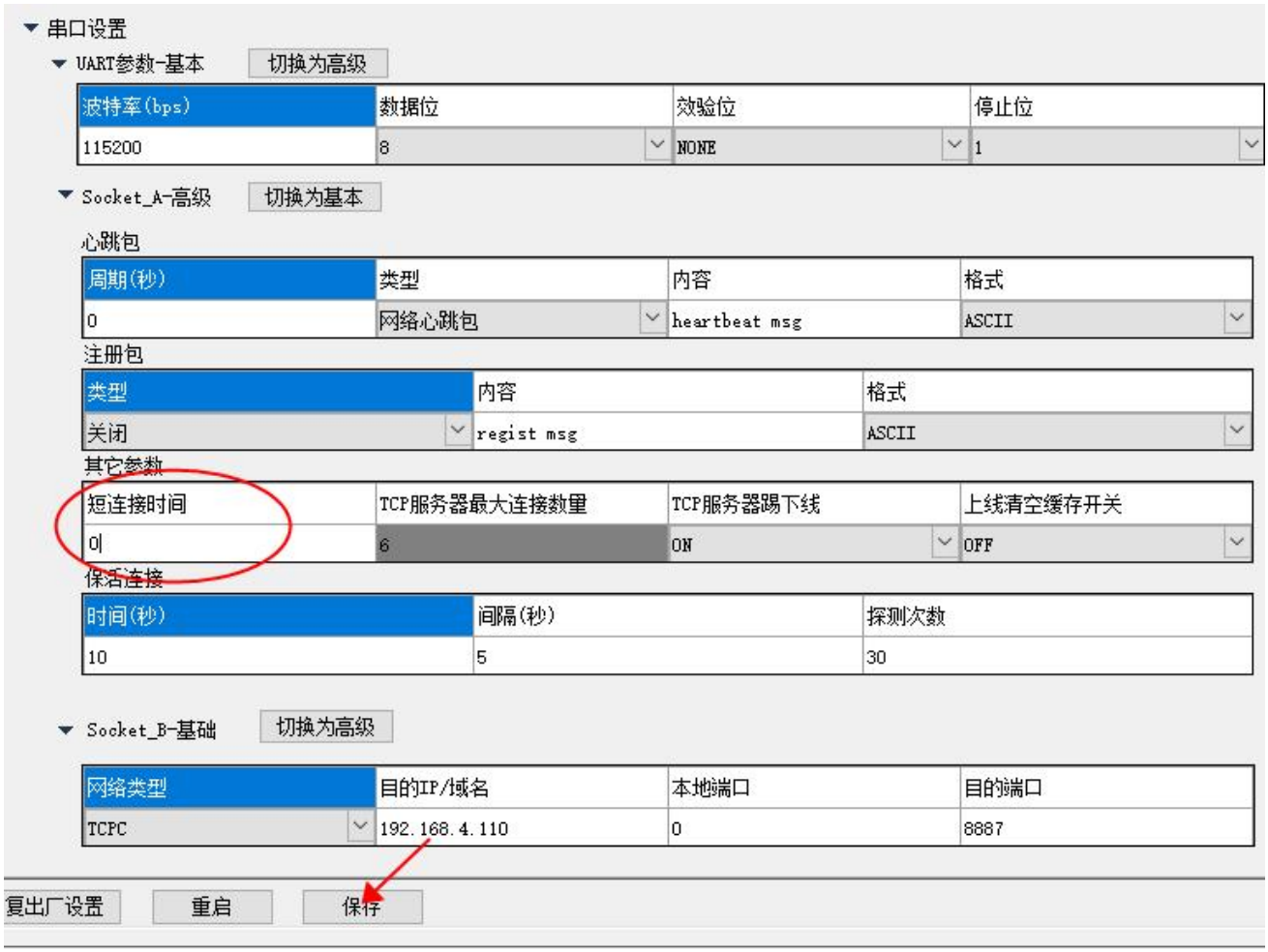



Figure 6-11 Short connection settings

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### 6.3.2. Registration Package Instructions

E810-DTU (RS 485 ) has four registration packet mechanisms, namely sending MAC when connecting, sending custom data when connecting, sending MAC in each data packet, sending custom data in each data packet, and the custom data defaults to hexadecimal data (ascii is optional).

The registration package is closed by default. When you need to use it, just open the network configuration software to configure it. You can directly enter the custom data, as shown in the figure below

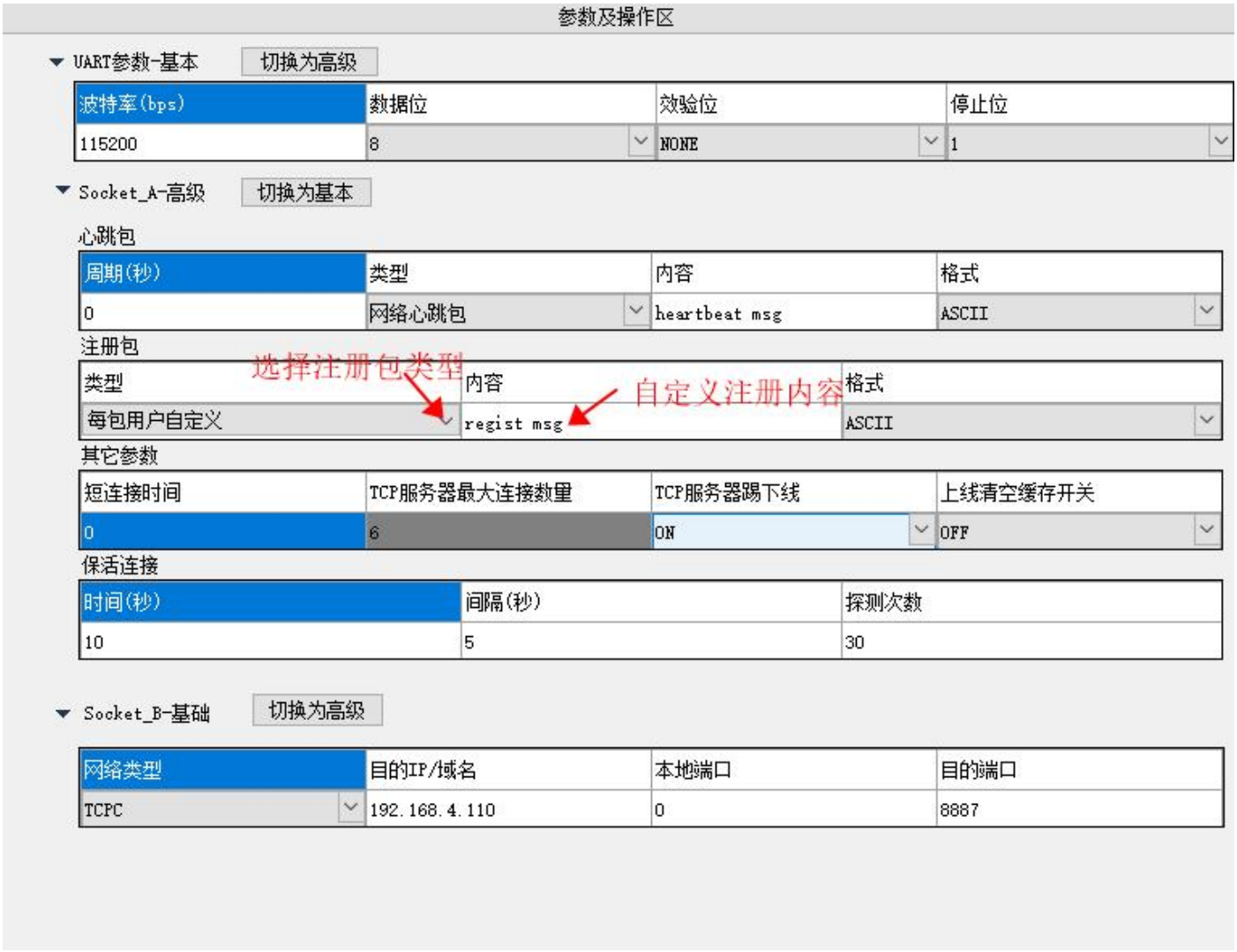



Figure 6-12 Registration package settings

### 6.3.3. Heartbeat Pack Instructions

The heartbeat packet is used to ensure the reliability of the connection. E810-DTU (RS 485 ) supports two types of heartbeat packets, namely network heartbeat packet and serial port heartbeat packet. After setting the heartbeat packet type, you also need to set the heartbeat cycle and custom heartbeat packet data, as shown in the figure below.

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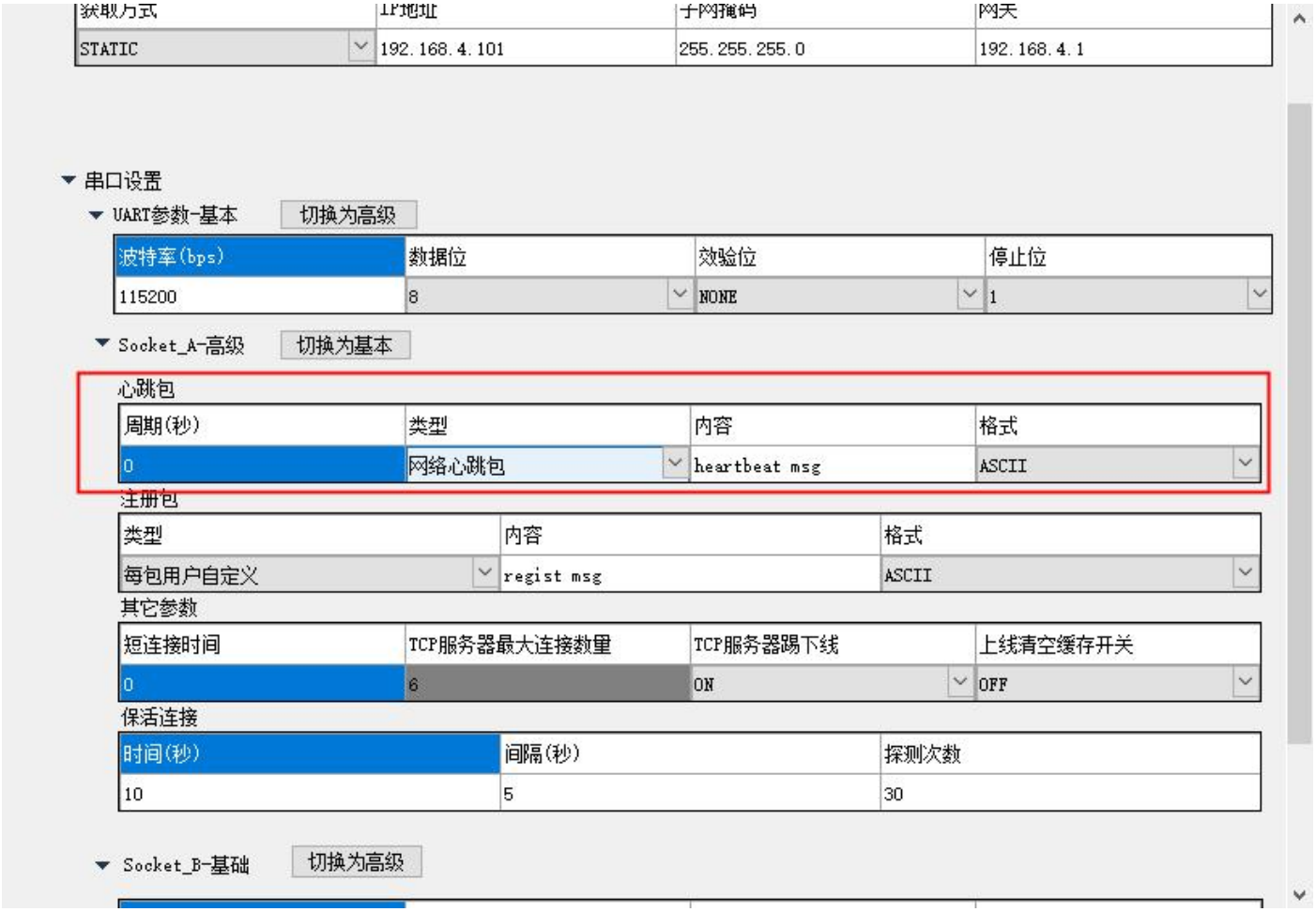



Figure 6-13 Heartbeat packet settings

### 6.3.4. Timeout Restart Instructions

Timeout restart means that when the network port does not receive data for a long time, the module will automatically restart after exceeding the set time to avoid communication abnormalities. The restart time can be set to 60~65535S. The default timeout restart is 300s. The setting method is shown in the figure below

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### 6.3.5. Instructions for clearing cache

When TCP is not established, the data received by the serial port is stored in the buffer. The user can clear the buffer as required. Clearing the cache is turned off by default. The setting method is shown in the figure below.

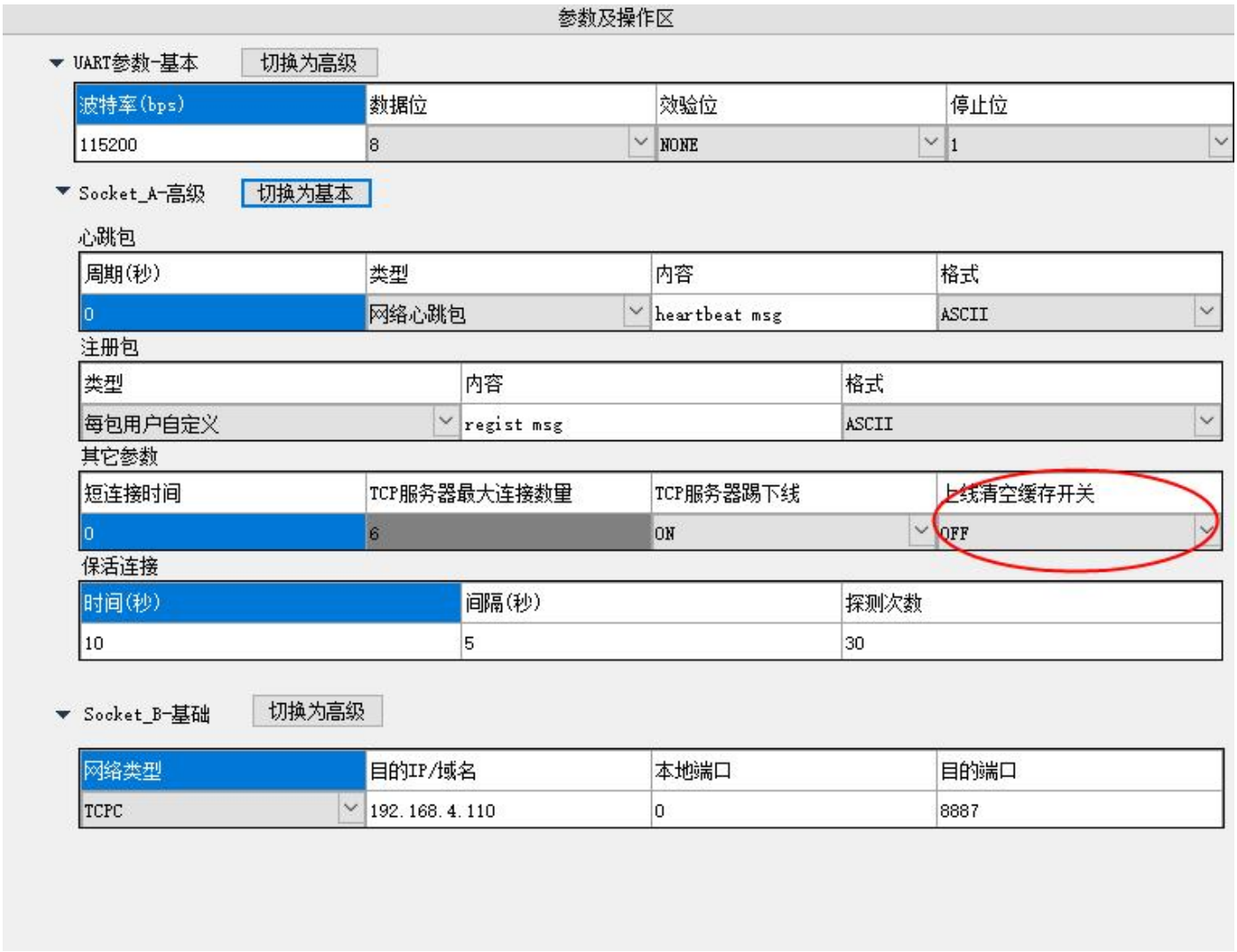



Figure 6-14 Clear cache settings

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## 6.4. Web page configuration

The module supports web page configuration. Users can use any browser to enter the module IP address and port (the default browser port is 80) and enter the web page after successful login. As shown in the figure:




Figure 6-15

Select one or more pages to browse and configure parameters according to specific needs (taking serial port parameters as an example).




Figure 6-16


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After filling in the parameters correctly, click Save Settings




Figure 6-17

The page will automatically jump to the module management page. After clicking Restart Module, the module will restart and the set parameters will take effect.




Figure 6-18

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# 7. AT command configuration

## 7.1. AT Command Overview

AT commands refer to the instruction set that users use to transmit commands to the module through UART in command mode. The format of AT commands will be explained in detail later. After successful power-on, switch to configuration mode and set the module through UART.

The timing of switching from transparent mode to command mode:

The serial port device sends "+++" to the module continuously. After the module receives "+++", the 3-second timeout starts. If any AT command is received within the timeout period, it successfully switches to the configuration mode (Note: before the mode is successfully switched, any serial port data is sent through the network transparent transmission).

The timing of switching from AT command mode to network transparent transmission is as follows:

The serial port device sends the command "AT+ EXAT" to the module. After receiving the command, the module returns "+OK" and switches to transparent transmission mode.

Description: <CR>: ASCII code 0x0d;

<LF>: ASCII code 0x0a;

## 7.2. AT command error code

| Error Code | illustrate |
|---|---|
| -1 | Invalid command format |
| -2 | Invalid command |
| -3 | Invalid operator |
| -4 | Invalid parameters |
| -5 | Operation not permitted |

## 7.3. AT command set

| NO. | instruction | illustrate |
|---|---|---|
| 1 | AT | Test Instructions |
| 2 | EXAT | Exit AT command |
| 3 | E | Set /query command echo mode |
| 4 | MID | Query / read module name |
| 5 | VER | Query version information |
| 6 | MAC | Query the module MAC address |
| 7 | USERMAC | Setting a custom MAC address |
| 8 | UART1 | Set /query serial port parameters |
| 9 | UARTPKT1 | Set /query serial port subpacket information |
| 10 | WANN | Set /query module WAN port parameter information |
| 11 | DNS | Set /query module DNS information |
| 12 | SOCKA1 | Set /query the serial port corresponding to SOCKET A1 network protocol parameters |
| 13 | SOCKB1 | Set /query the network protocol parameters corresponding to the serial port SOCKET B1 |
| 14 | LINKSTAA1 | Set /query the connection status of the serial port corresponding to SOCKET A1 |
| 15 | LINKSTAB1 | Set /query the connection status of the serial port corresponding to SOCKET B1 |
| 16 | REGMODA1 | Set /query the registration package mode of the serial port corresponding to SOCKET A1 |
| 17 | REGMODB1 | Set /query the registration package mode of the serial port corresponding to SOCKET B1 |
| 18 | REGDATA1 | Set /query the registration package content of the serial port corresponding to SOCKET A1 |
| 19 | REGDAT B 1 | Set /query the registration package content of the serial port corresponding to SOCKET B1 |

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| | | |
|---|---|---|
| 20 | HRTMODA1 | Set /query the heartbeat packet mode of the serial port corresponding to SOCKET A1 |
| twenty one | HRTMODB1 | Set /query the heartbeat packet mode of the serial port corresponding to SOCKET B1 |
| twenty two | HRTDATA1 | Set /query the heartbeat packet content of the serial port corresponding to SOCKET A1 |
| twenty three | HRTDAT B 1 | Set /query the heartbeat packet content corresponding to SOCKET B1 of the serial port |
| twenty four | HRTTIMA1 | Set /query the heartbeat packet time of the serial port corresponding to SOCKET A1 |
| 25 | HRTTIMB1 | Set /query the heartbeat packet time of the serial port corresponding to SOCKET B1 |
| 26 | SHORTMA1 | Set /query the short connection time of the serial port corresponding to SOCKET A1 |
| 27 | SHORTMB1 | Set /query the short connection time of the serial port corresponding to SOCKET B1 |
| 28 | UARTCLRA1 | Set /query the clear cache function of SOCKET A1 corresponding to the serial port |
| 29 | UARTCLRB1 | Set /query the clear cache function of SOCKET B1 corresponding to the serial port |
| 30 | CONMAXA1 | Set /query the maximum number of connections allowed when using TCP Server |
| 31 | KEPALVA1 | Set /query the keepalive parameter information of the serial port corresponding to SOCKET A1 |
| 32 | KEPALVB1 | Set /query the keepalive parameter information of the serial port corresponding to SOCKET B1 |
| 33 | KEPNEWA1 | Set /query whether TCP Server allows new connections |
| 34 | LPORT A1 | Set /query SOCKET A1 local port number |
| 35 | LPORTB 1 | Set /query SOCKET B1 local port number |
| 36 | MODBUS | Set /query MODBUS switch |
| 37 | EBTIOT | Set /query the cloud transparent transmission function |
| 39 | WEBU | Set /query web login information |
| 40 | WEBPORT | Set /query the Web port number |
| 41 | LANDISC | Set /query intranet discovery information |
| 42 | TMORST | Set /query timeout restart time |
| 43 | REBT | Module reset |
| 44 | RESTORE | Restore factory settings |

## 7.4. AT command details

### 7.4.1. AT: test command

**Function:** Test instruction

**Format:** Settings

Send: AT<CR>

Return: <CR><LF>+OK<CR><LF>

**Example:** AT<CR>

### 7.4.2. AT+EXAT: Exit AT command

**Function:** Exit AT command

**Format:** Settings

Send: AT+EXAT<CR>

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Return: <CR><LF>+OK<CR><LF>

**Example:** AT+EXAT<CR>

### 7.4.3. AT+E: Query/set command echo mode

**Function:** Query/set command echo mode.

**Format:** Query

Send: AT+E<CR>

Return: <CR><LF>+OK=<sw><CR><LF>

set up

Send: AT+E=<sw><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

sw AT command echo switch

ON turns on the echo, echoing the commands entered under the AT command

OFF Turn off the echo. In AT command mode, the input command will not be echoed.

**Example:** AT+E=ON<CR>

### 7.4.4. AT+MID: query/set module name

**Function:** Query/set module name.

**Format:** Query

Send: AT+MID<CR>

Return: <CR><LF>+OK=<name><CR><LF>

set up

Send: AT+MID=<name><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

name module name

**Example:** AT+MID=E810-DTU<CR>

### 7.4.5. AT+VER: query module version information

**Function:** Query module version information

**Format:** Query

Send: AT+VER<CR>

Return: <CR><LF>+OK=<ver><CR><LF>

**parameter:**

ver module version number

**Example:** AT+VER<CR>

### 7.4.6. AT+MAC: query module MAC address

**Function:** query module MAC address

**Format:** Query

Send: AT+MAC<CR>

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Return: <CR><LF>+OK=<mac><CR><LF>

**parameter:**

mac module mac address

**Example:** AT+MAC<CR>

## 7.4.7. AT+USERMAC: Set a custom MAC address

**Function:** Set a custom MAC address

**Format:** Settings

Send: AT+USERMAC=<mac><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

mac module mac address

**Example:** AT+USERMAC= 3C970 E 441007 <CR>

## 7.4.8. AT+UART1: query/set serial port parameters

**Function:** Query/set serial port parameters.

**Format:** Query

Send: AT+UART1<CR>

Return: <CR><LF>+OK=<baud,data,stop,parity,flowctrl><CR><LF>

set up

Send: AT+UART1=<baud,data,stop,parity,flowctrl><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

baud baud rate, supports any baud rate from 300 to 3,000,000

data data bit 7, 8, 9

stop stop bit 1, 2

parity check bit ODD (odd check), EVEN (even check), NONE (no check)

flowctrl flow control bit NFC (no hardware flow control), FC (with hardware flow control)

**Example:** AT+UART1=115200,8,1,NONE,NFC<CR>

## 7.4.9. AT+UARTPKT1: query/set serial port subpacket information

**Function:** Query/set serial port subpackaging information.

**Format:** Query

Send: AT+UARTPKT1<CR>

Return: <CR><LF>+OK=<time,size><CR><LF>

set up

Send: AT+ UARTPKT1 = <time,size><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

time Packing time, 0, 10~255 milliseconds

size Packing length, 0, 4-1460 bytes

**Example:** AT+UARTPKT1=10,1460<CR>

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## 7.4.10. AT+ WANN : query/set module WAN port IP parameter information

**Function:** Query/set module WAN port IP parameter information.

**Format:** Query

Send: AT+WANN<CR>

Return: <CR><LF>+OK=< mode,address,mask,gateway ><CR><LF>

set up

Send: AT+WANN=< mode,address,mask,gateway ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

mode IP mode: STATIC (static), DHCP (dynamic)

address IP address

mask subnet mask

gateway Gateway address

**Example:** AT+WANN=STATIC,192.168.0.7,255.255.255.0,192.168.0.1<CR>

## 7.4.11. AT+DNS: query/set module DNS information

**Function:** Query/set DNS server address.

**Format:** Query

Send : AT+DNS<CR>

Return : <CR><LF>+OK=< address 1, address2 ><CR><LF>

set up

Send : AT+DNS=<address1, address2><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

address1 The preferred DNS server address (the default value is 61.139.2.69 ).

address2 Alternative DNS server address (default is 192.168.4.1 ).

**Example:** AT+DNS=61.139.222.77,112.118.4.222 <CR>

## 7.4.12. AT+SOCKA1: query/set the serial port corresponding to SOCKET A1 network protocol parameters

**Function:** Query/set the network protocol parameters corresponding to the serial port SOCKET A1.

**Format:** Query

Send : AT+SOCKA 1 <CR>

Return : <CR><LF>+OK=<protocol ,ip ,port > <CR><LF>

set up

Send : AT+SOCK A1 =<protocol, ip ,port > <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

potocol protocol type, TCPS / TCPC / UDPS / UDPC

TCPS corresponds to TCP server

TCPC corresponds to TCP client

UDPS corresponds to UDP server

UDPC corresponds to UDP client

ip When the module is set to "CLIENT", the IP address or domain name of the target server

port Port number: In Server mode, it is the local port number; in Client mode, it is the remote port number, in decimal not exceeding 65535.

**Example:** AT+SOCKA1=TCPC,192.168.0.201,8234<CR>

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### 7.4.13. AT+SOCKB1: query/set the network protocol parameters corresponding to the serial port SOCKET B1

**Function:** Query/set the network protocol parameters corresponding to the serial port SOCKET B1.

**Format:** Query

Send : AT+SOCK B1 <CR>

Return : <CR><LF>+OK=<protocol, ip ,port > <CR><LF>

set up

Send : AT+SOCK B1 =<protocol, ip ,port > <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

potocol protocol type, TCPC / UDPS / UDPC

TCPC corresponds to TCP client

UDPS corresponds to UDP server

UDPC corresponds to UDP client

ip When the module is set to "CLIENT", the IP address or domain name of the target server

port Port number: In Server mode, it is the local port number; in Client mode, it is the remote port number, in decimal not exceeding 65535.

**Example:** AT+SOCKB1=UDPC,192.168.4.222,6666<CR>

### 7.4.14. AT+LINKSTAA1: query the connection status of the serial port corresponding to SOCKET A1

**Function:** Query the connection status of the serial port corresponding to SOCKET A1.

**Format:** Query

Send : AT+LINKSTAA1<CR>

Return : <CR><LF>+OK=<sta><CR><LF>

**parameter:**

Sta: whether to establish a TCP link, Connect / Disconnect;

Connect TCP is connected.

Disconnect TCP is not connected.

**Example:** AT+ LINKSTAA1<CR>

### 7.4.15. AT+LINKSTAB1: Query the connection status of the serial port corresponding to SOCKET B1

**Function:** Query the connection status of the serial port corresponding to SOCKET B1.

**Format:** Query

Send : AT+ LINKSTA B 1<CR>

Return : <CR><LF>+OK=<sta><CR><LF>

**parameter:**

Sta: whether to establish a TCP link, Connect / Disconnect;

Connect TCP is connected.

Disconnect TCP is not connected.

**Example:** AT+LINKSTAB1<CR>

### 7.4.16. AT+REGMODA1: query/set the registration package mode of the serial port corresponding to SOCKET A1

**Function:** Query/set the registration package mode of the serial port corresponding to SOCKET A1.

**Format:** Query

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Send : AT+REGMODA1<CR>

Return : <CR><LF>+OK=< mode ><CR><LF>

set up

Send : AT+ REGMODA1 =< mode ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

mode

EMBMAC adds a 6-byte MAC as registration packet data before each data packet sent to the server.

EMBCSTM adds custom registration packet data before each data packet sent to the server.

OLMAC sends a registration packet with a 6-byte MAC only when it first connects to the server.

OLCSTM sends a user-defined registration packet only when it connects to the server for the first time.

OFF disables the registration package mechanism.

**Example:** AT+ REGMODA1 = EMBMAC <CR>

## 7.4.17. AT+REGMODB1: query/set the registration package mode of the serial port corresponding to SOCKET B1

**Function:** Query/set the registration package mode of the serial port corresponding to SOCKET B1.

**Format:** Query

Send : AT+REGMOD B 1<CR>

Return : <CR><LF>+OK=< mode ><CR><LF>

set up

Send : AT+ REGMOD B 1 =< mode ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

mode

EMBMAC adds a 6-byte MAC as registration packet data before each data packet sent to the server.

EMBCSTM adds custom registration packet data before each data packet sent to the server.

OLMAC sends a registration packet with a 6-byte MAC only when it first connects to the server.

OLCSTM sends a user-defined registration packet only when it connects to the server for the first time.

OFF disables the registration package mechanism.

**Example:** AT+ REGMOD B 1 = OLCSTM <CR>

## 7.4.18. AT+REGDATA1: query/set the registration package content of the serial port corresponding to SOCKET A1

**Function:** Query/set the registration package content of the serial port corresponding to SOCKET A1.

**Format:** Query

Send : AT+ REGDATA1 <CR>

Return: <CR><LF>+OK=< data ,code ><CR><LF>

set up

Send: AT+ REGDATA1 =< data ,code ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

data The registration package content in ASCII code or hexadecimal data within 40 bytes.

code ASCII or HEX

**Example:** AT+ REGDATA1=EBYTE,ASCII<CR>

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### 7.4.19. AT+REGDATB1: query/set the registration package content of the serial port corresponding to SOCKET B1

**Function:** Query/set the registration package content of the serial port corresponding to SOCKET B1.

**Format:** Query

Send : AT+ REGDATB1 <CR>

Return: <CR><LF>+OK=< data ,code ><CR><LF>

set up

Send: AT+ REGDATB1 = < data ,code ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

data The registration package content in ASCII code or hexadecimal data within 40 bytes.

code ASCII or HEX

**Example:** AT+ REGDATB1=EBYTE, ASCII<CR>

### 7.4.20. AT+HRTDATA1: query/set the heartbeat packet content of the serial port corresponding to SOCKET A1

**Function:** Query/set the heartbeat packet content of the serial port corresponding to SOCKET A1.

**Format:** Query

Send: AT+ HRTDATA1 <CR>

Return: <CR><LF>+OK=< data ,code ><CR><LF>

set up

Send: AT+ HRTDATA1 =< data ,code ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

data: The heartbeat packet content in ASCII code or hexadecimal data within 40 bytes.

code ASCII or HEX

**Example:** AT+HRTDATA1=EBYTE,ASCII<CR>

### 7.4.21. AT+HRTDATB1: query/set the heartbeat packet content of the serial port corresponding to SOCKET B1

**Function:** Query/set the heartbeat packet content of the serial port corresponding to SOCKET B1.

**Format:** Query

Send: AT+ HRTDATB1 <CR>

Return: <CR><LF>+OK=< data ,code ><CR><LF>

set up

Send: AT+ HRTDATB1 =< data ,code ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

data: The heartbeat packet content in ASCII code or hexadecimal data within 40 bytes.

code ASCII or HEX

**Example:** AT+HRTDATB1=EBYTE,ASCII<CR>

### 7.4.22. AT+HRTMODA1: query/set the heartbeat packet mode of the serial port corresponding to SOCKET A1

**Function:** Query/set the heartbeat packet mode of the serial port corresponding to SOCKET A1.

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**Format:** Query

Send: AT+ HRTMODA1 <CR>

Return: <CR><LF>+OK=< mode ><CR><LF>

set up

Send: AT+ HRTMODA1 =< mode ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

mode

NET network heartbeat packet.

COM serial port heartbeat packet.

**Example:** AT+ HRTMODA1=NET<CR>

## 7.4.23. AT+HRTMODB1: query/set the heartbeat packet mode of the serial port corresponding to SOCKET B1

**Function:** Query/set the heartbeat packet mode of the serial port corresponding to SOCKET B1.

**Format:** Query

Send: AT+ HRTMODB1 <CR>

Return: <CR><LF>+OK=< mode ><CR><LF>

set up

Send: AT+ HRTMODB1 =< mode ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

mode

NET network heartbeat packet.

COM serial port heartbeat packet.

**Example:** AT+ HRTMODB1=NET<CR>

## 7.4.24. AT+HRTTIMA1: query/set the heartbeat packet time of the serial port corresponding to SOCKET A1

**Function:** Query/set the heartbeat packet time of the serial port corresponding to SOCKET A1.

**Format:** Query

Send: AT+ HRTTIMA1 <CR>

Return: <CR><LF>+OK=< time ><CR><LF>

set up

Send: AT+ HRTTIMA1 =< time ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

Time heartbeat time, 0 means off, range is 2 to 65535 seconds.

**Example:** AT+ HRTTIMA1=30<CR>

## 7.4.25. AT+HRTTIMB1: query/set the heartbeat packet time of the serial port corresponding to SOCKET B1

**Function:** Query/set the heartbeat packet time of the serial port corresponding to SOCKET B1.

**Format:** Query

Send: AT+ HRTTIMB1 <CR>

Return: <CR><LF>+OK=< time ><CR><LF>

set up

Send: AT+ HRTTIMB1 =< time ><CR>

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Return: <CR><LF>+OK<CR><LF>

**parameter:**

Time heartbeat time, 0 means off, range is 2 to 65535 seconds.

**Example:** AT+ HRTTIMB1=30<CR>

## 7.4.26. AT+SHORTMA1: query/set the short connection time of the serial port corresponding to SOCKET A1

**Function:** Query/set the short connection time of the serial port corresponding to SOCKET A1.

**Format:** Query

Send: AT+ SHORTMA1 <CR>

Return: <CR><LF>+OK=< time ><CR><LF>

set up

Send: AT+ SHORTMA1 =< time ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

time short connection time, 0 means closed, range is 2 to 65535 seconds.

**Example:** AT+ SHORTMA1=100<CR>

## 7.4.27. AT+SHORTMB1: query/set the short connection time of the serial port corresponding to SOCKET B1

**Function:** Query/set the short connection time of the serial port corresponding to SOCKET B1.

**Format:** Query

Send: AT+ SHORTMB1 <CR>

Return: <CR><LF>+OK=< time ><CR><LF>

set up

Send: AT+ SHORTMB1 =< time ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

time short connection time, 0 means closed, range is 2 to 65535 seconds.

**Example:** AT+ SHORTMB1=100<CR>

## 7.4.28. AT+UARTCLRA1: query/set the clear cache function of the serial port corresponding to SOCKET A1

**Function:** Query/set the clear cache function of SOCKET A1 corresponding to the serial port.

**Format:** Query

Send: AT+ UARTCLRA1 <CR>

Return: <CR><LF>+OK=< sw ><CR><LF>

set up

Send: AT+ UARTCLRA1 =< sw ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

sw switch

ON clears the buffer data of SOCKET A1 link, but does not clear the buffer data of serial port.

OFF Does not clear the buffer data of SOCKET A1 link.

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**Example:** AT+ UARTCLRA1=ON<CR>

## 7.4.29. AT+UARTCLRB1: query/set the clear cache function of the serial port corresponding to SOCKET B1

**Function:** Query/set the clear cache function of SOCKET B1 corresponding to the serial port.

**Format:** Query

Send: AT+ UARTCLRB1 <CR>

Return: <CR><LF>+OK=< sw ><CR><LF>

set up

Send: AT+ UARTCLRB1 =< sw ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

sw switch

ON clears the buffer data of SOCKET B1 link, but does not clear the buffer data of serial port.

OFF Does not clear the buffer data of SOCKET B1 link.

**Example:** AT+ UARTCLRB1=ON<CR>

## 7.4.30. AT+CONMAXA1: Query/set the maximum number of allowed connections of TCP Server

Function: Query/set the maximum number of connections allowed by the TCP Server.

Format: Query

Send: AT+ CONMAXA1 <CR>

Return: <CR><LF>+OK=< num ><CR><LF>

set up

Send: AT+ CONMAXA1 =< num ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

num TCP Server maximum allowed number of connections, ranging from 1 to 6.

**Example:** AT+CONMAXA1=5<CR>

## 7.4.31. AT+KEPALVA1: query/set the keep-alive parameters of the serial port corresponding to SOCKET A1

**Function:** Query/set the keep-alive parameters of SOCKET A1 corresponding to the serial port.

**Format:** Query

Send : AT+ KEEPALIVEA1 <CR>

Return : <CR><LF>+OK=< time , intv , probes> <CR><LF>

set up

Send : AT+ KEEPALIVEA1 =< time , intv , probes> <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

time TCP link starts a probe message after no data packet is transmitted in seconds

0: Disable the KeepAlive function

2~7200: Enable the KeepAlive function and take effect on the intv , probes , and time parameters

Unit: S (seconds)

intv The time interval between the previous detection message and the next detection message

2~7200, unit S (seconds)

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probes The maximum number of probe failures. When the sniffing fails to this number, the TCP connection will be disconnected.

2~255, unit: times

**Example:** AT+KEEPALIVEA1=10,5,20<CR>

## 7.4.32. AT+KEPALVB1: query/set the keep-alive parameters of the serial port corresponding to SOCKET B1

**Function:** Query/set the keep-alive parameters of the serial port corresponding to SOCKET B1.

**Format:** Query

Send : AT+ KEEPALIVEB1 <CR>

Return : <CR><LF>+OK=< time , intv , probes> <CR><LF>

set up

Send : AT+ KEEPALIVEB1 =< time , intv , probes> <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

time TCP link starts a probe message after no data packet is transmitted in seconds

0: Disable the KeepAlive function

2~7200: Enable the KeepAlive function and take effect on the intv , probes , and time parameters

Unit: S (seconds)

intv The time interval between the previous detection message and the next detection message

2~7200, unit S (seconds)

probes The maximum number of probe failures. When sniffing fails to this number, the TCP connection will be disconnected.

2~255, unit: times

**Example:** AT+KEEPALIVEB1=10,5,20<CR>

## 7.4.33. AT+KEPNEWA1: Query/set whether TCP Server allows new connection function

**Function:** Query/set whether TCP Server allows new connections.

**Format:** Query

Send : AT+ KEPNEWA1 <CR>

Return : <CR><LF>+OK=< sw > <CR><LF>

set up

Send : AT+ KEPNEWA1 =< sw > <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

sw switch

ON When the number of clients connected to the TCP Server reaches the maximum number of connections allowed by the TCP Server, new connections are allowed to be established, but the new connections will squeeze out the earliest connection to the TCP Server.

OFF When the number of clients connected to the TCP Server reaches the maximum number of connections allowed by the TCP Server, no new connections are allowed.

**Example:** AT+ KEPNEWA1=ON<CR>

## 7.4.34. AT+LPORTA1: query/set SOCKET A1 local port number

**Function:** Query/set SOCKET A1 local port number.

**Format:** Query

Send : AT+ LPORTA1 <CR>

Return : <CR><LF>+OK=< port ><CR><LF>

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set up

Send : AT+ LPORTA1 =< port ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

port 0 means using a random port. 1-65535 means setting the local port of SOCKET A1.

**Example** : AT+ LPORTA1=8887<CR>

## 7.4.35. AT+LPORTB1: query/set SOCKET B1 local port number

**Function:** Query/set SOCKET B1 local port number.

**Format:** Query

Send : AT+ LPORTB1 <CR>

Return : <CR><LF>+OK=< port ><CR><LF>

set up

Send : AT+ LPORTB1 =< port ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

port 0 means using a random port. 1-65535 means setting the local port of SOCKET B1.

**Example** : AT+ LPORTB1=8887<CR>

## 7.4.36. AT+MODBUS: query/set MODBUS switch

**Function:** Query/set MODBUS switch.

**Format:** Query

Send : AT+ MODBUS <CR>

Return : <CR><LF>+OK=< sw > <CR><LF>

set up

Send : AT+ MODBUS =< sw > <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

sw switch

ON Enable the conversion between Modbus RTU and Modbus TCP

OFF Disable the conversion function between Modbus RTU and Modbus TCP

**Example** : AT+ MODBUS=ON<CR>

## 7.4.37. AT+LANDISC: query/set intranet discovery information

**Function:** Query/set intranet discovery information.

**Format:** Query

Send : AT+ LANDISC <CR>

Return : <CR><LF>+OK=< port, password ><CR><LF>

set up

Send : AT+ LANDISC =< port, password ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

port Set the intranet discovery port, range: 1-65535

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Password Set the password found in the intranet, the maximum is 40 bytes, Chinese and English passwords are allowed

**Example** : AT+ LANDISC =1901, www.cdebyte.comwww.cdebyte.com <CR>

## 7.4.38. AT+WEBU: query/set intranet discovery information

**Function:** Query/set intranet discovery information.

**Format:** Query

Send : AT+ WEBU <CR>

Return : <CR><LF>+OK=<name , password ><CR><LF>

set up

Send : AT+WE B U=<name , password ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

name web login authentication user name, up to 20 characters, does not support spaces and special characters

password Login authentication password, up to 20 characters, does not support spaces and special characters

**Example** : AT+WEBU=admin,admin<CR>

## 7.4.39. AT+WEBPORT: query/set intranet discovery information

**Function:** Query/set intranet discovery information.

**Format:** Query

Send : AT+ WEBPORT <CR>

Return : <CR><LF>+OK=< port ><CR><LF>

set up

Send : AT+ WEBPORT =< port ><CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

port web web page port

**Example** : AT+WEBPORT=port<CR>

## 7.4.40. AT+EBIOT: query/set cloud transparent transmission function

**Function:** Query/set the cloud transparent transmission function.

**Format:** Query

Send : AT+ EBIOT <CR>

Return : <CR><LF>+OK=< sw > <CR><LF>

set up

Send : AT+ EBIOT =< sw > <CR>

Return : <CR><LF>+OK<CR><LF>

**parameter:**

sw switch

ON Enable cloud transparent transmission function

OFF Disable the cloud transparent transmission function.

**Example** : AT+ EBIOT =ON<CR>

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### 7.4.41. AT+TMOST: query/set module timeout restart time

**Function:** Query/set module timeout restart time.

**Format:** Query

Send: AT+ TMOST <CR>

Return: <CR><LF>+OK=< time ><CR><LF>

set up

Send: AT+ TMOST =< time ><CR>

Return: <CR><LF>+OK<CR><LF>

**parameter:**

time short connection time range 0, 60-65535 seconds.

**Example:** AT+ TMOST =3600<CR>

### 7.4.42. AT+RESTORE: Restore factory settings

**Function:** Restore factory settings

**Format:** Settings

Send: AT+RESTORE<CR>

Return: <CR><LF>+OK<CR><LF>

**Parameters:** None

**Example:** AT+ RESTORE <CR>

<Note>: After the command is executed correctly, please use the AT+REBT command to restart the module.

### 7.4.43. AT+REBT: Restart the module

**Function:** Restart module

**Format:** Settings

Send: AT+REBT<CR>

Return: <CR><LF>+OK<CR><LF>

**Parameters:** None

**Example:** AT+ REBT <CR>

<Note>: After the command is executed correctly, the module restarts.

# 8. Important Notice

- Ebyte reserves the final right of interpretation and modification of all contents in this manual.
- Due to the continuous improvement of the product hardware and software, this manual may be changed without prior notice. The latest version of the manual shall prevail.
- Users of this product need to visit the official website to follow product updates so that they can obtain the latest information about this product in a timely manner.

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# 9. Revision History

| Version | Revision Date | Revision Notes | Maintainer |
|---|---|---|---|
| V2.3 | 2025-05-22 | Modified Versions | huaa |

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