

Quick Use Manual

This document applies to the following series of products.

 The image shows a black rectangular industrial device, model HF2421. It has a green terminal block at the top with several pins. The front panel features a small display screen and several status LEDs. Two black cables are plugged into the bottom of the device. The text 'HF2421' is printed in the center of the device's face.	HF2421
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HISTORY

Ed. V1.0 11-04-2018 First Version.

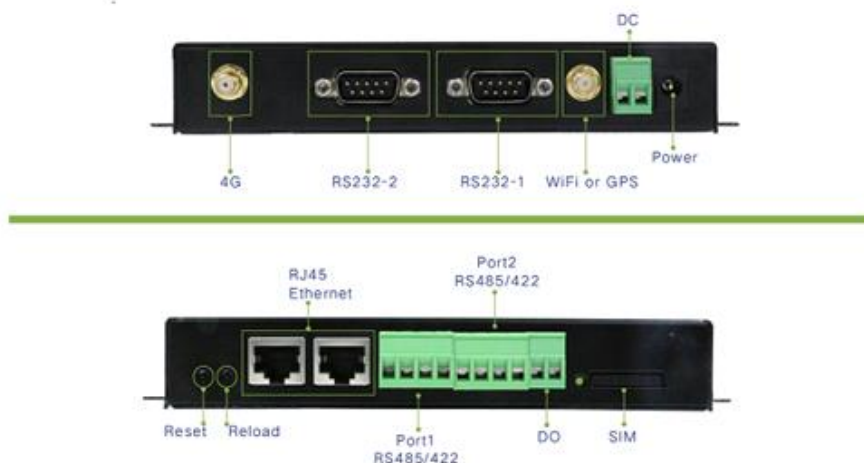
1. HF2421 General Description

The 4G serial server HF2421 provides a protocol conversion between RS232/RS485/RS422, Wi-Fi/Ethernet and 3G/4G.

1.1. HF2421 Equipment shape and interface



HF2421 Front view



HF2421 Side interface diagram

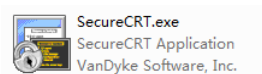
2. Serial Tool Introduce

2.1. Serial Tool SecureCRT

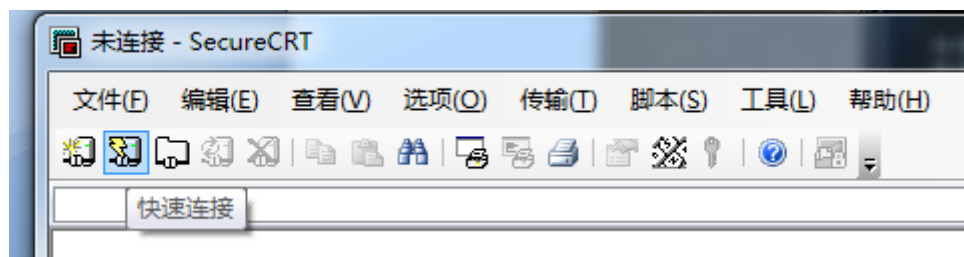
Download address :

<http://www.hi-flying.com/download-center-1/applications-1/download-item-securecrt>

Unzip the folder r and open SecureCRT ,



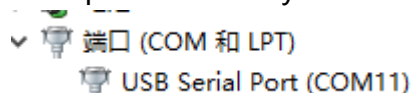
Click on the quick connect button  , Create connection..



2.2. Setting Serial Port Parameters

protocol : Serial

port : The port that the computer is actually connected to (see "My Computer"



-> "Device Manager" -> "Ports (COM and LPT)", as shown.)

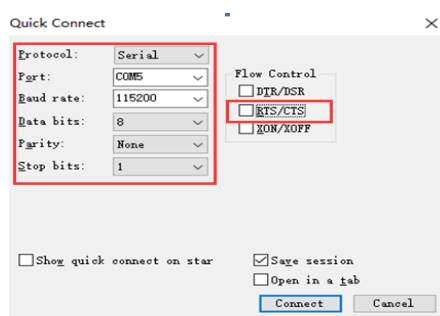
Baud rate : 115200

Data bits : 8

Parity : None

Stop bit : 1

Flow Control : None (Please remove "√" in front of RTS/CTS)



Note: The default serial port data of the HF2421 device is as shown in the above figure. The user can modify the operating parameters of the product through the IOTService.

This serial port software can be used to configure or transparently test the device.

3. HF2421 Device parameter configuration

There are three methods for the parameter configuration of Hanfeng industrial control device

- 1, IOTService tool
- 2, WEB page
- 3, serial port Cli command. **This method document does not introduce. If you use to view the Cli commands in the user manual**

3.1. IOTService Tool Introduction

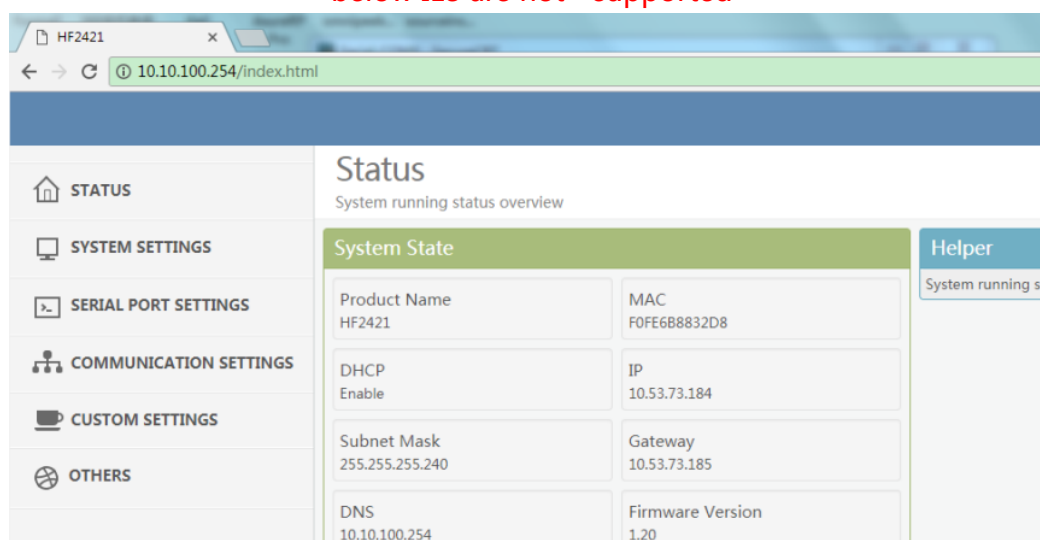
IOTService software is used to configure module operating parameters and remote management, view module status, upgrade, and other functions to facilitate device testing.

The IOTService tool download URL is

<http://www.hi-flying.com/download-center-1/applications-1/download-item-iot-service>

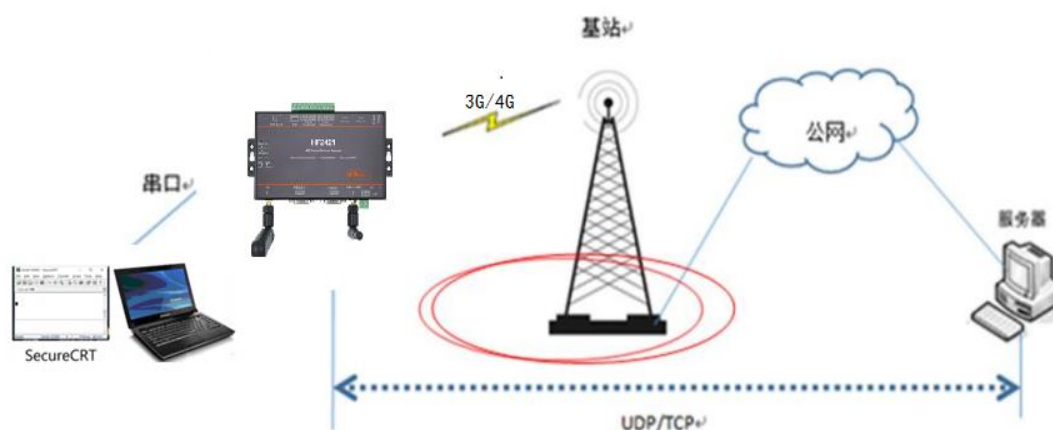
3.2. WEB

Hanfeng Industrial Controls device also provides WEB web page configuration parameters. the PC is connected to the product's AP or the network cable is directly connected, enter the product default IP (10.10.100.254, default login user name and password: admin/admin) in the browser. You can log in to configure the parameters on the web page. **Google, Firefox browser is recommended, browsers with 360 and below IE8 are not supported**



4. Transparent case One : WEB Configuration

Application Scenario HF2421 Device Passes Data Through 4G Network. The following topology is shown. Device parameter setting requirements : the device is connected as a client mode to our Hanfeng test server. Address: nat1.iotworkshop.com, TCP port: 3006.



Step1: Plug in a SIM card that can access the Internet and connect the antenna to the power supply. Then connect the hotspot or network cable of the PC directly to the computer. Then you should check the IP address obtained by the PC..

Note: The IP address obtained after the PC connects to the AP of the device is 10.10.100.xxx.

If the network cable is directly connected to the PC, there are two situations in which the PC obtains the IP address. 1, the device wifi work mode is AP mode, the PC got the IP address is 169.254.xxx.xxx. 2 Device wifi works In STA mode, the PC gets the is 10.10.100.xxx

```

C:\Windows\system32\cmd.exe
C:\Users\Administrator>ipconfig

Windows IP 配置

以太网适配器 Bluetooth 网络连接:

    媒体状态 . . . . . : 媒体已断开
    连接特定的 DNS 后缀 . . . . . :

无线局域网适配器 无线网络连接:

    连接特定的 DNS 后缀 . . . . . : Hi_flying
    本地链接 IPv6 地址 . . . . . : fe80::1db:642c:1be6:2fce%11
    IPv4 地址 . . . . . : 10.10.100.100
    子网掩码 . . . . . : 255.255.255.0
    默认网关 . . . . . : 10.10.100.254

隧道适配器 isatap.{AA49245B-DF8A-4657-B65E-4AE3A8506D88}:

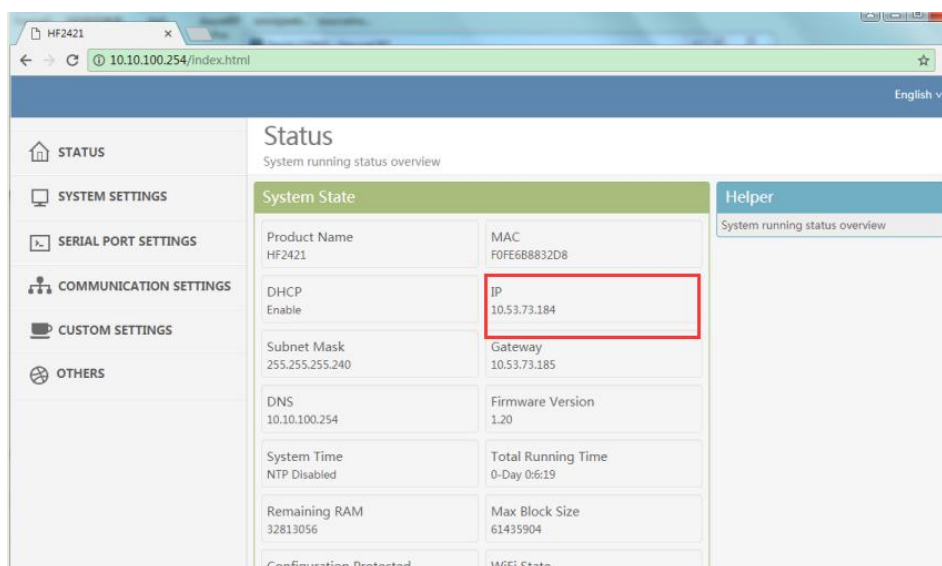
    媒体状态 . . . . . : 媒体已断开
    连接特定的 DNS 后缀 . . . . . :

隧道适配器 isatap.Hi_flying:
    
```

Step 2 : Open the browser input device IP address, enter the settings page and then check whether the device is connected to the 4G network, mainly to see if the

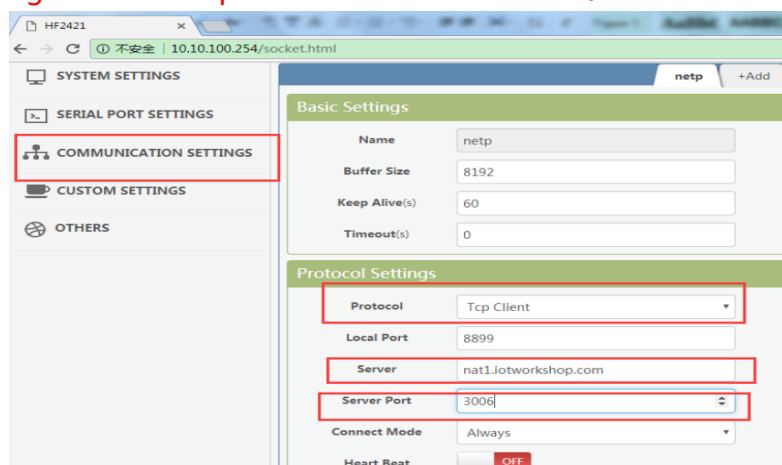
device has an IP address, as shown below. If the device's IP address is 0, it means there is no network connection. Disconnect the SIM card after power off.

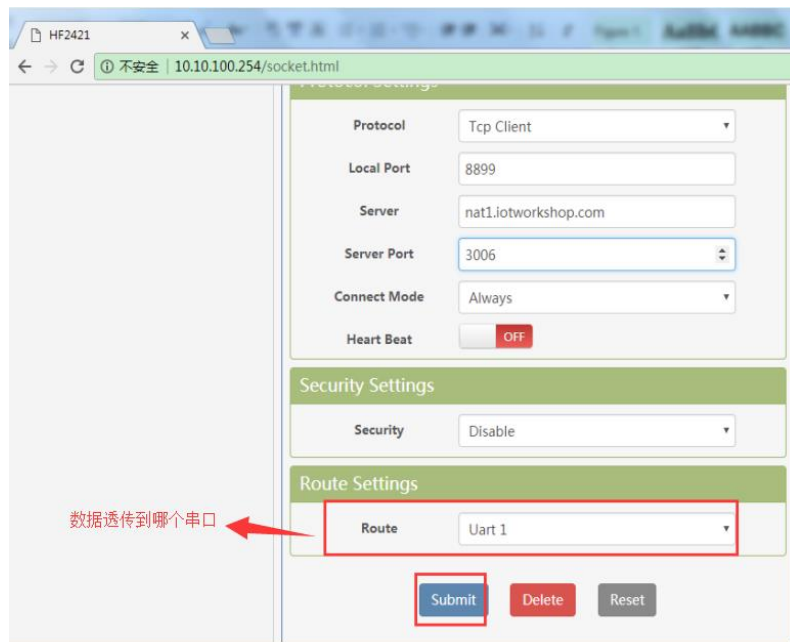
Note: The computer is best to open only one network card. If your computer's IP address is 10.10.100.xxx, enter 10.10.100.254 to enter the web settings interface. If the IP address obtained by the computer is 169.254.xxx.xxx, enter 169.254.173.207 to enter the web page setting interface. The SIM card of this device does not support hot plugging..



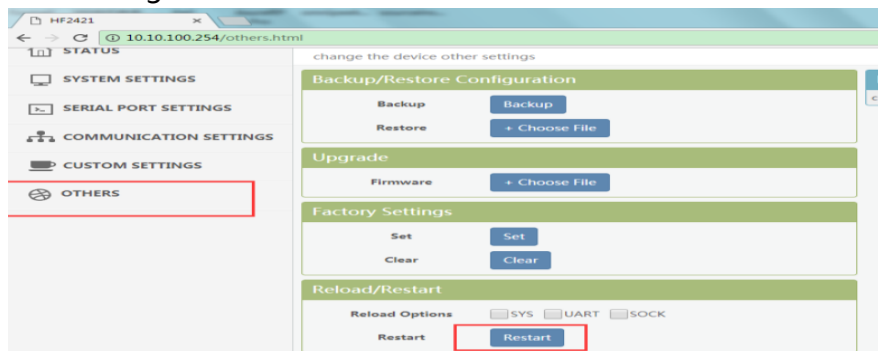
Step 3 : Click on the communication settings, select the protocol type and fill in the server address and port number and serial port number. After setting, click the submit button.

Note: The HF2421 device has two serial ports, uart1 and uart2, which need to be set corresponding to the serial port number on the device..

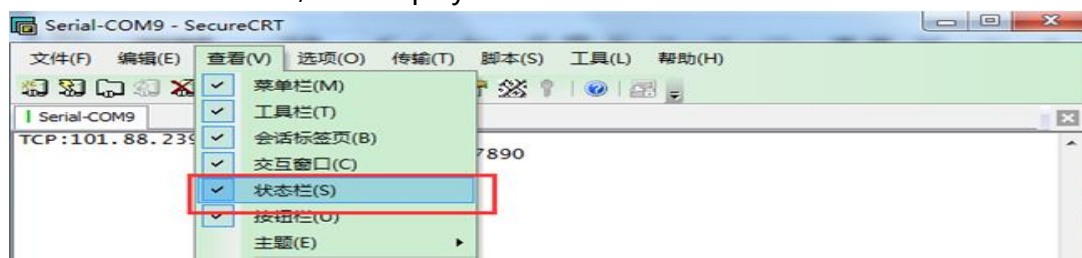




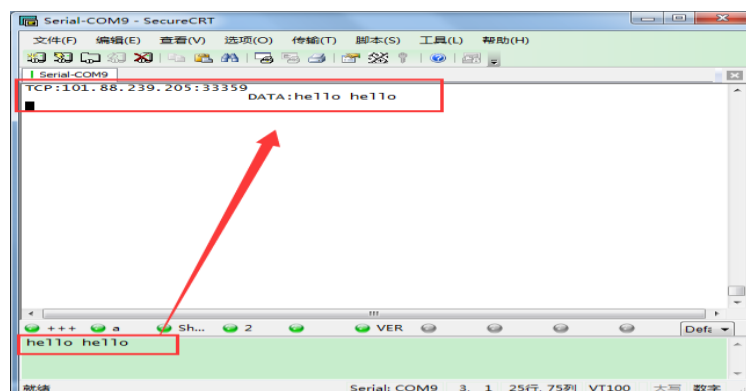
Step 4 :After setting, restart the device as shown below.



Step 5 : The PC opens the Serial SecureCRT tool, selects the corresponding port number and baud rate, and displays the interactive window.



Step 6 : Transparent transmission test.

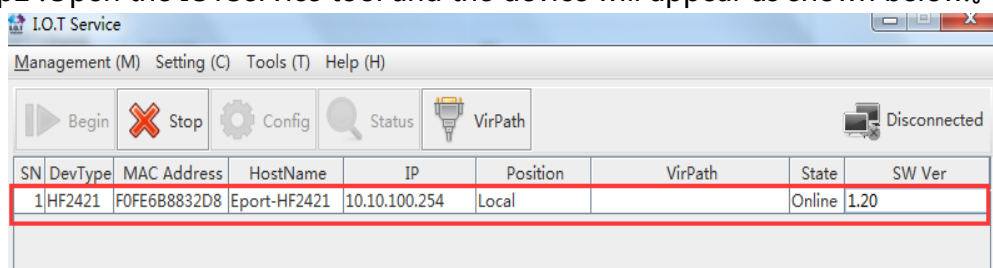


5. Transparent test case two : IOTService Tool Configuration

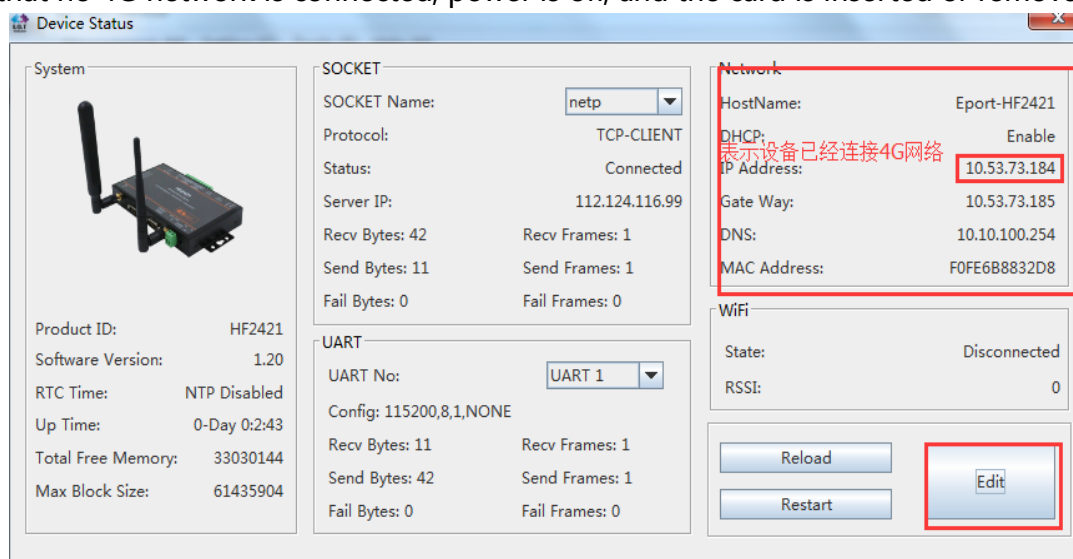
The application scenario is the same as the case one.

Step 1: Insert a SIM card that can access the Internet and connect the antenna to the power supply. Then, the PC connects the device's hotspot or network cable directly to the PC.

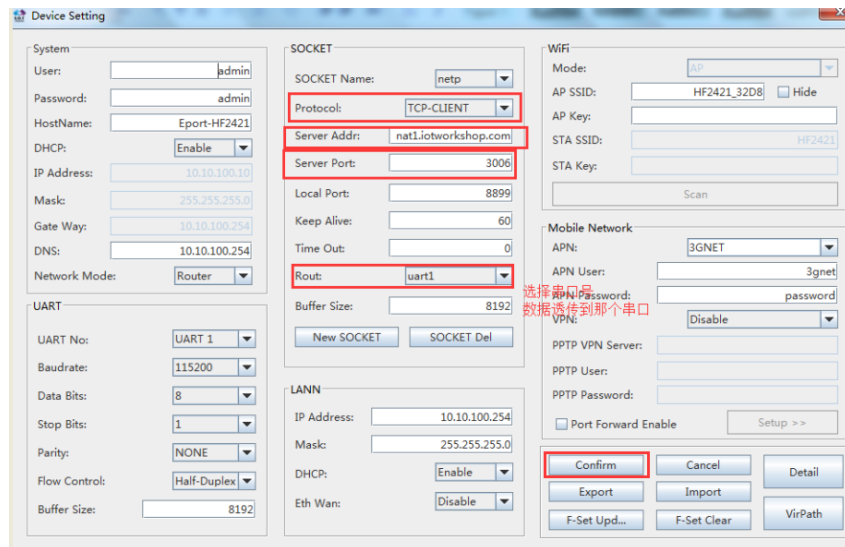
Step2 :Open the IOTService tool and the device will appear as shown below..



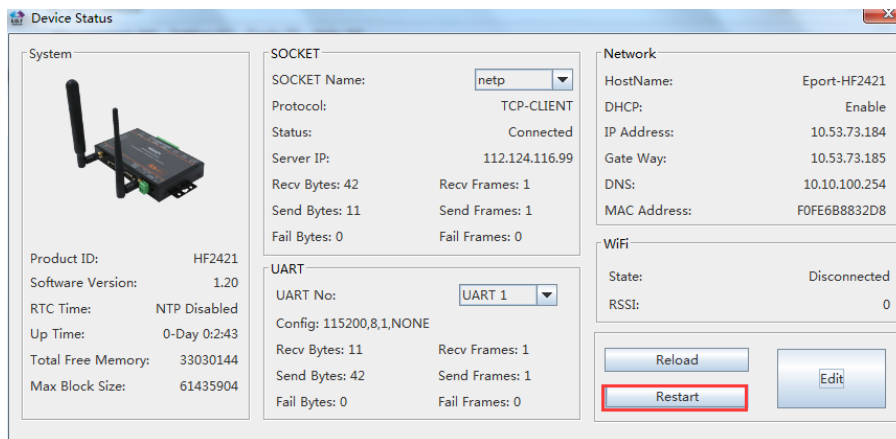
Step 3 : Double-click the device bar to enter the device status interface and check whether the device is connected to the 4G network. If it is connected, click the edit button to enter the device editing interface. If the device IP address is 0, it indicates that no 4G network is connected, power is off, and the card is inserted or removed.



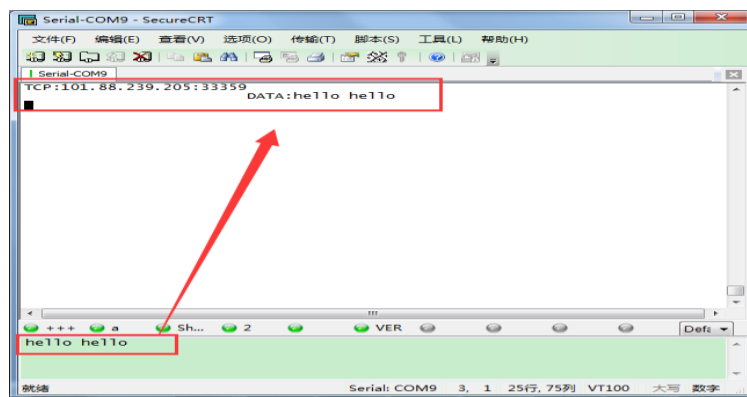
Step 4: After entering the configuration interface, set the network communication parameters. After setting, click OK, as shown in the figure below.



Step 5 : Restart



Step 6: The PC opens the Serial SecureCRT tool for transparent data transmission test.



6. Web page upgrade firmware

The device supports online firmware upgrades. Users can upgrade through the web page portal. External web pages and internal web pages (suffix +hide, internal web pages can also be used to upgrade external web pages) can be used..

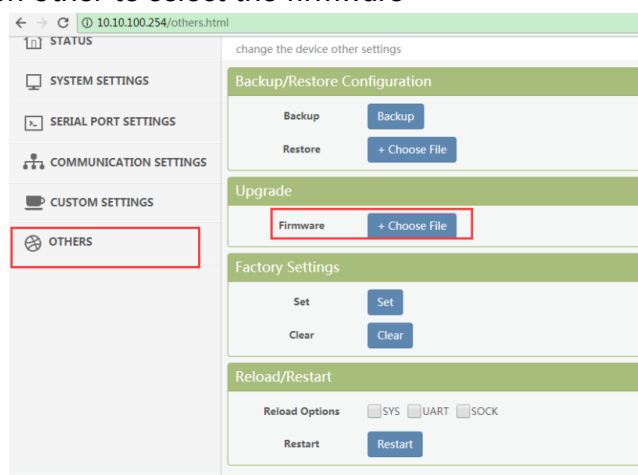
HF2421 device latest firmware address:

<http://www.hi-flying.com/download-center-1/firmware-1/download-item-hf2421-firmware>

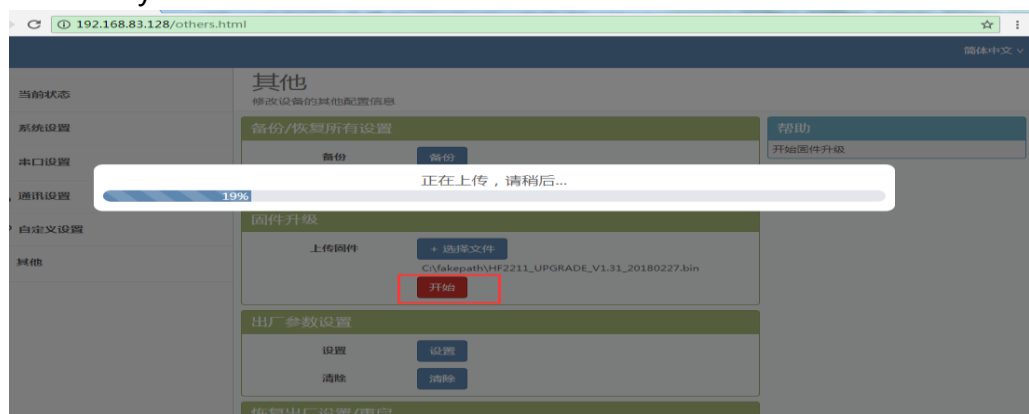
Step1: Enter the Hanfeng official website to download the latest firmware.

Step 2:Open the browser and enter the device IP address to enter the web page setting interface.

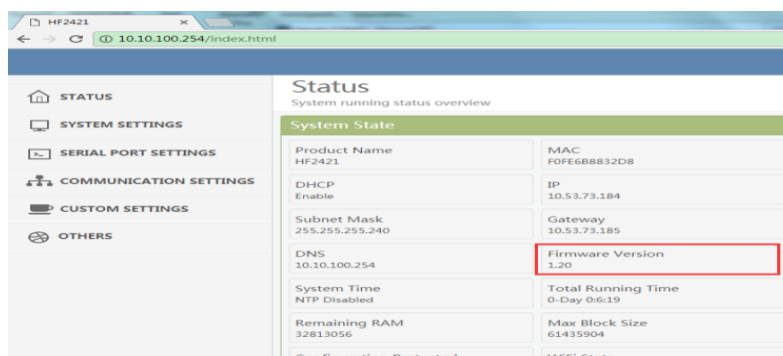
Step 3: Click on other to select the firmware



Step 4:After selecting the firmware, click Start. The device will restart automatically after success.











Step 5: After the device restarts, you can enter the web page again to check the firmware version to determine whether the firmware upgrade is successful.



Appendix 1

For more information, please visit the official website to download more information about industrial control equipment applications.

 1_IOTService_Tool_20180305.pdf	2018/4/8 13:30	Foxit Reader PD...	5,039 KB
 2_I.O.TWorkshop_Web Compile.pdf	2017/8/9 20:01	Foxit Reader PD...	538 KB
 3_Eport_HTTP Protocol Application_2...	2016/9/20 16:48	Foxit Reader PD...	970 KB
 4_Eport_Modbus TCP Connection wit...	2016/9/23 18:58	Foxit Reader PD...	1,333 KB
 5_UART_Fast_Config_20170209.pdf	2017/3/3 20:43	Foxit Reader PD...	985 KB
 6_HIS_Script_20170619.pdf	2017/6/27 18:33	Foxit Reader PD...	920 KB
 7_Upgrade Tool_20170719.pdf	2017/9/6 19:06	Foxit Reader PD...	775 KB
 Industrial products users common pr...	2018/4/16 14:14	Foxit Reader PD...	1,703 KB

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