Quick Use Manual

This document applies to the following series of products.





TABLE OF CONTENTS

1.	HF24	21General Description	.3
	1.1.	HF2421Equipment shape and interface	.3
2.	Seria	I Tool Introduce	.3
	2.1.	Serial Tool SecureCRT	.3
	2.2.	Setting Serial Port Parameters	.4
3.	HF24	21 Device parameter configuration	.5
	3.1.	IOTService Tool Introduction	.5
	3.2.	WEB	.5
4.	Trans	sparent case One : WEB Configuration	.6
5.	Trans	parent test case two : IOTSerivice Tool Configuration	.9
6.	Web	page upgrade firmware	11
Арр	pendix	1	12

HISTORY

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



1. HF2421General Description

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

1.1. HF2421Equipment shape and interface



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-secur ecrt

Unzip the folder r and open SecureCRT,



Click on the quick connect button 📓 , Create connection..



又件(上) 编辑(上) 荁右(Ⅴ) 远坝(○) 传输(1) 脚本(5) .	工具(L) 帮助(H)
1 🕄 🖓 🖓 🖏 🖉 🛝 🐴 🖓 🖓 👘 🖄 1	🕐 🖪 🖕
快速连接	

2.2. Setting Serial Port Parameters

protocol : Serial
port : The port that the computer is actually connected to (see "My Computer
✓ 常端□ (COM 和 LPT)
🐨 USB Serial Port (COM11)
-> "Device Manager" -> "Ports (COM and LPT)", as shown。)
Baud rate : 115200
Data bits : 8
Parity : None
Stop bit : 1
Flow Control : None (Please remove " \checkmark " in front of RTS/CTS)
Quick Connect ×
Protocol: Serial Pgrt: COMES Baud rate: 115200 Data bits: 8 Pgrity: None Stop bits: 1

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.

Show quick connect on star

⊠Sa<u>v</u>e session □Open in a <u>t</u>ab Connect Cancel

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-iotservice

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

← → C ③ 10.10.254/index.htm	lener lener		-
☆ status	System running status over	view	
SYSTEM SETTINGS	System State	Helper	
SERIAL PORT SETTINGS	Product Name HF2421	MAC F0FE6B8832D8	System running sta
COMMUNICATION SETTINGS	DHCP Enable	IP 10.53.73.184	
CUSTOM SETTINGS	Subnet Mask	Gateway	
OTHERS	255.255.255.240	10.53.73.185	
	DNS 10.10.100.254	Firmware Version 1.20	



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



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..

C HF2421 × C	1		±
			Englist
STATUS	Status System running status overview		
SYSTEM SETTINGS	System State		Helper
SERIAL PORT SETTINGS	Product Name HF2421	MAC F0FE6B8832D8	System running status overview
COMMUNICATION SETTINGS	DHCP Enable	IP 10.53.73.184	
CUSTOM SETTINGS	Subnet Mask	Gateway	
) others	255.255.255.240	10.53.73.185	
	DNS 10.10.100.254	Firmware Version 1.20	
	System Time NTP Disabled	Total Running Time 0-Day 0:6:19	
	Remaining RAM 32813056	Max Block Size 61435904	
	Configuration Protostad	W/IEI Ctata	

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.

🗅 HF2421 🛛 🗙	TA 2-2-5-8	10 30 11 7 figure 1	Autor Annes
← → C ① 不安全 10.10.100.254/so	cket.html		
SYSTEM SETTINGS			netp +Add
SERIAL PORT SETTINGS	Basic Settings		
COMMUNICATION SETTINGS	Name	netp	
	Buffer Size	8192	
	Keep Alive(s)	60	
OTHERS	Timeout(s)	0	
	Protocol Settings		
	Protocol	Tcp Client	•
	Local Port	8899	
	Server	nat1.iotworkshop.com	
	Server Port	3006	\$
	Connect Mode	Always	T
	Heart Beat	OFF	



	i i ococor occunigo		
	Protocol	Tcp Client	•
	Local Port	8899	
	Server	nat1.iotworkshop.com	
	Server Port	3006	\$
	Connect Mode	Always	•
	Heart Beat	OFF	
	Security Settings		
	Security	Disable	۲
	Route Settings		
数据透传到哪个串口 🔶	Route	Uart 1	

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

→ HF2421 ×						
← → C ① 10.10.100.254/others.htm	nl					
1n) STATUS	change the device other settings					
SYSTEM SETTINGS	Backup/Restore C	onfiguration	۱.			
SERIAL PORT SETTINGS	Backup	Васкир	ch			
COMMUNICATION SETTINGS	Restore	+ Choose File				
CUSTOM SETTINGS	Upgrade					
CA OTHERS	Firmware	+ Choose File				
3	Factory Settings					
	Set	Set				
	Clear	Clear				
	Reload/Restart					
	Reload Options	SYS UART SOCK				
	Restart	Restart				

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.

G Serial-COM9 - SecureCRT					_ 0 _ ×
文件(F) 编辑(E) 查看(V) 选项(O) 传输(T)	脚本(S) 工具	■(L) 帮助	助(H)		
👪 🔀 🕞 🖉 🗶 🗠 🕿 ֎ 🕞 🥥 🛛	😁 🕉 🕆 I 🤇) er 🖕			
Serial-COM9					×
DATA:hello	hello				-
HP					
					-
att as ash as a		0		0	Def: -
hello hello	- ven o				Det: •
					-



5. Transparent test case two : IOTSerivice 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.

System	SOCKET		Network	
	SOCKET Name:	netp 💌	HostName:	Eport-HF2421
	Protocol:	TCP-CLIENT		Enable
	Status:	Connected	表示设备已经连接4G网络 IP Address:	10.53.73.184
	Server IP:	112.124.116.99	Gate Way:	10.53.73.185
20	Recv Bytes: 42	Recv Frames: 1	DNS:	10.10.100.254
• ••	Send Bytes: 11	Send Frames: 1	MAC Address:	F0FE6B8832D8
	Fail Bytes: 0	Fail Frames: 0	WiFi	
Product ID: HF2421	UART		State:	Disconnected
Software Version: 1.20	UART No:	UART 1	RSSI.	0
KIC Time: NTP Disabled	Config: 115200,8,1,NO	NE	Room	
Total Free Memory 22020144	Recv Bytes: 11	Recv Frames: 1	Palaad	
Max Block Size: 61/2500/	Send Bytes: 42	Send Frames: 1	Reioad	Edit
Wax DIOCK 5126. 01453904	Fail Bytes: 0	Fail Frames: 0	Restart	

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



System		SOCKET			WiFi		
User:	admin	SOCKET Name:	netp 💌		Mode:	AP	
Password:	admin	Protocoli		1	AP SSID:	HF2421_32D	B 🔲 Hide
HostName:	Eport-HF2421	Protocol.	iter-culti	4	AP Key:		
DHCP:	Enable 💌	Server Addr:	nat1.iotworkshop.com	1	STA SSID:		
IP Address:		Server Port:	3006		STA Key:		
Mask:		Local Port:	8899			Scan	
Gate Way:		Keep Alive:	60		Mobile Network		
DNS:	10.10.100.254	Time Out:	0		APN:	3GNET	
Network Mode:	Router	Rout:	uart1 💌		APN User:		3gn
UART		Buffer Size:	8192	选择	单 骨口Password: 医诱传到那个串口		passwo
LIADT No.		New SOCKET	SOCKET Del		VPN:	Disable	
UART NO:	UART I	Hen boeker	Joener Der		PPTP VPN Server:		
Baudrate:	115200				PPTP User:		
Data Bits:	8 💌	LANN			PPTP Password:		
Stop Bits:	1 💌	IP Address:	10.10.100.254		Port Forward Ena	ble	Setup >>
Parity:	NONE	Mask:	255.255.255.0				
flow Control		DHCP:	Enable 🔻		Confirm	Cancel	Detail
Flow Control:	Hait-Duplex	Esh Marris	Dicable		Export	Import	
Buffer Size:	8192	Eth wan:	Disable		E Catulad	E Cat Class	VirPath

Step 5 : Restart

System	SOCKET		Network	
	SOCKET Nan	ne: netp	HostName:	Eport-HF2421
	Protocol:	т	CP-CLIENT DHCP:	Enable
	Status:		Connected IP Address	10.53.73.184
	Server IP:	112	124.116.99 Gate Way:	10.53.73.185
20	Recv Bytes: 4	12 Recv Frame	es: 1 DNS:	10.10.100.254
• ••	Send Bytes: 1	11 Send Frame	es: 1 MAC Addre	ess: F0FE6B8832D8
	Fail Bytes: 0	Fail Frames	: 0	
Product ID: H	F2421			
Software Version:	1.20	LIART 1	State:	Disconnecte
RTC Time: NTP Dis	abled Config: 1152	200,8,1,NONE	RSSI:	
Up lime: 0-Day	0:2:43 Recv Bytes:	11 Recv Frame	s: 1	
Total Free Memory: 330	Send Bytes:	42 Send Frame	es: 1	Fdit
Max Block Size: 614	Fail Bytes: 0	Fail Frames	: 0 Re	start

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-f irmware

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.

← → C ① 10.10.100.254/others.htm	nl			
1 STATUS	change the device other settings			
SYSTEM SETTINGS	Backup/Restore Configuration			
SERIAL PORT SETTINGS	Backup	Backup		
COMMUNICATION SETTINGS	Restore	+ Choose File		
CUSTOM SETTINGS	Upgrade			
	Firmware	+ Choose File		
	Factory Settings			
	Set	Set		
	Clear	Clear		
	Reload/Restart			
	Reload Options	SYS UART SOCK		
	Restart	Restart		

Step 3: Click on other to select the firmware

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

C 192.168.83.128/others.htm	าโ			☆ :
当前状态	其他			
系统设置			帮助	
半口设置	音份	售份	开始固件升级	
,通讯设置 19	%	正在上传,请稍后		
自定义设置	固件升级			
pulitis	上传商件	+ 选择文件 Ci\fakepath\HF2211_UPGRADE_V1.31_20180227.bin 开始		
	出厂参数设置			
	设置	iem		
	清除	JNURGE		
	恢复出厂设置/面白			

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.



← → C ① 10.10.254/index.htm	d		
🗇 STATUS	Status System running status overview		
SYSTEM SETTINGS	System State		
SERIAL PORT SETTINGS	Product Name HF2421	MAC F0FE6B8832D8	
COMMUNICATION SETTINGS	DHCP Enable	IP 10.53.73.184	
CUSTOM SETTINGS	Subnet Mask 255.255.255.240	Gateway 10.53.73.185	
	DNS 10.10.100.254	Firmware Version 1.20	
	System Time NTP Disabled	Total Running Time 0-Day 0:6:19	
	Remaining RAM 32813056	Max Block Size 61435904	
	Configuration Protected	WiFi State	

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

download link:

Http://www.hi-flying.com/download-center-1/application-notes-1/download-item -industry-products-application-manual-20180415