

5G CPE User Manual

V 1.0.4

PDF



Xiamen Four-Faith Communication Technology Co., Ltd. https://www.fourfaith.com

Revision History

Date	Version	Declaration	Author
2022-09-28	V1.0.0	Initial version	Jonas
2023-02-25	V1.0.1	 Modify the signal light value range Improve the introduction of configuration functions 	Limiao
2023-03-01	V1.0.2	Add FCC and CE declarations.	Jonas
2023-8-14	V1.0.3	English Version Update	Larry
2023-10-26	V1.0.4	Add AT Command	Larry



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Product Applicability Statement

This user manual explains how to configure the following devices:

- F-NR300
- F-NR300 V2

FCC Statement:

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the



user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

Federal Communication Commission (FCC) Radiation Exposure Statement When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

CE Warning:

- 1. The product shall only be connected to a USB interface of version USB2.0 or higher.
- 2. Adapter shall be installed near the equipment and shall be easily accessible.

3. Supply by specified adapter the operating temperature of the device.can't exceed 40 $^{\circ}$ C and shouldn't be lower than -10 $^{\circ}$ C. Supply by other power supply the operating temperature of the device.can't exceed 60 $^{\circ}$ C and shouldn't be lower than -20 $^{\circ}$ C.

- 4. The plug considered as disconnect device of adapter.
- 5. The device complies with RF specifications when the device used at 20cm from the body.

Hereby, Xiamen Four-Faith Communication Technology Co.,Ltd declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.

Contact Us:

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Chapter 1 Product Introduction

1.1 Product Overview

The F-NR300 is a high-performance 5G indoor CPE that supports NR (SA&NSA), TDD-LTE, and FDD-LTE. It converts cellular network data into WiFi and wired Ethernet data, supporting one 1G LAN port, one 2.5G LAN/WAN port, and 2.4G+5G dual-band WiFi-AP. It is suitable for home or commercial scenarios that require fast deployment of wired broadband networks and WiFi hotspots.



1.2 Product Features

Utilizes High-performance Processor

Ensures high-speed processing performance for 5G networks, ushering in a new era of 5G, and bringing you more exciting experiences at your fingertips.

• Full Network Coverage

Compatible with SA and NSA modes. Circular unobstructed layout ensures 360-degree signal capture without dead zones. Built-in dual-polarized 4x4 WiFi antennas, 20% reduction in antenna volume, high isolation, enhancing transmission and reception performance.

WIFI 6

High-speed WiFi 6 technology, envisioning 5G high rates; provides higher transmission rates, lower latency, and broader coverage for simultaneous communication of multiple devices.

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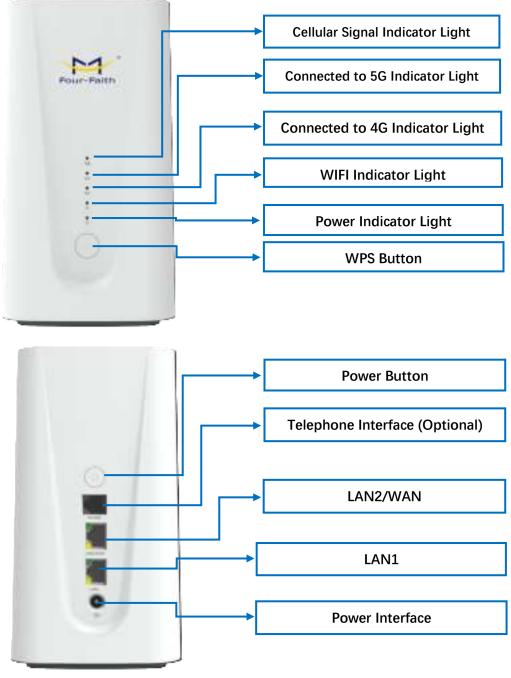
Plug and Play

The backend performs real-time detection and automatic repair of network issues, eliminating the need for manual restarts or network reconfigurations. This simplifies internet connectivity, requiring no manual intervention.

• Efficient Heat Dissipation

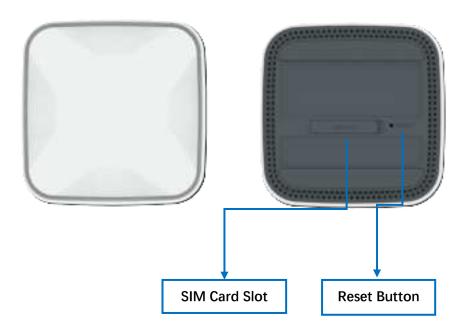
Uses high-conductivity material for heat dissipation, streamlined design, top chimney design, enhances heat dissipation significantly through fan convection, ensuring stable operation even during prolonged high-speed operation.

1.3 Product Appearance Overview



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1.4 Product Specifications

	F-NR300
Wireless Parar	neters
Frequency Bands and MIMO	5G NR NSA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/ B66/B71 LTE-TDD: B34/B38/39/B40/B41/B42/B43/B48 WCDMA: B1/B2/B3/B4/B5/B6/B8/B19 5G NR: DL 4 × 4 MIMO: n1/n2/n3/n7/n25/n38/n40/n41/n48/n66/n77/n78/n79 UL 2 × 2 MIMO: n41 LTE: DL 4 × 4 MIMO: B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/39/B40/B41/B42/B43/B48/B66 Note: B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/39/B40/B41/B42/B43/B48/B66
	depending on the selected regional version.
Theoretical Maximum Speed	5G Sub-6: Downlink Speed: 4.67 Gbps, Uplink Speed: 1.25 Gbps LTE: Downlink Speed: 1.6 Gbps, Uplink Speed: 211 Mbps

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Hardware Para	ameters		
CPU	Cortex-A55@2.0GHz, Quad-core		
FLASH	32GB (North American version) 1GB (European and Chinese versions)		
LPDDR4	2GB ((North American version) 1GB (European and Chinese versions)		
Power Supply			
Standard Power Supply	DC 12V/3A		
Power supply range	DC 9~24V		
Operating current	< 1.3A (12V)		
Interface Parar	neters		
LAN 2 / WAN	1 x 2.5G Ethernet port (RJ45), reusable as WAN, adaptive MDI/MDIX		
LAN 1	1 x 1G Ethernet port (RJ45), adaptive MDI/MDIX		
Phone	1 x RJ11 (optional)		
Indicator Lights	Signal, 5G, 4G, WIFI, Power		
SIM Card	Nano-SIM, Compatible with patch eSIM		
Power Interface	Three-core DC locomotive power socket with built-in power reverse protection.		
USB	Type C		
Reset Button	Can restore parameter configuration to factory settings.		
Physical Chara	cteristics		
Enclosure	ABS material		
Dimensions	178x99x99mm		
Weight	650g		
Working temperature	-20~+60°C		
Storage Temperature	-40~+85°C		
Relative Humidity	95% (non-condensing)		
Model Informa	tion		
F-NR300-NA	North American version, FLASH: 32GB, LPDDR4: 2GB Supported Frequency Bands: 5G Sub-6: n2/5/7/12/14/25/30/41/48/66/71/77/78 LTE FDD: B2/4/5/7/12/13/14/17/25/26/29/30/66/71		



	LTE TDD: B41/46/48 WCDMA: B2/4/5	
F-NR300-EA U	European version, FLASH: 1GB, LPDDR4: 1GB Supported Frequency Bands: 5G Sub6: n1/3/5/7/8/20/28(a&b)/38/40/41/77/78/79 LTE FDD: B1/3/5/7/8/18/19/20/26/28(a&b)/32 LTE TDD: B38/40/41/42/43/46 WCDMA: B1/5/8	
F-NR300-CN	Chinese version, FLASH: 1GB, LPDDR4: 1GB Supported Frequency Bands: 5G Sub6: n1/3/5/7/8/20/28(a&b)/38/40/41/77/78/79 LTE FDD: B1/3/5/7/8/18/19/20/26/28(a&b)/32 LTE TDD: B38/40/41/42/43/46 WCDMA: B1/5/8	
	F-NR300 V2	
Wireless Paran	neters	
Frequency Bands and MIMO	5G NR NSA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 5G NR SA: n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48*/n66/n71/n77/n78/n79 LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/ B32/B66/B71 LTE-TDD: B34/B38/39/B40/B41/B42/B43/B48 WCDMA: B1/B2/B3/B4/B5/B6/B8/B19 5G NR: DL 4 × 4 MIMO: n1/n2/n3/n7/n25/n38/n40/n41/n48/n66/n77/n78/n79 UL 2 × 2 MIMO: n41 LTE: DL 4 × 4 MIMO: B1/B2/B3/B4/B5/B5/B3/B32/B34/B38/39/B40/B41/B42/B43/B48/B66 Note: B32/B46 only supports reception. Supported frequency bands may vary depending on the selected regional version.	
Theoretical Maximum Bandwidth	NR SA: Downlink Speed 1.92Gbps, Uplink Speed 630Mbps NR ENDC: Downlink Speed 1.92Gbps (B39+N41 1.7Gbps), Uplink Speed 380Mbps LTE: Downlink Speed 487Mbps, Uplink Speed 150Mbps WCDMA: Downlink Speed 42Mbps, Uplink Speed 11Mbps	
Hardware Para	meters	
CPU	MTK7621 CPU@880MHz, dual-core processor	
FLASH	128MB	
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5G CPE F-NR300 User Manual

DDR3	512MB	
WIFI parameters		
WIFI protocol	IEEE802.11 a/b/g/n/ac/ax	
Frequency Bands	2.4GHz+5GHz	
Theoretical Maximum Bandwidth	2.4GHz 2x2MIMO 11ax, 0.573 Gbps 5GHz 2x2MIMO 11ax, 1.2 Gbps	
Supported WiFi Frequency Bands	20MHz, 40MHz, 80MHz	
Power Supply		
Standard Power Supply	DC 12V/3A	
Power Supply Range	DC 9~24V	
Operating Current	< 1.3A (12V)	
Interface Paramet	ers	
LAN 2 / WAN	1 x 1G Ethernet Interface (RJ45), can be reused as WAN, adaptive MDI/MDIX	
LAN 1	1 x 1G Ethernet Interface (RJ45), adaptive MDI/MDIX	
Phone	1 x RJ11 (optional)	
Indicator Lights	Signal, 5G, 4G, WIFI, Power	
SIM Card	Nano-SIM, Compatible with SMD eSIM	
Power Interface	Three-core DC locomotive power socket, with built-in power reverse protection.	
USB	Туре С	
Reset Button	Parameters can be restored to factory settings.	
Physical Character	ristics	
Enclosure	ABS material	
Dimensions	178x99x99mm	
Weight	638g	
Working Temperature	-20~+60°C	
Storage Temperature	-40~+85°C	
Humidity	95% (non-condensing)	
Model Information	on	
F-NR300 V2	Cellular Data Network (5G NR), 2.4G/5G WiFi, SIM1 (or eSIM)	



1.5 Indicator Light Function Description

Indicator	Name	Definition Explanation
Light		
Tul	Cellular Signal Indicator Light	 Cellular Signal Indicator Light 1. Blue: Indicates signal strength with RSRP > -95dBm or RSCP > -80dBm. 2. Yellow: Indicates signal strength with RSRP ≤ -95dBm or RSCP ≤ -80dBm."
5G	5G Connection Indicator Light	 Connected to 5G Network Steady on: Indicates connection to a 5G network. Off: Indicates no network connection. Blinking: Indicates dialing; blinking frequency is 500ms/time.
4G	4G Connection Indicator Light	 Connected to 4G/3G Network Steady on: Indicates connection to a 4G/3G network. Off: Indicates no network connection. Blinking: Indicates dialing; blinking frequency is 500ms/time.
(((•	WiFi Signal Indicator Light	 WiFi Signal Indicator Light Steady on: Indicates WiFi is enabled. Blinking: After pressing the WPS button, blinks every 500ms, lasting for 2 minutes. Off: Indicates WiFi is disabled.
\bigcirc	Power Indicator Light	 Power Indicator Light Steady on: Indicates normal power supply. Off: Indicates abnormal power supply.

1.6 Button Function Description

Button	Definition Explanation
WPS	1.Pressing this button will cause the WiFi indicator light to blink every 500ms for 2 minutes. After successful connection, the WiFi light will stop blinking and remain steadily blue.2.User devices can establish a secure WiFi connection without manually entering the password.
٢	1.Default startup: Press and hold the power button for about 3 seconds to shut down.2.Shutdown state: Replug the power to automatically turn on.
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	3.Shutdown state: Press and hold the power button for about 3 seconds to power
	on.
	Note: For F-NR300 V2, long press is for reboot and not for shutting down.
• RESET	Press and hold the button for >10 seconds to restore factory settings.

1.7 Interface Definition Explanation

Interface	Name	Definition Explanation
Phone (optional)	Telephone Interface	Telephone RJ11 Interface Can directly connect a telephone for making calls.
LAN2/WAN	Ethernet port	 If the interface's green indicator light is solid, it indicates a normal connection. If the interface's yellow indicator light is flashing, it indicates data transmission or reception.
LAN1	Ethernet port	 If the interface's green indicator light is solid, it indicates a normal connection. If the interface's yellow indicator light is flashing, it indicates data transmission or reception.
G+	Power Interface	DC 12V/3A
SIM Card	Nano-SIM Card Slot	Install Nano-SIM Card
USB Interface	Type-C Interface	The Type-C interface is for development personnel debugging only.

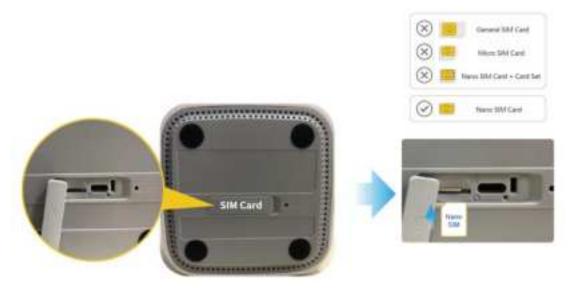


Chapter 2 Install Internet

Configuration

2.1 SIM Card Internet

Step 1: Insert the SIM card as shown (chip facing down, notch inward).



Step 2: Power on the device, it will automatically boot up. The signal indicator light will stay solid, and the 5G/4G indicator light will also stay solid, indicating successful dial-up.



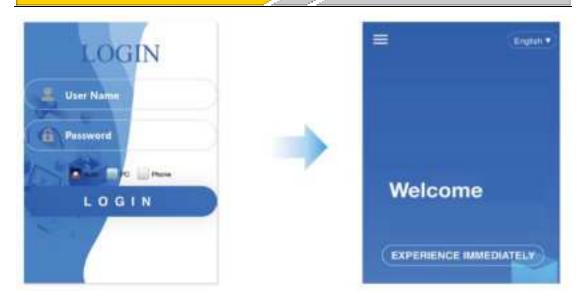
Step 3: Connect the terminal device to the CPE via LAN port or WiFi to access the external network.



	WLAN	
WLAN		
NETWORKS		
FourFait	h_Cpe_2.4G_XXXX	ê 🕈
FourFait	h_Cpe_5G_XXXX	₽ ╤
(初始密码: 12345678)	

Step 4: If you need to make further configurations, open a web browser and manually enter: 192.168.1.1. Initial username: admin, initial password: admin.





Step 5: Set the username and password for WLAN.

Settings Guide	SGHz
	890
2.4GHz	Cpe.5G_SEt3
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Ope_E40_SEtS	
Password	Signal Mode
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Ter Seet WijAki sasenge	

Step 6: Set the login password for the host device. After applying the settings, the page will redirect to the login page. Enter the newly set username and password (Username: admin, password is the newly set value), and click login. Configuration is complete!



2.2 Wired Broadband Internet Access

Step 1: By default, the LAN2/WAN port is configured as a LAN port. It needs to be configured as a WAN port. Connect the power supply, the device will boot up automatically. After connecting a terminal device to the CPE, access the WEB page, configure the LAN2/WAN port as a WAN port, then save and apply the setting.

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Step 2: Connect one end of the Ethernet cable to the upstream device (ONT/broadbandmodem/modem/wall-mounted Ethernet jack, etc.), and connect the other end to the CPE'sLAN2/WAN port. The status bar and homepage on the WEB page will display the Internet uplinkand downlink traffic icons, indicating that the wired broadband is functioning properly.www.fourfaith.com12Copyright @ Four-Faith 2023









Step 3: Connect your terminal device to the CPE's LAN port using an Ethernet cable or connect to the CPE's WiFi network. This will allow your terminal device to access the internet.

2.3 Dual-Band Bandwidth Priority Setting.

The WEB configuration page allows you to set the priority between mobile network and Ethernet, with mobile network being the default priority (i.e., SIM card network).

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Insert the SIM card into the device and connect the LAN2/WAN port to the upstream device as the WAN port. The device will prioritize using the mobile network. When the mobile network is unavailable, it will automatically switch to using the Ethernet connection.

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Chapter 3 Configuration of Related

Features

3.1 WLAN Configuration

The WLAN settings are divided into basic settings and advanced settings. Basic settings allow you to configure the SSID, security mode, password, connection limit, broadcast hiding, and guest WiFi. By using the guest WiFi, terminal devices can connect to the CPE and access the internet, but they won't be able to perform any WEB configuration operations.

5G-CPE			China Mobile Sill 1988	: 🕈	Erglish •	e
- Home	WLAN Settings	Guest Settings				
A WLAN Settings	Wireless general settings. 2.4GHz					
Advanced Settings	Enable					
Mesh Networking	5540	FourFaith_Cpe_2.4G_7907				
Network Settings ✓	Security Mode	WPW/WPM2-PSK	v			
E Device List	Password Maximum access number	64	het			
🕲 Toolbex 🗸 🗸	Hide SSID	0				
₽ System ✓	SGHz					
♀ SuperAdmin ✓	Enable					
	554D	FourFaith_Cpe_5G_7907				
	Security Mode	WPA/WPA2-PSK	~			

Advanced settings pertain to configuring channels, protocols, and bandwidth. The WPS (Wi-Fi Protected Setup) feature allows terminal devices to quickly connect to the CPE using methods such as PIN codes or Push Button Configuration (PBC).

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3.2 Mesh Network Configuration

Mesh network devices are divided into the Main Controller and sub nodes. Only one Main Controller is required, while multiple sub nodes can be added. The MESH function is disabled by default and needs to be enabled through the web interface.

Step 1: Configuring the Main Controller

Connect the LAN port of the main controller device to your PC and log in to the WEB configuration page. In the WLAN settings, go to the Mesh Network page and click on "Enable". Choose the device role as "Main Controller", then save and apply the settings.

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Wait for about 40 seconds. In the status section of the page, you'll see the information of thewww.fourfaith.com16Copyright @ Four-Faith 2023



main controller device. The white "Mesh" label will appear next to the WIFI icon in the status bar, indicating that the Mesh function of the main controller is now enabled.

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🕤 Home 🏝 WLAN Settings 🚽 Basic Setting	^	Mesh Networking Use the Mesh function, information synchroniza	apply WLAN and Me	ih configura	itions after the	configurations	are synch	onized befo	ore applying, avc
Advanced Settings		Enable							
Mesh Networking		Device Role	Main Con		CONNECT	×			
Network Settings	~		When enab triggered n	iled, the PBI	C connection ci	an be			
🔛 Device List		Status	BSS4D:	54:00:642	26:79:47				
1 Toolbox	~		SSID:		_Cpe_2.4G_790	17			
유 System	~		Security M Channel:	a a	EP Hide SSID:	No			
♀ SuperAdmin	~		BSSID: SSID:	54::0:54: Fourfaith	25:79:68 _Cpe_5G_79D7				
			Security M	ode:WEP W	EP				
			Channel:	52	Hide SSID:	No			
				OWCHILD	NODE INFORM	ATION			

Step 2: Configure Sub-Nodes

Connect the child node device to the PC using the LAN port, then access the WEB configuration page. In the WLAN settings, go to the Mesh networking page and click on Enable. Choose 'Sub Node' as the device role, then save and apply the settings.

5G-CPE			0 122.
Basic Settings	Mesh Networking	apply WLAN and Mesh configurations at	for the configurations are synch
Advanced Settings	Enable		
Mesh Networking	Device Role	Child Node	

After waiting for about 40 seconds, the WiFi icon in the sub node status bar will display the gray 'Mesh' label. The signal light on the child node device will remain solid yellow, indicating that the configuration of the sub node is complete.





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Step 3: Establishing the Connection

There are three methods for establishing the connection.

Method 1: Direct Ethernet Connection

Connect the LAN port of the main control device and the LAN port of the child node device using an Ethernet cable. If the signal light on the child node device turns blue, it indicates successful mesh networking.





Access the main control device's WEB page by entering 192.168.1.1 in your web browser. Click on "Display Sub Node Information" to view details about the sub nodes. You can see information about the sub nodes, and by clicking on their respective IP addresses, you can access the WEB configuration pages of the individual child node devices.

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4						

www.fourfaith.com



On the sub node device page, you can see that the status section displays information about the main control device. The WiFi icon in the status bar features a white "Mesh" label.

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Meth Networking		When enabled, the PBC connection can be				
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	Status	855ID1 54.d0.0-4.26/79.d7				
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🛞 Toolbox 🗸 🗸		Channel: 8 Hide SSID: No				
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🖓 System 🗸 🗸		SSID: FourFaith_Cpe_5G_7907				
♀ SuperAdmin 🗸 🗸		Security Mode:WRA/WRA2 Personal AES Channel 64 Hide SSID: No				
		SAVE				

Method 2: Pressing the WPS Button

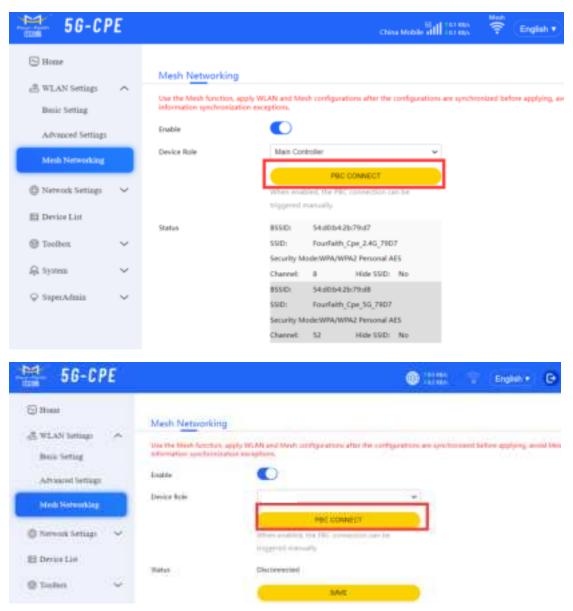
Simultaneously press the WPS buttons on both the main control device and the sub node device. The WiFi signal lights will start flashing, indicating the network formation process. Once the network is successfully established, the WiFi signal lights will immediately stop flashing and remain solid blue. The signal light on the sub node device will change from a solid yellow to a solid blue, indicating successful network connection.

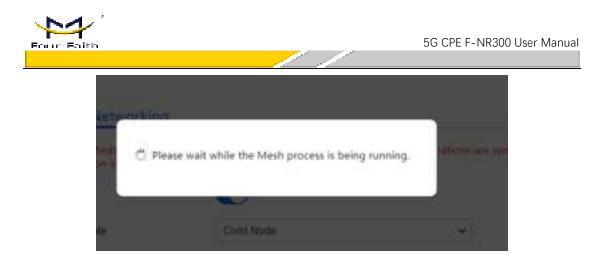


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				CANCEL	

Method 3: Clicking PBC Connection on the WEB Page

Log in to both the main control and sub node web pages separately. Click on PBC Connection. If the network formation is successful, you will receive a prompt indicating "Mesh Connection Successful."





After successful network formation, place the main control and sub node devices in appropriate locations. Clients will only be able to detect the WiFi hotspot of the main control device.

Notice: When setting up the network, please use devices of the same model and version to avoid network setup failures due to driver discrepancies and other issues.

3.3 Mobile Network Configuration

Mobile Network Configuration allows you to enable or disable mobile data, 5G network, modify networking modes, set network modes, IP types, and lock BAND frequencies.

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Disabling SIM Card Configuration allows you to set up Access Point Names (APN), authentication methods, usernames, passwords, and more.

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⊡ Home & WLAN Setings ∨	Mobile Network Settin	gs Advanced Settings	pt to various netwo	rik needs.		
Network Settings Mubile Network	Dial Settings The Access Point Name (APN) i carrier's cellular network and th	is the name for the settings your device reads to public Internet.	to set up a connect	ion to the ga	teway between	i your
Ethernet Dual broadband	Auto configuration by SIM	Pv4IPv6	v			
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© Toolbex ✓ ♀ System ✓	Cell lock Physical Cell ID locking					
\bigcirc SuperAdmin \checkmark	Other	unspecified	-			
	Use custom IME					

3.4 Traffic Usage Monitoring Configuration

Traffic Usage Monitoring is only applicable to mobile networks. The traffic usage monitoring page displays the total data usage for the current day and month. It also allows you to set up actions for exceeding data package limits and data flow restrictions.

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Truffic Statistics						
Parental Control QOS Settings						
PIN Management						

To enable data usage exceeded alerts or automatic mobile data disconnection, follow these steps.

Step 1: Configuring Data Usage

Exceeded Data Usage Actions:

None: When data usage exceeds the set data package limit, a data usage icon will appear in the status bar as a reminder, but the mobile network will not be disconnected, and you can continue to use it.

Disconnect: When data usage exceeds the set data package limit, a data usage icon will appear in the status bar as a reminder, and the mobile network will automatically disconnect, rendering it unusable.

Data Package Type: Choose to restrict usage based on daily or monthly data limits.

Data Package Size: Perform the corresponding action when the set limit is reached. Set to 0 to have no limit.

Restart Mobile Network: Check this option and save to enable automatic redialing of the mobile network.



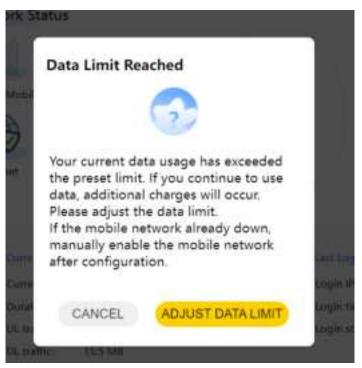
Traffic Statistics	Statistics Reports	
Traffic Settings		
Overflow operation	NONE	~
Traffic packet type	Monthly Traffic Packet	~
Traffic packet unit	MB	~
Traffic packet size	0	
Restart mobile network		
	CANCEL	SAVE

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Step 2: Restoring Mobile Network After Data Exceedance

After data usage exceeds the limit and the mobile network disconnects, you will need to manually enable mobile data. On the home screen, click on "Enable Mobile Data." This will display a data usage exceeded notification page. Click on "Reset" to be redirected to the data usage statistics page, where you can reconfigure the data package size. Check the option to enable mobile data and save (if unchecked, after setting the data package size, you will need to manually click "Enable Mobile Data" on the home screen). The mobile network will automatically reconnect and restore connectivity after dialing.





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Traffic Settings		
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fraffic packet unit	MB	÷
fraffic packet size	500	
Restart mobile network		

3.5 **QOS Configuration**

The QoS (Quality of Service) function allows you to limit the bandwidth for both mobile networks and Ethernet connections. When the bandwidth policy is enabled and no settings are configured in the advanced settings, the default bandwidth limitation policy for connected terminal devices is set to "Normal.

Mobile network	¢	
Enable		
Downlink(kbps)	20000	
Uplink(kbps)	:20000	
Wired network		
Enable		
Downlink(kbps)	20000	
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Basic Se	tting Advanc	e Settings					
Target N	AX BandWidth Radio	Mobile BandWidth	Mobile BandWidth Value	Wired Bar	dWidth	Wired BandV	Vidth Value
Target M Priority	MAX BandWidth Radio	Mobile BandWidth Uplink:20000kbps Downlink:20000kbps	Mobile BandWidth Value Uplink:20000kbps Downlink:20000kbps	Wired Bar Uplink:20 Downlink:2	000kbps	Wired BandV Uplink:20 Downlink:2	000kbps
		Uplink:20000kbps	Uplink:20000kbps	Uplink:20	000kbps 0000kbps 000kbps	Uplink:20	000kbps 0000kbps 000kbps
Priority	100%	Uplink:20000kbps Downlink:20000kbps Uplink:20000kbps	Uplink:20000kbps Downlink:20000kbps Uplink:15000kbps	Uplink:20 Downlink:2 Uplink:20	000kbps 0000kbps 000kbps 0000kbps	Uplink:20 Downlink:2 Uplink:15	000kbps 0000kbps 000kbps 5000kbps

3.6 AT Command Configuration

"AT" stands for "Attention" and is a standardized way of controlling and configuring these devices. These commands typically begin with "AT," followed by specific instructions used to perform various functions, such as dialing, sending SMS, retrieving device information, and more. AT commands are usually sent to the device via a serial port, and the device, upon receiving the command, executes the corresponding operation and returns the result.

Enter the AT Command interface, users input specific AT Command queries, click send, and the command is transmitted to the device.

Common AT commands include:

AT - Test if the device is responsive.

AT+CPIN - Input PIN code for the SIM card.

AT+CGSN - Retrieve the device's IMEI number.

AT+CIFSR - Obtain the device's IP address.

AT+CWMODE - Set the device's WiFi mode.

AT+GMR - Retrieve the device's firmware version information.

ATI - Used to obtain information about the device

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After receiving the command, the device executes the relevant instructions, generates the corresponding information, and sends it back to the configuration page.

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