

USR-G806-E/AU User Manual

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1. Overview

Product link:

<https://www.usriot.com/products/4g-lte-wireless-router.html>



The screenshot shows a product page for the USR-G806 Wireless 4G LTE Router. On the left is a black router with two antennas. The main heading is "Wireless 4G LTE Router supports WIFI 3G with CE/RoHs". Below this is a description: "USR-G806 is a wireless 4G Lte router, which provides a solution for user's device to access 4G network." There is a "Share" button and social media icons for email, Twitter, Facebook, Google+, Pinterest, Tumblr, LinkedIn, and Dribbble. A list of features includes: Hardware/Software Watchdog, 1 WAN port and 1 LAN port, and APN&VPN (PPTP/L2TP), PPPOE. At the bottom, there are navigation tabs: General Details, Parameter, Inquiry, and Download (which is highlighted).

Figure 1 Download Page

If user has any question, please submit it back to customer center: <http://h.usriot.com>

1.1. Brief introduction

USR-G806-E/AU Industrial 4G LTE router supports WAN, LAN, WLAN and 4G interface. User can access to 3G/4G network by WLAN interface or Ethernet interface.

1.2. Product feature

- 1 wired LAN ports, 1 wired WAN ports (WAN ports can be switched to LAN ports).
- 2.4G WIFI wireless 802.11 b/g/n
- LED communication indicators
- Configure device by webpage
- Support one button to restore factory settings.
- The wired net ports support 10/100Mbps rate.
- Support VPN Client (PPTP/L2TP/IPSEC/GRE/OPENVPN/SSTP) and supports VPN encryption and static IP functions.
- Support APN automatic checking network, 2/3/4G system switching, SIM information display, support APN/VPDN special network card.
- Support for wired wireless multi network simultaneous online and multi network intelligent switching backup function

- Support remote upgrade and remote monitoring.
- Support Dynamic Domain Name System (DDNS), Static Routing, PPPOE, DHCP, Static IP Function
- Support mandatory portal (WIFIDOG), this function needs to be customized accodeing to customer needs.
- Support the firewall, NAT, DMZ host, access control black-and-white list, IP speed limit, NTP, MAC speed limit.
- Support SMS AT command
- Support external hardware watchdog design to ensure system stability.

1.3. Hardware introduction

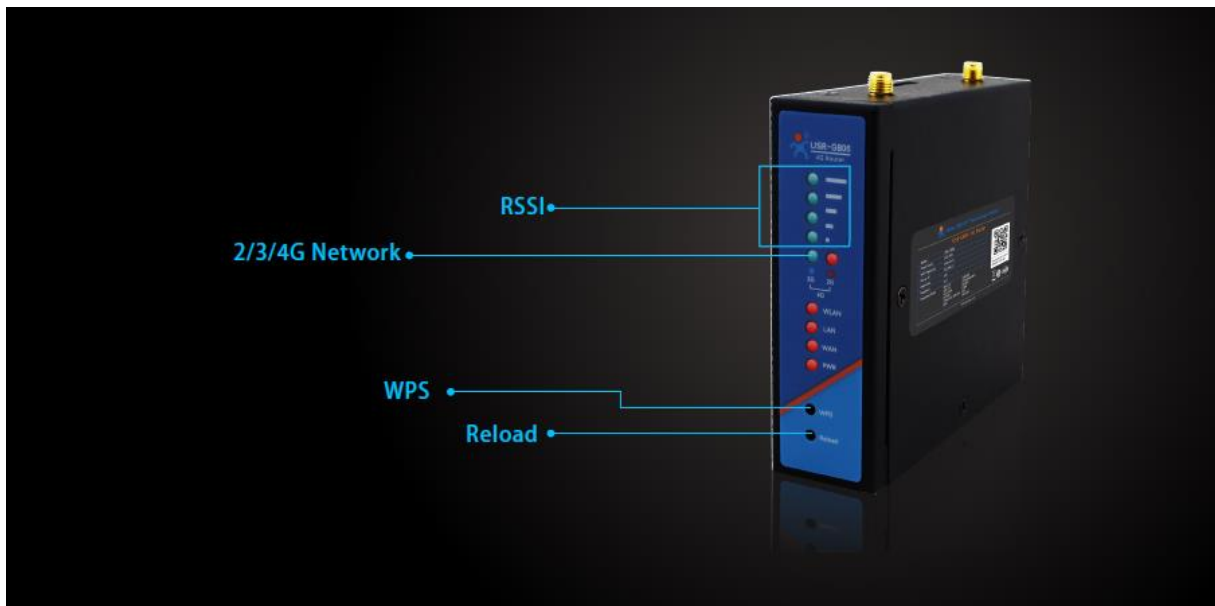


Figure 2 LED

LED	Function	
RSSI	The more green LEDs lighten, the signal is stronger.	
2G	2G:On 3G:Off	2G network accessing
	2G:Off 3G:On	3G network accessing
3G	2G:On 3G:On	4G network accessing
WLAN	On: Wi-Fi enabled	Off: Wi-Fi disabled
LAN	Blink: LAN port working	Off: LAN port not working
WAN	Blink: WAN/LAN port working	Off: WAN/LAN port not working
PWR	On: Power on	Off: Power off
Button	Function	
WPS	Reserved	
Reload	Restore default settings	

Figure 3 LED functions

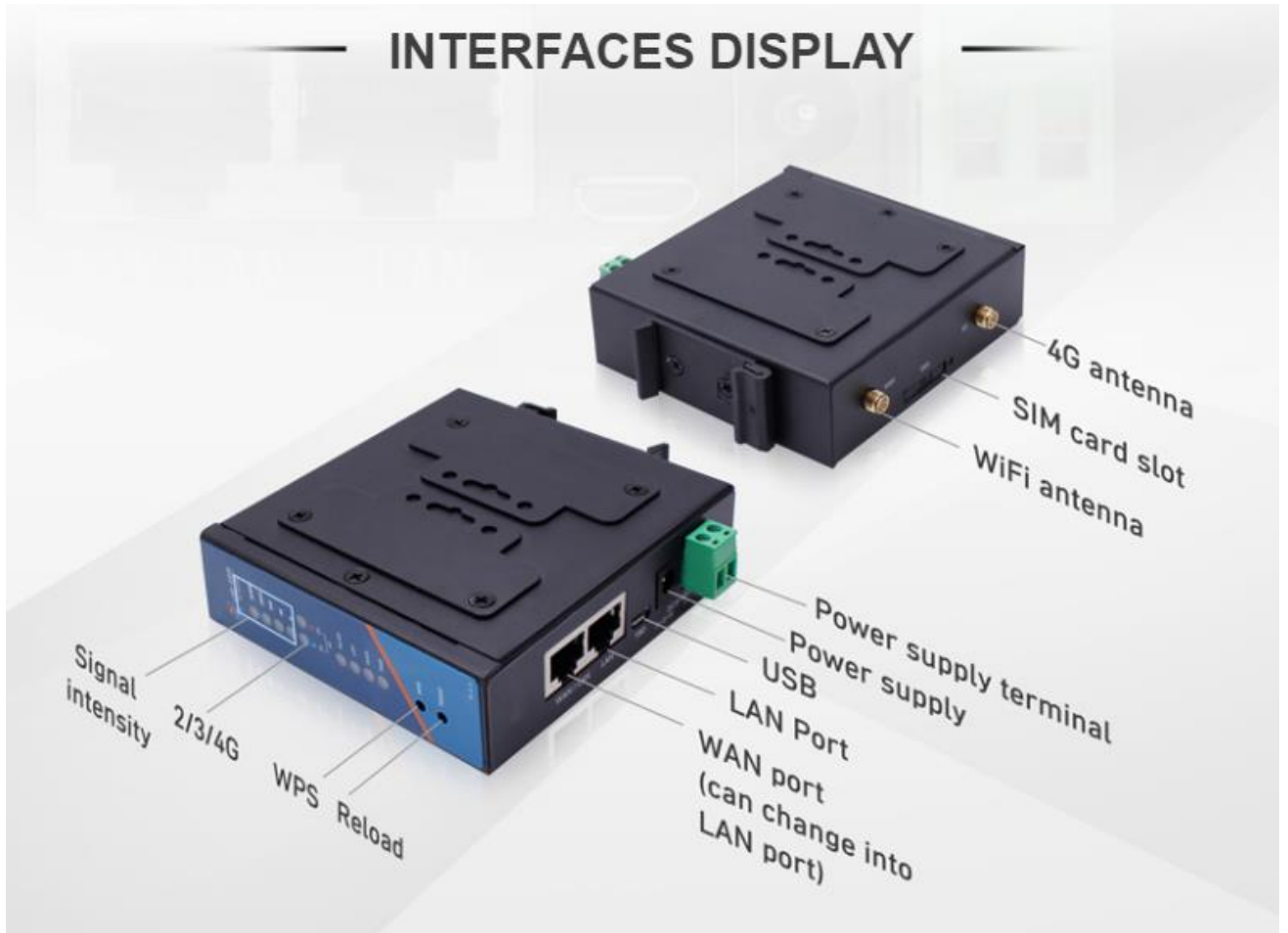


Figure 4 Interface

1.4. 2G/3G/4G Band

USR-G806 has different band model to support different area. To check if the USR-G806 works in specific country, please check which 3G/4G technology and band is used in this country and operator. Then please contrast our form of different model.

Model	Carrier/Region	2G/3G/4G Bands
USR-G806-E	Europe/International (EMEA, Korea Thailand,India) (HongKong)	FDD:B1/2/3/5/7/8/20 TDD:B38/40/41 HSPA/UMTS: B1/2/5/8 GSM/EDGE: B2/3/5/8
USR-G806-E	Southeast Asia	FDD:B1/2/3/5/7/8/20 TDD:B38/40/41 HSPA/UMTS: B1/2/5/8 GSM/EDGE: B2/3/5/8
USR-G806--AU	Australia Taiwan New Zeland Latin America	FDD:B1/2/3/5/7/8/28 TDD:B38/40/41 HSPA/UMTS: B1/2/5/8 GSM/EDGE: B2/3/5/8
USR-G806-A	AT&T,T-Mobile/North America	FDD:B2/4/12 WCDM:B2/4/5

2. Product Functions

This chapter introduces the functions of USR-G806, as the following diagram shown, you can get an overall knowledge of it.



Figure 12 Product function

2.1. Install procedure

- (1) Connect the 4G antenna and Wi-Fi antenna to the router. (Longer one is 3G/4G antenna and Shorter one is Wi-Fi antenna.)
- (2) Plug the SIM card in socket.
- (3) Power on the module by power adaptor and check the LED status.
- (4) Connect PC or mobile to the G806 router via LAN interface or Wi-Fi interface. Wi-Fi password is "www.usr.cn".

- (5) Log in Web Server of router. (Default IP address of router is 192.168.1.1, either the username and password is "root".)
- (6) Configure APN parameters according to SIM card. Some SIM card APN can be recognized automatically.(Network->APNSET)
- (7) Configure other parameters according to user applications.

2.2. APN

APN configuration by Web Server as follow:

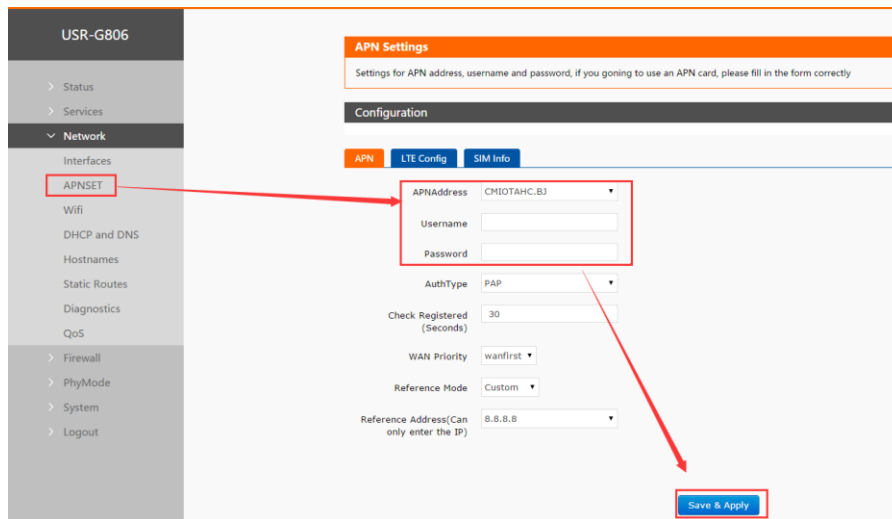


Figure 13 APN configuration

To choose the network type, please configure the LTE configuration.

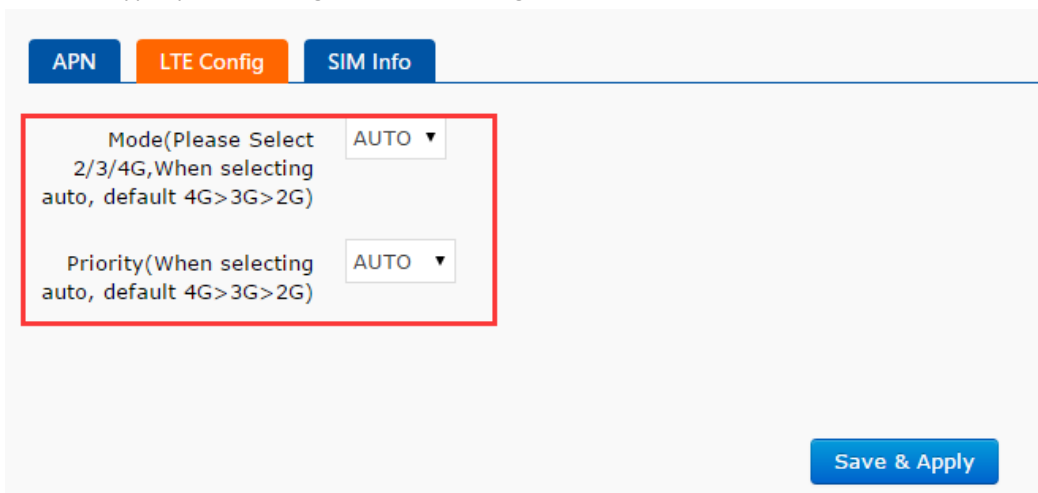
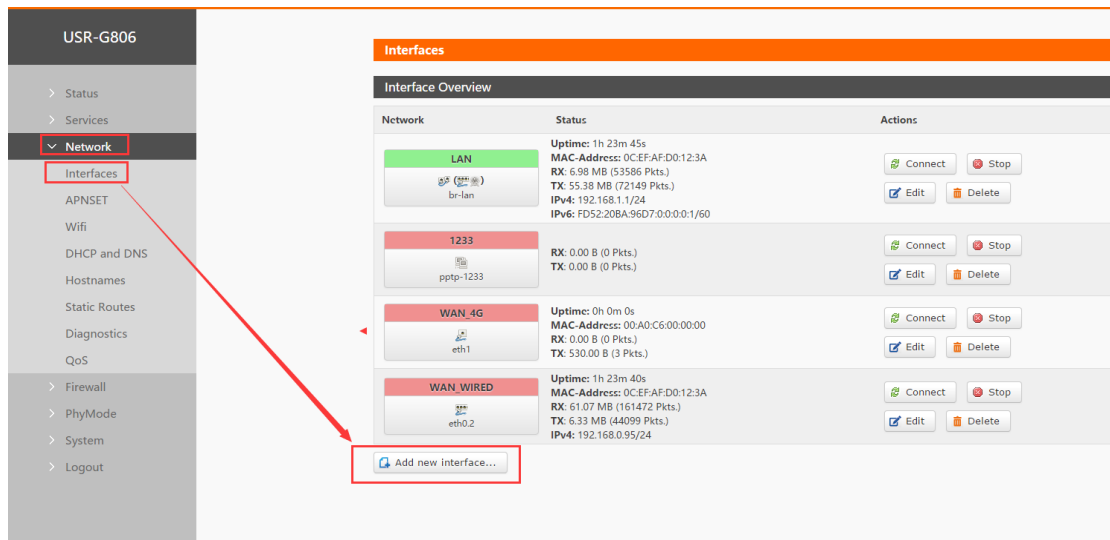


Figure 14 LTE configuration

2.2.1. Create a VPN client

User can set VPN client configuration by Web Server as follow:


Figure 15 VPN Client

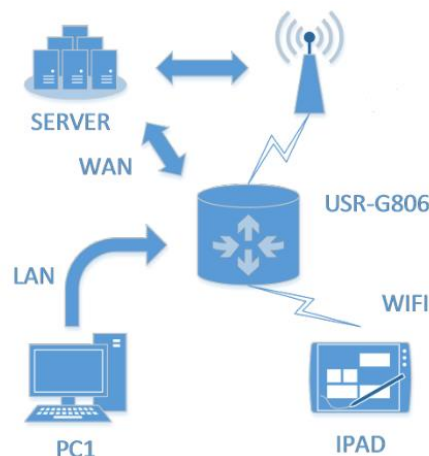
2.3. Networking mode

2.3.1. WAN+LAN+4G

In this networking mode, user can access internet through WAN interface and 4G interface. WAN interface has higher priority than 4G interface to ensure communication and save 4G flows. When WAN interface occurs problems, router can change to 4G interface to connect internet. In this mode, user can also connect to router through WIFI.

To achieve this mode, user don't need to change the router's parameters. Just connect the cable to router and insert SIM card, then power the router.

Application diagram as follow:


Figure 16 WAN+LAN+4G networking

2.3.2. LAN+LAN+4G

In this networking mode, two devices can connect to router through LAN and access the Internet by 4G network. User can achieve this by Web Server as follow:

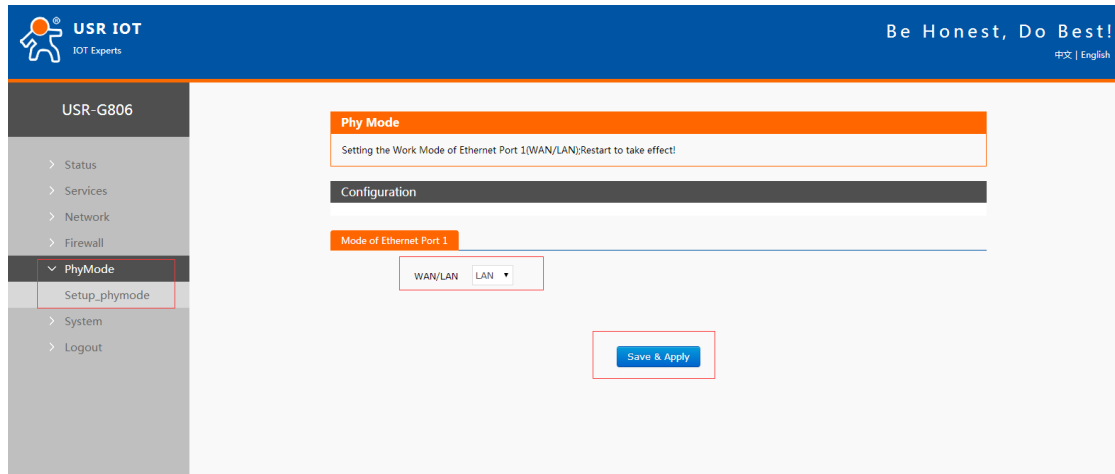


Figure 17 Switch WAN/LAN interface

Application diagram as follow:

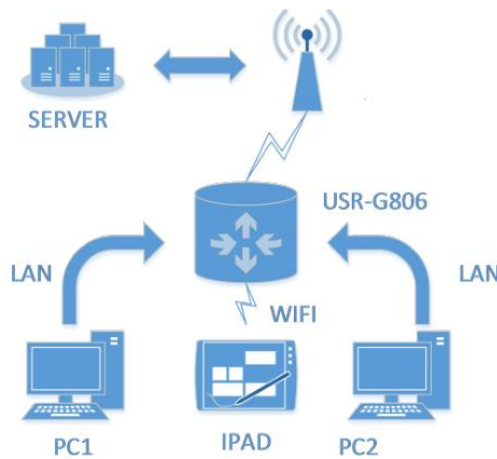
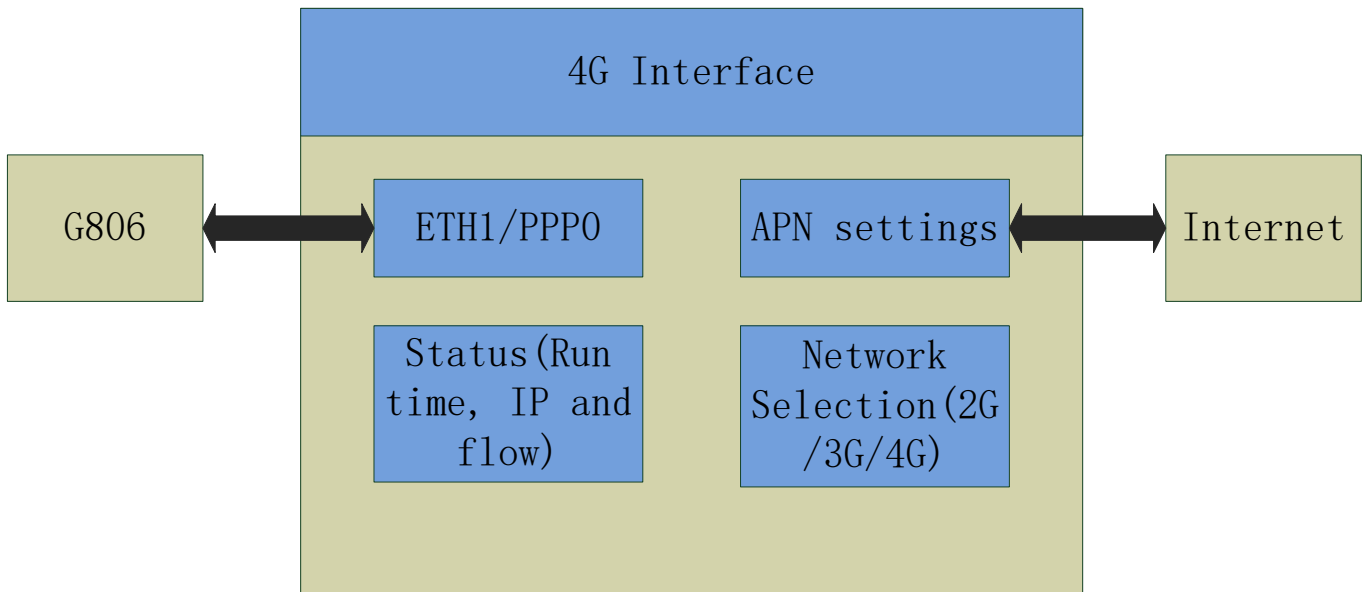


Figure 18 LAN+LAN+4G networking

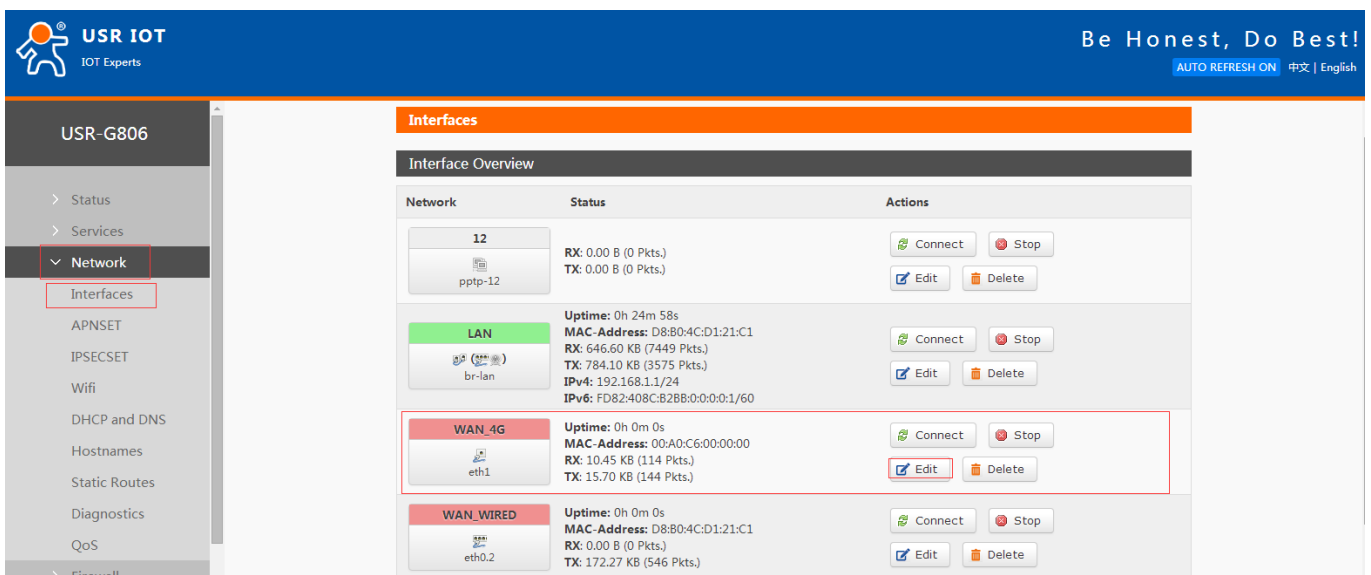
2.4. Common functions

2.4.1. 4G interface

G806 supports one 4G interface to access internet. Functional diagram as follow:


Figure 19 4G interface

User can configure 4G interface by Web Server as follow:


Figure 20 4G interface

2.4.2. LAN interface

G806 supports two LAN interface (one is WAN/LAN interface).

Default settings: One LAN interface (WAN/LAN used as WAN interface; IP address: 192.168.1.1; Subnet mask: 255.255.255.0; Open DHCP function).

User can configure LAN interface by Web Server as follow:

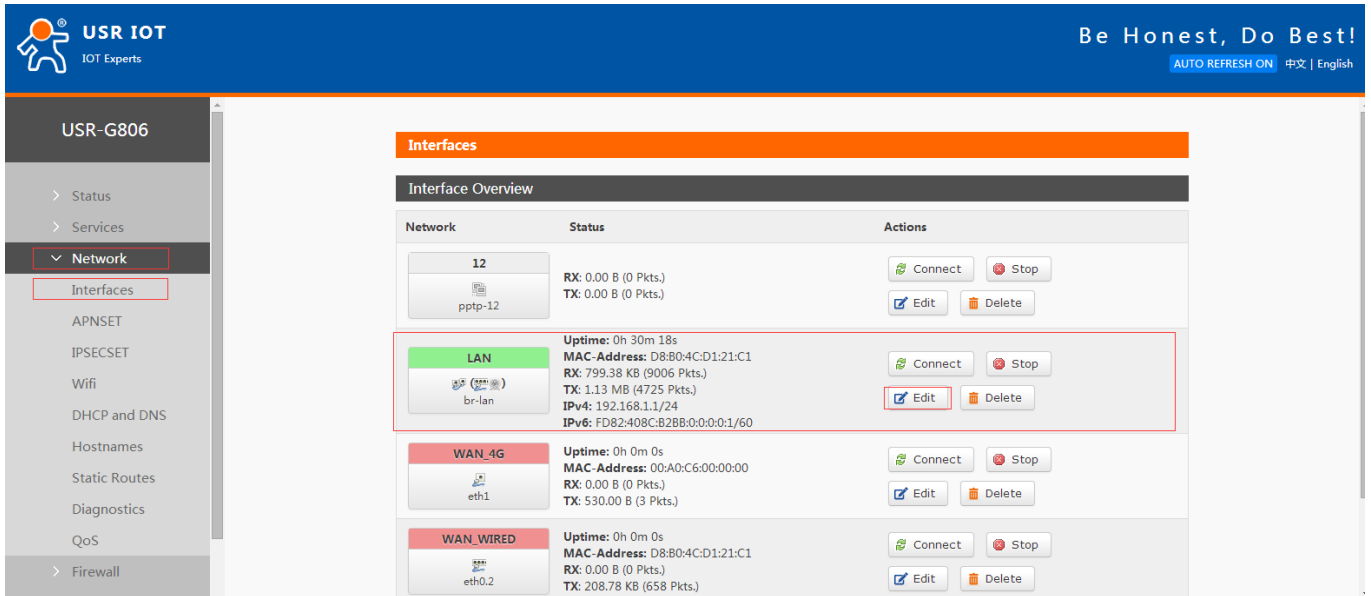


Figure 21 LAN interface

2.4.2.1. DHCP Function

DHCP default range of distribution is from 192.168.1.100 to 192.168.1.250 and default address lease time is 12 hours. Address range and lease time can be changed.

After you enter Web Server LAN interface, you can find 'DHCP Server' on Web Server as follow:

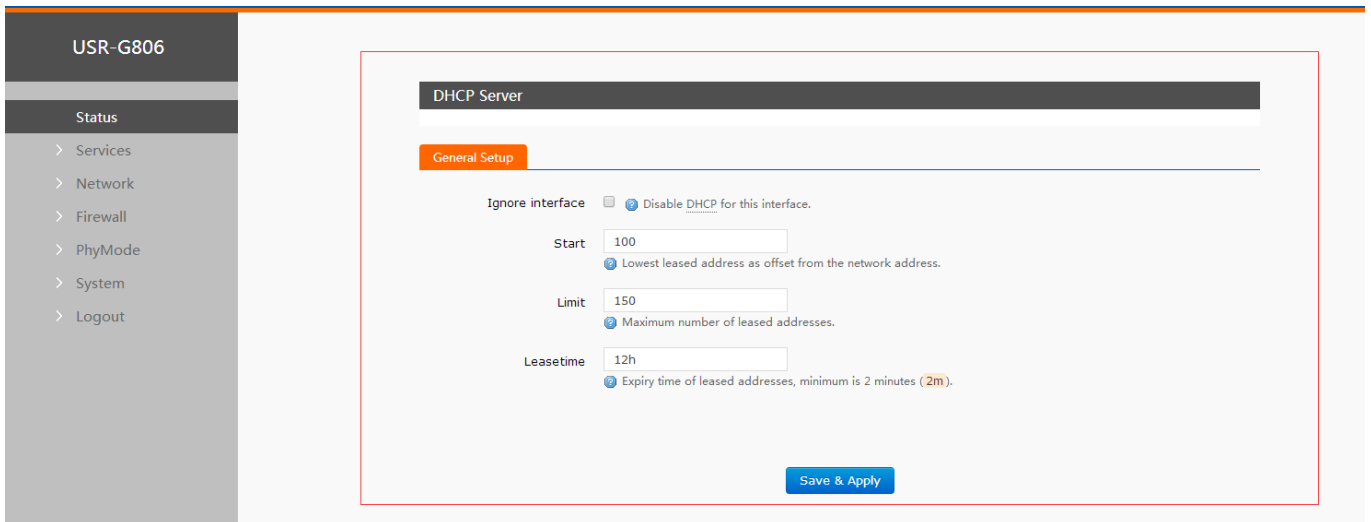
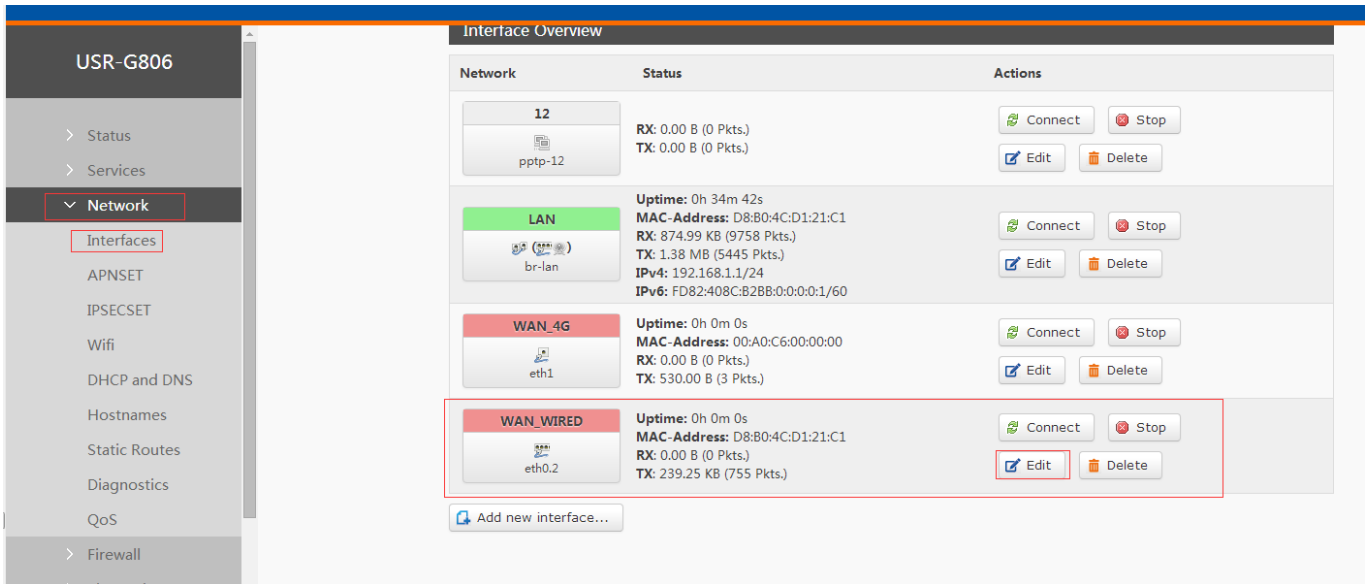


Figure 22 DHCP function

2.4.3. WAN interface

G806 supports one WAN interface and WAN interface can switch between WAN/LAN interface. WAN interface supports DHCP and Static IP, and default setting is DHCP.

User can configure WAN interface by Web Server as follow:


Figure 23 WAN interface

2.4.4. WLAN interface

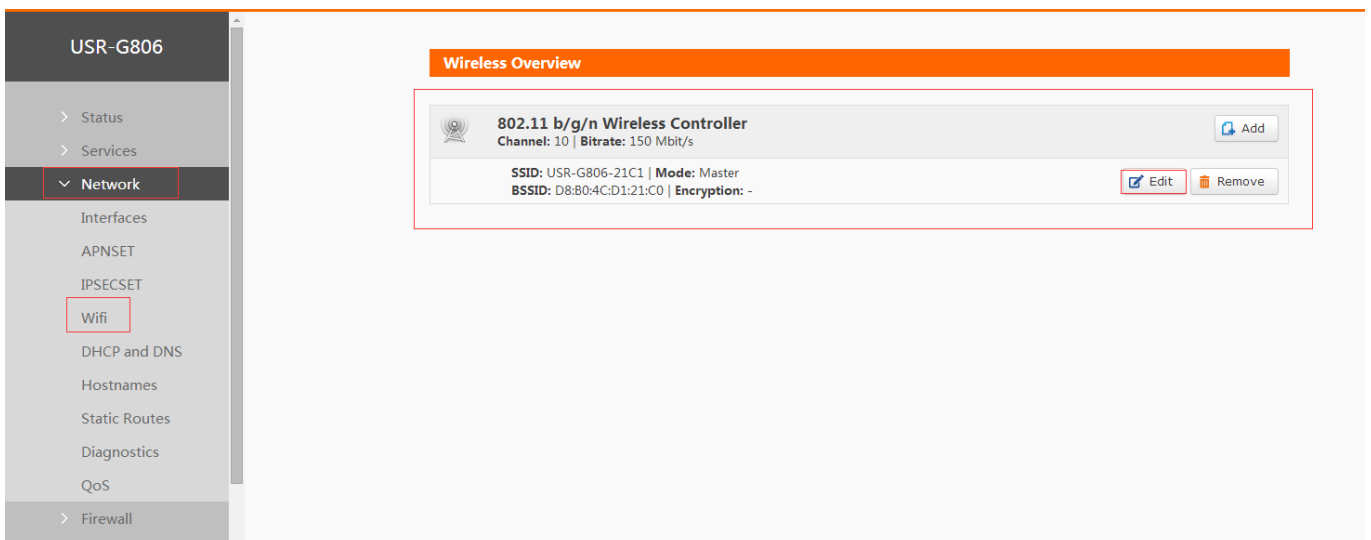
G806 supports at most 24 STA device connection.

Default parameters as follows:

SSID	USR-G806-XXXX(XXXX is MAC)
Password	www.usr.cn
Channel	Auto
Bandwidth	40MHz
Encryption Mode	WPA2-PSK

Figure 24 WALN default parameters

WLAN interface on Web Server as follow:


Figure 25 WLAN interface

After clicking “Edit” and entering WLAN interface configuration web, user can change follow parameters.

User can configure SSID on Web Server as follow:

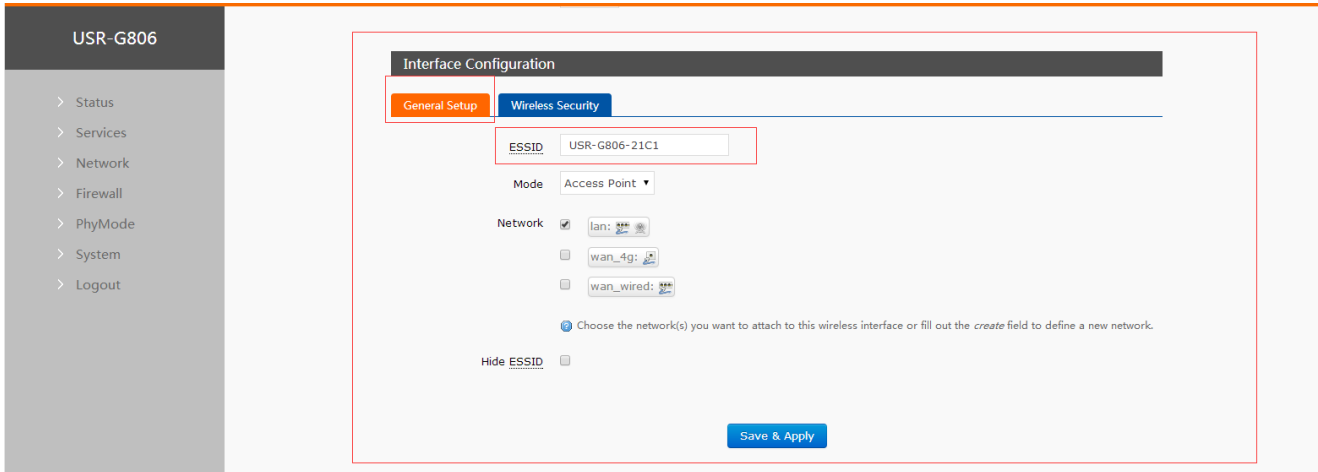


Figure 26 Configure SSID

User can configure password on Web Server as follow:

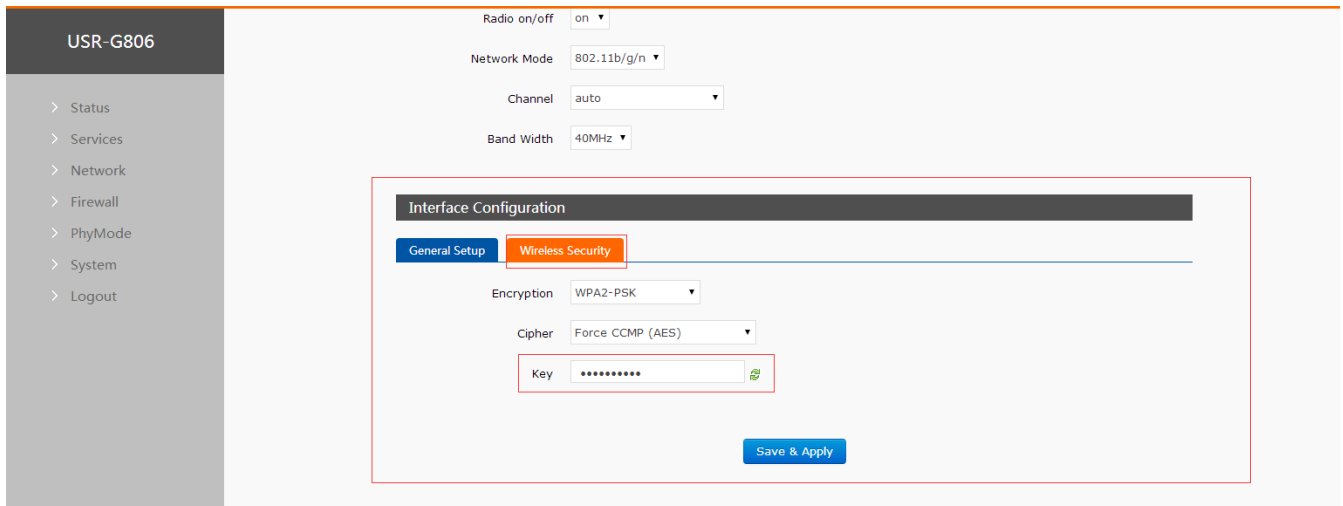


Figure 27 Configure password

Other settings on Web Server as follow:

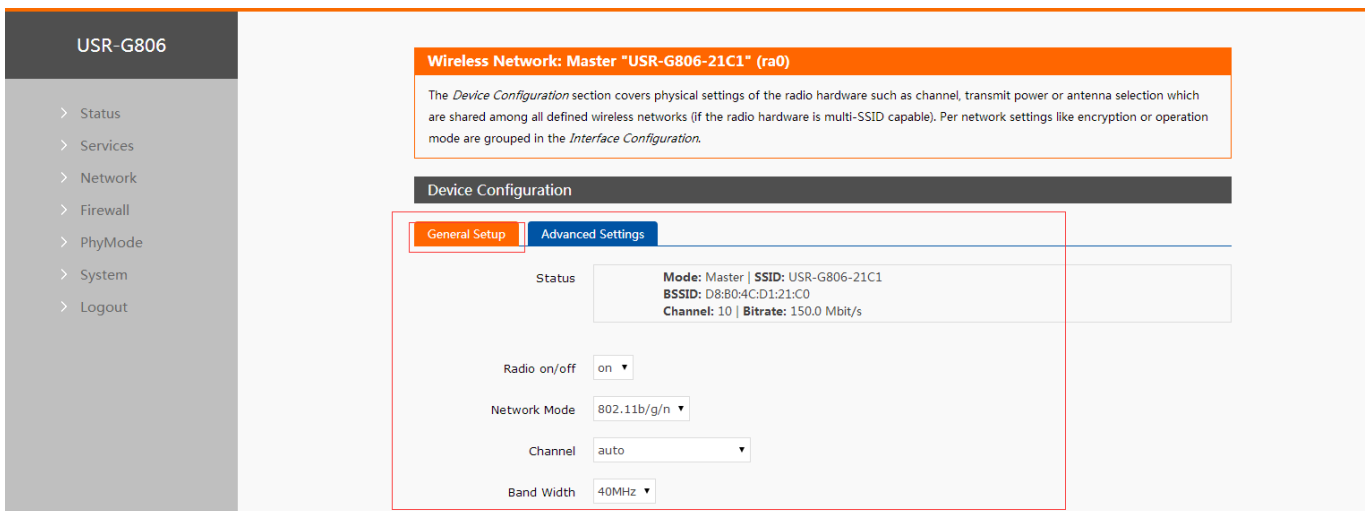


Figure 28 Other settings

User can close WLAN interface by changing 'Radio on/off' into off.

2.4.5. Network Diagnosis

User can use network diagnosis function by Web Server as follow:

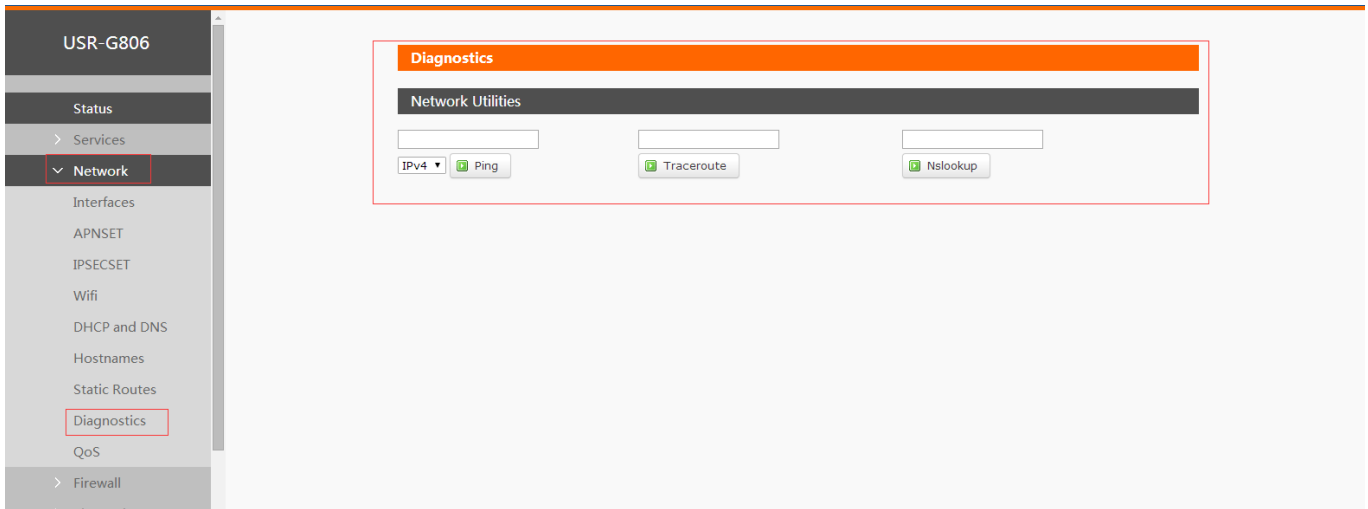


Figure 29 Network diagnosis

- Ping: User can do PING test to a specific address in G806.
- Traceroute: Can acquire routing path to visit a specific address.
- Nslookup: Can analyse DNS into IP address

2.4.6. Module Name and Time Zone

G806 default module name is USR-G806 and default Time Zone is Beijing time zone.

User can configure module name and Time Zone by Web Server as follow:

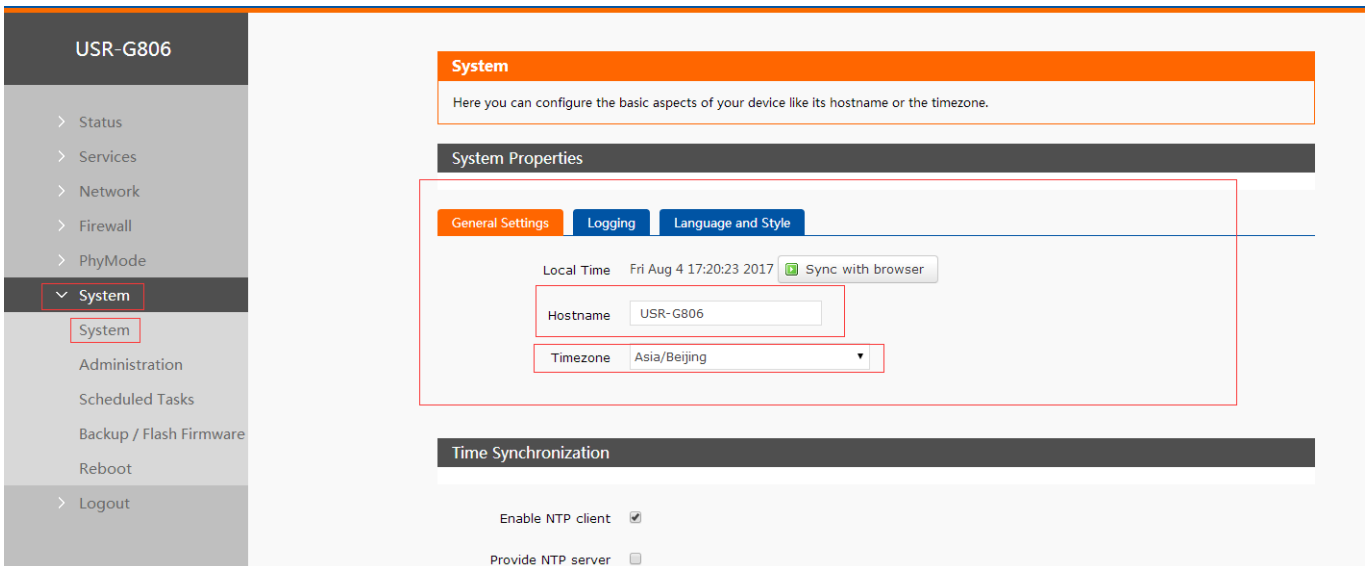


Figure 30 Module name and Time Zone

2.5. Basic Functions

2.5.1. Web Server Password

Default password is root, this password is used to enter Web Server.

User can change password by Web Server as follow:

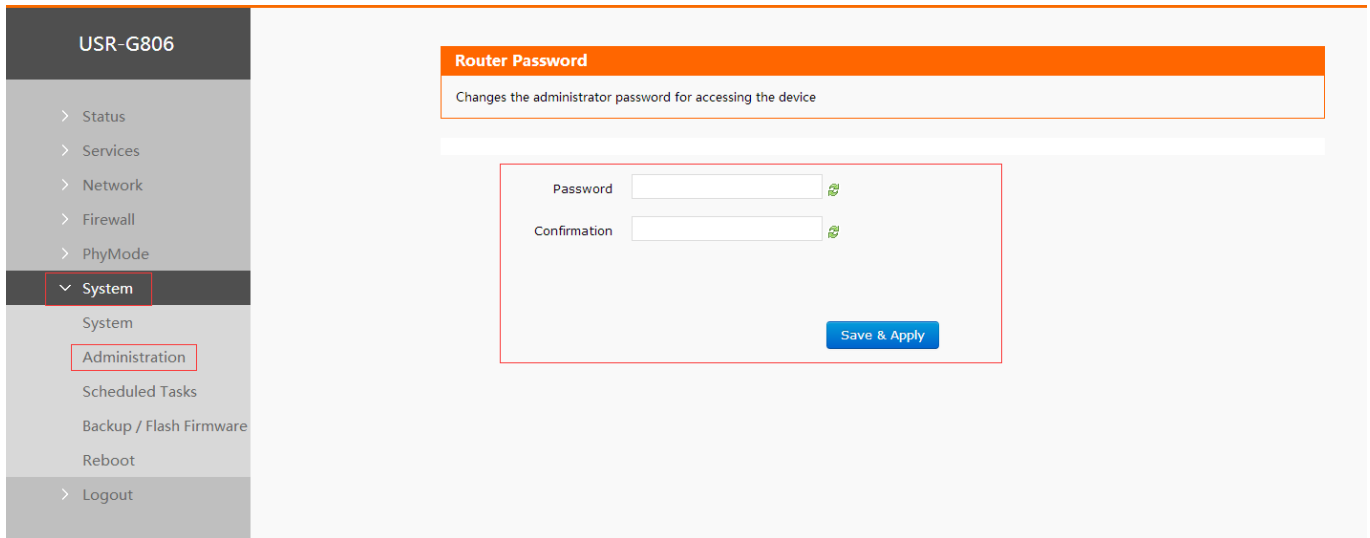


Figure 31 Change Web Server password

2.5.2. Restore

Hardware restore: Press Reload button over 5 seconds and release, G806 will restore default settings and reset.

User can restore default settings by Web Server as follow:

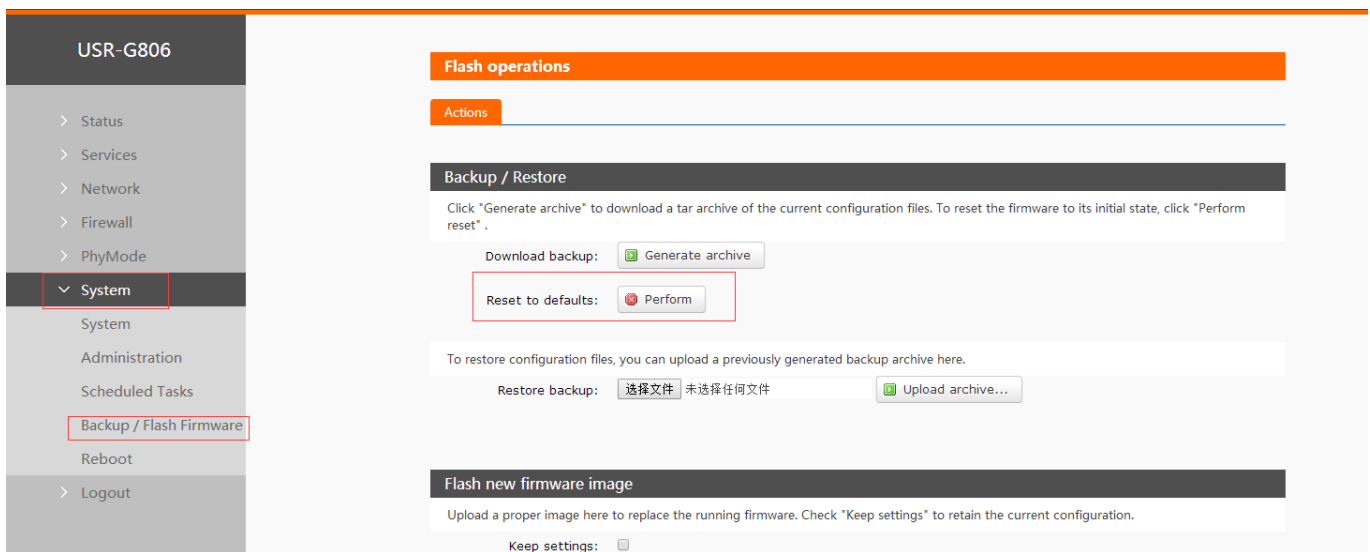


Figure 32 Restore default settings

2.5.3. Upgrade Firmware Version

Upgrade by Web Server as follow:

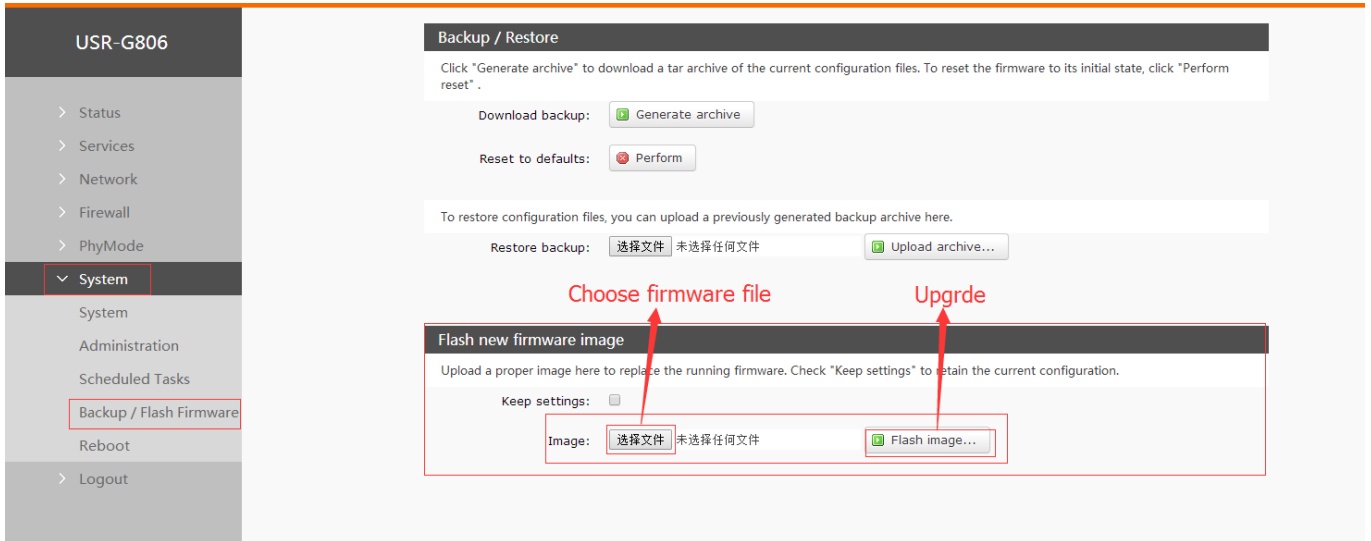


Figure 33 Upgrade firmware version

Note:

- The whole upgrade process will last about 1 minute, user can enter Web Server after about 1 minute.
- User can choose saving settings.
- User should keep powering up and LAN/WIFI connection during the whole upgrade process.

2.5.4. Reset

Reset time is about 40~60 seconds.

Reset by Web Server as follow:

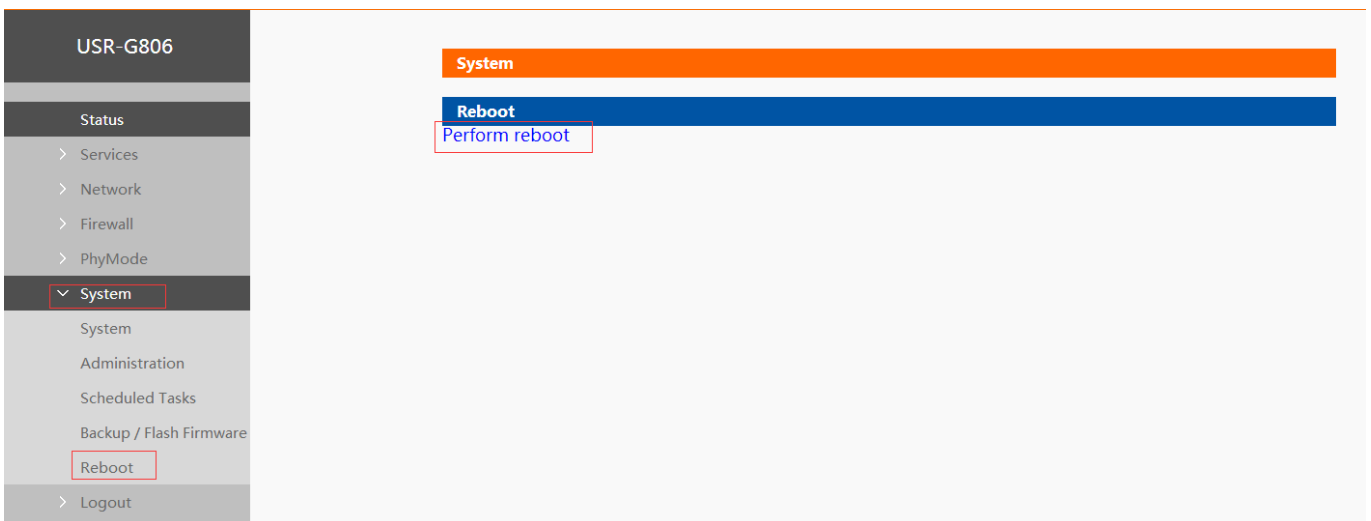


Figure 34 Reset module

3. Web Server

When user need to configure the G806, user can connect PC to USR-G806 through LAN interface or WLAN, then open Web Server.

Default parameters of G806 as follows:

SSID	USR-G806-XXXX
IP Address	192.168.1.1
User name	root
Password	root
WLAN Password	www.usr.cn

Figure 35 Default parameters

Take default parameters as example: User can connect PC to SSID USR-G806-XXXX. Then open browser and enter 192.168.1.1, log in with User name and Password(both are root), user can enter Web Server.

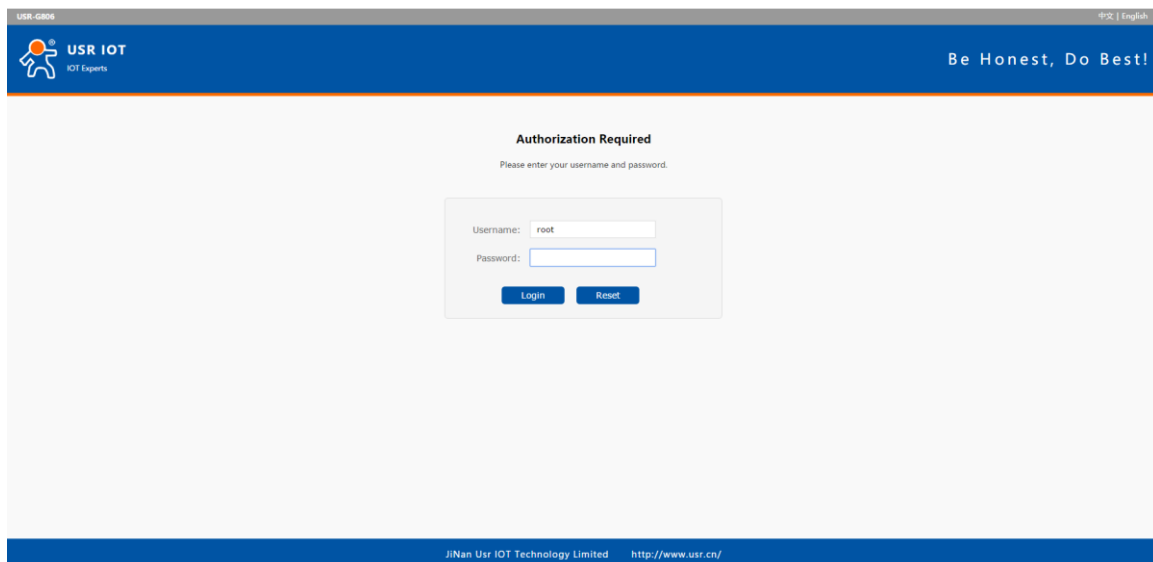


Figure 36 Web Server login web

User can change the language between Chinese/English in the top right corner.

4. Contact us

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5. Disclaimer

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6. Updated History

2017-08-02 V1.0.4.1 established based on Chinese version V1.0.4.

2017-11-09 V1.0.4.2 updated. Modified some words to standards and corrected spelling/grammatical mistakes. Optimized whole manual arrangement. Changed related pictures to new G806 pictures.

2018-01-05 V1.0.4.3 updated. Changed related pictures to normal G806 version pictures. Optimized whole manual arrangement. Divided G806 user manual into normal version and G806-A version.

2019-06-10 V1.0.4.4 updated. Modify band frequency.