WiFi Module VM300/VM5G

Quick Setting Guide

Declaration

Note: Because the module is too small, the four metal screws are easy to lead to deformation of the module, chip desoldering, it is recommended to use plastic screws, and only used to locate can be, to leave a little room for manoeuvre!

Form 1

Transmission Distance Parameters Form			
Model	No-barrier point to point Transmission Distance	Transmission Rate (Mbps)	Band
VM300	80m--100m	300	2.4G
VM5G	600m--700m	300+900	2.4G/5G

Form2

Power Supply Parameters List			
Model	Power Supply Voltage	Input Power	Typical Power Supply
VM300	DC5--15V	≥5W	5V/1A
VM5G	DC5--15V	≥10W	5V/2A

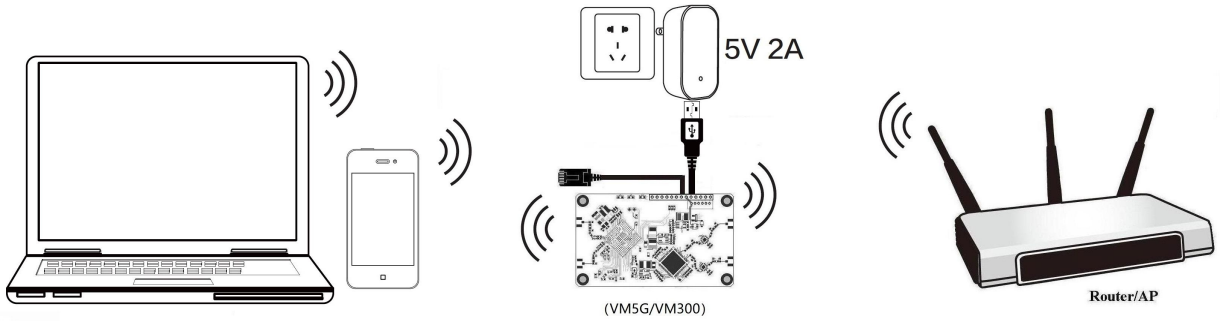
Contents

Chapter 1 Application Mode

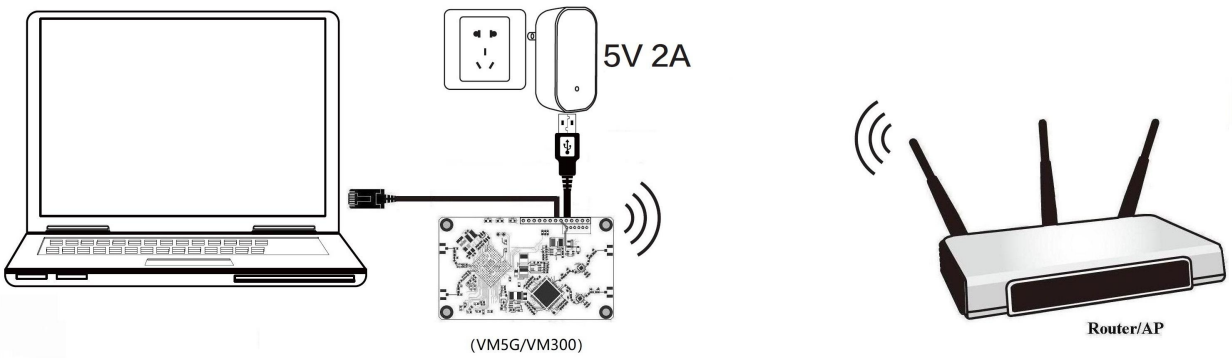
1.1 Bridge + Repeater Mode

There are three application modes for the bridge mode of VONETS module: WiFi repeater, WiFi bridge and WiFi AP.

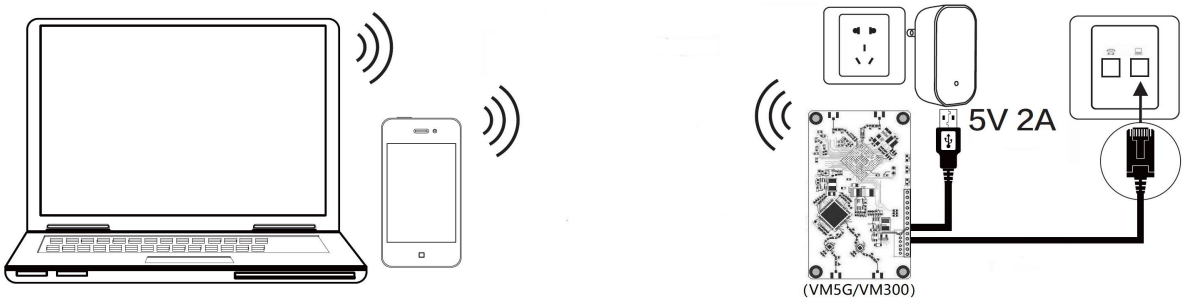
- **WiFi Repeater:**
  VONETS module as WiFi Repeater, it must be configured to source WiFi hostpot parameters, can be used to extend the wireless signal coverage of existing APs or wifi router .



- **WiFi Bridge:**
  VONETS module as WiFi bridge, it must be configured to source WiFi hotspot parameters, can be used for devices only with Ethernet ports to access wireless networks.

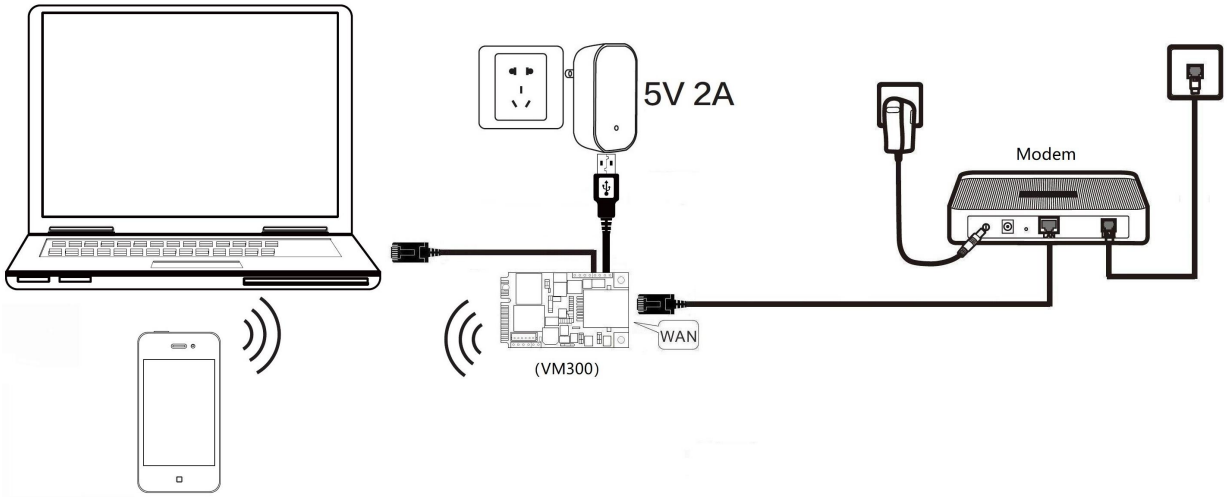


- **WiFi AP:**
  VONETS module as WiFi AP, it can achieve wireless access to wired LAN, no configuration required, plug and play.

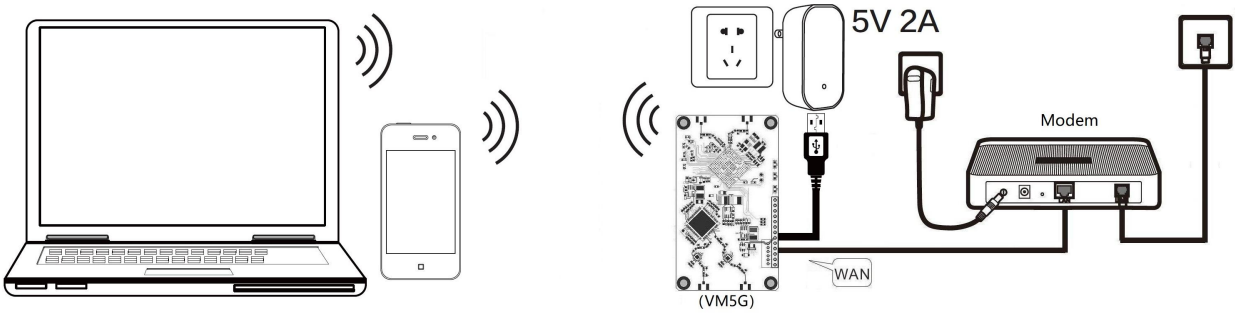


1.2 Router Mode

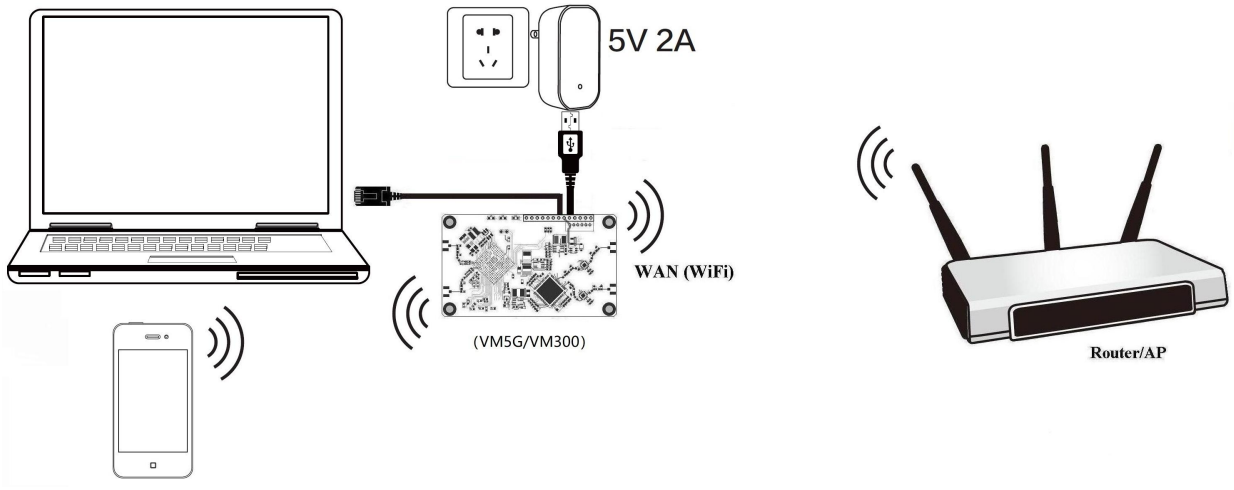
- VONETS module as WiFi router
  The Ethernet port of **VM300** module defaults to WAN port. The Ethernet cable defaults to the LAN port. WAN and LAN ports are interchangeable.



The Ethernet cable of **VM5G** module defaults to LAN port, you must set "WAN/LAN interchange" so that the Ethernet cable is WAN port to use the broadband dialing function.



- VONETS module is used as a wireless router. WAN port can be set to connect to the WiFi hotspot for use as a secondary router.



Chapter 2 Bridge+Repeater Mode Configuration Instruction

2.1 Method 1: Use the mobile phone APP VCC configuration

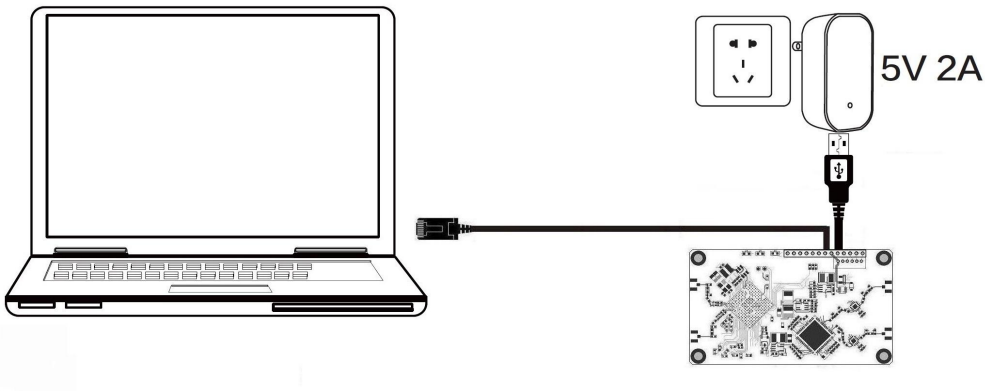
Use the Android system (IOS system is not supported temporarily) mobile browser to scan the QR code below to download the VCC configuration software, and then enter the VCC interface to scan the QR code on the back of the bridge for code scanning connection and configuration (the software version of the bridge shall not be less than 3.2.21.7.13);

2.2 Method 2: Log in to the device's Web configuration page to configure

2.2.1 Device Connection

Power on VONETS module by 5V/2A power supply, then connect to PC, there are two connection ways as below:

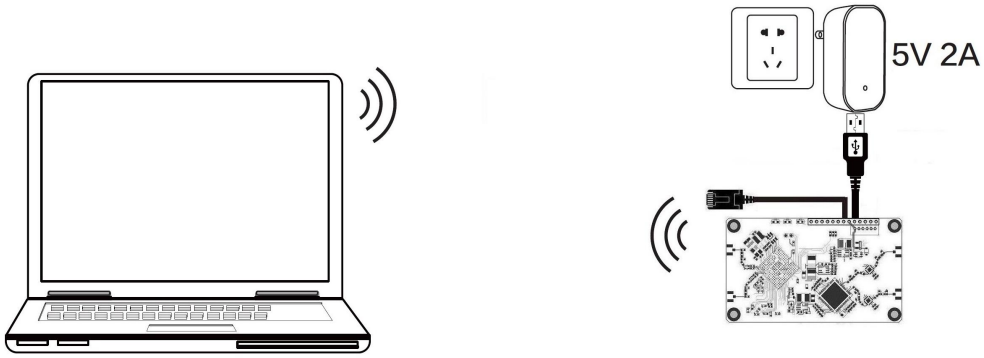
A. Computer is wired connected to LAN port of VONETS module;



(Recommend Method)

B. The computer wirelessly connects to the WiFi signal of VONETS module, its default hotspot parameters are as follows:

WiFi SSID	WiFi Password
VONETS_2.4G_****	12345678
VONETS_5G_****	12345678



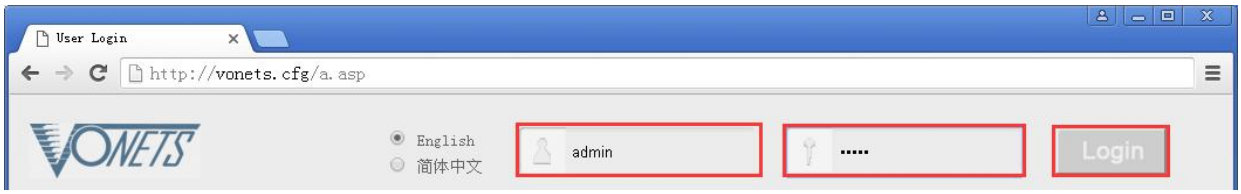
(After the WiFi parameters are configured, the WiFi will be disconnected, that is normal.)

2.2.2 Bridge+Repeater Application Configuration

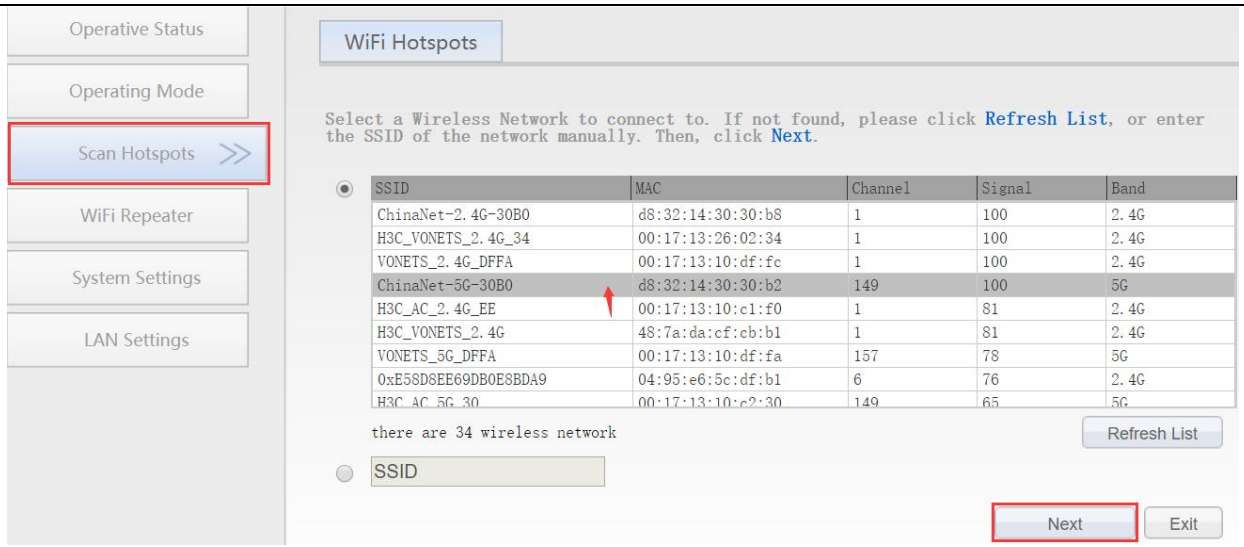
The configuration steps of VONETS module for WiFi repeater and WiFi bridge are basically the same, so this manual combines the configuration instructions of the two application modes.

1. After computer is connected to VONETS module, open browser, input configured page: http://vonets.cfg (or IP: 192.168.254.254), then press Enter;

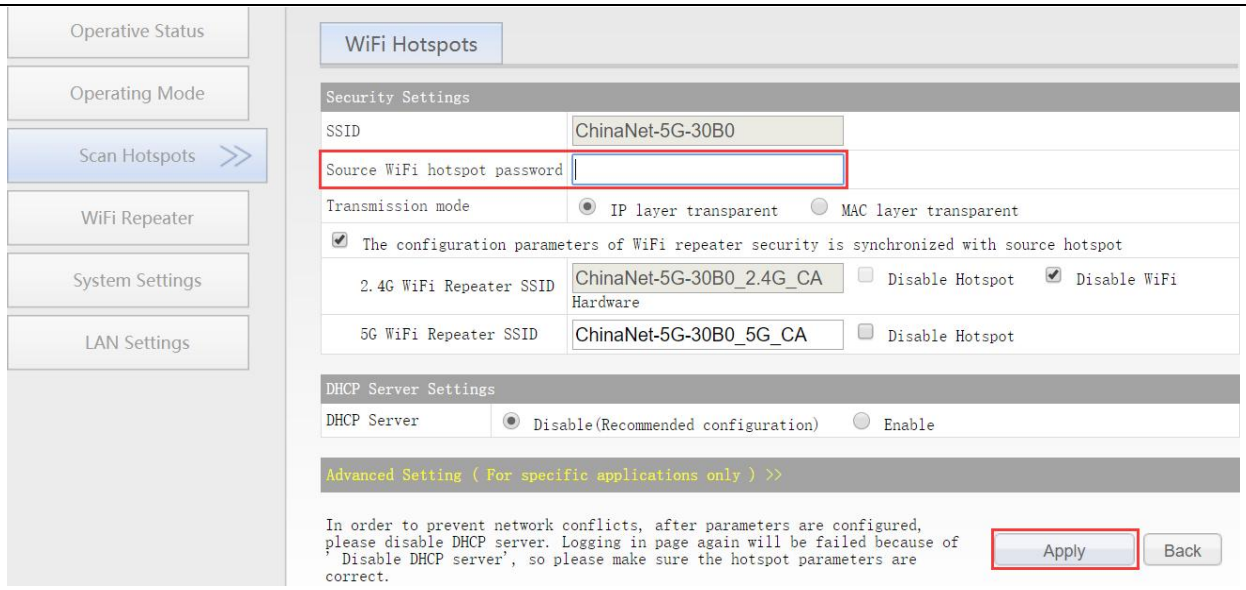
2. Input User name and Password in login page (both are "admin"), click "Login" button to enter configured page;



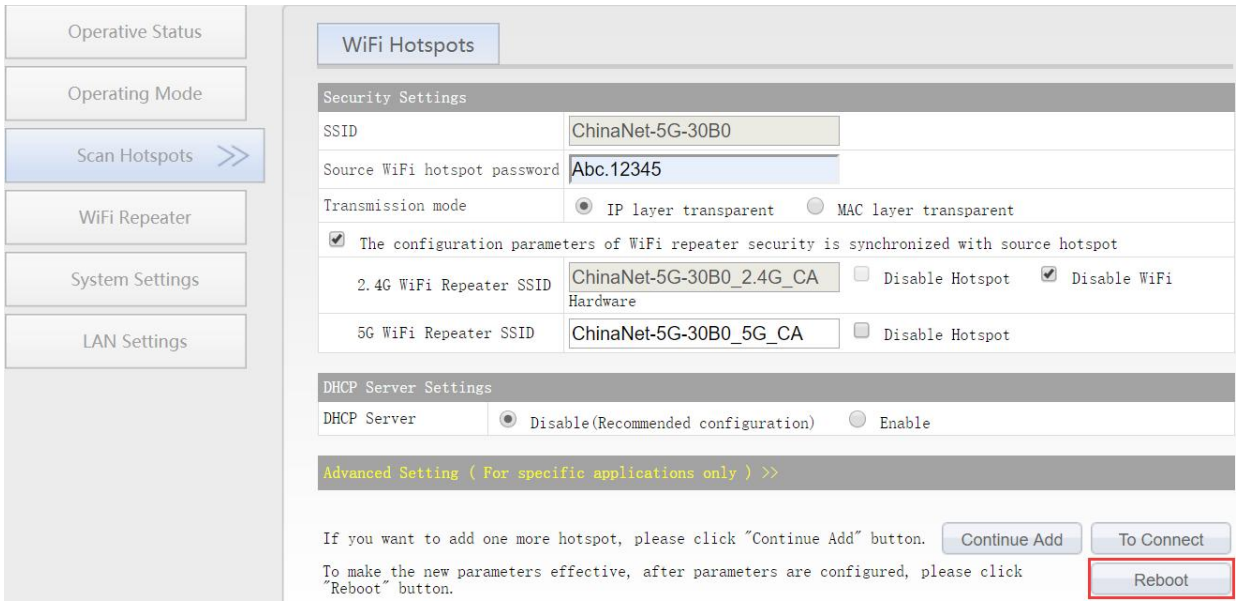
3. "Scan Hotspots", choose the source hotspots, click "Next";



4. Input "Source wireless hotspot password", click "Apply";
   - **IP layer transparent transmission** (factory default), transparent transmission of IP layer data, can meet most of WiFi bridge applications;
   - **MAC layer transparent transmission**, transparent transmission of all data above the MAC layer (link layer) and MAC layer, including IP layer data. MAC transparent transmission can solve some special applications for MAC layer encryption, such as GoPro camera, Cisco AP, Hikvision monitoring system, etc;
   - The option **"The configuration parameters of WiFi repeater security is synchronized with source hotspot"** is default ticked, it means the SSID of VONETS repeater is associated with the SSID of the source hotspot, and the WiFi password is the same as the password of the source hotspot;
   - **Disable hotspot**, if you select "Disable hotspot" on the right side of the SSID, the device will not transmit the corresponding hotspot and can only be used as a bridge application;
   - **Advanced Setting**, include Hot spot authentication match mode, WiFi Signal Motion Detection and SSA Signal strength alarm threshold, these options here can be kept unchanged, for instructions on this option, go to www.vonets.com and download the "V Series WiFi Bridge Advanced Features Instruction";



5. Click "Reboot", VONETS module will connect to the configured WiFi hotspot automatically, if connection is successful, the WiFi LED light will flash quickly;



Remark 1:

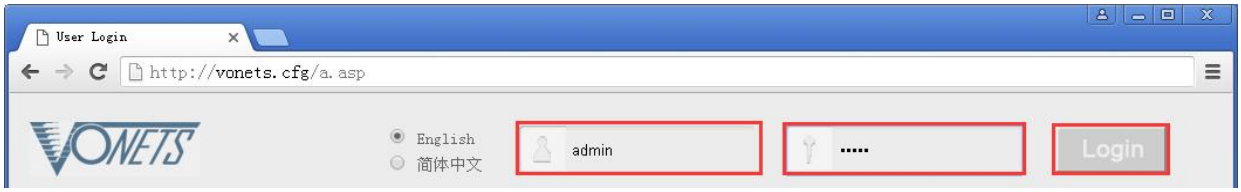
LED Light Form			
Model	Blue Light	Green Light	Yellow Light
VM300	2.4G WiFi Connection Status Light	Ethernet Cable Connection Status Light	/
VM5G	2.4G WiFi Connection Status Light	5G WiFi Connection Status Light	Ethernet Cable Connection Status Light
① VONETS module is not connected to any hotspot, WiFi connection status light will flash quickly;			

② VONETS module is connected to hotspot successfully, WiFi connection status light will quick flash;
③ VONETS module is connected to hotspot successfully, but hotspot signal strength is less than 50% greater than 10%, WiFi status light will pause flash and flash;
④ VONETS module is connected to hotspot failed, WiFi connection status light will flash slowly.

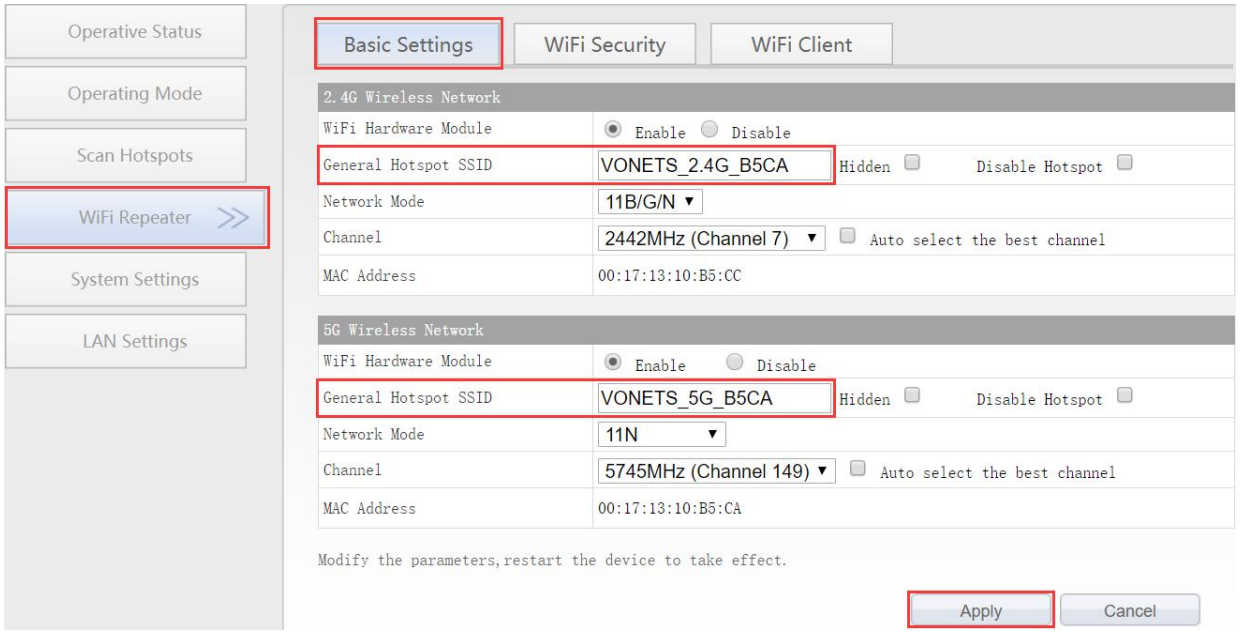
2.3 AP Application Configuration

VONETS module can be configured as an AP application. The wireless terminal device can connect to VONETS module hotspot to connect to the network; however, it is best to change its WiFi name and password for network security.

1. Log in to the configuration page http://vonets.cfg (or IP: 192.168.254.254) in your computer browser, both user name and password are "admin"

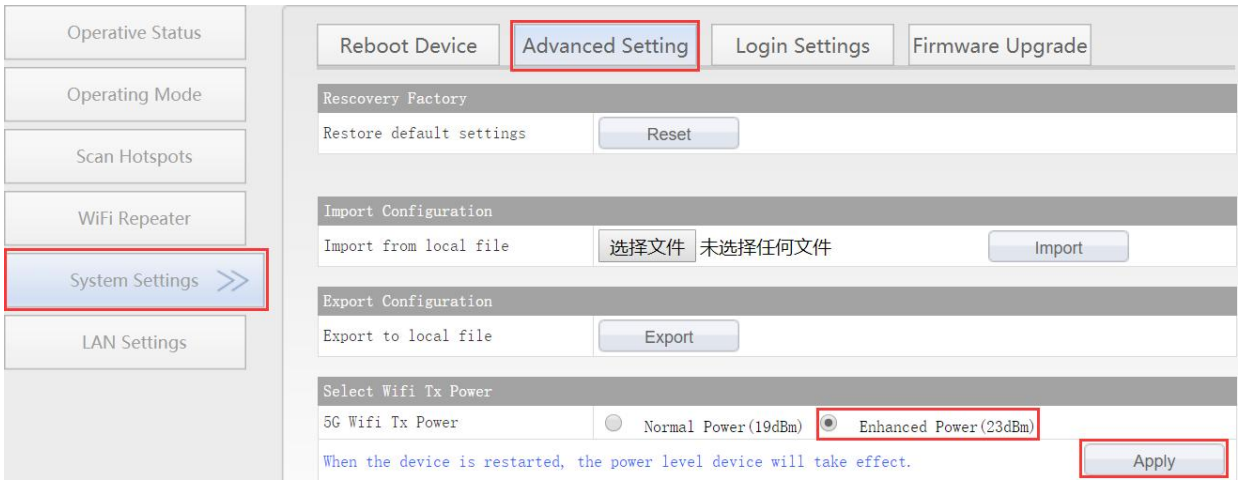


2. Revise WiFi name: Jump to "WiFi Repeater" ---- "Basic Settings", enter new WiFi name in "WiFi Repeater (SSID)", click "Apply";

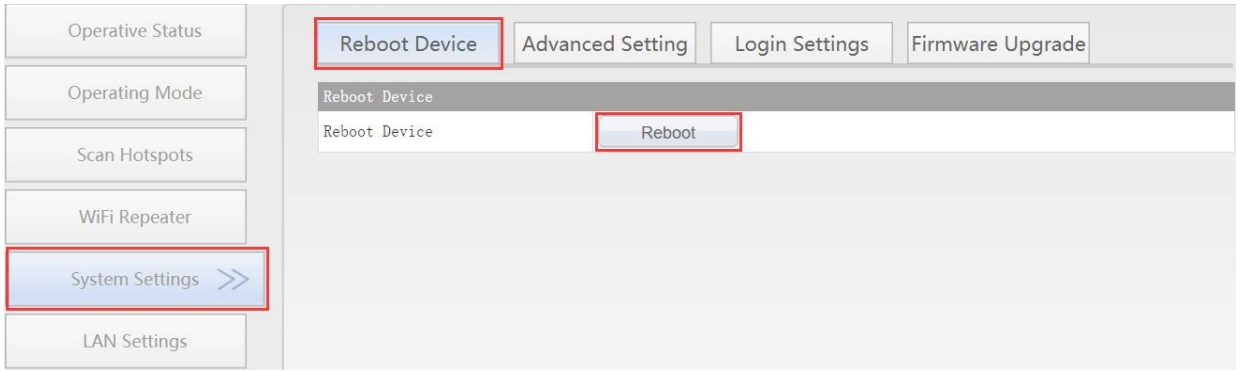


3. Revise WiFi password, in "WiFi Repeater" ----"WiFi Security", enter new WiFi password in "Pass Phrase", click "Apply";

4. "WiFi Tx Power" of VONETS module can be changed, jump to "System Settings"---- "Advance Settings", choose suitable transmit power, then click "Apply";



5. Reboot device, jump to "System Settings"---- "Reboot Device", click "Reboot", when it is finished, all revised options will take effort.



Remark 2: When VONETS module connect to external network, its IP address will be changed. At this time, when log in configured page, we suggest you enter configured domain name:

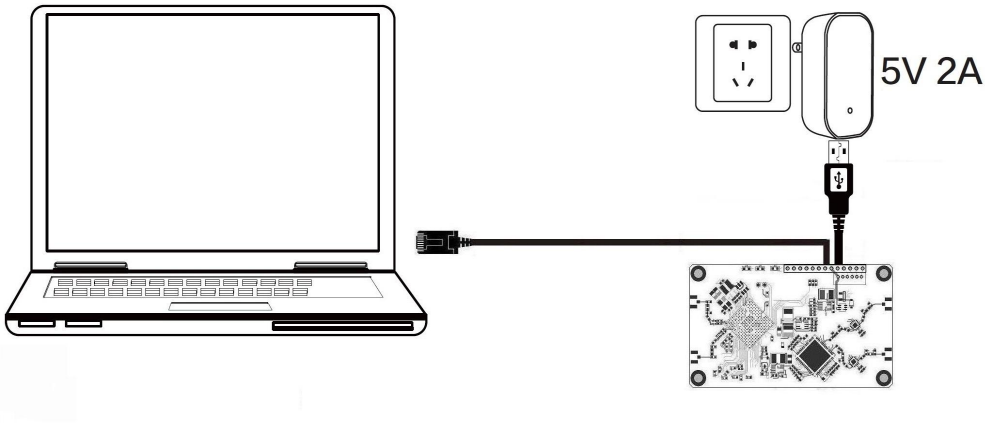
http://vonets.cfg. Or in Windows command window, enter the command: ping vonets.cfg, to get the IP address of the device, then log in configuration page by this IP address.

Chapter 3 Router Mode Configuration Instruction

3.1 Change device mode

1. Power on VONETS module by 5V/2A power supply, then connect to PC, there are two connection ways as below:

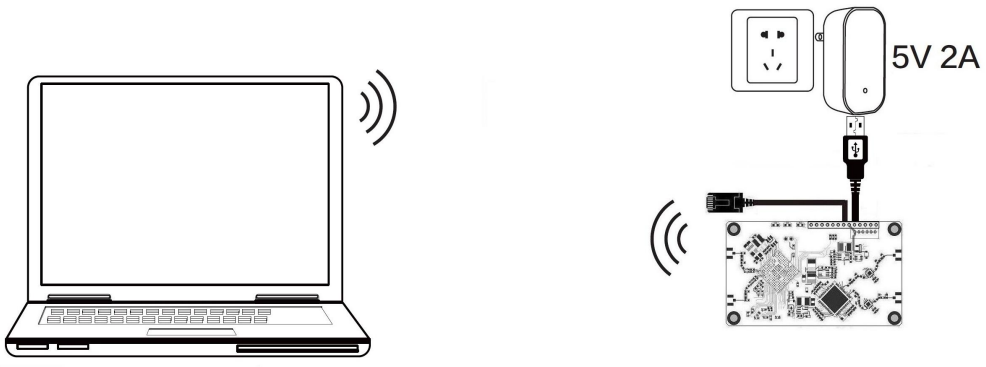
   A. Computer is wired connected to LAN port of VONETS module;



（Recommend Method）

   B. Computer wirelessly connects to the WiFi signal of VONETS module, its default hotspot parameters are as follows:

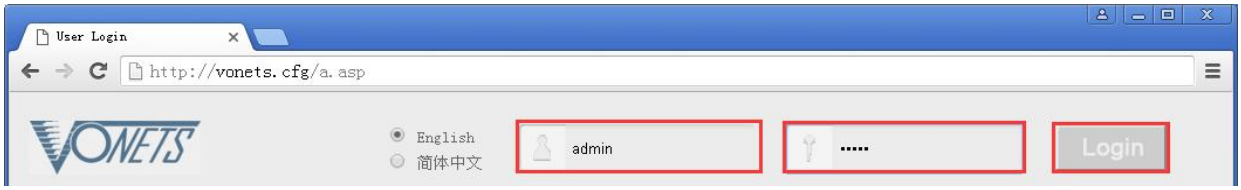
WiFi SSID	WiFi Password
VONETS_2.4G_****	12345678
VONETS_5G_****	12345678



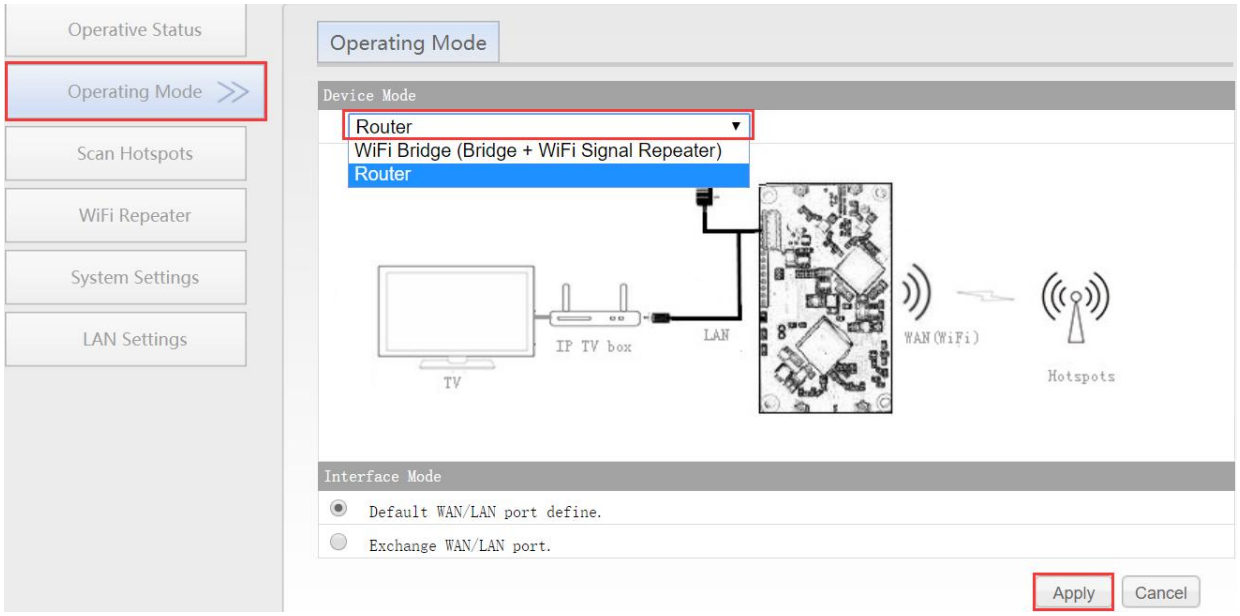
（After the WiFi parameters are configured, the WiFi will be disconnected, that is normal.）

2. After computer is connected to VONETS module, open browser, input configured page domain name: http://vonets.cfg (or IP: 192.168.254.254), then press Enter;

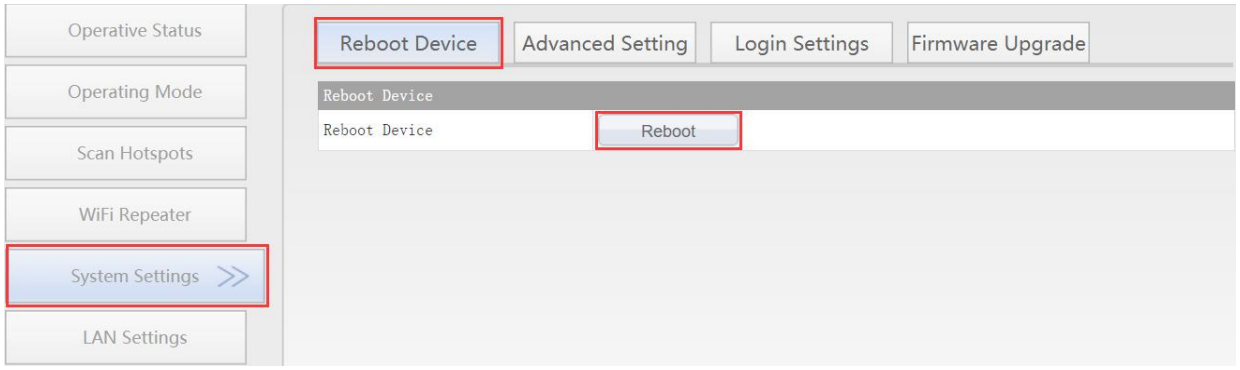
3. Enter User name and Password in login page (both are "admin"), click "Login" button to enter configured page;



4. In "Operating Mode", change Device mode to "Router" mode, click "Apply" button;



5. Reboot device: go to "System Settings" -- "Reboot device", click "Reboot" button, VONETS module will automatically switch to router mode.



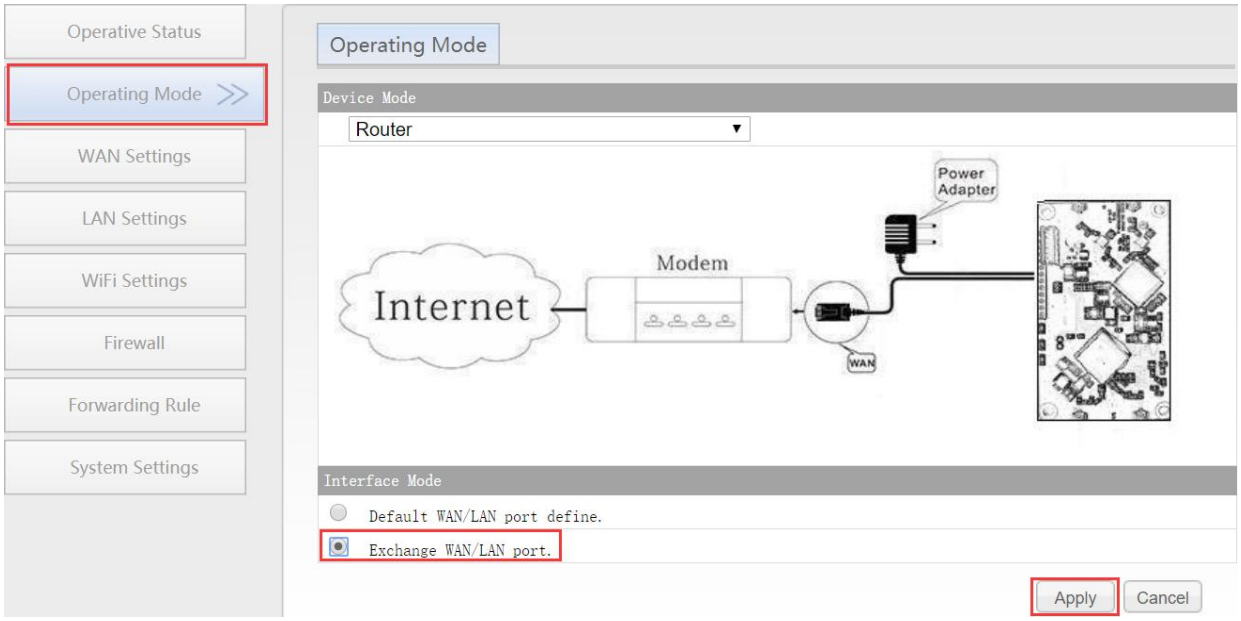
3.2 WAN port setting

3.2.1 WAN/LAN exchange

In routing mode, the Ethernet port of VONETS module is divided into a WAN port and a LAN port, and WAN/LAN can be interchanged.

The Ethernet port of **VM300** module defaults to WAN port. The Ethernet cable defaults to LAN port. If the interface mode is changed to "WAN/LAN exchange", the Ethernet cable will be WAN port and the Ethernet port will be LAN port.(This option can keep unchanged);

The Ethernet cable of **VM5G** defaults to LAN port, the interface mode must be changed to "WAN/LAN interchange" to make Ethernet cable to WAN port, click "Apply", then reboot VONETS module.



3.2.2 WAN Port connection method

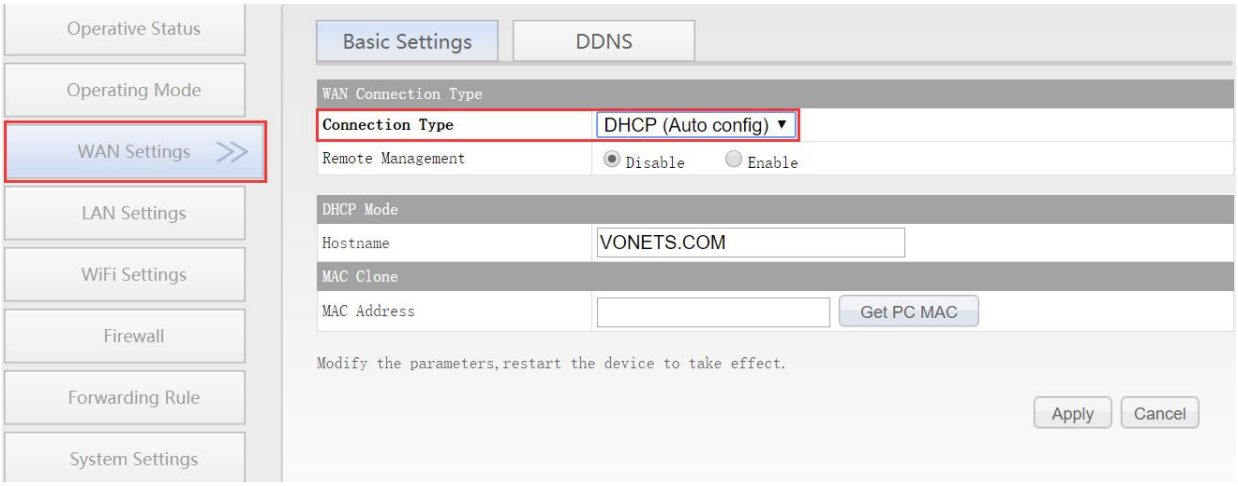
By setting the WAN port of the router, you can change the network connection type according to the actual needs of the individual, there are three types of WAN port connections commonly used in the routing mode of the VONETS module: DHCP(Auto Config), PPPoE(ADSL) and WiFi. DHCP and PPPoE are wired connections, and the WAN port needs to be connected to the source network through a wired connection:

- DHCP(Auto Config): WAN port connection type is selected as **"DHCP(Auto Config)"**, VONETS module will automatically obtain IP address from source network;
- PPPoE(ADSL): WAN port connection type is selected as **"PPPoE"**, that is, ADSL virtual dialing mode requires ISP (Internet Service Provider) to provide Internet account and password.

- WiFi: WAN port connection type is selected as **“WiFi”**, VONETS module uses a built-in WiFi network card (used to connect to the source hotspot) as a WAN port, and all Ethernet ports as LAN ports, while providing WiFi hotspot functions.

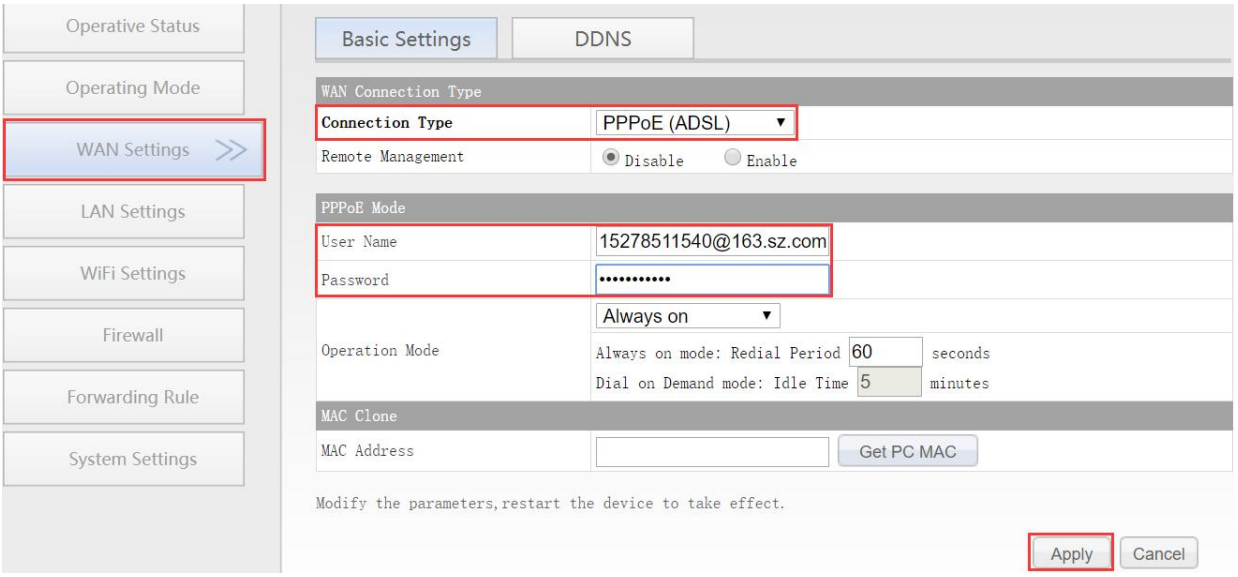
3.2.3 WAN port wired connect network——DHCP

The default WAN port connection mode of VONETS is DHCP. The WAN port can automatically obtain an IP address after connecting with the source network.



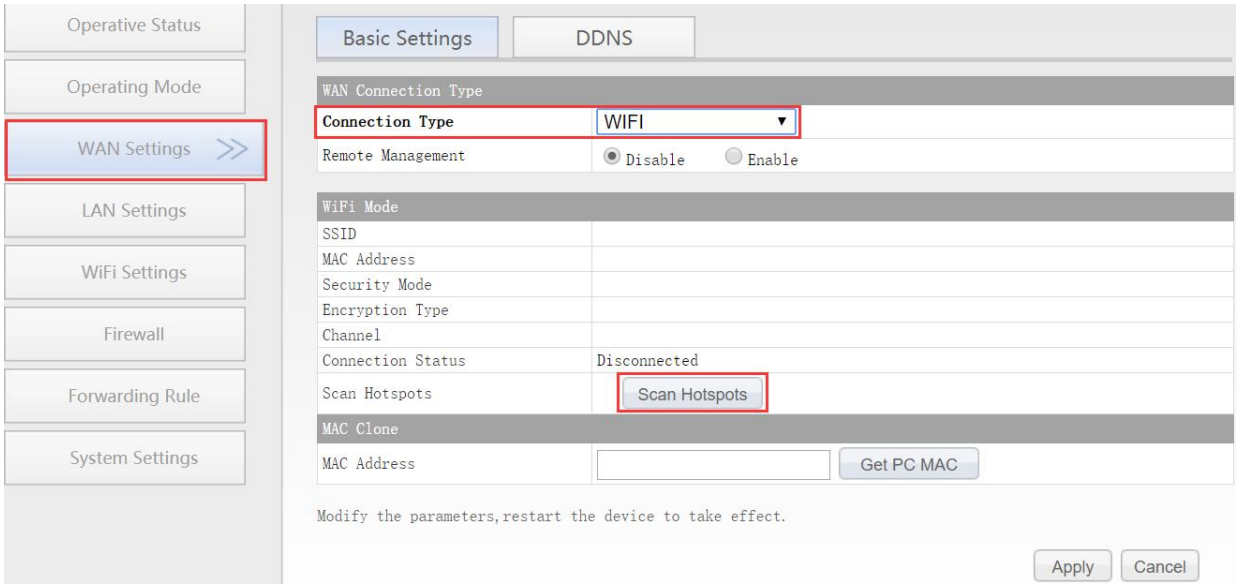
3.2.4 WAN port wired connect network——PPPoE

In “WAN settings”, select “Basic settings”, change the connection type to “PPPoE (ADSL)”, then enter the Internet account and password provided by the ISP (Internet Service Provider), click the “Apply” button, and then reboot VONETS module, then can access to network.

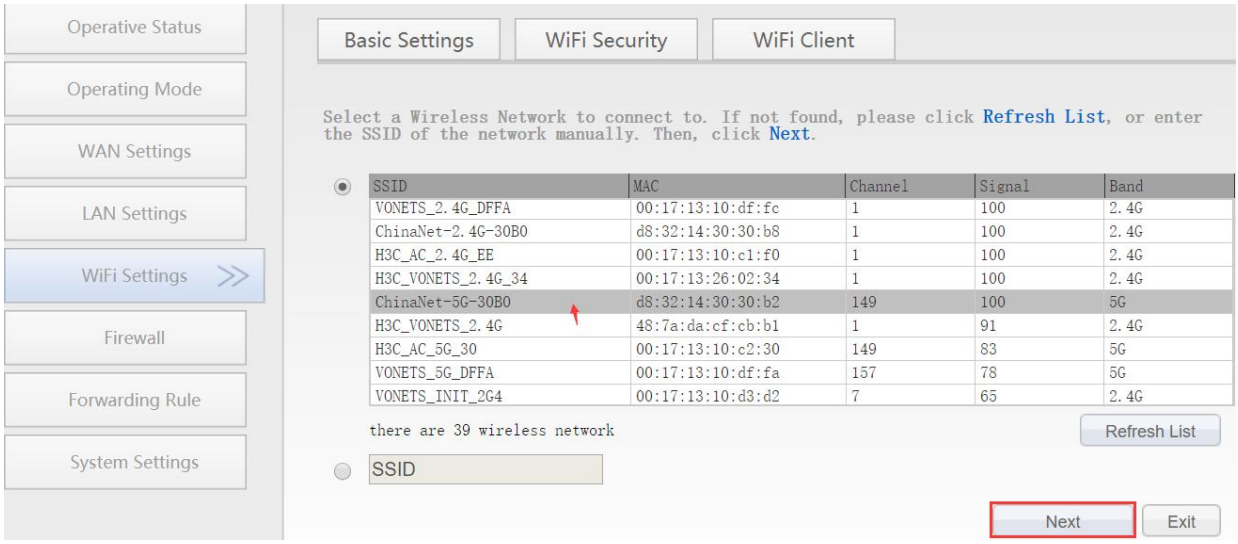


3.2.5 WAN port wireless connect network---- WiFi

1. In "WAN Settings", select "Basic Settings", change Connection type to "WiFi", then click "Scan Hotspots" to enter the scanning hotspot list.

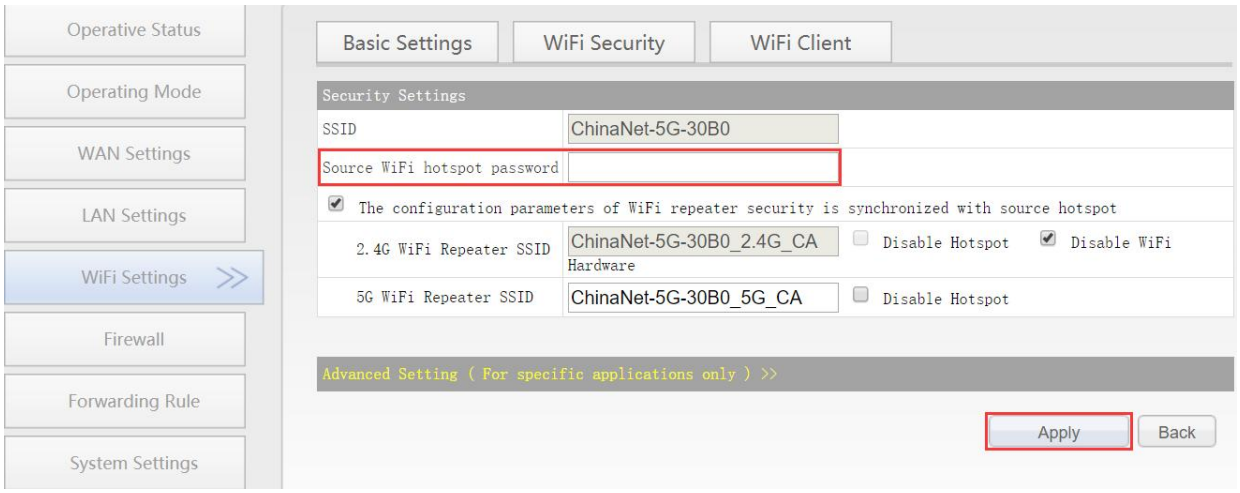


2. Choose the source hotspots, click "Next";

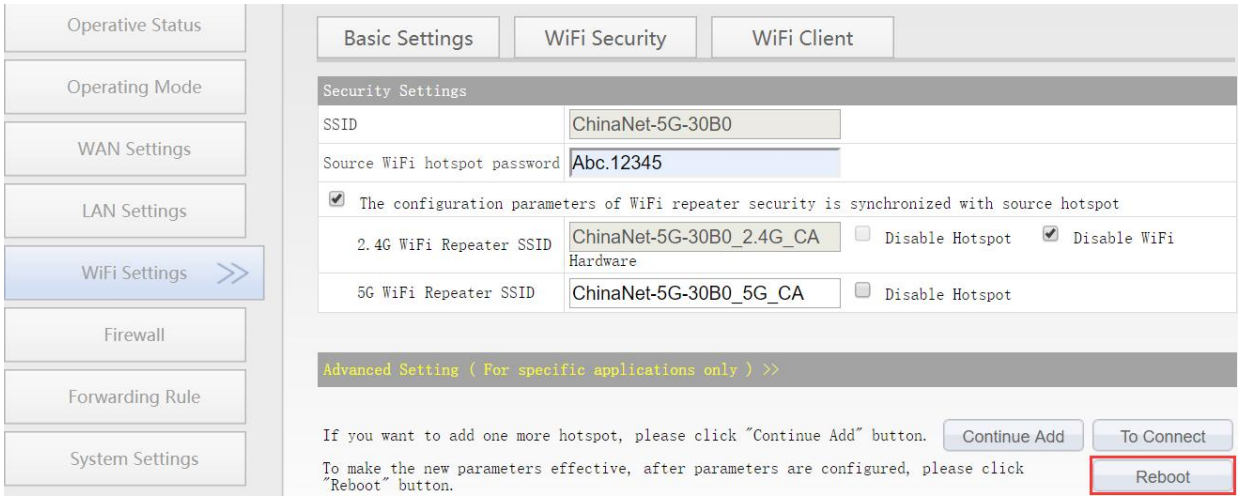


3. Input "Source wireless hotspot password", click "Apply"
   - The option **"The configuration parameters of WiFi repeater security is synchronized with source hotspot"** is default ticked, it means the SSID of VONETS repeater is associated with the SSID of the source hotspot, and the WiFi password is the same as the password of the source hotspot;
   - **Disable hotspot**, if you select "Disable hotspot" on the right side of the SSID, the device will not transmit the corresponding hotspot and can only be used as a bridge application;
   - **Advanced Setting,** include Hot spot authentication match mode, WiFi Signal Motion

Detection and SSA Signal strength alarm threshold, these options here can be kept unchanged, for instructions on this option, go to www.vonets.com and download the "V Series WiFi Bridge Advanced Features Instruction";



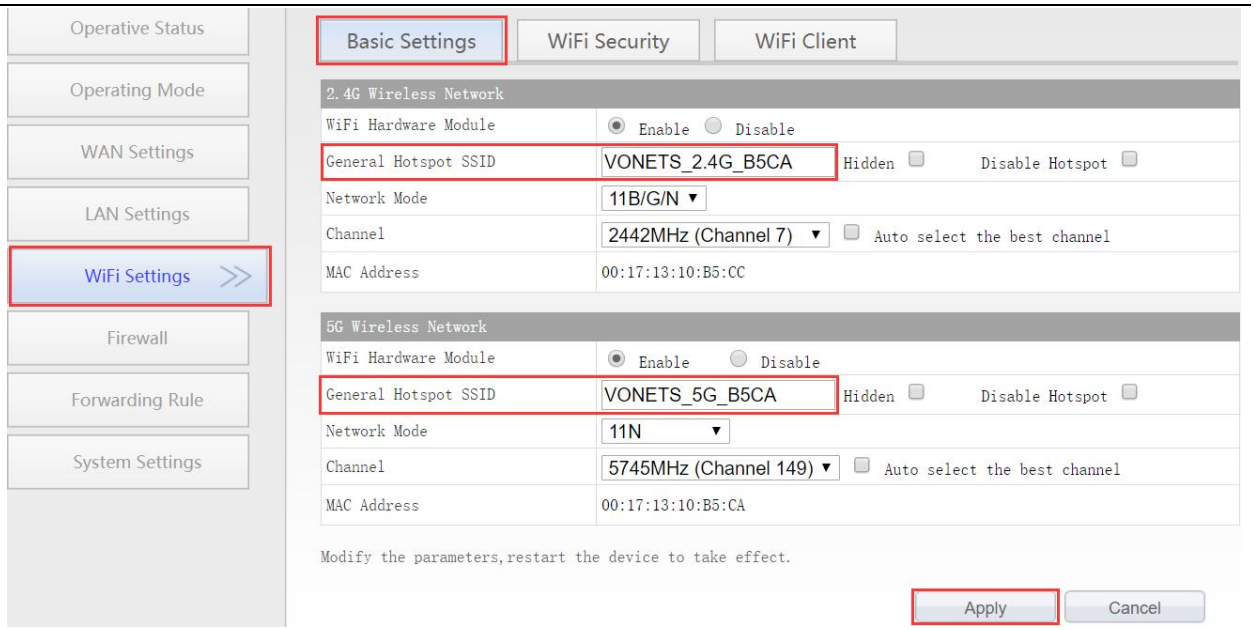
4. Click "Reboot", VONETS module will connect to the configured WiFi hotspot automatically, if connection is successful, the WiFi LED light will flash quickly;(Please refer to Remark 1 for the description of the LED light.)



Remark 3: After VONETS module sets the WAN port to access the WiFi hotspot in the routing mode, its LAN port IP is still 192.168.254.254, and the terminal device also obtains the IP address of the same network segment, can login configuration page by 192.168.254.254 or http://vonets.cfg.

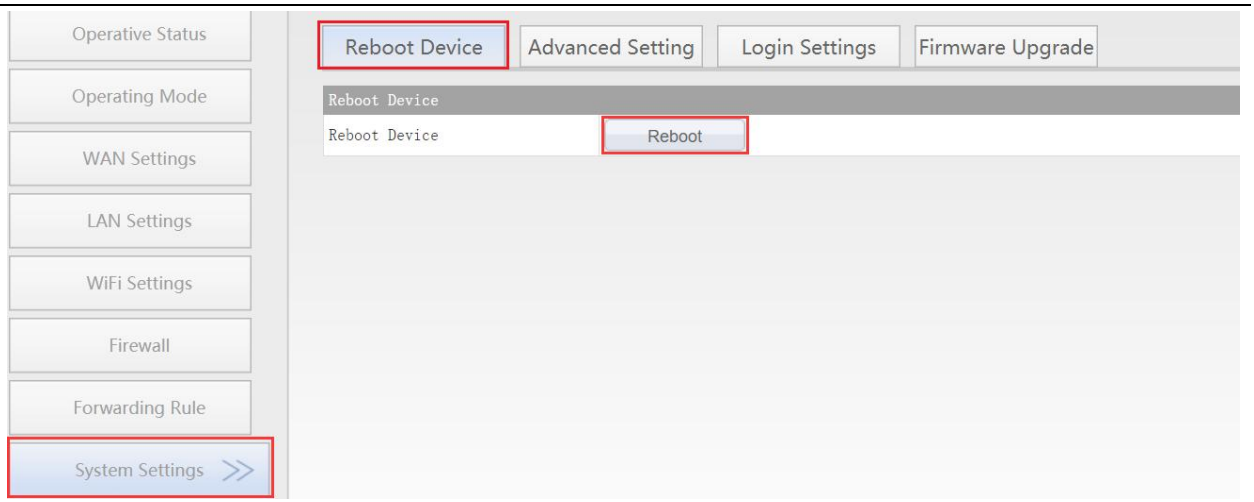
3.3 Set WiFi hotspot parameters

1. Revise WiFi name: Jump to "WiFi Repeater" ---- "Basic Settings", enter new WiFi name in "WiFi Repeater (SSID)", click "Apply";



2. Revise WiFi password, in "WiFi Repeater"----"WiFi Security", enter new WiFi password in "Pass Phrase", click "Apply";

3. Reboot device, jump to "System Settings"---- "Reboot Device", click "Reboot", when it is finished, all revised options will take effort.



Appendix Frequently Asked Questions

1. How to reset to the factory default parameters?
   Please refer to the information below to reset the factory default parameters of the VONETS module.:
   VM300: http://www.vonets.com/serviceView.asp?D_ID=213
   VM5G: http://www.vonets.com/serviceView.asp?D_ID=306

2. Does VONETS module support firmware upgrade, how to upgrade?
   VONETS module supports firmware upgrade, and support online upgrade, please visit website: www.vonets.com to refer to the related documents.

3. The device WiFi hot spot can be found, but the smart phone or PC can't connect to this device hotspot?
   - Reason 1. Due to some unexpected operation or power down, caused the destroy of device parameters. At this time, just need to reset the device to factory default parameters;
   - Reason 2. The device WiFi doesn't work at the best channel, make the performance

worse. At this time, you can try to change the source WiFi hot spot and this device WiFi channel to make the performance better;

- Reason 3. The smart phone or PC haven't been configured the correct WiFi password.

4. The device has been configured the source WiFi hot spot parameters, the smart phone or PC has connected to the device WiFi hot spot, but still doesn't get internet?
   - First, check the status light to know the current state of the device, then according to the state of the device to analyze the fault reasons;
   - Reason 1. The distance between the device and source WiFi hot spot is too long, cause the communication performance degradation, finally effect the user's access to the Internet. At this time, just need shorten the distance between the device and source WiFi hot spot to solve this problem;
   - Reason 2. Due to some unexpected operation or power down, caused the destroy of device parameters. At this time, just need to reset the device to factory default parameters;
   - Reason 3. The device WiFi doesn't work at the best channel, make the performance worse. At this time, you can try to change the source WiFi hot spot WiFi channel to make it the same as the default channel of the device, the reboot the device, the device will automatically exchange to the same channel as the source WiFi hotspot, to make the performance better;
   - Reason 4. There are several WiFi hot spot around the device, WiFi channel mutual interference, make the performance worse. At this time, you can try to change the source WiFi hot spot and this device WiFi channel to make the performance better;
   - Reason 5. The configured source WiFi hot spot parameters are not correct. At this time, just need to configure the correct parameters then reboot the device;

5. The smart phone or PC has been connected the device by WiFi or Ethernet cable, but user can't log in the device WEB page, or after log in the WEB it shows error?
   - Reason 1. The users don't use the browser recommended by VONETS(IE,Google Chrome, Safari, the mobile phone browser);
   - Reason 2. The smart phone or PC installed the firewall, the security level is set too high, caused the above problem. At this time, only need to close the firewall;
   - Reason 3. The security level of browser is too high, it will also cause the above problem. At this time, just need to reduce the browser's security level, then log in again;
   - Reason 4. The IP address of the device input error. For the new device from the factory, user only need input the correct IP address according to the instruction guide; for the device that has connected the source hot spot, user only operate according to <Remark 2>.