



Wireless module/WiFi product

Quick Setting Guide



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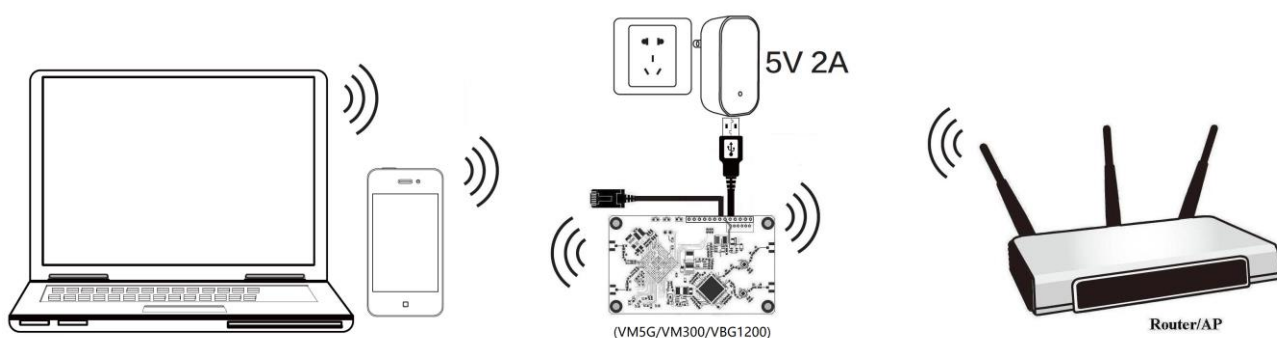
Chapter 1 Application Mode

1.1 Bridge + Repeater Mode

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

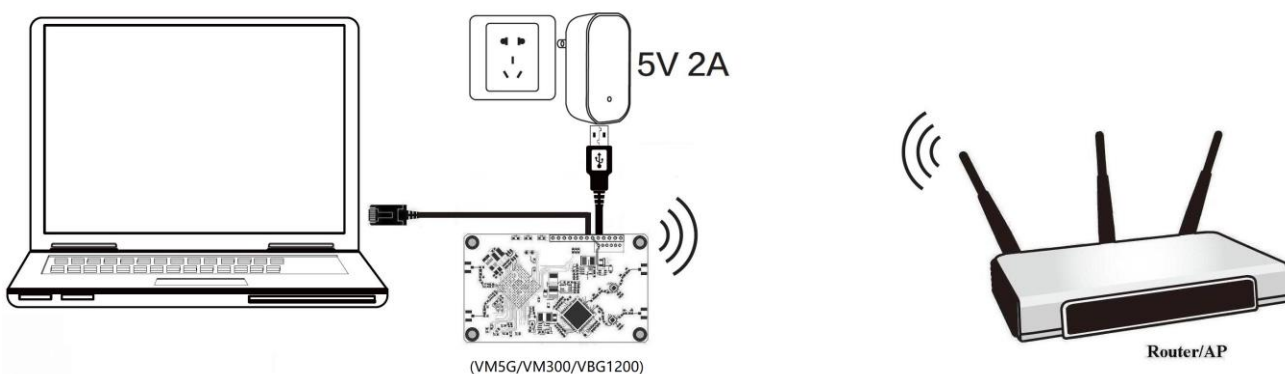
- **WiFi Repeater:**

VONETS module/WiFi product as WiFi Repeater, it must be configured to source WiFi hotspot parameters, can be used to extend the wireless signal coverage of existing APs or wifi router .



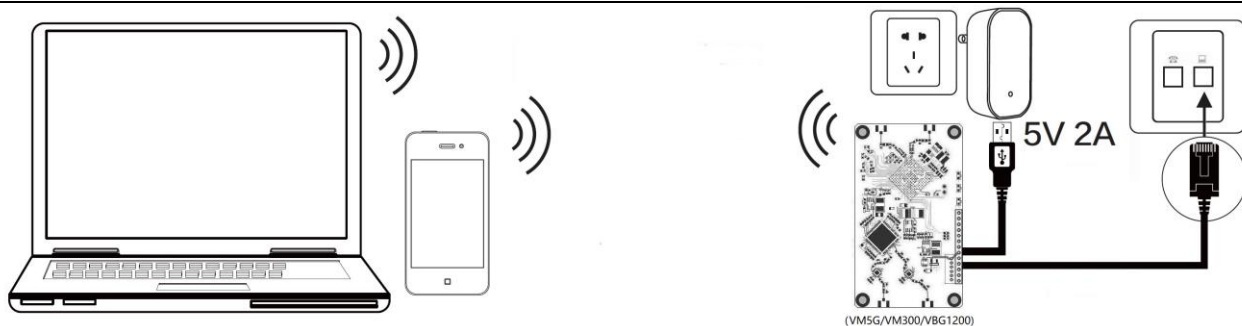
- **WiFi Bridge:**

VONETS module/WiFi product 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:**

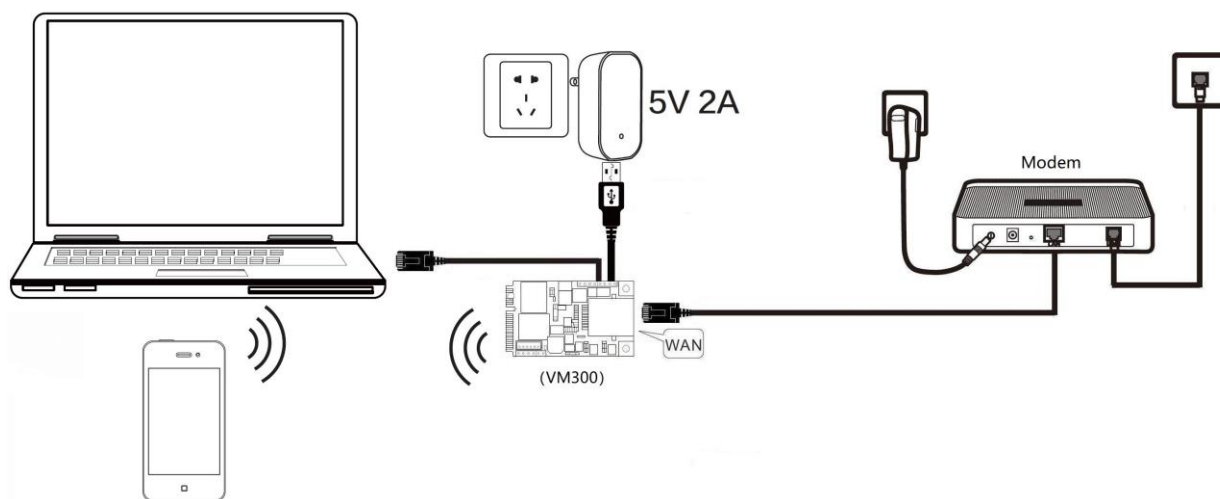
VONETS module/WiFi product as WiFi AP, it can achieve wireless access to wired LAN, no configuration required, plug and play.



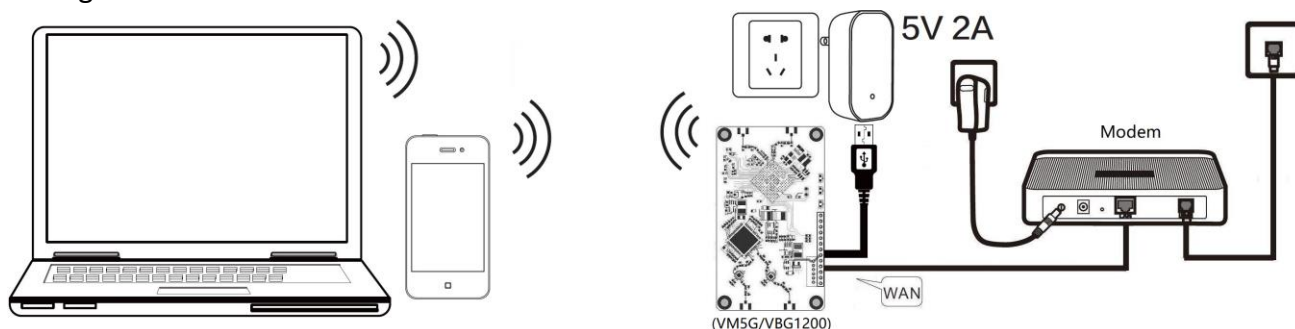
1.2 Router Mode

- VONETS module/WiFi product as WiFi router

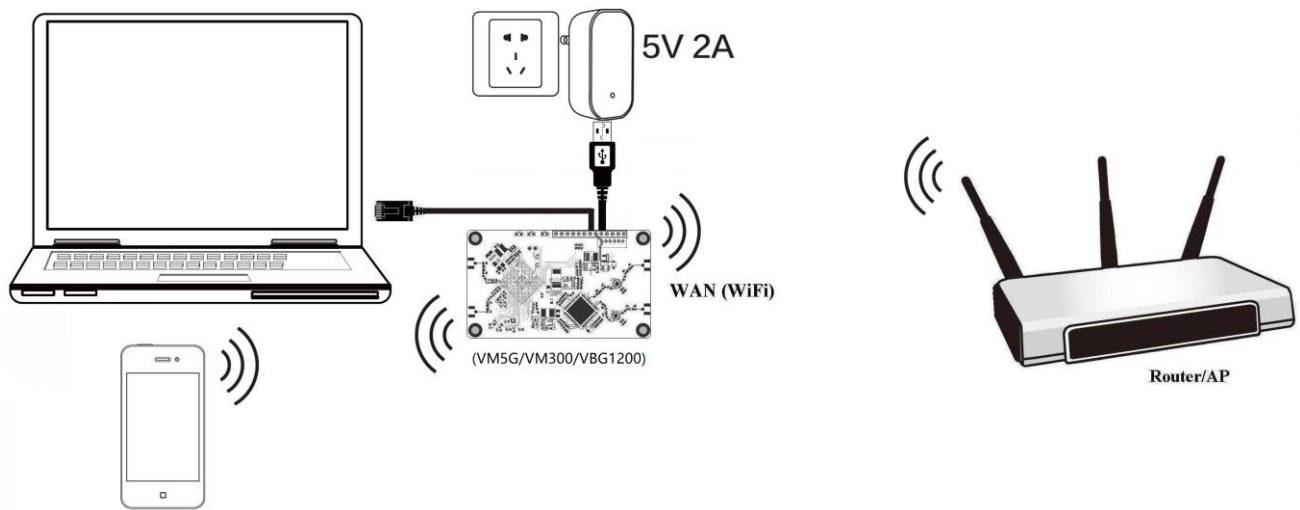
The Ethernet port of **VM300** module/ **VAP11AC** finished product defaults to WAN port. The Ethernet cable defaults to the LAN port. WAN and LAN ports are interchangeable.



The Ethernet cable of **VM5G** module/**VBG1200** WiFi product 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/WiFi product is used as a wireless router. WAN port can be set to connect to the WiFi hotspot for use as a secondary router.



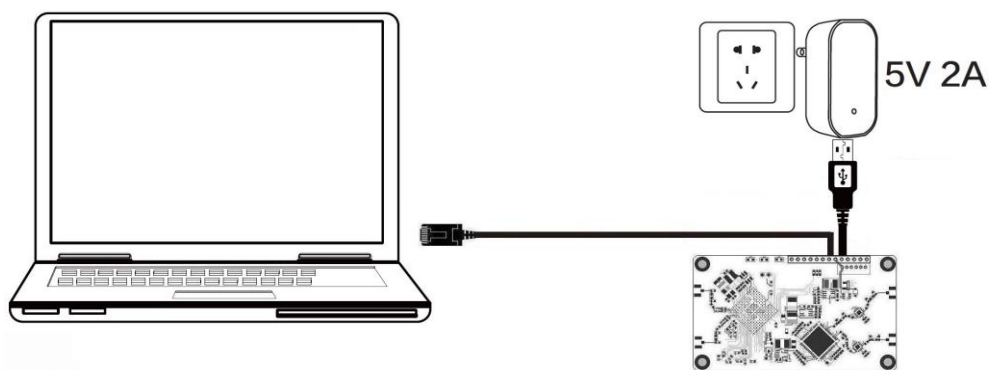
Chapter 2 Bridge+Repeater Mode Configuration Instruction

2.1 Method 1: Log in to the device's Web configuration page to configure

2.1.1 Device Connection

Power on VONETS module/WiFi product 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/WiFi product;

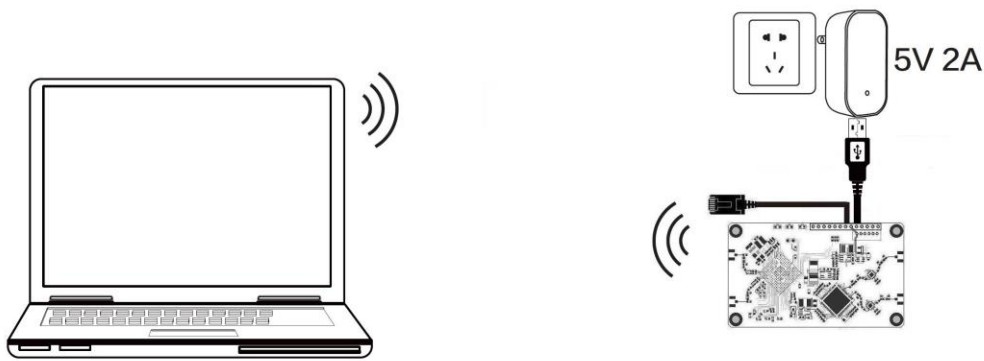


(Recommend Method)

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

WiFi SSID: VONETS_***** (corresponding to VONETS device MAC address)

WiFi password: 12345678

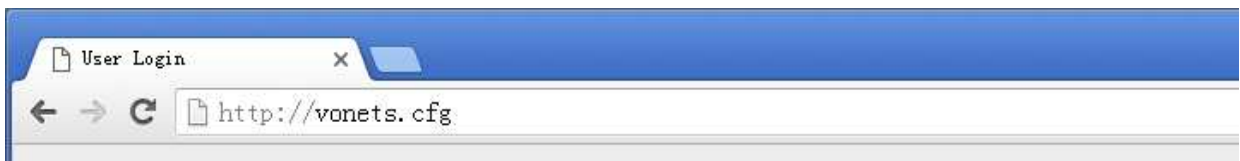


(After the WiFi parameters are configured, the WiFi will be disconnected, that is normal.)

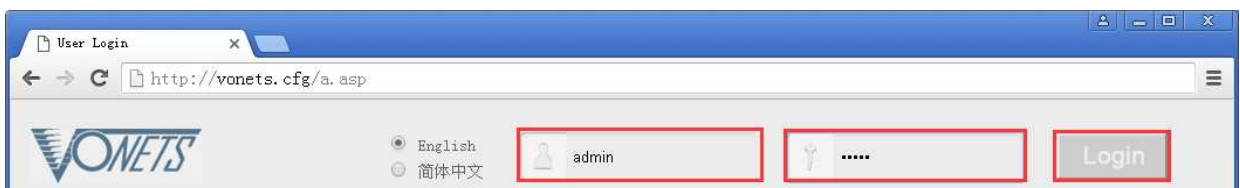
2.2 Bridge+Repeater Application Configuration

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

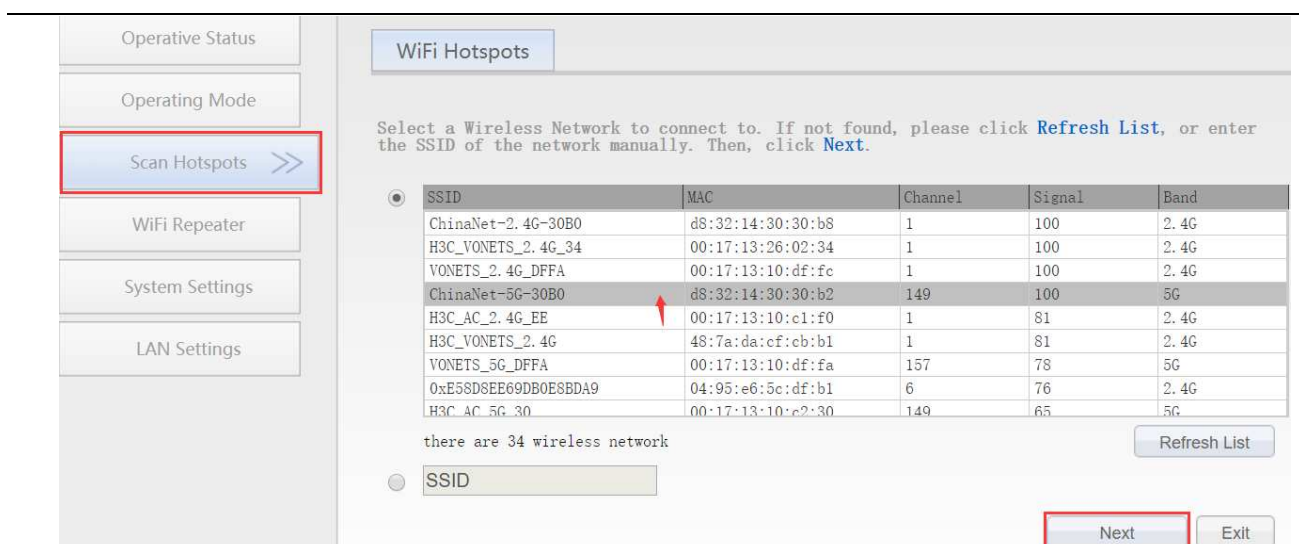
1. After computer is connected to VONETS module/WiFi product, open browser, input configured page: <http://vonets.cfg> (or IP: 192.168.254.254), then press Enter;



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” ;

Operative Status	<div>WiFi Hotspots</div> <div>Security Settings</div> <div>SSID</div> <div>ChinaNet-5G-30B0</div> <div>Source WiFi hotspot password</div> <div>Transmission mode</div> <div>IP layer transparent</div> <div>MAC layer transparent</div> <div>The configuration parameters of WiFi repeater security is synchronized with source hotspot</div> <div>2.4G WiFi Repeater SSID</div> <div>ChinaNet-5G-30B0_2.4G_CA</div> <div>Disable Hotspot</div> <div>Disable WiFi Hardware</div> <div>5G WiFi Repeater SSID</div> <div>ChinaNet-5G-30B0_5G_CA</div> <div>Disable Hotspot</div> <div>DHCP Server Settings</div> <div>DHCP Server</div> <div>Disable(Recommended configuration)</div> <div>Enable</div> <div>Advanced Setting (For specific applications only) >></div> <div>In order to prevent network conflicts, after parameters are configured, please disable DHCP server. Logging in page again will be failed because of 'Disable DHCP server', so please make sure the hotspot parameters are correct.</div> <div>Apply</div> <div>Back</div>
Operating Mode	
Scan Hotspots >>	
WiFi Repeater	
System Settings	
LAN Settings	

- Click “Reboot” , VONETS module will connect to the configured WiFi hotspot automatically, if connection is successful, the WiFi LED light will flash quickly;

Operative Status	<div>WiFi Hotspots</div> <div>Security Settings</div> <div>SSID</div> <div>ChinaNet-5G-30B0</div> <div>Source WiFi hotspot password</div> <div>Abc.12345</div> <div>Transmission mode</div> <div>IP layer transparent</div> <div>MAC layer transparent</div> <div>The configuration parameters of WiFi repeater security is synchronized with source hotspot</div> <div>2.4G WiFi Repeater SSID</div> <div>ChinaNet-5G-30B0_2.4G_CA</div> <div>Disable Hotspot</div> <div>Disable WiFi Hardware</div> <div>5G WiFi Repeater SSID</div> <div>ChinaNet-5G-30B0_5G_CA</div> <div>Disable Hotspot</div> <div>DHCP Server Settings</div> <div>DHCP Server</div> <div>Disable(Recommended configuration)</div> <div>Enable</div> <div>Advanced Setting (For specific applications only) >></div> <div>If you want to add one more hotspot, please click "Continue Add" button.</div> <div>Continue Add</div> <div>To Connect</div> <div>To make the new parameters effective, after parameters are configured, please click "Reboot" button.</div> <div>Reboot</div>
Operating Mode	
Scan Hotspots >>	
WiFi Repeater	
System Settings	
LAN Settings	

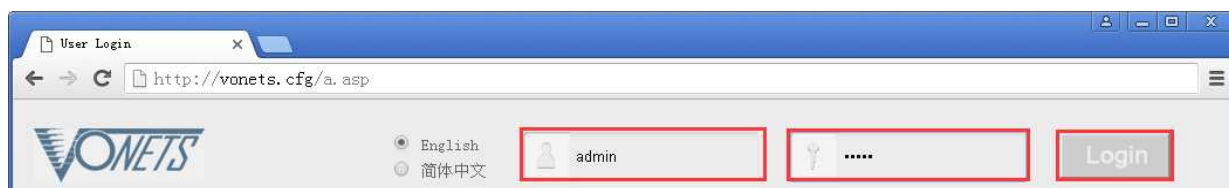
Remark 1:

LED Light Form			
Model	Blue Light	Green Light	Yellow Light
VM300	WiFi Connection Status Light	Ethernet Cable Connection Status Light	/
VM5G/VBG1200/VAP11AC	WiFi Connection Status Light	5G WiFi Connection Status Light	Ethernet Cable Connection Status Light
<p>① VONETS module/WiFi product is not connected to any hotspot, WiFi connection status light will flash quickly;</p> <p>② VONETS module/WiFi product is connected to hotspot successfully, WiFi connection status light will quick flash;</p> <p>③ VONETS module/WiFi product is connected to hotspot successfully, but hotspot signal strength is less than 50% greater than 10%, WiFi status light will pause flash and flash;</p> <p>④ VONETS module/WiFi product is connected to hotspot failed, WiFi connection status light will flash slowly.</p>			

2.3 AP Application Configuration

VONETS module/WiFi product can be configured as an AP application. The wireless terminal device can connect to VONETS module/finished product 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” ;

Operative Status

Operating Mode

Scan Hotspots

WiFi Repeater >>

System Settings

LAN Settings

Basic Settings WiFi Security WiFi Client

2.4G Wireless Network

WiFi Hardware Module ☒ Enable ☐ Disable

General Hotspot SSID VONETS_2.4G_B5CA Hidden ☐ Disable Hotspot ☐

Network Mode 11B/G/N ▼

Channel 2442MHz (Channel 7) ▼ ☐ Auto select the best channel

MAC Address 00:17:13:10:B5:CC

5G Wireless Network

WiFi Hardware Module ☒ Enable ☐ Disable

General Hotspot SSID VONETS_5G_B5CA Hidden ☐ Disable Hotspot ☐

Network Mode 11N ▼

Channel 5745MHz (Channel 149) ▼ ☐ Auto select the best channel

MAC Address 00:17:13:10:B5:CA

Modify the parameters, restart the device to take effect.

Apply Cancel

- Revise WiFi password, in “WiFi Repeater” ---- “WiFi Security” , enter new WiFi password in “Pass Phrase” , click “Apply” ;

Operative Status

Operating Mode

Scan Hotspots

WiFi Repeater >>

System Settings

LAN Settings

Basic Settings WiFi Security WiFi Client

[2.4G] WiFi Security

Repeater SSID VONETS_2.4G_B5CA ▼

Security Mode WPA2PSK-WPA2PSK ▼

WPA Algorithms ☐ TKIP ☒ AES ☐ TKIP-AES

Pass Phrase 12345678 (8-63 characters or 64 hex numbers)

[5G] WiFi Security

Repeater SSID VONETS_5G_B5CA ▼

Security Mode WPA2PSK-WPA2PSK ▼

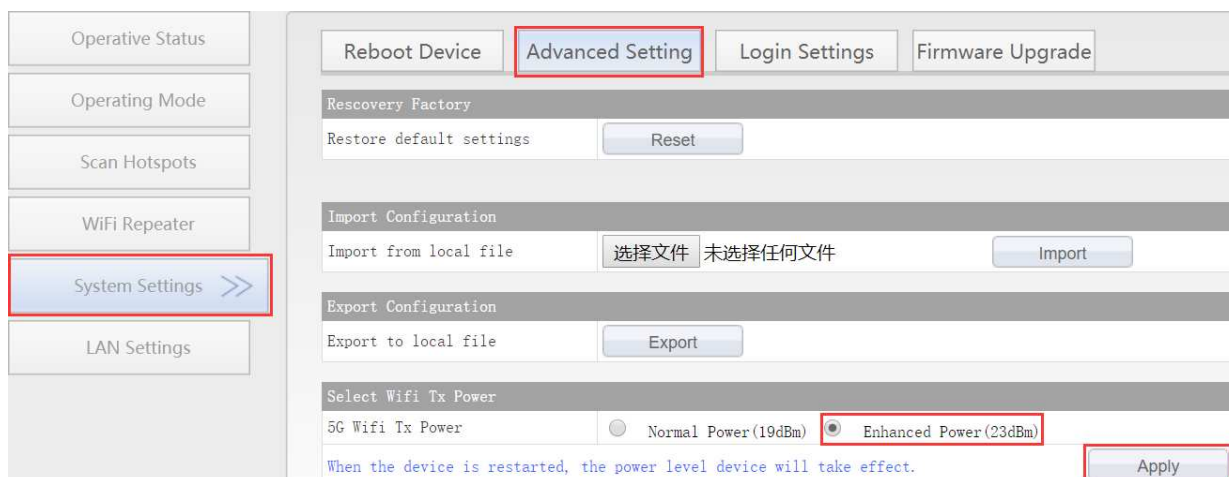
WPA Algorithms ☐ TKIP ☒ AES ☐ TKIP-AES

Pass Phrase 12345678 (8-63 characters or 64 hex numbers)

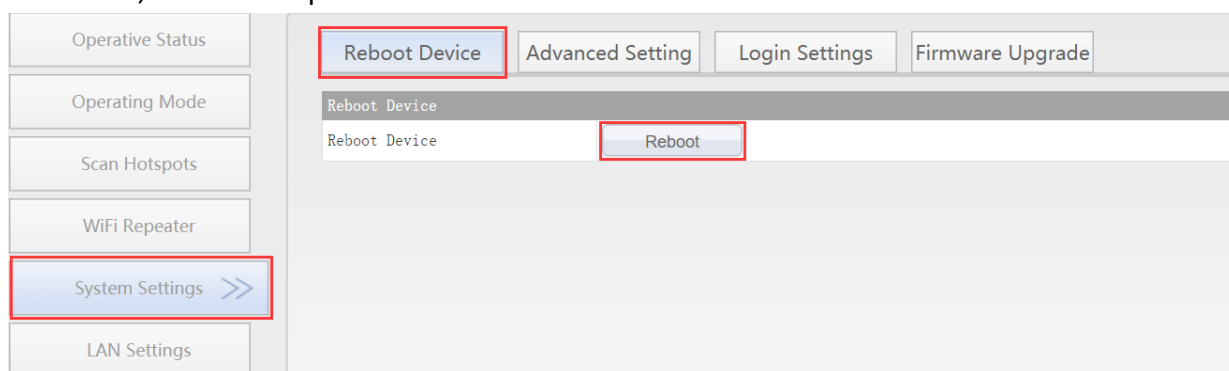
Modify the parameters, restart the device to take effect.

Apply Cancel

- “WiFi Tx Power” of VONETS module/WiFi product 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.

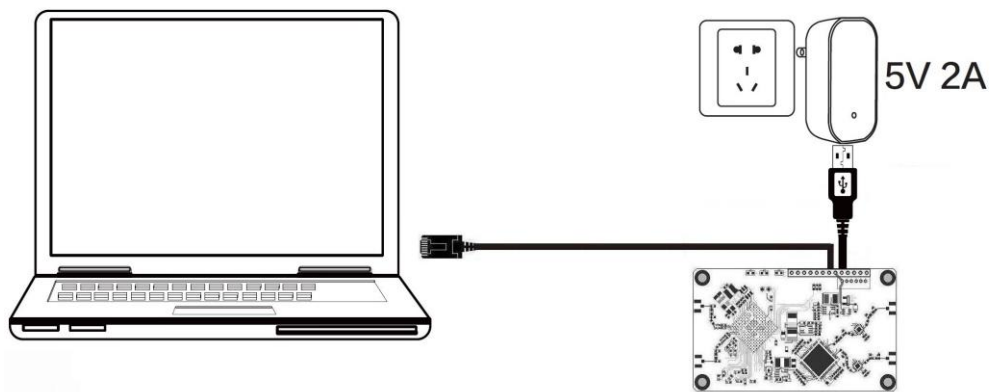


Remark 2: When VONETS module/WiFi product connect to external network, its IP address will be changed. At this time, when log in configured page, we suggest you enter configured domain name: <http://vonets.cfg>. Or in Windows command window, enter the command: `ping vonets.cfg`, to get the IP address 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/WiFi product 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/WiFi product;

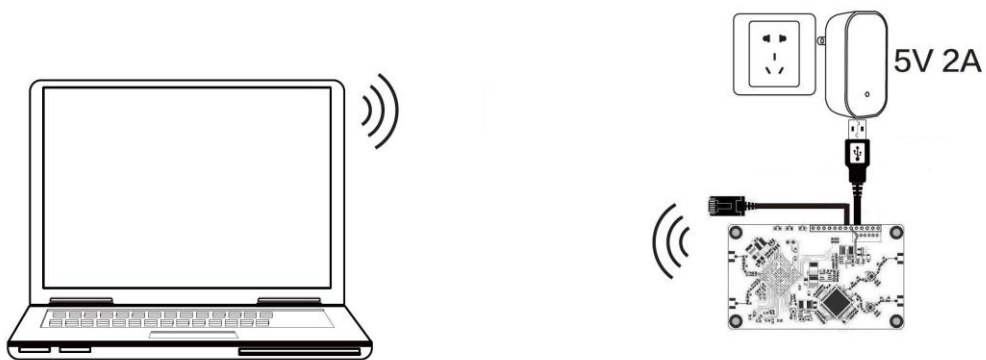


(Recommend Method)

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

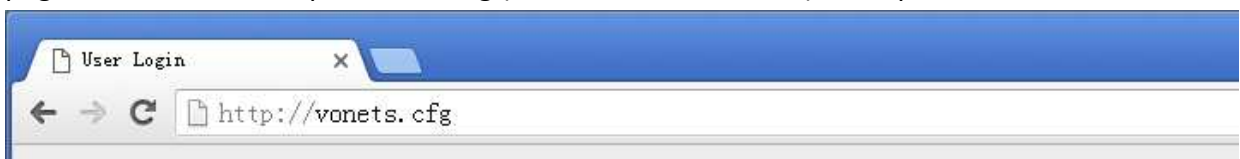
WiFi SSID: VONETS_***** (corresponding to VONETS device MAC address)

WiFi password: 12345678

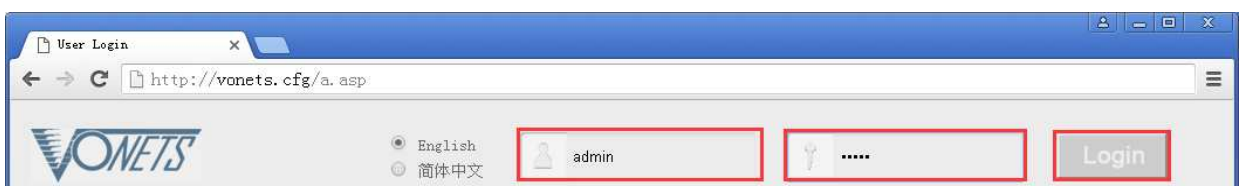


(After the WiFi parameters are configured, the WiFi will be disconnected, that is normal.)

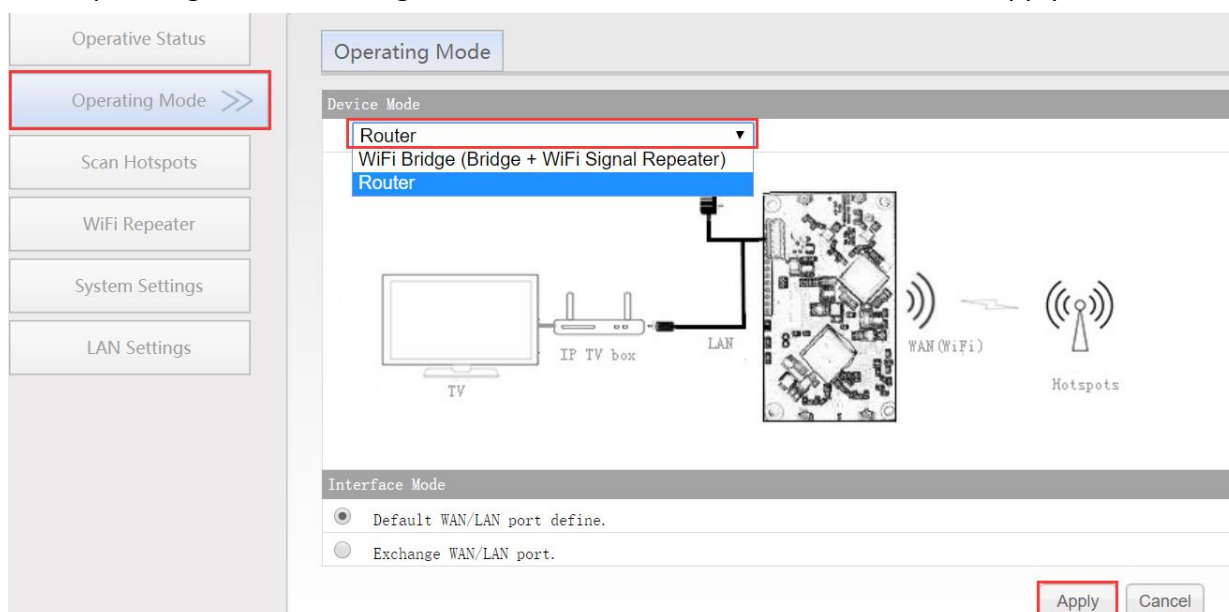
2. After computer is connected to VONETS module/WiFi product, open browser, input configured page domain name: <http://vonets.cfg> (or IP: 192.168.254.254), then press Enter;



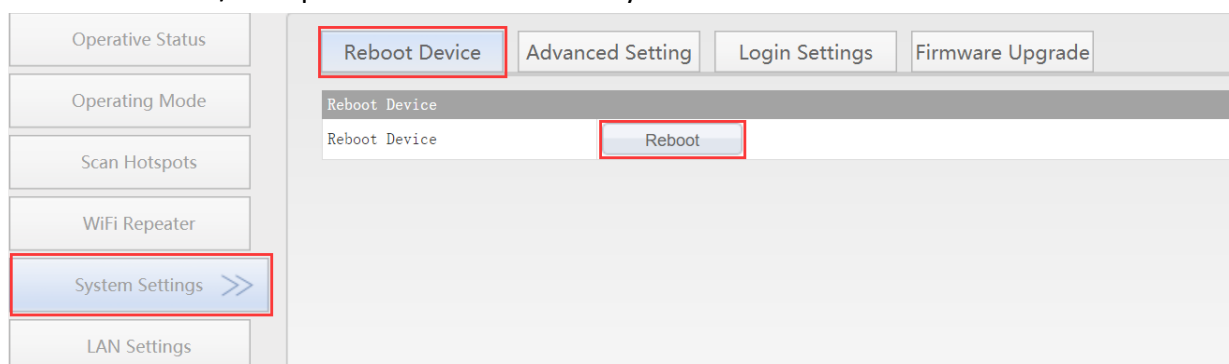
3. Enter User name and Password in login page (both are “admin”), click “Login” button to enter configured page;



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/WiFi product will automatically switch to router mode.



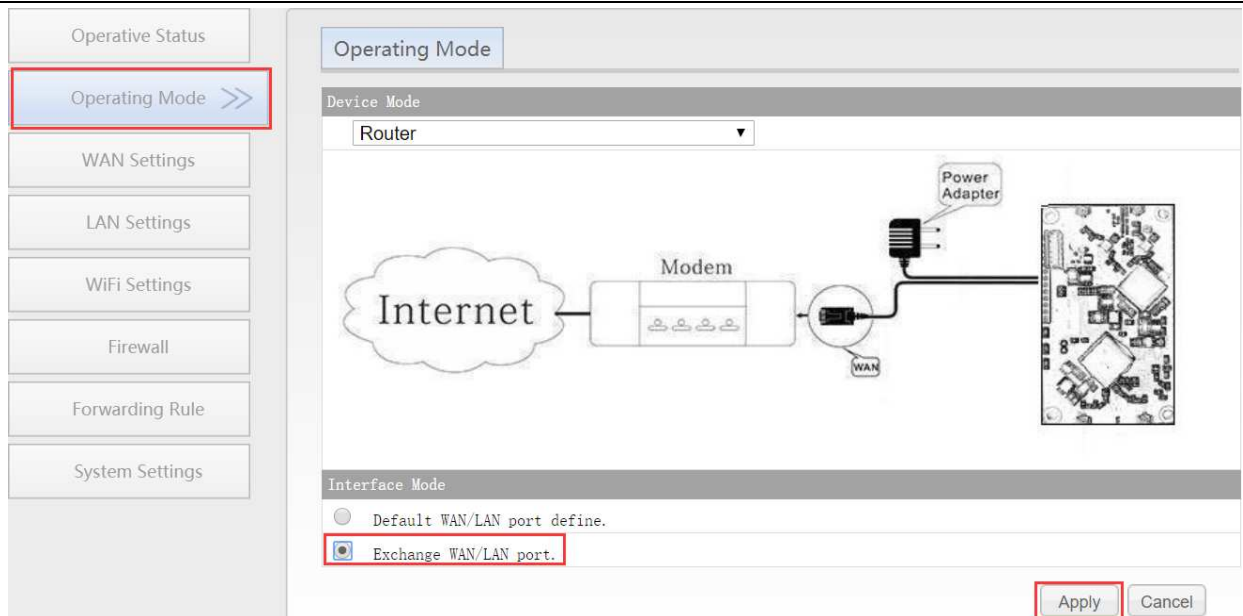
3.2 WAN port setting

3.2.1 WAN/LAN exchange

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

The Ethernet port of **VM300** module / **VAP11AC** finished product 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/VBG1200** WiFi product 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/WiFi product.



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/WiFi product: 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/WiFi product 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/WiFi product 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/WiFi product, 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.

Operative Status

Operating Mode

WAN Settings >>

LAN Settings

WiFi Settings

Firewall

Forwarding Rule

System Settings

Basic Settings DDNS

WAN Connection Type

Connection Type WIFI

Remote Management ☒ Disable ☐ Enable

WiFi Mode

SSID

MAC Address

Security Mode

Encryption Type

Channel

Connection Status Disconnected

Scan Hotspots Scan Hotspots

MAC Clone

MAC Address Get PC MAC

Modify the parameters, restart the device to take effect.

Apply Cancel

2. Choose the source hotspots, click “Next” ;

Operative Status

Operating Mode

WAN Settings

LAN Settings

WiFi Settings >>

Firewall

Forwarding Rule

System Settings

Basic Settings WiFi Security WiFi Client

Select a Wireless Network to connect to. If not found, please click [Refresh List](#), or enter the SSID of the network manually. Then, click [Next](#).

SSID	MAC	Channel	Signal	Band
VONETS_2_4G_DFFA	00:17:13:10:df:fc	1	100	2.4G
ChinaNet-2_4G-30B0	d8:32:14:30:30:b8	1	100	2.4G
H3C_AC_2_4G_EE	00:17:13:10:c1:f0	1	100	2.4G
H3C_VONETS_2_4G_34	00:17:13:26:02:34	1	100	2.4G
ChinaNet-5G-30B0	d8:32:14:30:30:b2	149	100	5G
H3C_VONETS_2_4G	48:7a:da:cf:cb:b1	1	91	2.4G
H3C_AC_5G_30	00:17:13:10:c2:30	149	83	5G
VONETS_5G_DFFA	00:17:13:10:df:fa	157	78	5G
VONETS_INIT_2G4	00:17:13:10:d3:d2	7	65	2.4G

there are 39 wireless network

Refresh List

SSID

Next Exit

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” ;

Operative Status	Basic Settings	WiFi Security	WiFi Client
Operating Mode	Security Settings		
WAN Settings	SSID	ChinaNet-5G-30B0	
LAN Settings	Source WiFi hotspot password		
WiFi Settings >>	<input checked="" type="checkbox"/> The configuration parameters of WiFi repeater security is synchronized with source hotspot		
Firewall	2.4G WiFi Repeater SSID	ChinaNet-5G-30B0_2.4G_CA	<input type="checkbox"/> Disable Hotspot <input checked="" type="checkbox"/> Disable WiFi Hardware
Forwarding Rule	5G WiFi Repeater SSID	ChinaNet-5G-30B0_5G_CA	<input type="checkbox"/> Disable Hotspot
System Settings	Advanced Setting (For specific applications only) >>		
	Apply		Back

4. Click “Reboot” , VONETS module/WiFi product 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.)

Operative Status	Basic Settings	WiFi Security	WiFi Client
Operating Mode	Security Settings		
WAN Settings	SSID	ChinaNet-5G-30B0	
LAN Settings	Source WiFi hotspot password	Abc.12345	
WiFi Settings >>	<input checked="" type="checkbox"/> The configuration parameters of WiFi repeater security is synchronized with source hotspot		
Firewall	2.4G WiFi Repeater SSID	ChinaNet-5G-30B0_2.4G_CA	<input type="checkbox"/> Disable Hotspot <input checked="" type="checkbox"/> Disable WiFi Hardware
Forwarding Rule	5G WiFi Repeater SSID	ChinaNet-5G-30B0_5G_CA	<input type="checkbox"/> Disable Hotspot
System Settings	Advanced Setting (For specific applications only) >>		
	If you want to add one more hotspot, please click “Continue Add” button.		Continue Add
	To make the new parameters effective, after parameters are configured, please click “Reboot” button.		To Connect
			Reboot

Remark 3: After VONETS module/WiFi product 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” ;

Operative Status	Basic Settings	WiFi Security	WiFi Client
Operating Mode	2.4G Wireless Network		
WAN Settings	WiFi Hardware Module	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
LAN Settings	General Hotspot SSID	VONETS_2.4G_B5CA Hidden <input type="checkbox"/> Disable Hotspot <input type="checkbox"/>	
WiFi Settings >>	Network Mode	11B/G/N	
Firewall	Channel	2442MHz (Channel 7) <input type="checkbox"/> Auto select the best channel	
Forwarding Rule	MAC Address	00:17:13:10:B5:CC	
System Settings	5G Wireless Network		
	WiFi Hardware Module	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	
	General Hotspot SSID	VONETS_5G_B5CA Hidden <input type="checkbox"/> Disable Hotspot <input type="checkbox"/>	
	Network Mode	11N	
	Channel	5745MHz (Channel 149) <input type="checkbox"/> Auto select the best channel	
	MAC Address	00:17:13:10:B5:CA	
	Modify the parameters, restart the device to take effect.		
	Apply	Cancel	

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

Operative Status	Basic Settings	WiFi Security	WiFi Client
Operating Mode	[2.4G] WiFi Security		
WAN Settings	Repeater SSID	VONETS_2.4G_B5CA	
LAN Settings	Security Mode	WPAPSK-WPA2PSK	
WiFi Settings >>	WPA Algorithms	<input type="radio"/> TKIP <input checked="" type="radio"/> AES <input type="radio"/> TKIP-AES	
Firewall	Pass Phrase	12345678 (8-63 characters or 64 hex numbers)	
Forwarding Rule	[5G] WiFi Security		
System Settings	Repeater SSID	VONETS_5G_B5CA	
	Security Mode	WPAPSK-WPA2PSK	
	WPA Algorithms	<input type="radio"/> TKIP <input checked="" type="radio"/> AES <input type="radio"/> TKIP-AES	
	Pass Phrase	12345678 (8-63 characters or 64 hex numbers)	
	Modify the parameters, restart the device to take effect.		
	Apply	Cancel	

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

Operative Status	Reboot Device	Advanced Setting	Login Settings	Firmware Upgrade
Operating Mode	Reboot Device			
WAN Settings	Reboot Device	Reboot		
LAN Settings				
WiFi Settings				
Firewall				
Forwarding Rule				
System Settings >>				

