User Guide

For

WI-FW5625, WI-FW5620-H, WI-FW5619, WI-FW5618-H, WI-FW5600

Release version: V1.0.0

March 2026

Table of Contents

Chapter 1 Device Login

Login to the Management System

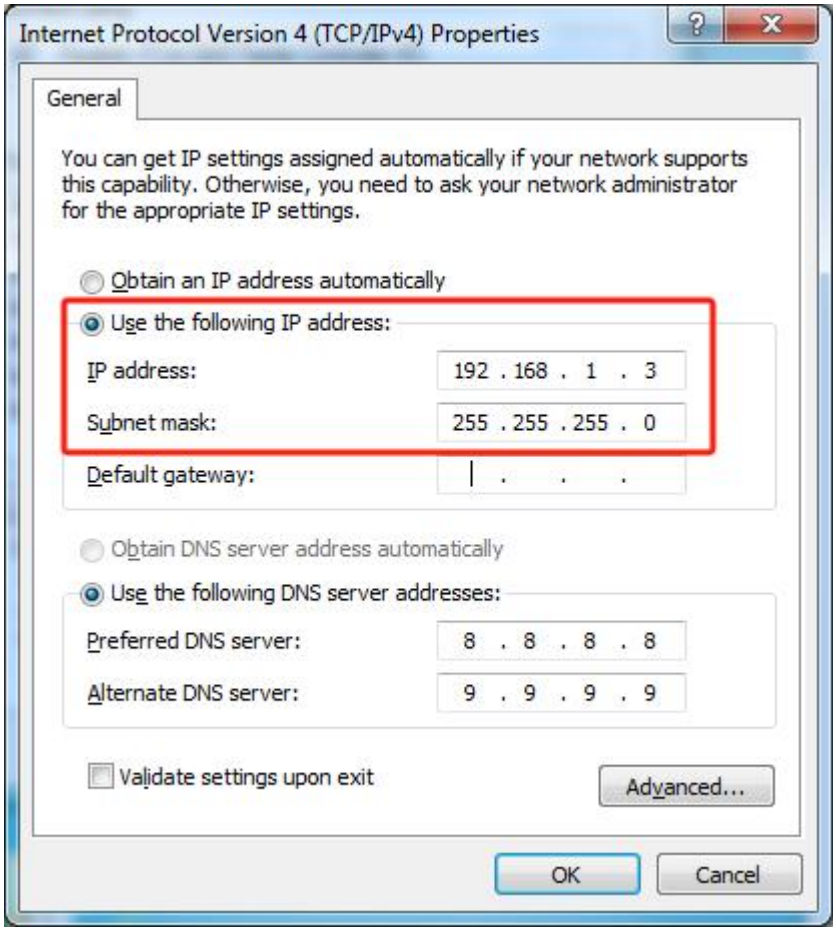
When the device is powered on and the system is running normally, access the management interface via a web browser. The default login information for the device is as follows:

Login Information & Default Configuration:

Parameter	Default Configuration
IP address	192.168.1.2
Password	admin

Bridge Login Setup Steps:

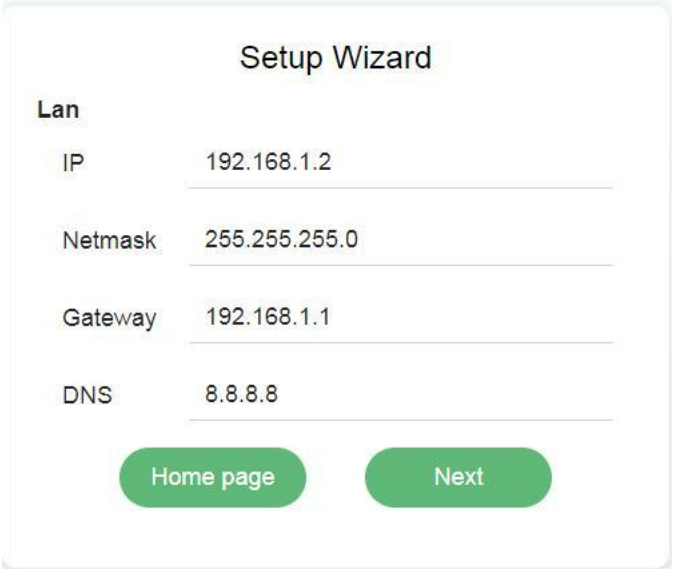
1. Ensure the bridge is connected to the management computer;
2. Manually set "**Use the following IP address**" with an IP address of "**192.168.1.XXX**" (X=3~254) and a subnet mask of "**255.255.255.0**" (If connected to a switch or router on the same subnet, avoid conflicts with the IP address of the switch/router/bridge);



3. Open a browser on the computer (Google, Chrome or Firefox recommended). Enter the bridge's IP address in the address bar (192.168.1.2 for initial use or after reset; use the new IP address if modified previously) and press the "**Enter**" key;

4. Enter the bridge login interface, input the password "**admin**", and select language "**English**";
5. Click  to enter the system.

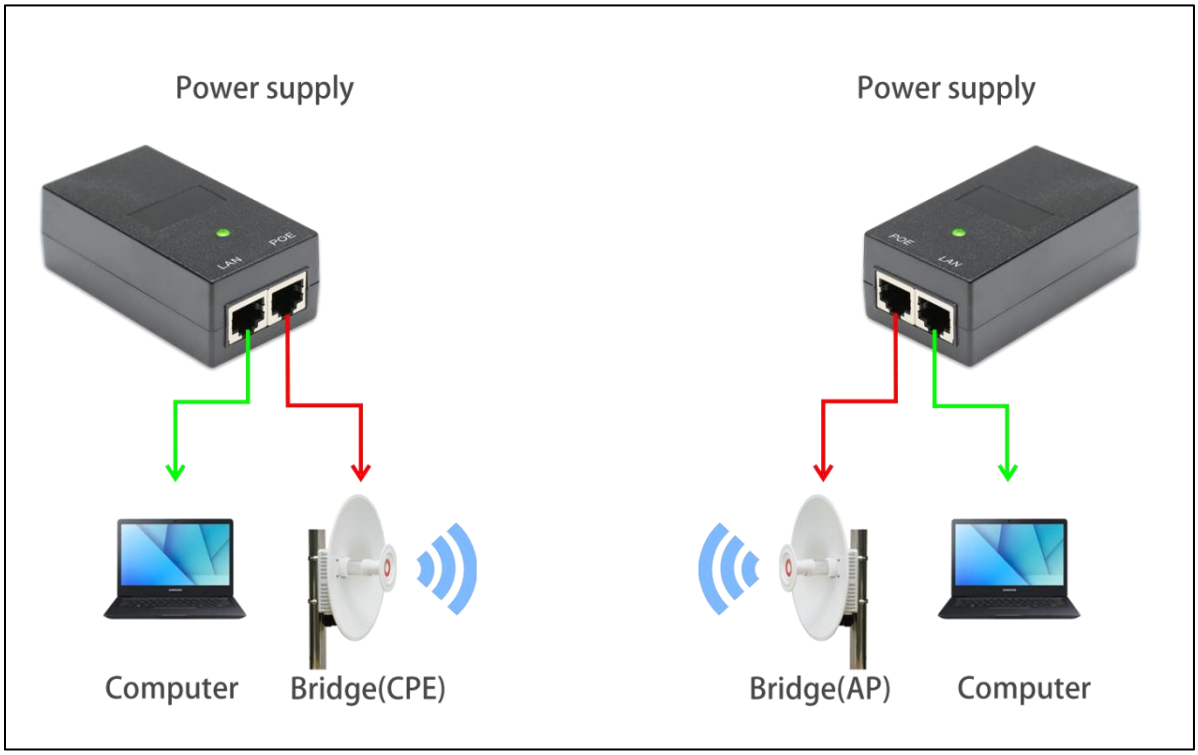
6. After entering the system, you can configure bridge information using the "**Setup Wizard**".
7. Device login is complete. Proceed to the target configuration.



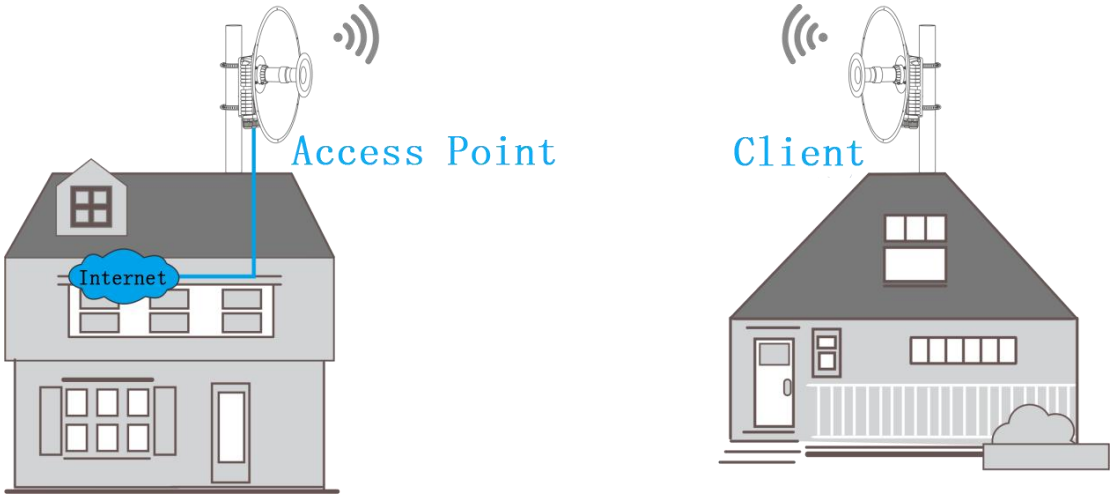
Chapter 2 Quick Connection Setup

2.1 Steps for AP - Client Pairing

AP-client Mode Connection Diagram



AP-Client Mode Connection Effect, as shown:



2.2 AP Mode Configuration

1. Enter the device wizard.

2. Set the bridge IP address information. After configuration, click 

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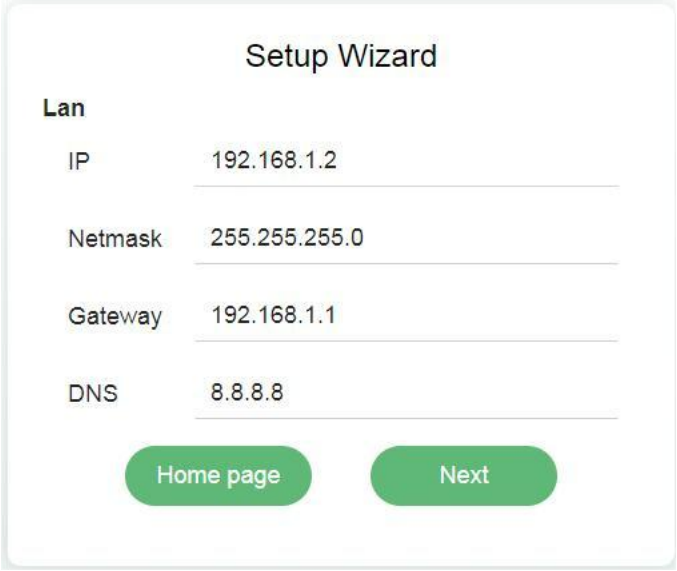
Partial Parameter Description:

Parameter	Description
IP	The IP address of device.
Netmask	A 32-bit binary number, typically expressed as a dotted decimal (e.g., 255.255.255.0), that is used to identify the boundary between the network and host parts of an IP address, in order to divide a large IP network into logical subnets.
Gateway	A system that connects different networks, serving as a hub for transmitting, forwarding, and transforming data between them to enable communication across dissimilar networks. (The gateway address is typically the LAN port address of the upstream router.)
DNS	DNS server, translates domain names into corresponding IP addresses, enabling users to access websites or network services via domain names (Common DNS servers: 8.8.8.8, 9.9.9.9, 114.114.114.114).
Home Page	Directly enter the management interface instead of modifying the configuration through the setup wizard.
Next	Proceed to the "Next" configuration step (Wireless page).



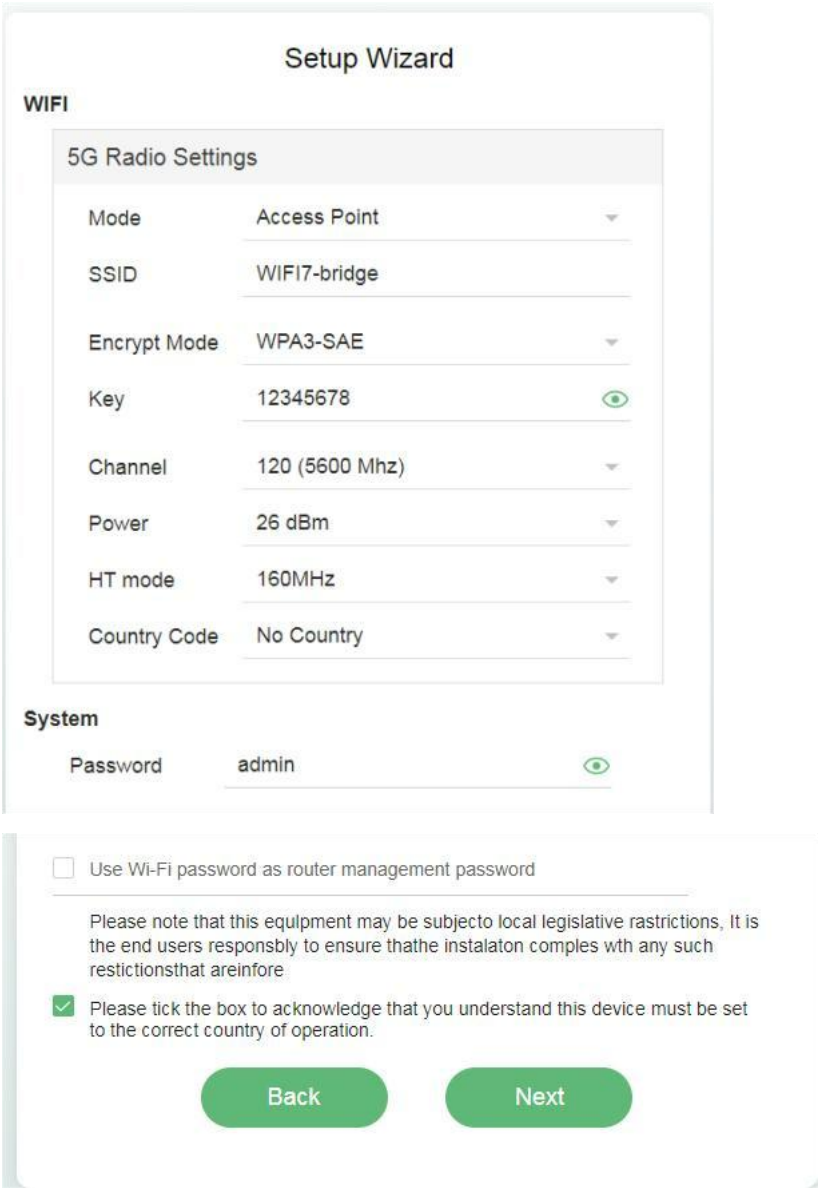
3. Set WiFi information.

Note: AP configuration "SSID, Encryption Mode, Password" must match the Client configuration for the Client device to connect correctly.

Partial Parameter Description:

Parameter	Description
Mode	Select “Access Point mode” (Wireless Transmitting End).

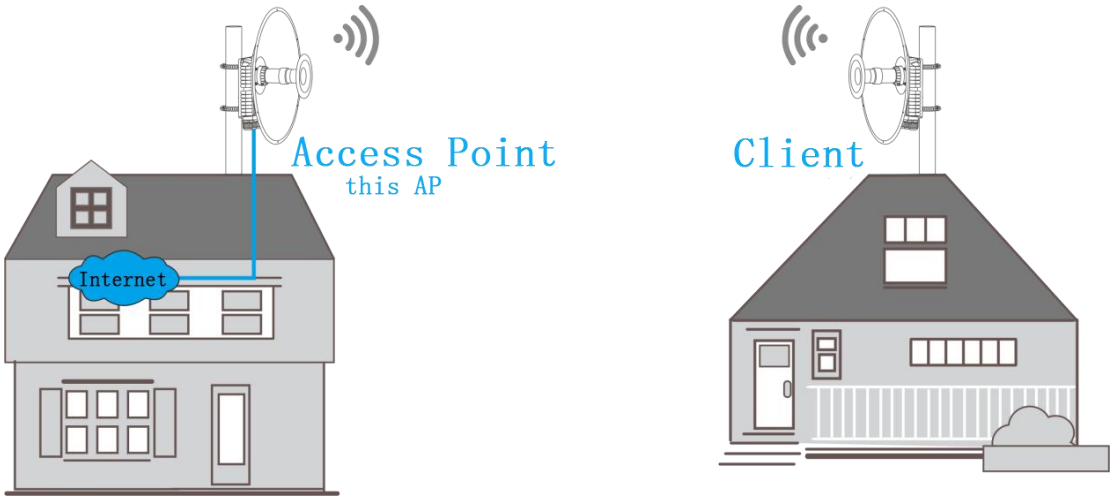
SSID	The name of the WiFi network, uniquely identifying a wireless LAN (e.g., WIFI7-bridge).
Encrypt Mode	Wireless encryption method. Supported options: WPA3-SAE, WPA2-PSK/ WPA3-SAE, WPA2-PSK, WPA2 with Radius.
Key	WiFi password (e.g., 12345678).
Channel	The channel for signal transmission, referring to the medium or path for communication. Select the wireless working channel from the dropdown list.
Power	Transmission power used by the wireless device when sending signals (Supported input: 1-26dBm, unit: dBm).
HT mode	The bandwidth occupied by the WiFi wireless signal on the spectrum (Supports 20MHz, 40MHz,80MHz, 160MHz).
Password	Administrator password for system management login.



Note: The device must be configured with the correct country code and "Country Code Configuration Prompt" must be checked to proceed.

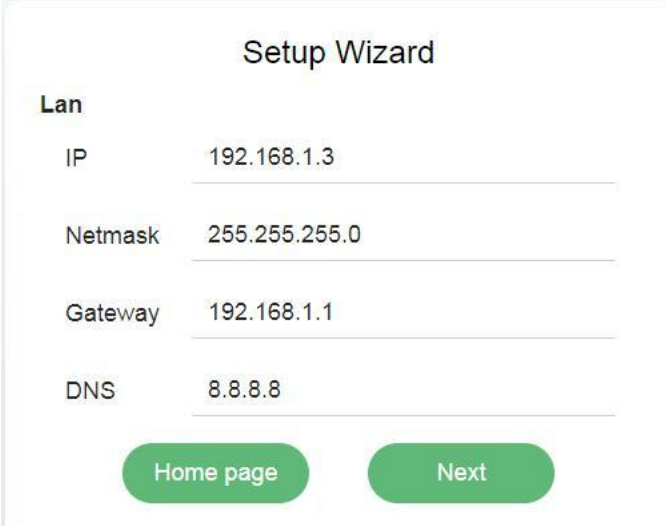
- After completion, click Next.

4. Confirm network information and wireless configuration are correct, then click Finish.
5. AP device configuration is complete.
6. Implementation effect, as shown:



2.3 Client Mode Configuration

1. Enter the Setup Wizard.
2. Set the bridge address information.



Partial Parameter Description:

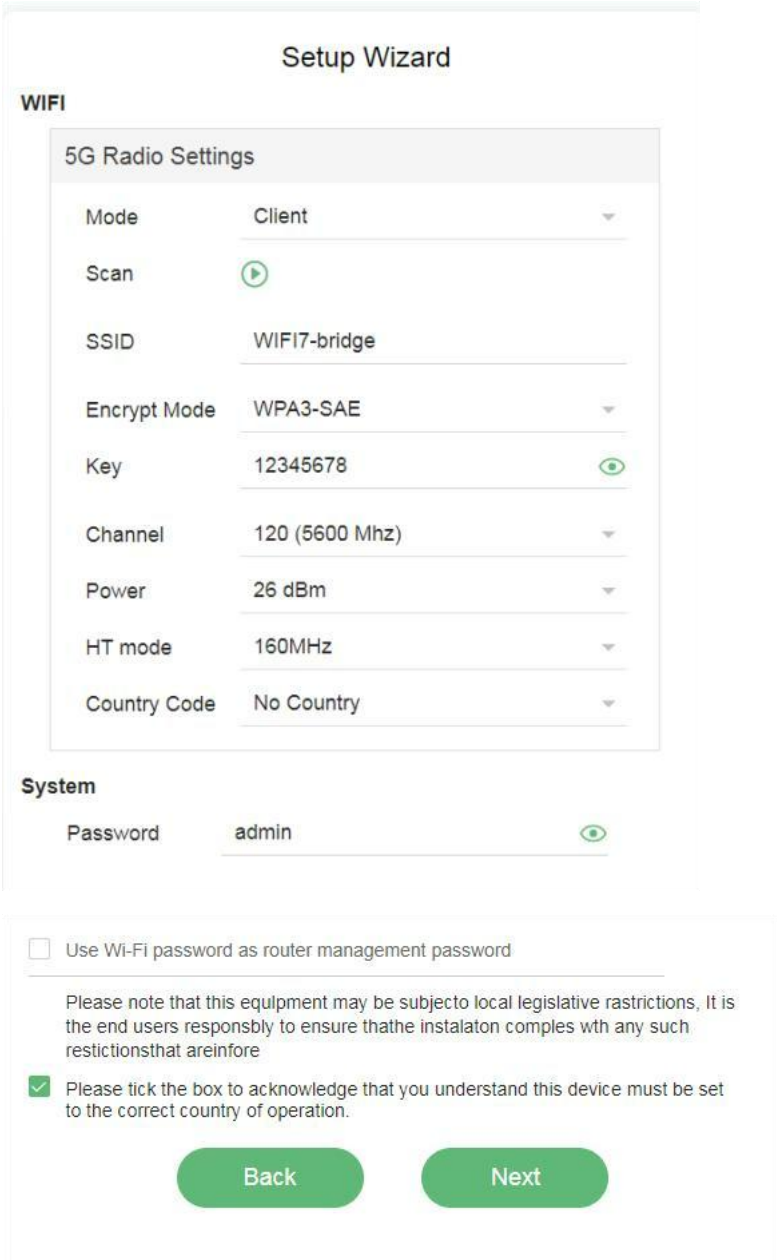
Parameter	Description
IP	The IP address of device.
Netmask	A 32-bit binary number, typically expressed as a dotted decimal (e.g., 255.255.255.0), that is used to identify the boundary between the network and host parts of an IP address, in order to divide a large IP network into logical subnets.
Gateway	A system that connects different networks, serving as a hub for transmitting, forwarding, and transforming data between them to enable communication across dissimilar networks. (The gateway address is typically the LAN port address of the upstream router.)
DNS	DNS server, translates domain names into corresponding IP addresses,

	enabling users to access websites or network services via domain names (Common DNS servers: 8.8.8.8, 9.9.9.9, 114.114.114.114).
Home page	Directly enter the management interface instead of modifying the configuration through the setup wizard.
Next	Proceed to the "**Next**" configuration step (Wireless page).

After completing the configuration, click Next .

3. Set WiFi information.

⚠ Note: Client configuration "SSID, Encryption Mode, Password" must match the AP configuration to connect correctly to the AP.



Partial Parameter Description:

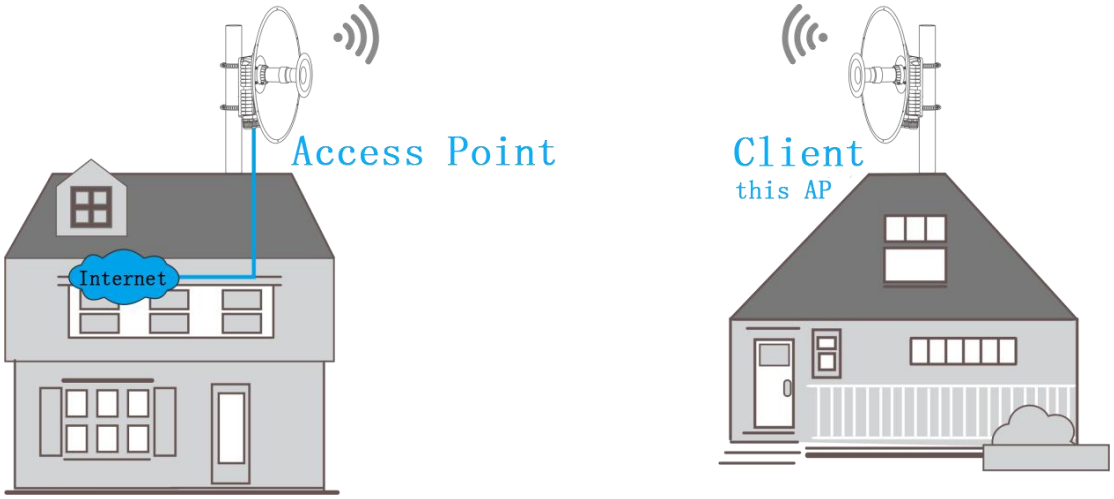
Parameter	Description
Mode	Select "**Client**" (Wireless Signal Receiving End) here to pair with an AP.
SSID	Set the bridge's wireless signal name (e.g., WIFI7-bridge).
Encrypt Mode	WiFi encryption method (Supports WPA3-SAE, WPA2-PSK/WPA3-SAE, WPA2-PSK, WPA2 with Radius).
Key	WiFi password (e.g., 12345678).
Channel	Select the wireless working channel from the dropdown list.
Power	Wireless signal transmission power.
HT mode	Wireless signal working bandwidth (Supports 20MHz, 40MHz, 80MHz, 160MHz).
Password	Administrator password for system management login.

4. Confirm the information is correct and click 

.

5. Client device configuration is complete.

The connection is successful, as shown in the following figure:

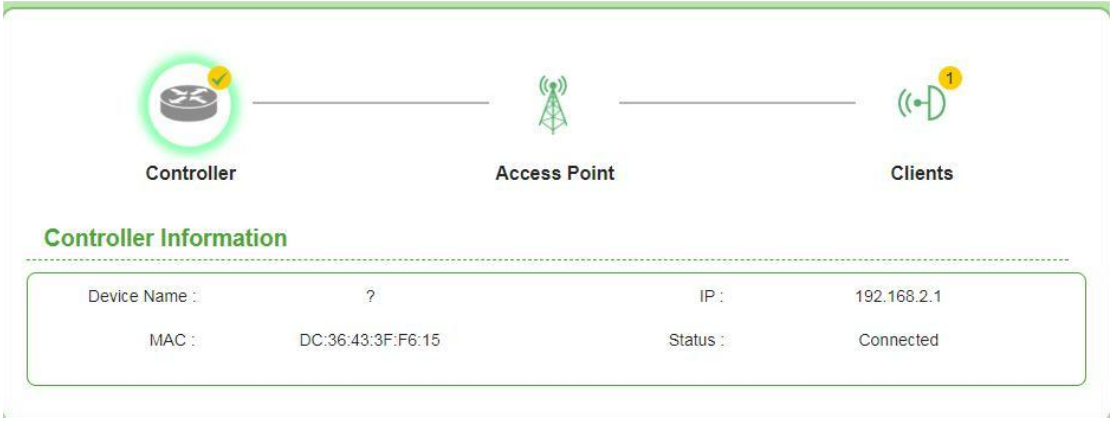


Chapter 3 Status

3.1 Overview

3.1.1 Controller

View upstream device information for the bridge, including device name, MAC, IP, and status.



Parameter Description:

Parameter	Description
Device Name	Name of the main device.
MAC	Physical address of the main device.

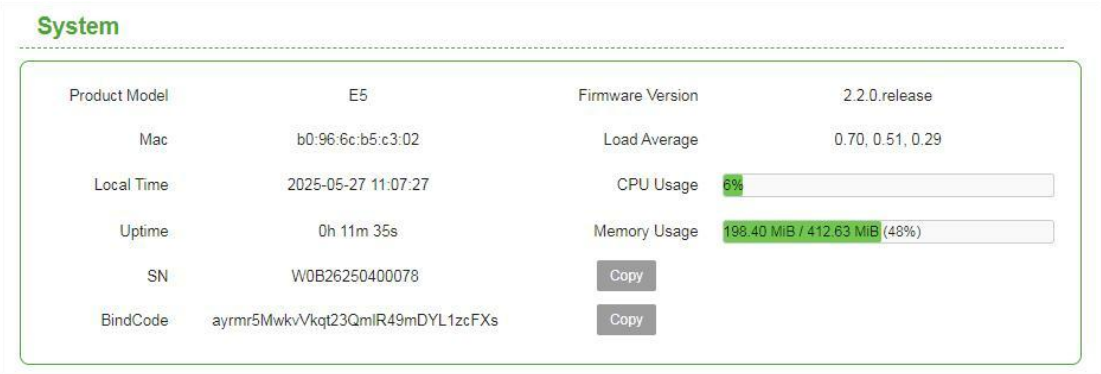
IP	IP address of the main device.
Status	Connection status between the wireless bridge and the main device.

3.1.2 Access Point

In the "**Access Point AP**" interface, view basic information about this bridge, wireless configuration and Ethernet ports.

3.1.2.1 System

View basic bridge information, including uptime, average load, SN and key.

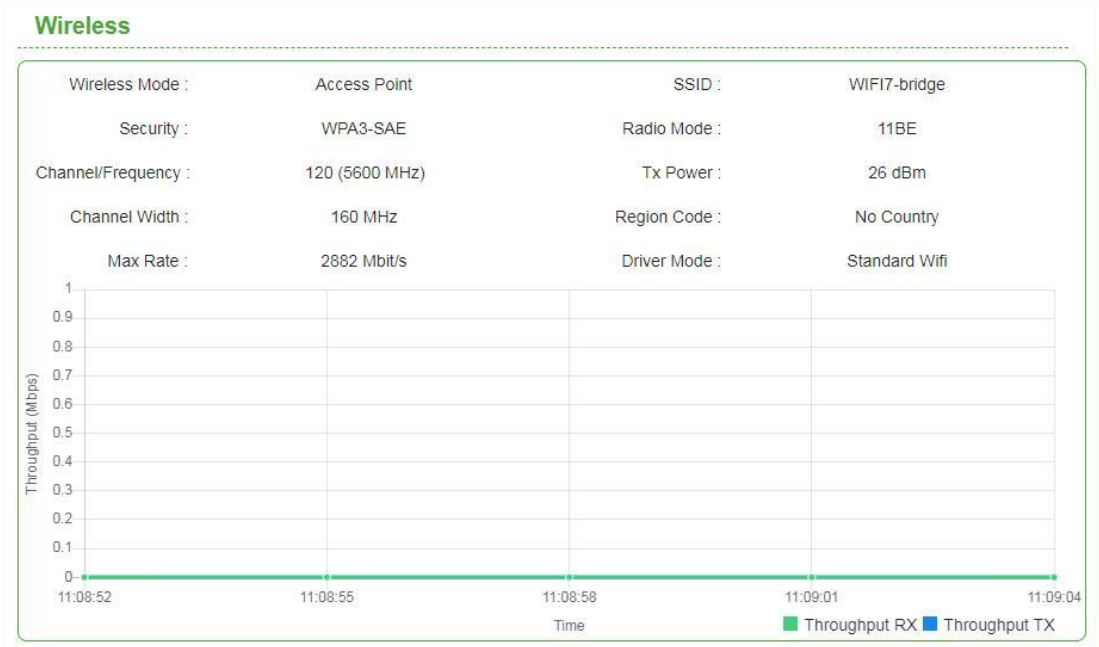


Parameter Description:

Parameter	Description
Product Model	Product model number used to identify the product.
Firmware Version	Indicates firmware update and iteration status.
MAC	Physical address (MAC address) used to identify the network device.
Load Average	Measures overall system load, reflecting resource contention (especially CPU, memory, I/O) over a period.
Local Time	Device local time (Default: **UTC**). Can be modified in "**System**" > "**System Properties**".
CPU Usage	An indicator measuring the busyness of the computer's central processor over a period.
Uptime	The continuous normal operating time of the device since startup, measuring system stability, reliability, or task duration.
Memory Usage	Amount of memory resources occupied by the system during operation.
SN	Serial Number: Unique identifier for each product, used for tracking production batch, date, warranty status (Acts as identifier for cloud management).
BindCode	The binding code for cloud management.

3.1.2.2 Wireless

View detailed wireless configuration information, such as wireless mode, wireless name, wireless encryption, channel, bandwidth, transmission, power, country code, etc.

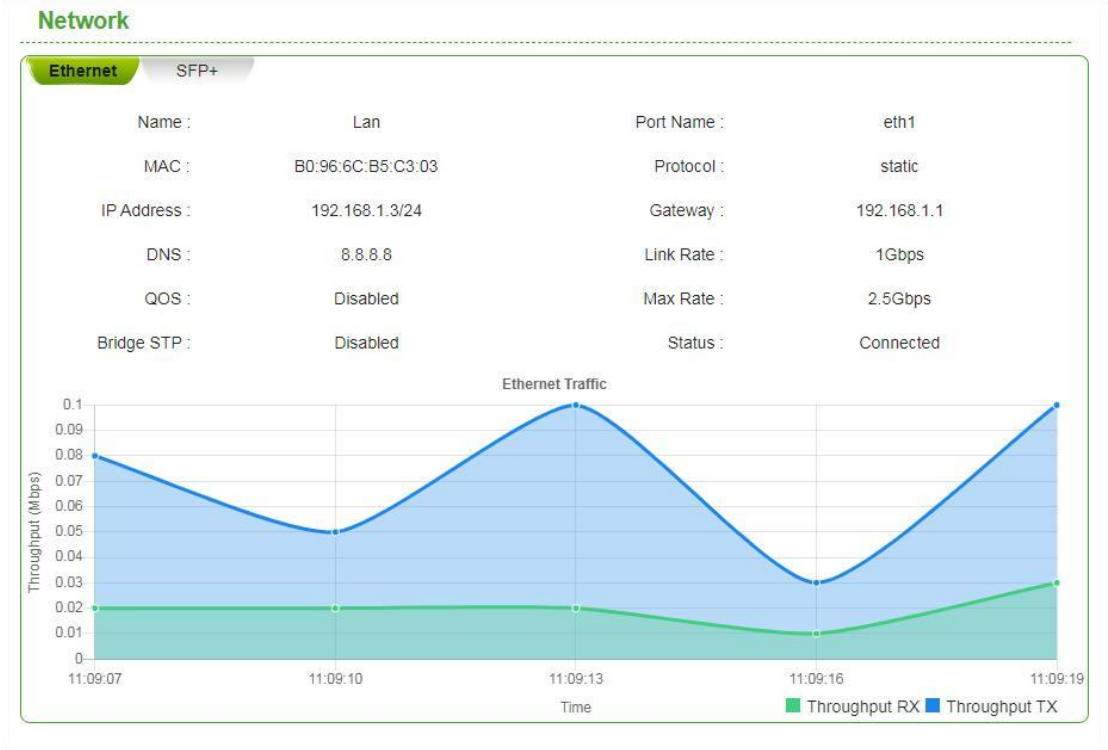


Parameter Description:

Parameter	Description
Wireless Mode	Supported options: Access Point AP, Client.
SSID	Name of the WiFi network, uniquely identifying a wireless LAN.
Security	Wireless encryption method. Supported options: WPA3-SAE, WPA2-PSK/WPA3-SAE, WPA2-PSK, WPA2 with Radius.
Radio Mode	Radio mode under which the wireless device operates according to IEEE 802.11 standards.
Channel/Frequency	Channel: The medium/path for signal transmission in communication. Frequency: Number of vibrations/changes per unit time for a periodic signal (Unit: Hz).
Tx Power	Power used by the wireless device when transmitting signals (Unit: dBm).
Chanel Width	Bandwidth occupied by the WiFi wireless signal on the spectrum. Currently supported: 20MHz, 40MHz, 80MHz, 160MHz, 320MHz.
Region Code	Region code. Select the code compliant with local laws/regulations as different countries/regions may have different open frequency bands, power limits (Tx Power), channel/tech restrictions.
Max Rate	Theoretical maximum data transfer rate of the device under specific conditions (Unit: Mbps).
Driver Mode	WiFi mode, supports "Standard WiFi" or "Wis TDMA" (selectable in "Wireless Interface").
Wireless traffic	Displays real-time download and upload traffic for the wireless interface.

3.1.2.3 Network

View the status of the bridge's RJ45 and SFP+ network interfaces, such as assigned interface number, MAC address, IP address protocol, IP address, gateway address, DNS server, actual interface LINK rate, max Ethernet port link rate, QOS status, STP status, and interface connection status.



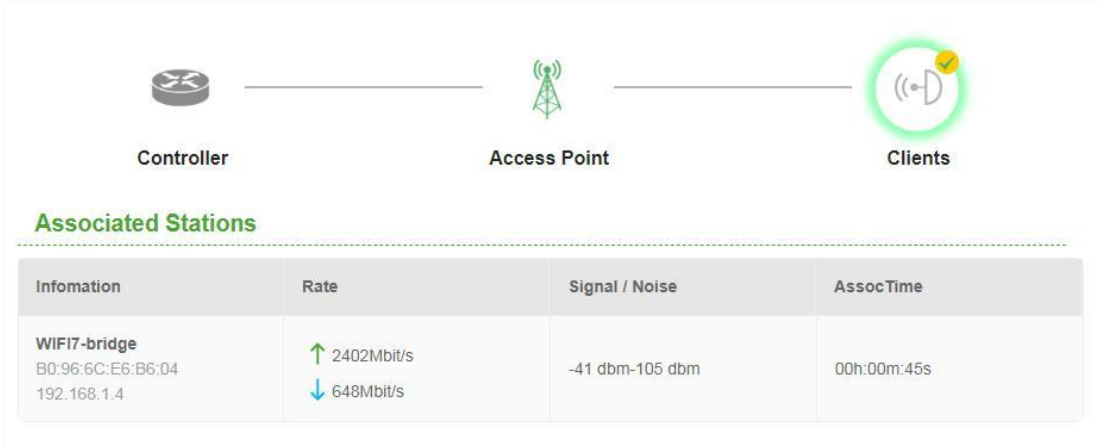
Parameter Description:

Parameter	Description
Name	Device physical interface: Connects to LAN devices. Usually the internal network port, separate from the WAN (external) port.
Port Name	Physical interface assigned by the device
MAC	Physical layer address (MAC address) used to identify the network device.
Protocol	Ethernet interface protocol. Supports Static address, DHCP client, DHCPv6 client.
IP Address	Digital label of a device connected to a computer network, used to uniquely identify the device and enable data communication. IP address 192.168.1.2/24 is a common private LAN IPv4 address (32-bit binary, dotted decimal). Subnet Mask (/24): Indicates the first 24 bits are the network part, last 8 bits are the host part (Decimal subnet mask: 255.255.255.0).
Gateway	A system that connects different networks, serving as a hub for transmitting, forwarding, and transforming data between them to enable communication across dissimilar networks.
DNS	DNS server: Converts domain names into corresponding IP addresses, enabling users to access websites or network services via domain names

	(e.g., resolving www.baidu.com to Baidu server IP).
Link Rate	Actual data transfer rate of the Ethernet port connected to the network (Unit: Mbps).
Max Rate	Theoretical maximum data transfer rate of the device under specific conditions (Unit: Mbps).
QOS	Status of the QOS function (On/Off).
Bridge STP	Status of the Spanning Tree function (On/Off). Spanning Tree resolves loop issues when bridges interconnect by blocking redundant links, building a loop-free tree topology while retaining backup paths for quick failover.
Status	Connection status of the ETH1 physical interface.
Ethernet Traffic	Displays real-time download and upload traffic for the ETH1 physical interface.

3.1.3 Clients

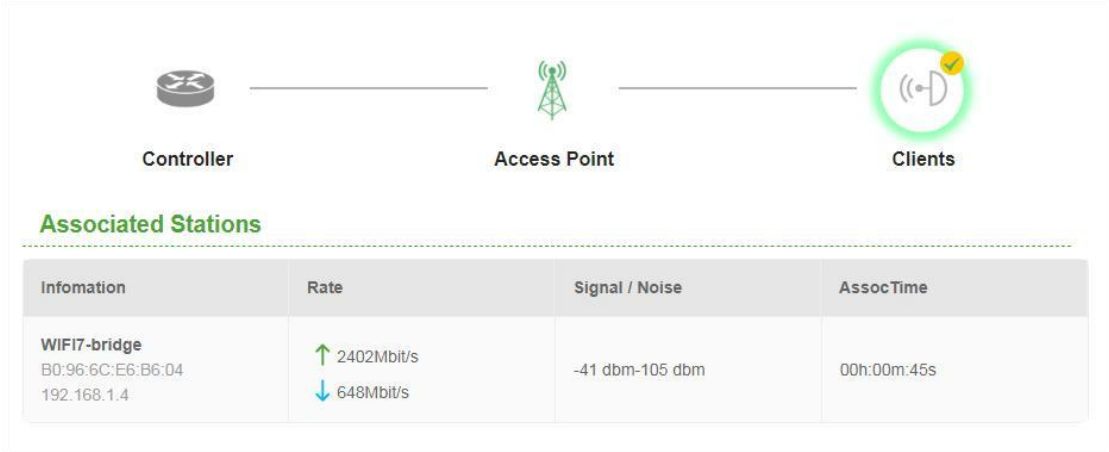
The client connection list records information about clients currently connected to the "**Access Point**".



Parameter Description:

Parameter	Description
Information	Information about the wireless access point (AP), such as SSID, physical MAC address, IP address.
Rate	Theoretical data transfer rate per second during wireless communication.
Signal/Noise	Core factors affecting network quality; their relative relationship determines signal reliability and transmission efficiency. Larger signal value indicates better signal.
Assoc Time	Duration connected to the wireless access point (AP).
Distance	Distance difference between the client and the wireless access point (AP).

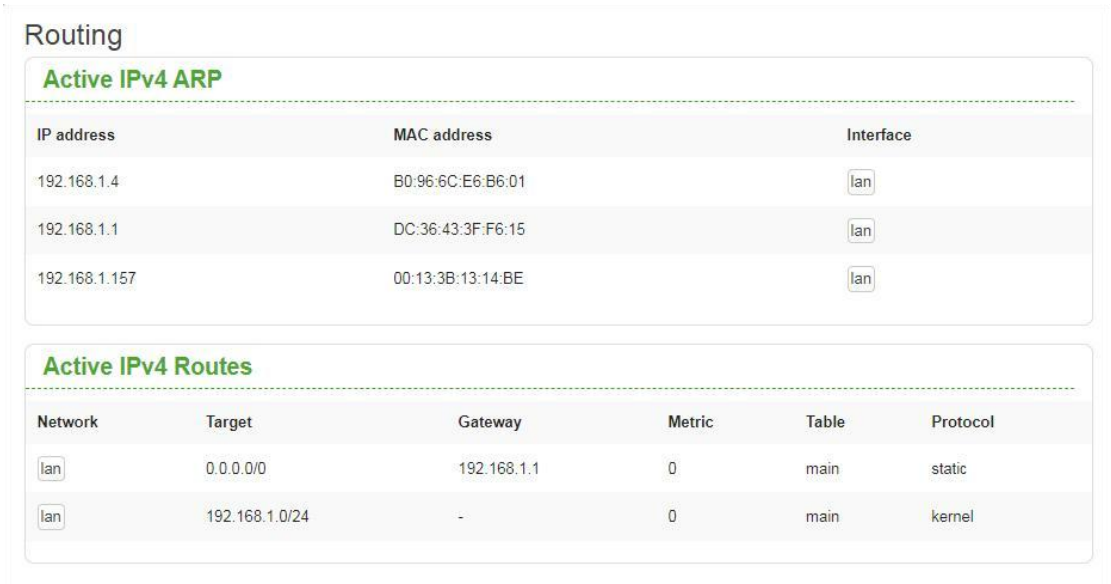
3.1.4 Wireless connection status



If login to the AP page, click "**client**" icon to view the client's signal and other connection information.
If login to the client page, click the "Access Point" icon to view the remote AP's signal and other connection information.

3.2 Routing

View the IP addresses, MAC addresses of devices connected within the LAN, and the IPv4 routing forwarding path.
ARP (Address Resolution Protocol): Protocol used in IPv4 networks to map IP addresses to physical MAC addresses.
Active IPv4 Routes: **Routing** refers to the process of forwarding IP packets from a source host to a target host across networks. **Active Routes** are the currently effective routing entries used to guide packet forwarding. These entries are stored in the device's routing table (i.e., the current page) and maintained by network devices (e.g., routers, bridges).



Chapter 4 Network

4.1 Network

4.1.1 Bridge

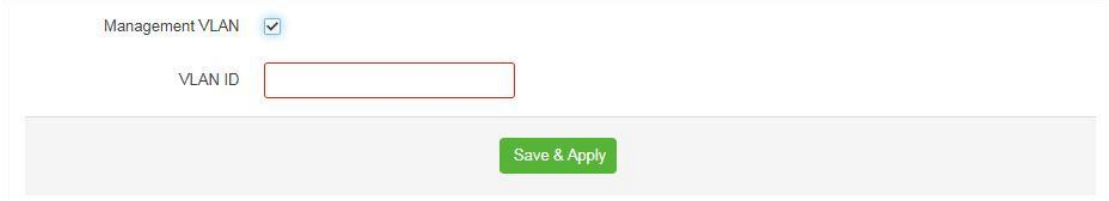
Network Mode： Bridge

- **Spanning Tree（STP）**

Spanning Tree is disabled by default. Check "**STP**" to enable the Spanning Tree function. STP solves loop problems when bridges interconnect by blocking redundant links, building a loop-free tree topology while retaining backup paths for quick failover.

- **Management VLAN**

VLAN is a technology that divides a physical LAN into multiple logical subnets via software, used to isolate broadcast domains, enhance network security, and improve management efficiency.
The **Management VLAN** is a dedicated logical subnet for managing network devices. By segregating management traffic into an independent VLAN, remote configuration, monitoring, and maintenance of devices are achieved.



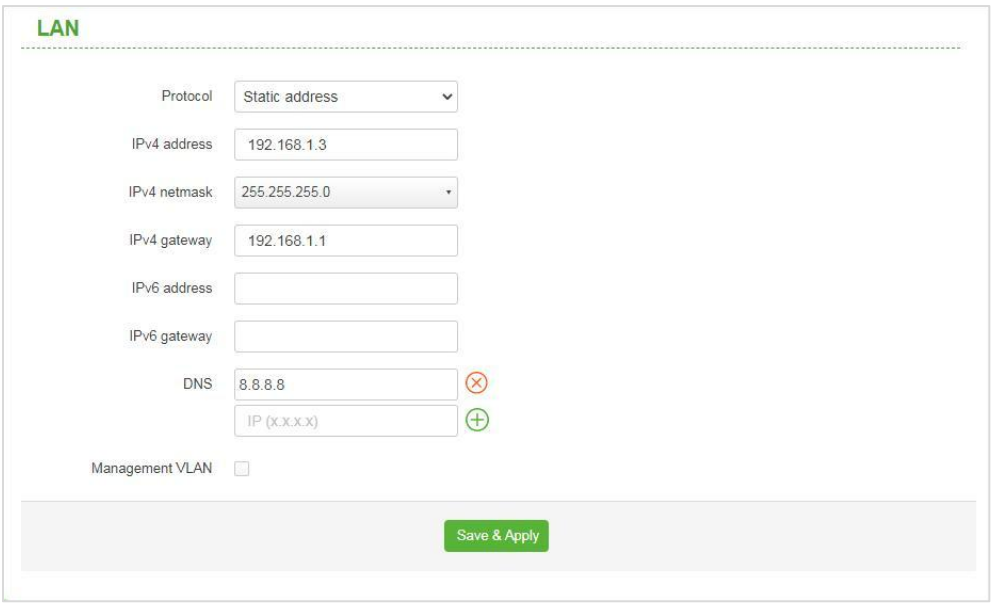
- **LAN**

LAN (Local Area Network) refers to a computer network connecting multiple devices (computers, printers,servers, etc.) within a limited geographical area (e.g., office, home, campus, factory) via communication lines or wireless signals to achieve data transmission and resource sharing.
View the IP acquisition method and related IP information of the bridge.
The current bridge supports three IP acquisition methods: "**Static IP**", "**DHCP Client**", "**DHCPv6 Client**".

Protocol Description & Notes:

Protocol	Description
Static address	Fixed IP address manually assigned to a network device; does not update automatically with network connection changes. **Note:** If the network device's IP address is modified, the new IP address must be used for the next login (computer address must be on the same subnet as the bridge's IP).
DHCP Client	Device that requests and accepts network parameters (IP address, subnet mask, gateway, DNS server, etc.) assigned by a DHCP server. Automatically obtains network configuration via DHCP protocol, no manual IP setup required. **Note:** When the bridge uses "**DHCP Client**", check the IP address assigned to the bridge in the upstream device's DHCP server first, then use that IP address to access the management interface.
DHCPv6 Client	Device that requests and accepts network parameters (IP address, subnet mask, gateway, DNS server, etc.) assigned by a DHCPv6 server. Automatically obtains network configuration via DHCPv6 protocol, no manual IP setup required. **Note:** When the bridge uses "**DHCPv6 Client**", check the IP address assigned to the bridge in the upstream device's DHCP server first, then use that IP address to access the management interface.

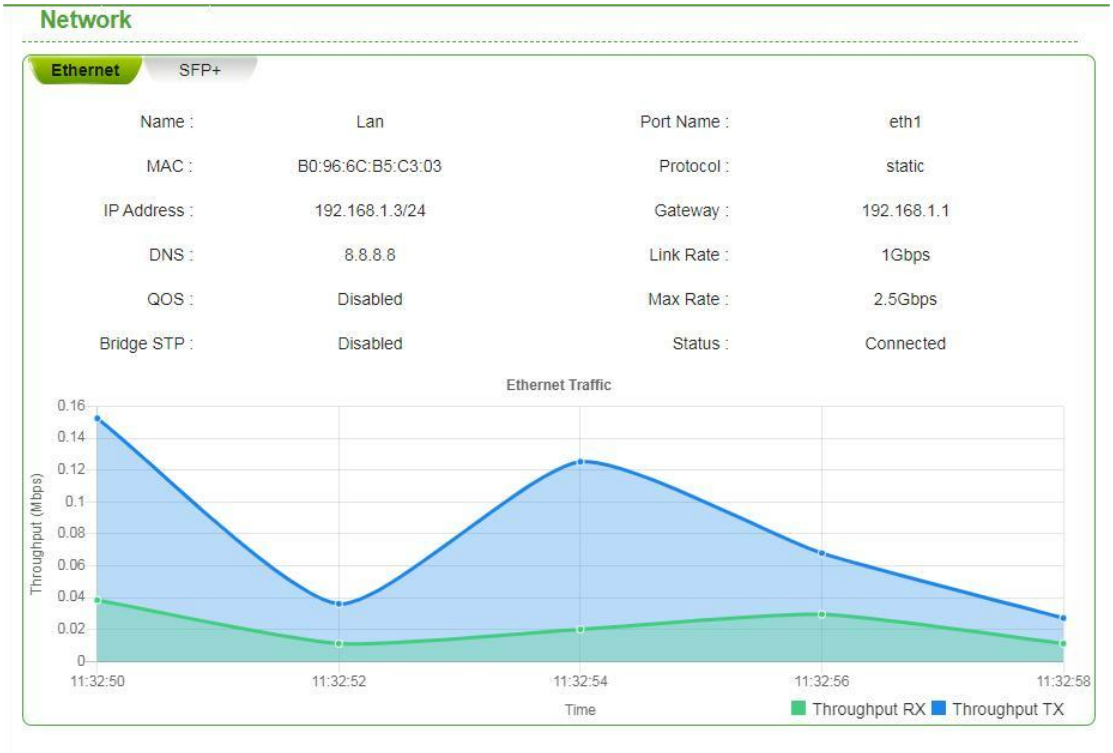
- **Protocol---Static address**



Manually assign a fixed IP address to the network device; does not update automatically.

Static IP Setup Steps:

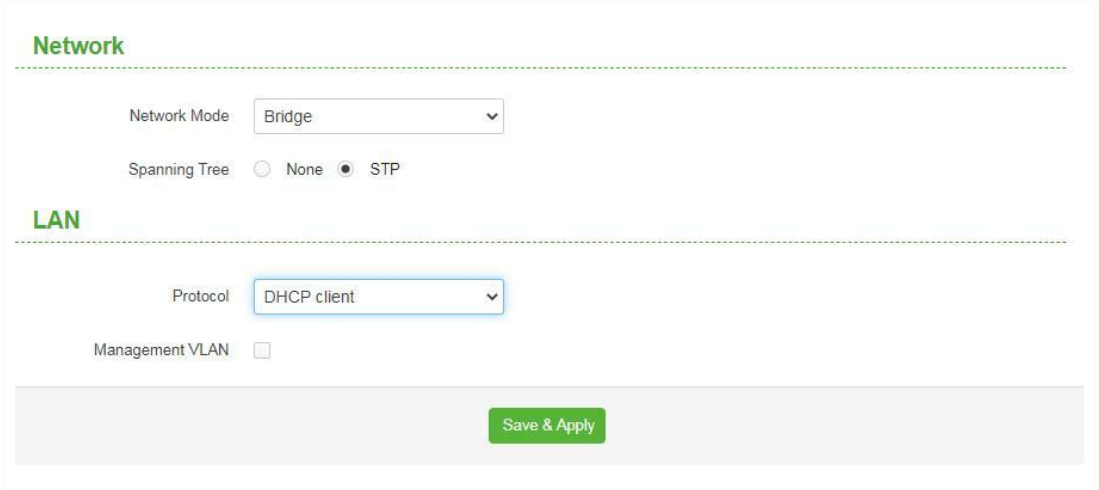
1. Protocol: Select "**Static address**" from the dropdown menu.
2. IPv4 address: Set the bridge IP address (e.g., 192.168.1.2).
3. IPv4 netmask: Set the subnet mask for the IP address (e.g., "**255.255.255.0**").
4. IPv4 gateway: Set the gateway address (i.e., the LAN port address of the upstream router, e.g., 192.168.1.1).
5. DNS: Set the DNS server address. If there are multiple DNS servers, enter them all.
6. Set and apply. View the configuration under "**Status**" →"Overview" →"Network".



Partial Parameter Description:

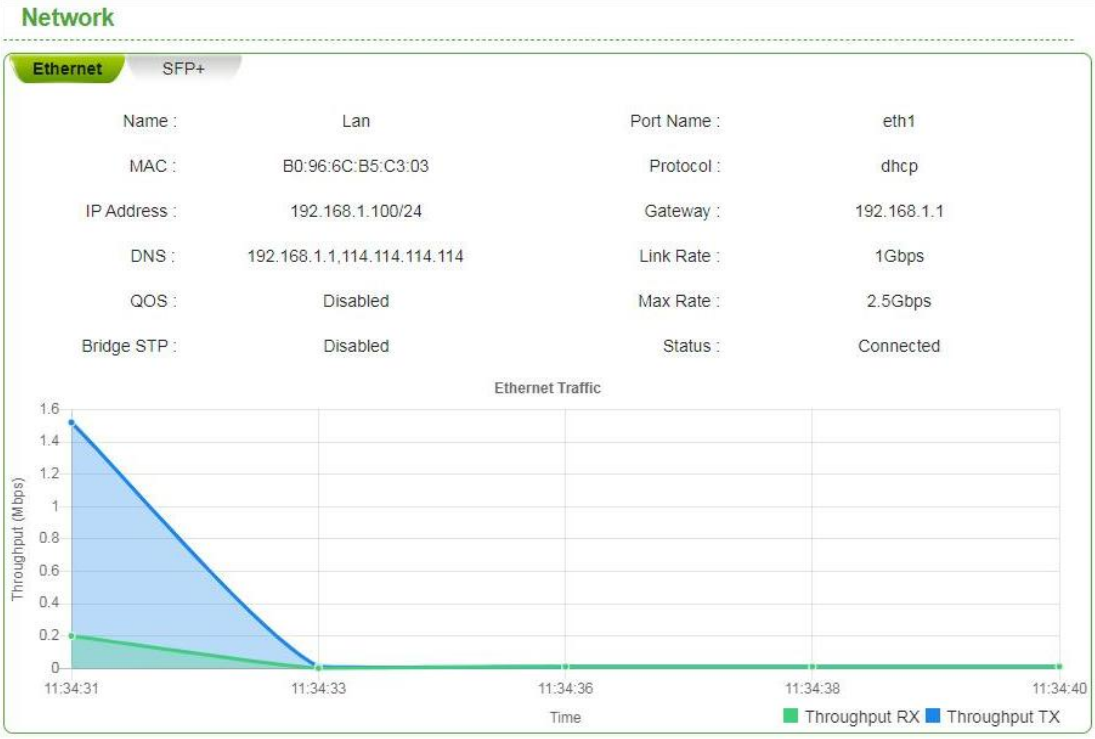
Parameter	Description
Protocol	Static Address: Fixed IP address manually assigned to the network device; does not update automatically. **Note:** If modified, use the new IP for next login (computer must be on same subnet).
MAC	Physical address of the current bridge LAN interface.
IP Address	Digital label for a device on the network, used for unique identification and data communication. Set the bridge's static IP based on network status (e.g., 192.168.1.3).
Gateway	Manually specify the gateway address for the bridge's LAN port.
DNS	Manually specify the DNS server for the bridge's LAN port.

- **Protocol ---DHCP client**

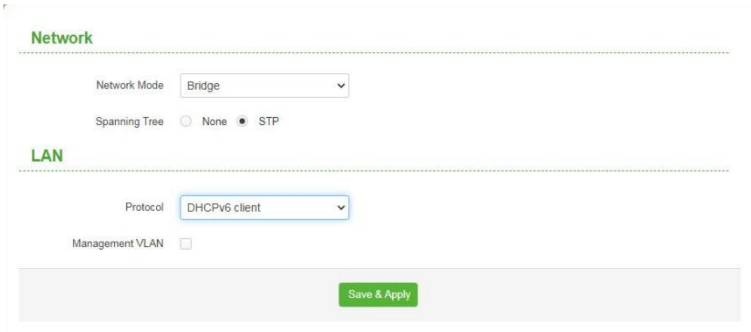


The bridge automatically obtains IP address, subnet mask, default gateway, and DNS server from a DHCP server. This method avoids IP conflicts and reduces management workload.

View the configuration obtained from the DHCP server under【Status】→【Overview】→【Network】.



- **Protocol--DHCPv6 Client**



The bridge automatically obtains configuration from a DHCPv6 server. Prerequisite: The upstream device supports IPv6 addresses and has the DHCPv6 server enabled.

View the IPv6 address assigned to the bridge on the upstream DHCPv6 server. Use "[IPv6 Address]" to access the management interface (e.g., **[2409:8754:4c30:70:b288:7cff:fe56:4321]**).

View the configuration obtained from the DHCP server under 【Status】→【Overview】→ "Network".

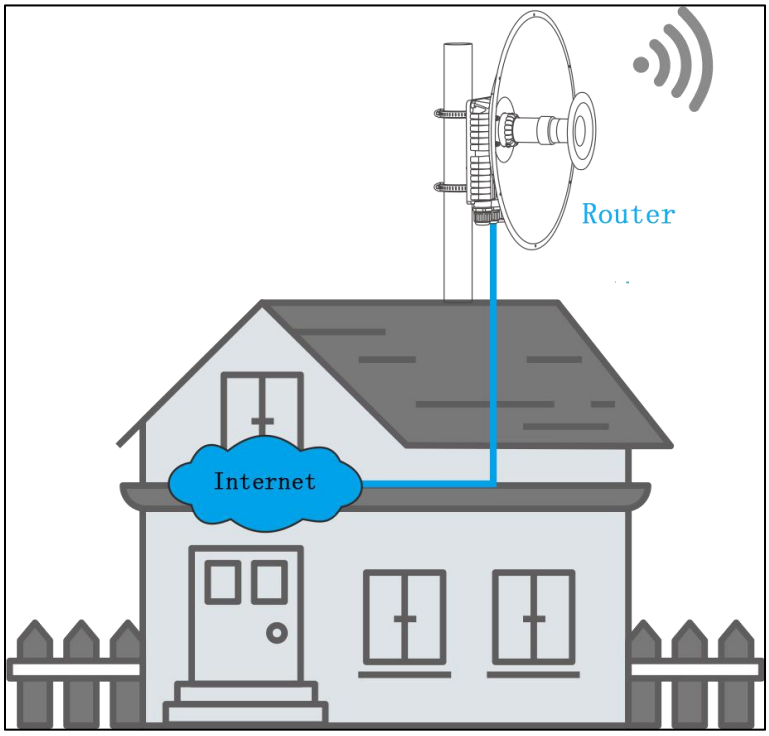
LAN IPv6 Parameter Description:

Parameter	Description
Protocol	"DHCPv6 Client": Automatically obtains IP address, subnet mask, gateway, DNS server information from a DHCPv6 server.
MAC	Physical address of the LAN port.
IP Address	Address assigned to the bridge by the DHCPv6 server; also the management address. When using, remove the trailing mask bits (e.g., [2409:8754:4c30:70:b288:7cff:fe56:4321]).
Gateway	Gateway address assigned by DHCPv6. "::" here is similar to 0.0.0.0 in IPv4.
DNS	DNS server information assigned by DHCPv6.

4.1.2 Router

The working method or strategy adopted by the router when forwarding data between different networks.

Application as shown:



Network Mode： Router

● WAN

WAN (Wide Area Network) is a computer network covering a wide geographical area, used to connect LANs or other network devices in different regions, cities, or even countries, enabling long-distance data communication.

View the WAN interface type and WAN port address protocol type. The default protocol is "DHCP client".

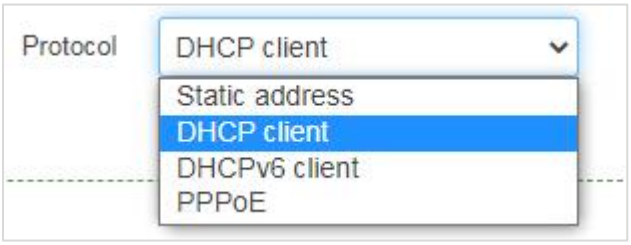
Interface Description:

1. ETH1: Designate the **ETH1** port as the WAN access port.
2. SFP: Designate the **SFP** port as the WAN access port.
3. Wlan: Designate the wireless interface as the **WAN** access port.

Common network types: Wired Router AP + Wireless Bridge CPE.

Set the bridge's IP address protocol and modify the address in router mode.

The current bridge WAN port supports four IP acquisition methods: "Static IP", "DHCP Client", "DHCPv6 Client", "PPPOE".



Protocol Type	Description
Static address	Fixed IP address, subnet mask, gateway, DNS server, etc., manually assigned to a network device; does not update automatically.
DHCP client	Device that requests and accepts network parameters (IP address, subnet mask, gateway, DNS server, etc.) assigned by a DHCP server. Automatically obtains network configuration via DHCP protocol, no manual IP setup required.
DHCPv6 client	Device that requests and accepts network parameters (IP address, subnet mask, gateway, DNS server, etc.) assigned by a DHCPv6 server. Automatically obtains network configuration via DHCPv6 protocol, no manual IP setup required.
PPPOE	A network protocol for transmitting PPP (Point-to-Point Protocol) over Ethernet, mainly used for broadband dial-up internet access. Requires broadband username and password authentication for network communication.

➢ **Protocol—Static address**

Manually specify the IP address, subnet mask, gateway, and DNS server for the WAN port.

Note: Fill in IP information on the same subnet as the upstream router to access the internet correctly.

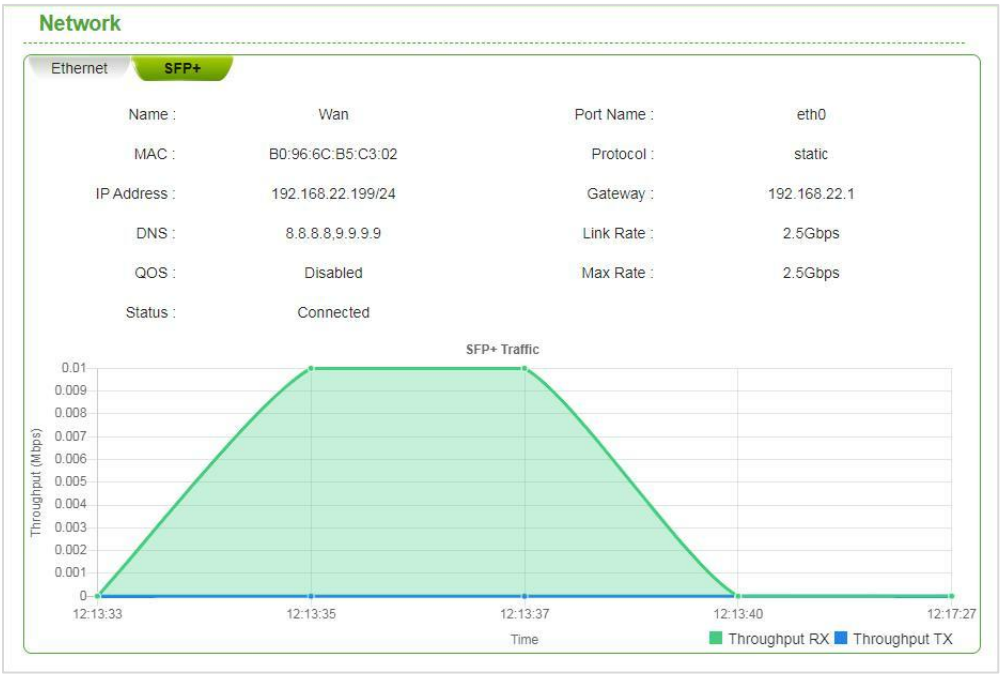
Setup Steps:

1. Interface: Designate the **WAN** interface.
2. Protocol: Select "**Static address**" from the dropdown menu.
3. IPv4 Address: Set an IP address on the same subnet as the upstream router (e.g., 192.168.22.199).
4. IPv4 Subnet Mask: Set the subnet mask (e.g., 255.255.255.0).
5. IPv4 Gateway: Set the gateway address (i.e., the LAN port IP of the upstream router, e.g., 192.168.22.1).

6. DNS: Set the DNS server. Add multiple using ⊕ .

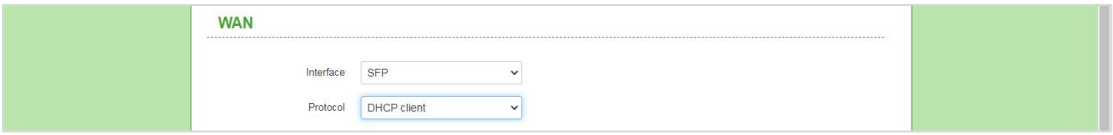
7. Click Save & Apply to save the configuration.

View WAN port configuration under【Status】→【 Overview】→【Network】→【SFP+】.



➢ **Protocol—DHCP Client**

The bridge automatically obtains IP address, subnet mask, default gateway, and DNS server from a DHCP server on the network. This method avoids IP conflicts and reduces management workload.

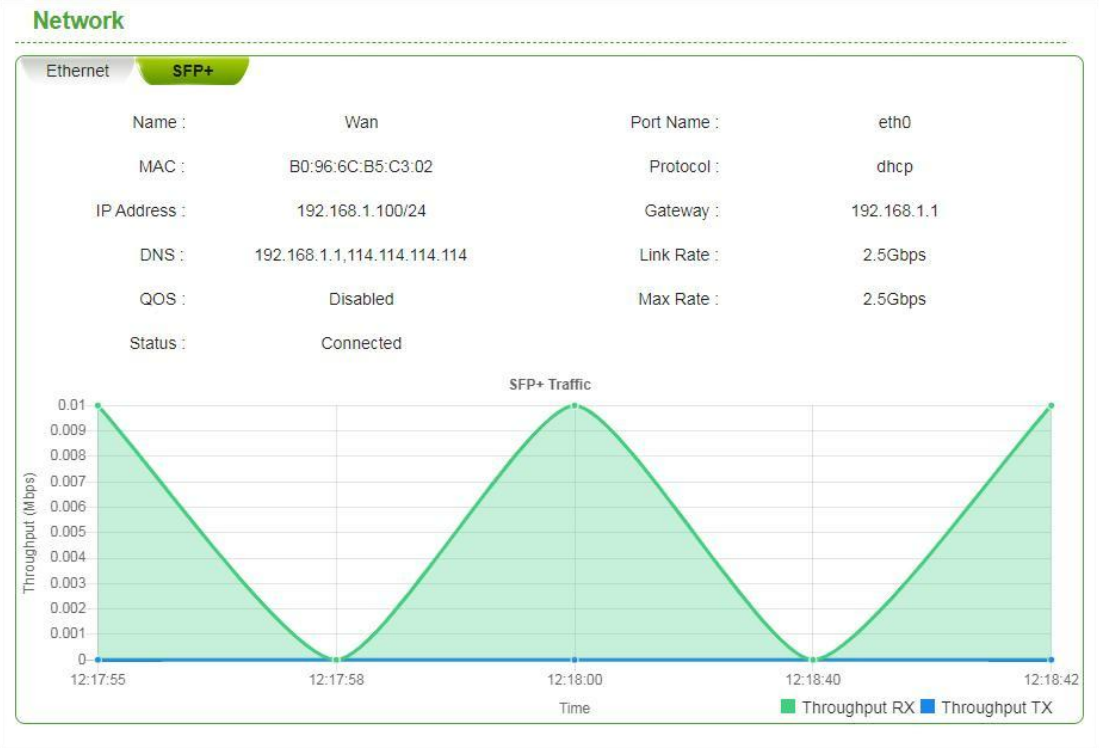


Setup Steps:

1. Protocol Type: Select "DHCP client" from the dropdown menu (default is "DHCP client").

2. Click Save & Apply to save the configuration.

View DHCP client configuration under【Status】→【Overview】→【Network】→【SFP+】.

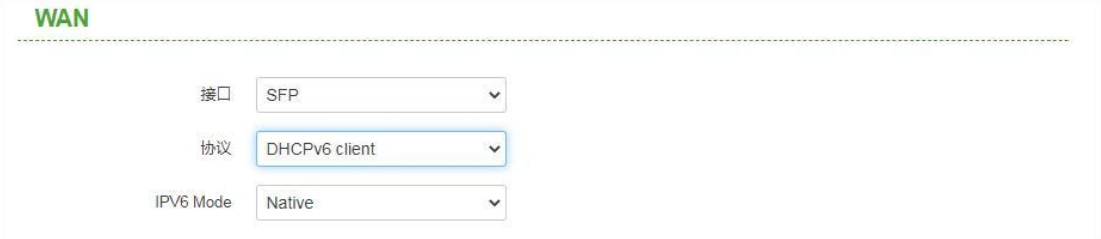


Partial Parameter Description:

Parameter	Description
Name	Interface name.
Port Name	Name of the hardware interface designated as WAN.
MAC	Physical address of the WAN port.
Protocol	DHCP client, automatically obtains IP address information from the upstream router's DHCP server.
IP Address	IP address assigned by the DHCP server.
Gateway	Gateway address assigned by the DHCP server, usually the LAN port address of the upstream router.
DNS	DNS address assigned by the DHCP server. Supports multiple DNS server input.
Link Rate	Actual data transfer rate of the SFP+ hardware interface connected to the network.
Max Rate	Theoretical maximum data transfer rate of the SFP+ hardware interface.
QOS	Status of the QOS function (On/Off).
Status	Connection status of the SFP+ interface.
SFP+ Traffic	Displays real-time download and upload traffic for the ETH1 physical interface.

- **Protocol—DHCPv6 Client**

The bridge automatically obtains IP address, subnet mask, default gateway and DNS server from a DHCPv6 server on the network. This method avoids IP conflicts and reduces management workload.



Setup Steps:

1. Select "**DHCPv6 client**" from the dropdown menu.

2. Click Save & Apply at the bottom of the page to complete the configuration.

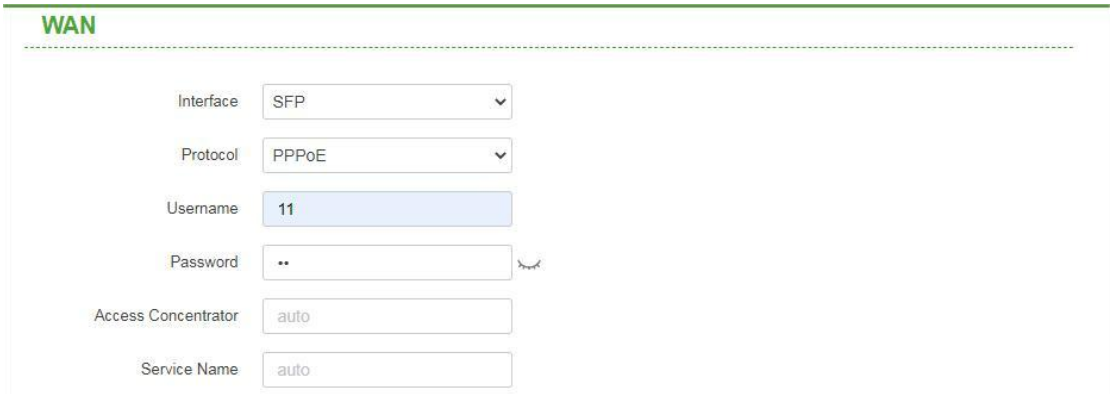
View DHCPv6 client configuration under【Status】→【Overview】→【Network】→【SFP+】.

➢ **Protocol—PPPOE**

A network protocol for transmitting PPP (Point-to-Point Protocol) over Ethernet, mainly used for broadband dial-up internet access. Requires broadband username and password authentication for network communication.

Setup Steps:

1. Interface: Designate the WAN port.
2. Protocol: Select "PPPOE" from the dropdown list.
3. Username: Enter the username provided by the ISP/server (e.g., 11).
4. Password: Enter the password provided by the ISP/server (e.g., 11).
5. Access Concentrator: Enter as provided by ISP/server; default "Auto".
6. Service Name: Enter as provided by ISP/server; default "Auto".
7. Click Save & Apply to complete the configuration.



Partial Parameter Description

Parameter	Description
Interface	Designate the WAN port.
Protocol	PPPOE, communication via point-to-point protocol.
Username	PPPOE username, provided by ISP/server.
Password	PPPOE password, provided by ISP/server.
Access Concentrator	Default "**Auto**".
Service Name	PPPOE server name, provided by ISP/server; default "**Auto**".

View PPPOE configuration under【Status】→【Overview】→【Network】→【SFP+】.

Partial Parameter Description:

Parameter	Description
Protocol	Dial-up Internet (PPPOE).
IP Address	IP address assigned by the PPPOE server (e.g., 10.1.1.2 is the IP address, 32 is the subnet mask length).
DNS	DNS server issued by the PPPOE server.
Gateway	LAN address of the upstream server.

● LAN

LAN (Local Area Network) refers to a computer network connecting multiple devices (computers, printers, servers, etc.) within a limited geographical area (e.g., office, home, campus, factory) via communication lines or wireless signals to achieve data transmission and resource sharing.
Set the bridge's LAN interface IP address information in router mode on this page.

Note: If the device's IP address is modified, the new IP address must be used for the next login(computer must be on the same subnet) to enter the management interface.

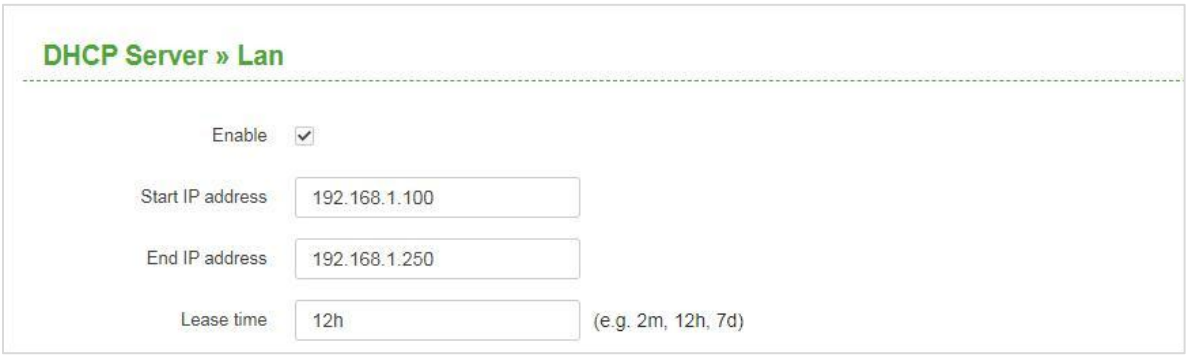
4.2 DHCP

4.2.1 DHCP Server

Go to【Network】→【Network】→ "**Network**" → "**Network Mode: Router**" → " Save & Apply ", to enable router mode.

The DHCP server can automatically assign IP addresses, network parameters (subnet mask, default gateway, DNS server address), and address leases (assignment, renewal, release) to clients, avoiding manual configuration hassles and errors. If "**Network Mode: Bridge**", the DHCP server is disabled and hidden by default.

Go to【Network】→【DHCP】to enter the settings page.



DHCP Server Setup Steps (Default: Enabled):

1. Enable: Click "**Enable**" to start the DHCP server.
2. Start IP address: Set the starting IP address of the IP pool.
3. End Address: Set the ending IP address of the IP pool.
4. Lease Time: Duration the IP is available to the client.
5. Click Save & Apply to complete the configuration.

Note: If other DHCP servers exist in this network, ensure the IP addresses set for the bridge's DHCP server do not conflict with those of other DHCP servers.

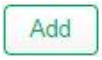
Parameter Description:

Parameter	Description
Enable	Enable/Disable the DHCP server. Default: Enabled.
Start IP address	Starting IP address of the DHCP server's IP pool.
End IP address	Ending IP address of the DHCP server's IP pool.
Lease time	Duration the IP address assigned by the DHCP server is available to the client.

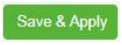
4.2.2 Static Lease

Convert dynamically assigned DHCP IP addresses into static addresses. To avoid conflicts, ensure the static IP address is not in use by any client before setting.

Add Static Lease Steps:

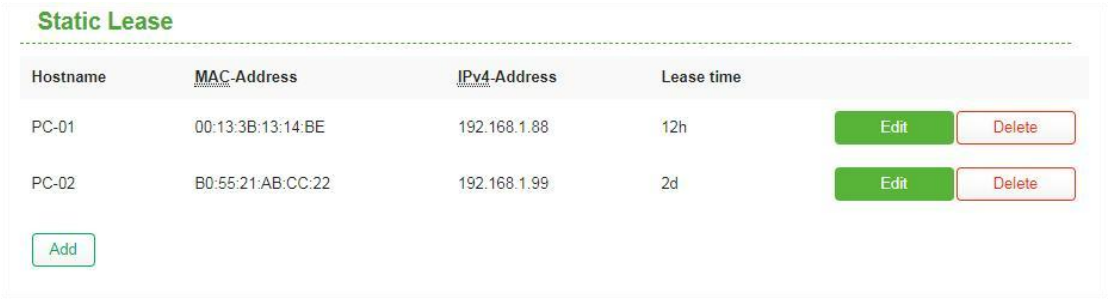
1. Click 

.
2. Hostname: Custom hostname for identification.
3. MAC-Address: Select MAC address from the dropdown list. If the target MAC is not listed, add it manually. If unsure, check the "**Assigned DHCP Leases**" list.
4. IPv4-Address: Assign a specific IP address to this user. Ensure the IP is unused to avoid conflicts.
5. Lease time: Specify the available lease duration for the IP. Default: 12h. Other units: m (minutes), h (hours), d (days).
6. Click 

to save the configuration.
7. Click 

to complete the configuration.

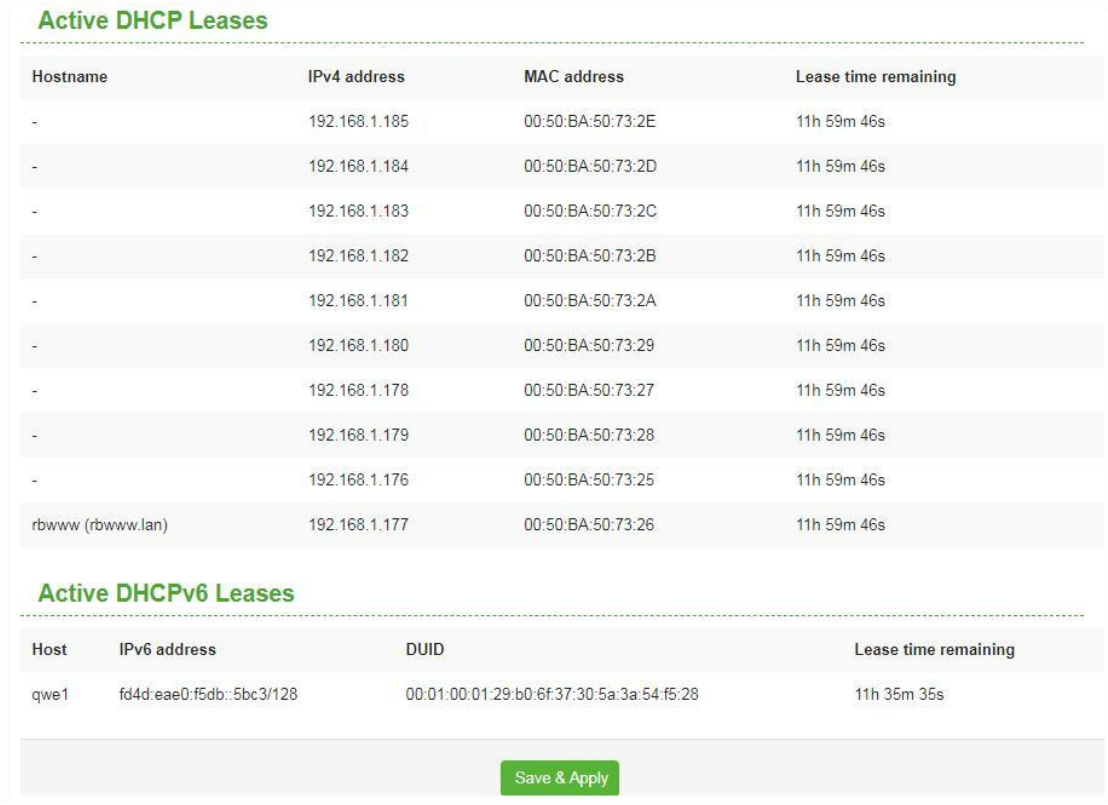
The static lease list shows created static lease rules.



4.2.3 DHCP Leases

Display IP address information obtained by clients from the DHCP server.

Go to【Network】→【DHCP】→ "**Assigned DHCP Leases**" to view client information.



Parameter Description:

Parameter	Description
Hostname	Client host name.
IPv4 address	IP address assigned to the client by the DHCP server.
MAC address	Physical address of the client.
Lease time remaining	Remaining available time for the IP address assigned to the client by the DHCP server.

4.3 QOS

QOS（Quality of Service）is used to solve network latency, bandwidth contention, data packet loss

and other issues, ensuring priority transmission of critical business data (e.g., video conferencing, online gaming, realtime communication) to enhance user experience.

Maximum Rate：

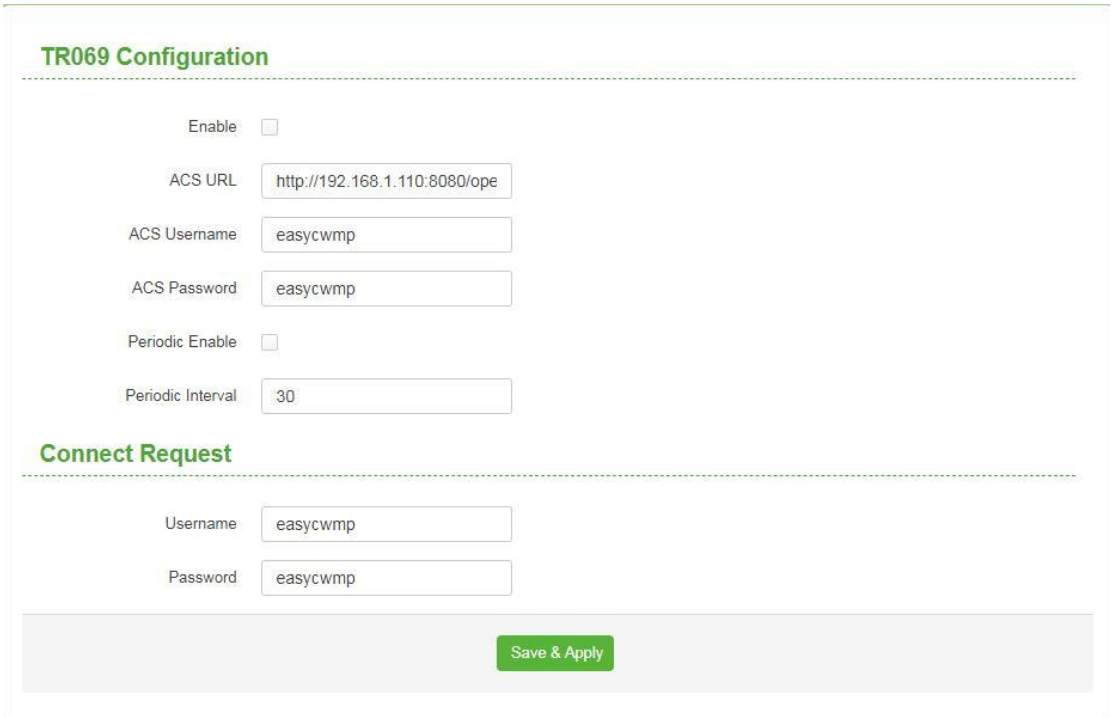
QOS is disabled by default. Click " Enabled " to enable QOS service.

Parameter Description:

Parameter	Description
Maximum Rate	QOS function switch button. Default: Off.
Download(kbps)	Enable QOS function, specify download data transfer rate for the device.
Upload(kbps)	Enable QOS function, specify upload data transfer rate for the device.

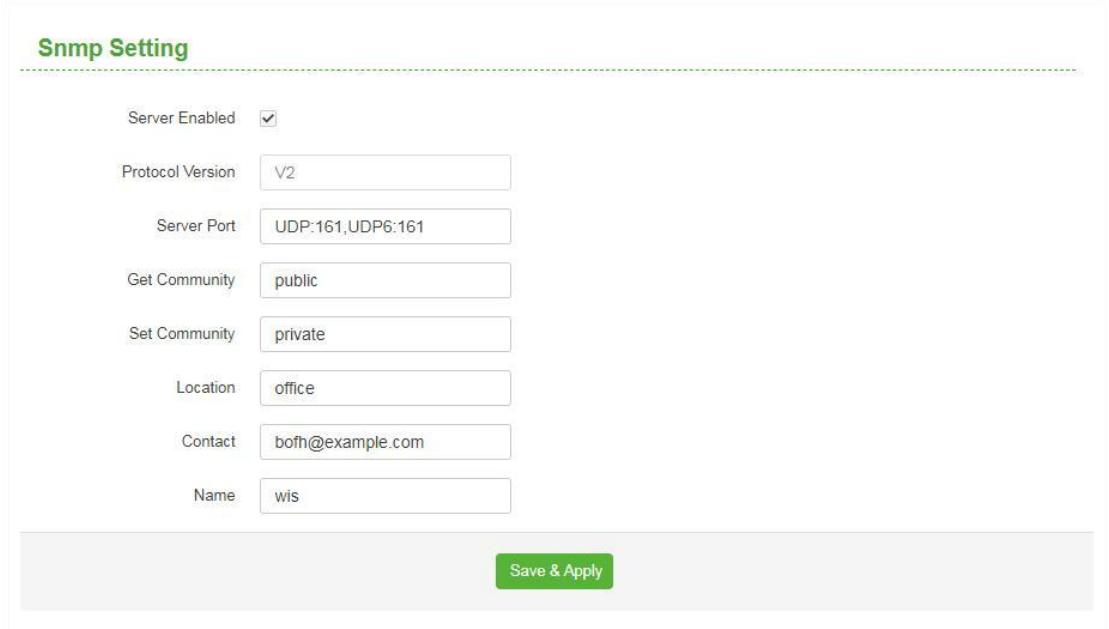
4.4 TR069

CPE WAN Managenment Protocol: The network management protocol is used to enable service providers (SPs) to remotely manage and configure user-side equipment (CPE, such as routers, optical modems, set-top boxes, etc.). It is widely used in broadband, Internet of Things and other scenarios.



4.5 SNMP

SNMP（Simple Network Management Protocol）is a standard protocol for managing devices in IP networks (such as routers, switches, servers, printers, etc.) and is an application layer protocol. It monitors and manages network devices through the network management system (NMS) to implement functions such as device status query, configuration management, performance statistics, and fault alarms.



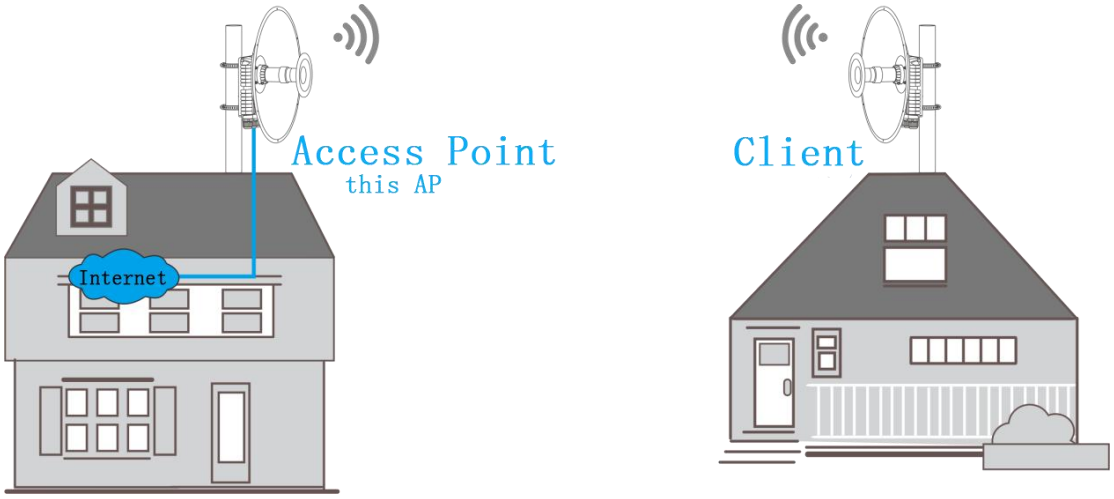
Chapter 5 Wireless

5.1 Wireless Configuration

5.1.1 Access Point

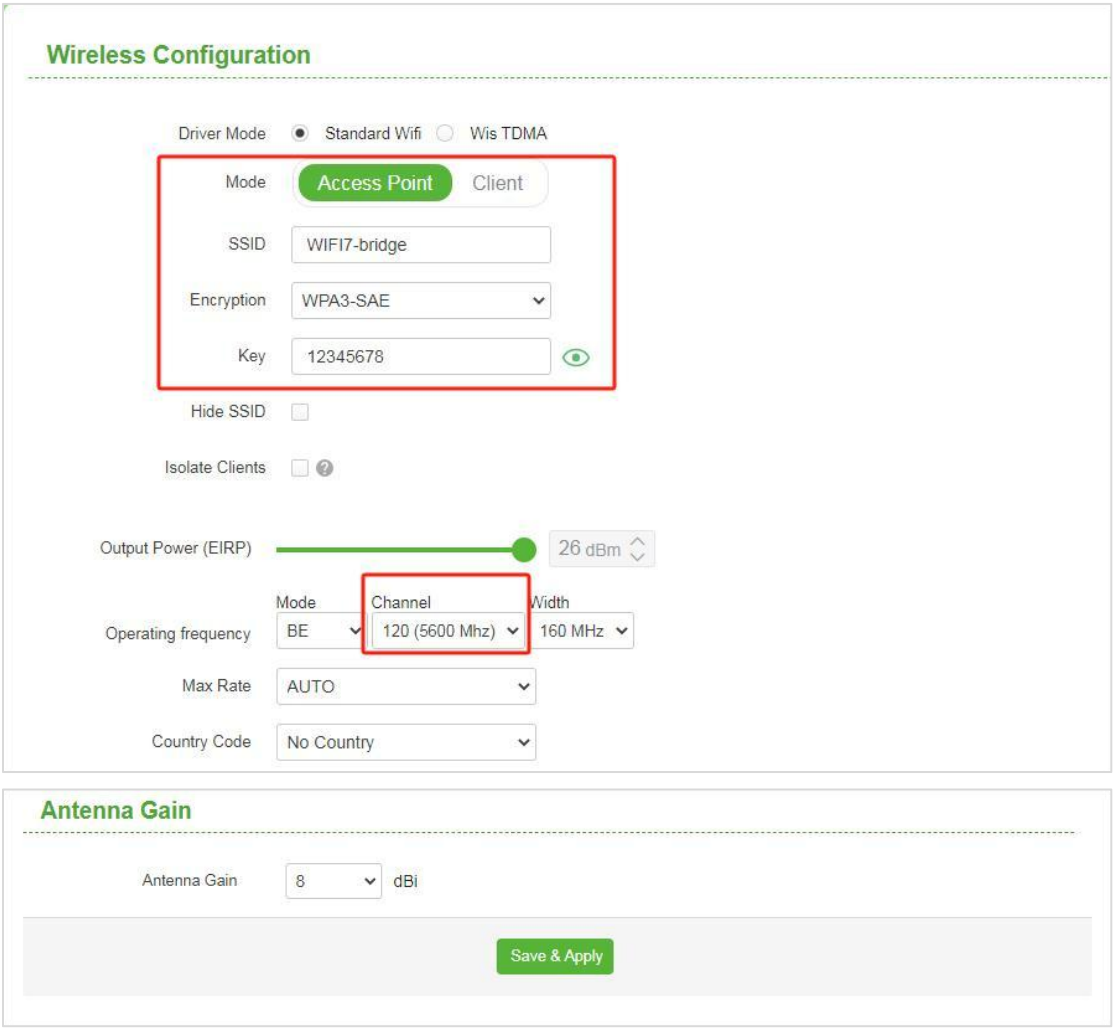
AP is mainly used to connect wired network and wireless devices (such as mobile phones, laptops, etc.) to enable wireless terminals to access wired network.

The usage scenarios are as follows:



Setting up the wireless configuration of the bridge.

Click the first-level directory [**Wireless**] to enter the configuration page.



Setup Steps：

1. Mode：Select the bridge working mode, the default is "Access Point AP". Select "Access Point AP" for AP mode.
2. SSID：Modify the wireless signal name of the bridge, eg. Wireless-WIFI7.
3. Encryption：Select the encryption method. Recommend to select "WPA3-SAE".
4. Key：Wireless WIFI password, the default is: "12345678".
5. Channel：Pull down menu and select wireless working channel.
6. Click Save & Apply，Complete the configuration.

Parameter Description:

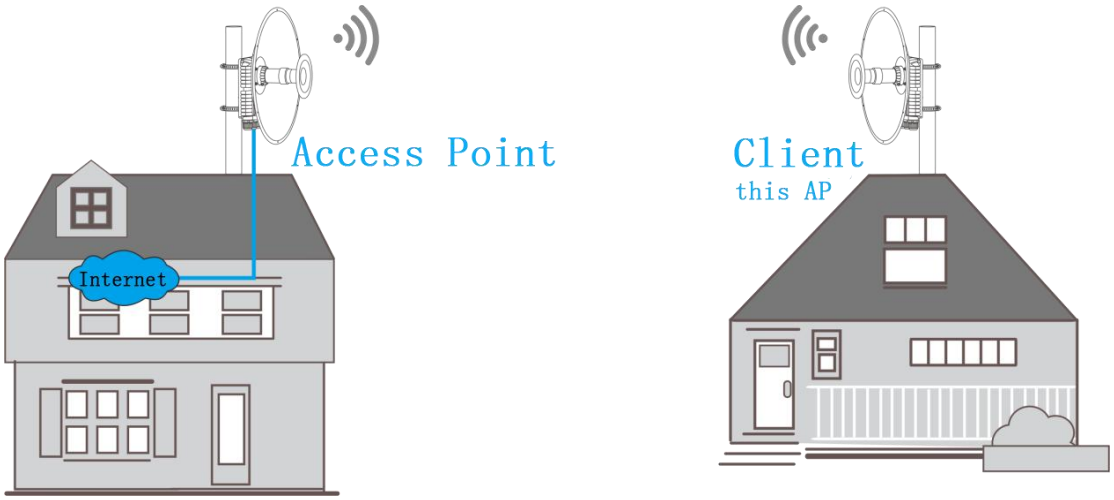
Parameter	Description
Driver Mode	Radio operating mode, support standard WIFI, Wis TDMA.
SSID	Service Set Identifier, it is the name used in wireless local area networks (WLANs) to identify a specific wireless network. When a device (such as a mobile phone or computer) searches for WIFI, the displayed network name is called SSID. Users can connect to the corresponding wireless network by selecting the correct SSID and entering the password (if encryption is enabled).
Encryption	Wireless encryption method. Support "WPA3-SAE, WPA3-SAE/WPA2-PSK,

	WPA2-PSK".
Key	Wireless WIFI password. Default is 12345678.
Hide ESSID	Tick the button to hide the wireless signal name. The default setting is: Untick.
Isolate Client	Wireless clients connected to the same AP cannot discover or communicate with each other; they can only communicate with the wired network of the access point.
Output Power	The power value used by wireless communication devices when transmitting signals directly affects the coverage range, penetration power and possible interference level of the wireless signal. The range of values: 1 - 26 dBm
Mode	Select the 802.11 working mode. By default, the bridge is set to the BE mode. It supports modes such as 11N, 11AC, 11AX, and 11BE.
Channel	In wireless communication, the "virtual channels" for signal transmission are similar to lanes on a highway. Different frequency channels are independent of each other, and devices avoid interference by using specific channels.
Channel Width	Also named channel bandwidth. Refers to the frequency range occupied by the signal in wireless communication (unit: MHz). It directly affects the transmission rate, anti-interference capability and spectrum utilization rate of the network. The default frequency is 160 MHz. It supports 20 MHz, 40 MHz, 80 MHz and 160 MHz.
Max Rate	MCS is the core mechanism for achieving a balance between "reliability" and "efficiency" in wireless communication. By dynamically adjusting modulation and coding methods, it enables the network to efficiently transmit data under different channel conditions. The default setting is: auto. It supports the selection of: auto, MCS0 to MCS13.
Country Code	Select the current country to adapt to the local wireless communication standards and laws / regulations.
Antenna Gain	Antenna gain is an important indicator for measuring the ability of an antenna to concentrate the input power and radiate it in a specific direction. It directly affects the coverage range, transmission distance and anti-interference capability of the wireless signal. By measuring the actual gain of the antenna when it is externally connected to the equipment, it helps to improve the performance of the equipment.

5.1.2 Client

Switch the wireless network mode to "Client". Generally used in conjunction with the "Access Point" mode.

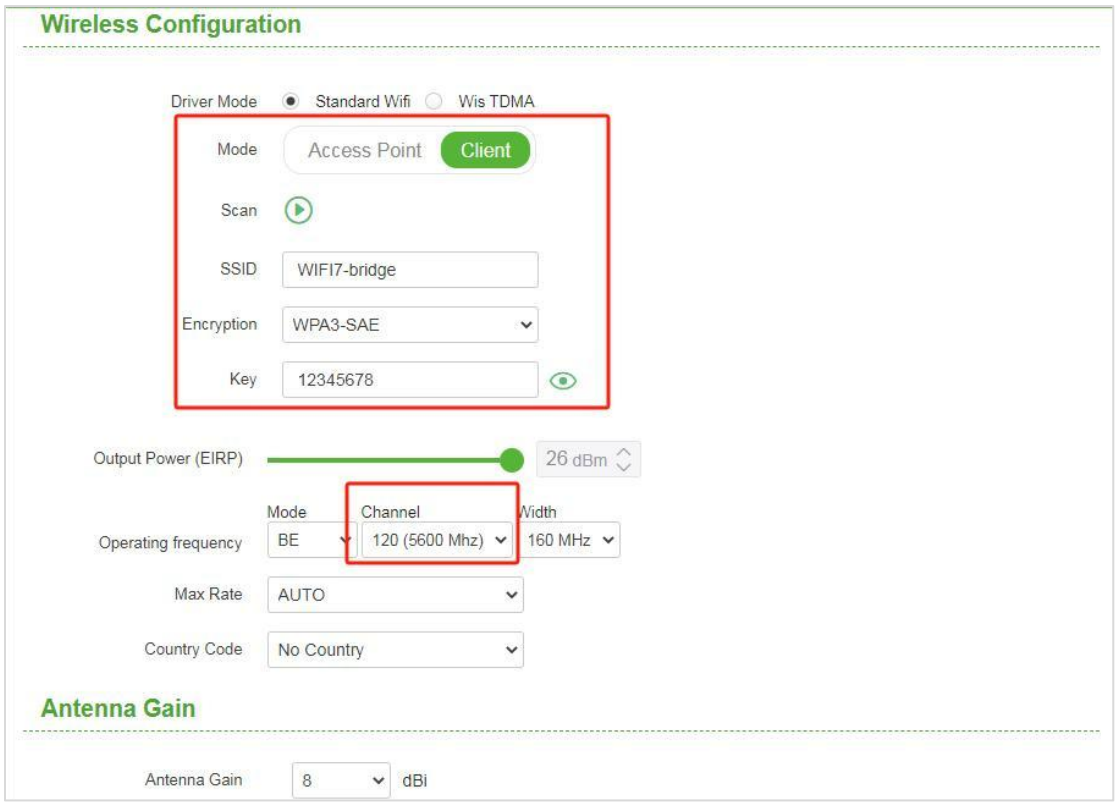
Click【Wireless】, enter this page, Change "Mode" to "Client". The usage scenario is as follows：



Client side setup steps：

1. Mode：Choose“Client”；
2. SSID：Specify the name of the wireless signal,eg.Wireless-WIFI7；
3. Encryption：Choose the encryption method. It is recommended to select "WPA3-SAE";
4. Key：Wireless WIFI password, eg.12345678；
5. Width：Select wireless bandwidth，he default frequency is 160 MHz. It supports 20 MHz, 40 MHz, 80 MHz, 160 MHz, and 320 MHz;
6. Chick Save & Apply ，Complete configuration.

Note: The above configurations in the client mode must be consistent with those of the upper-level AP in order to successfully connect to the AP.

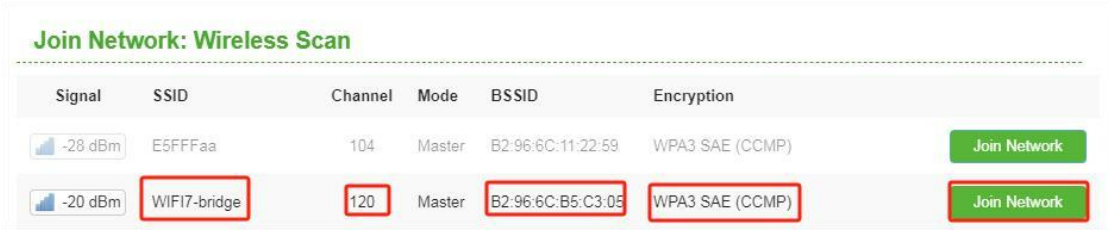


SCAN Usage steps:

Using the "SCAN" function, add the target AP.

execution step：

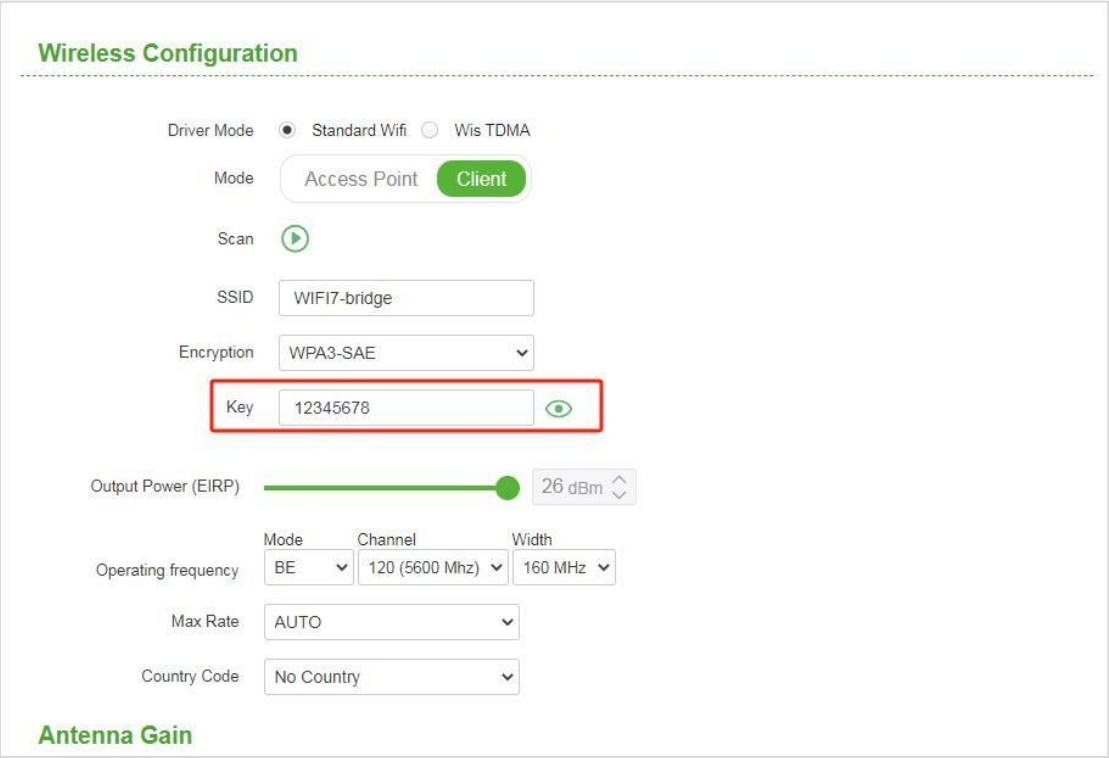
1. Chick .
2. Select the target AP through "SSID" and "BSSID".
3. Confirm the target AP. Click Join Network.



Part of Parameter Description：

Parameter	Description
Signal	The client detects the wireless signal strength of the AP by scanning.
SSID	The wireless signal name of the AP in the wireless network.
Channel	Wireless channel used by the superior AP.
Mode	The wireless mode of the superior AP.
BSSID	The wireless physical address of the superior AP.
Encryption	The wireless encryption method of the superior AP.

4. After the page is redirected, enter the WIFI password.
5. Enter the AP password.
6. Click Save & Apply. Complete configuration.
7. Wait for a few seconds, and the client device will automatically connect to the superior AP.

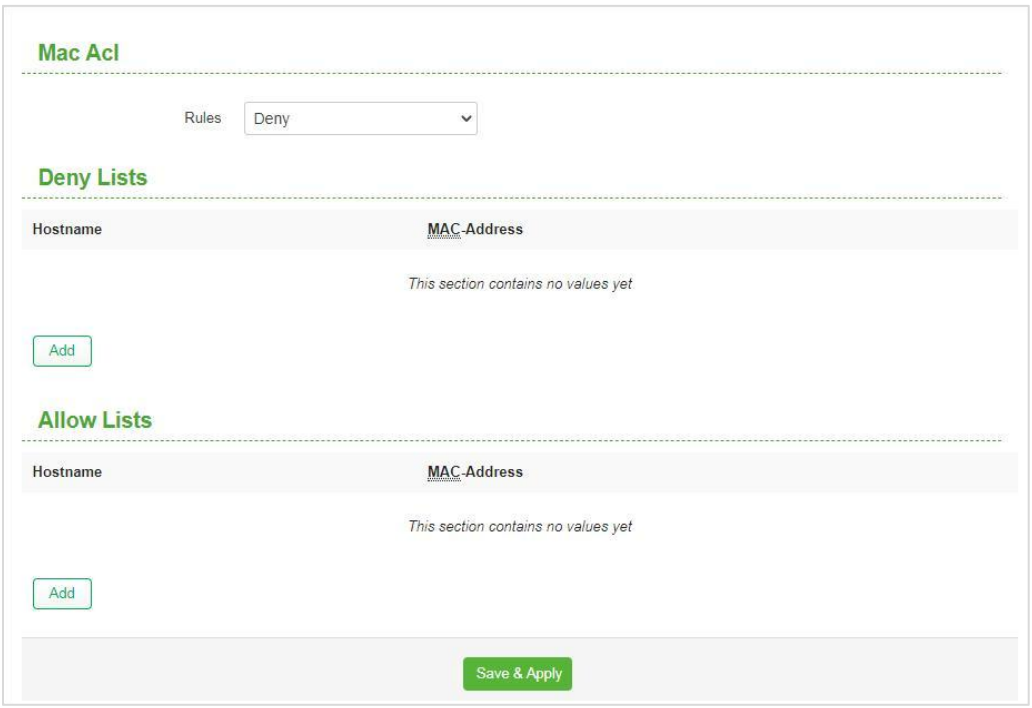


5.3 MAC Acl

MAC Acl is a type of cybersecurity measure that enhances network access control by restricting the MAC addresses of devices that are allowed to connect to the network. The use of smart phones, laptops, computers and tablets is increasing gradually. Each device has its own corresponding MAC address. The access to the Internet of local network clients can be controlled through the MAC address filtering function. MAC address filtering has two access control modes: "Deny" and "Allow".

MAC rules

Select the MAC address filtering rule. It supports allowing MAC addresses to pass through or denying access to MAC addresses. The settings can be specified through the drop-down menu.



Deny Lists:

Add the client's MAC address to the list and prohibit the user from accessing the Internet.

Click Add, Create MAC address filtering rules.

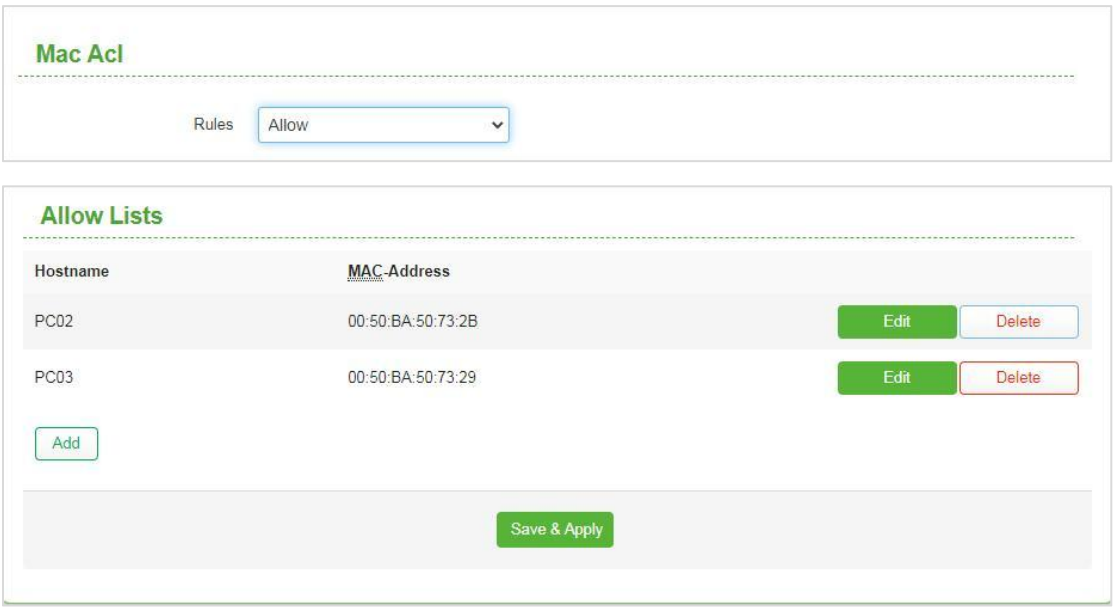
Create MAC address filtering rules:

1. Rule: Specify filtering rules. Default: Deny.
2. Click Add. The system pops up the creation interface.
3. Host name: Customized restriction on the host name of users based on MAC address, for easy distinction, such as PC01.
4. MAC address： Click on the drop-down menu and select the MAC address that needs to be restricted. You can also customize the MAC address, eg, B0:96:6C:E6:B6:04.
5. Click Save, Save configuration.
6. Click Save & Apply, complete configuration.

Added successfully. As shown in the following picture.

Allow Lists:

The MAC Acl is set to "Allow", which means that only the MACs listed in the "Allow Internet Access" table are permitted to access the internet.

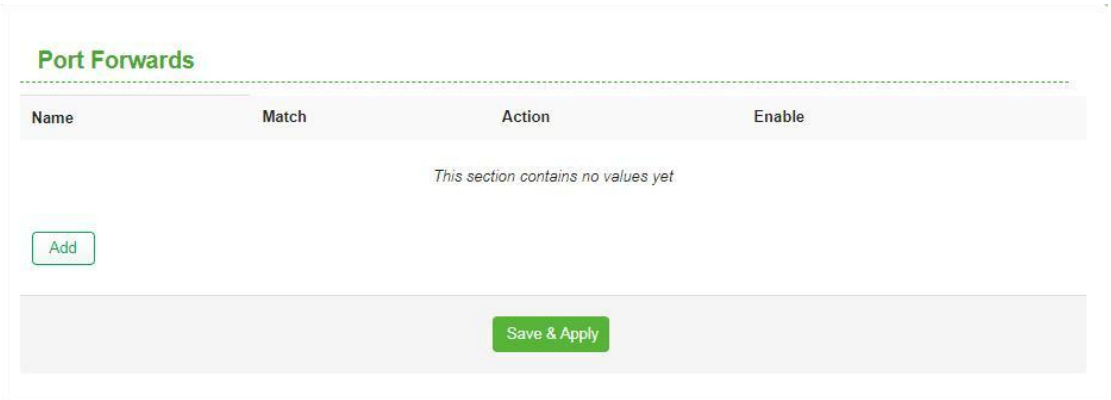


Chapter 6 Firewall

6.1 Port Forwards

Generally speaking, hosts in the WAN cannot actively access hosts in the LAN. Port forwarding enables WAN users to access the LAN host while protecting the internal LAN from intrusion. Port forwarding defines a service port and specifies its corresponding LAN server via IP address. The device directs service requests from the WAN for this port to that server.

Click【Firewall】→【Port Forwards】to enter this page.



Parameter Description：

Parameter	Description
Name	The name of this port rule.
Match	Forward the matching rules from the WAN. If the service protocol type is uncertain, it is recommended to use TCP/UDP.
Action	Forward the messages of the WAN to the designated address within the LAN.
Enable	Enable/Disable this port forwarding rule.

Port Forwarding Rule Example: Establish the network structure with the bridge and set the working mode to routing mode. The WAN port IP address of the device is: 192.168.2.100. When the network administrator is on a business trip and needs to access the device page to modify the configuration, this can be achieved through port forwarding rules. First, create the rule on the port forwarding page.

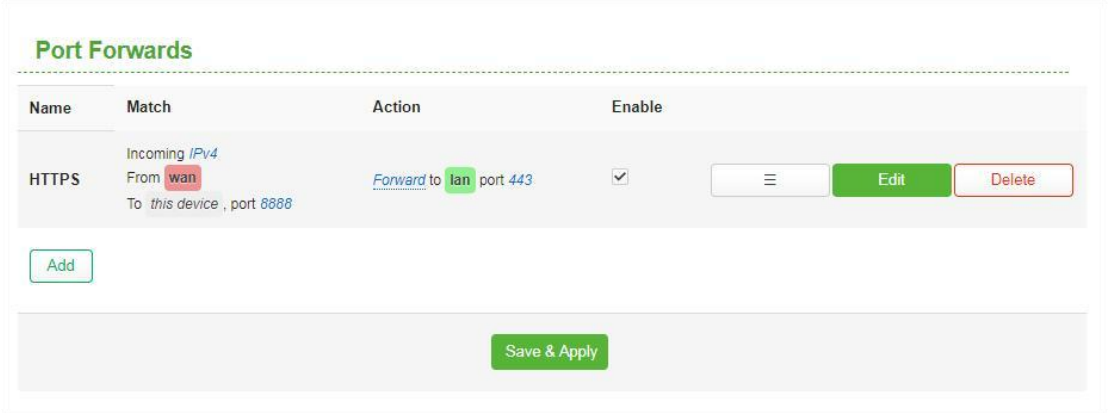
Note:

▪ Ensure the bridge WAN port has obtained a public IP address.

▪ If the bridge WAN port IP is dynamic, be prepared in advance.

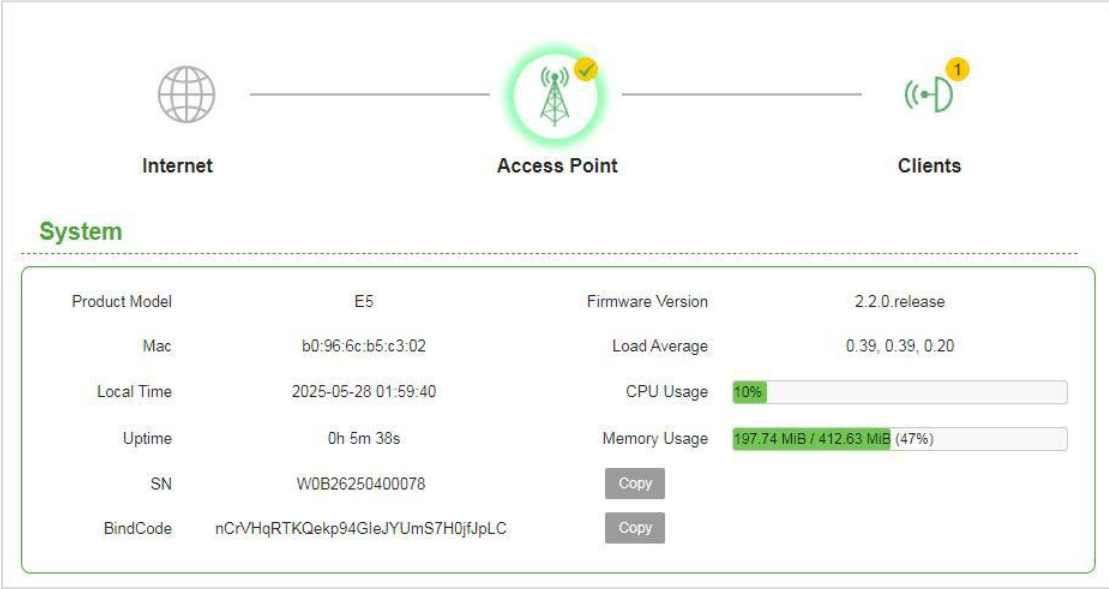
▪ System firewalls, some antivirus software, and security guards may prevent other computers from accessing the server. It is recommended to temporarily disable them before using this function.

Step 1. Create port forwarding and add it successfully as follows：



Step 2. Internet users access the bridge management interface.

When Internet users access the intranet management interface, they only need to visit: https://192.168.2.100:8888 on a computer that has obtained a public IP address.



Note：

- The "external interface" of the port forwarding rule cannot be the same as the "port number" of the remote WEB access, which will cause a conflict and lead to port forwarding failure.
- After setting the rule, Internet users can access it in the form of "protocol name://bridge wan port IP address: external interface".

6.2 Traffic Rules

Communication rules define the packet transmission strategy between different areas, for example: denying communication between some hosts and opening ports on the router WAN.

Traffic Rules

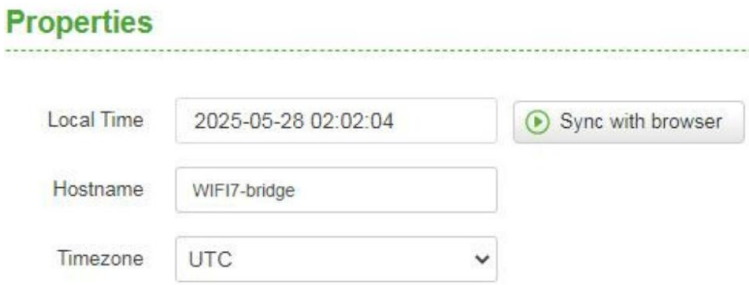
Name	Match	Action	Enable			
Allow-DHCP-Renew	Incoming IPv4, protocol UDP From wan To this device , port 68	Accept input	☑	☰	Edit	Delete
Allow-Ping	Incoming IPv4, protocol ICMP From wan To this device	Accept input	☑	☰	Edit	Delete
Allow-IGMP	Incoming IPv4, protocol IGMP From wan To this device	Accept input	☑	☰	Edit	Delete
Allow-DHCPv6	Incoming IPv6, protocol UDP From wan To this device , port 546	Accept input	☑	☰	Edit	Delete
Allow-MLD	Incoming IPv6, protocol ICMP From wan , IP fe80::/10 To this device	Accept input	☑	☰	Edit	Delete
Allow-ICMPv6-Input	Incoming IPv6, protocol ICMP From wan To this device Limit matching to 1000 packets per second	Accept input	☑	☰	Edit	Delete

Chapter 7 System

7.1 System

7.1.1 System Properties

Identify the device through system properties, view the device's Local Time and Timezone, and customize the “Hostname”.



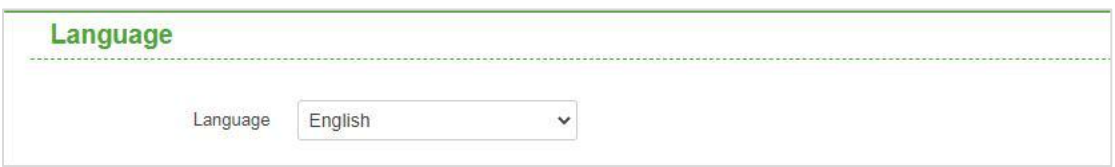
Parameter Description:

Parameter	Description
Local Time	Displays the device system time. After changing the time zone, you can correct it by clicking the time verification button (the default time zone is: UTC).
Hostname	Device identifier, used to uniquely identify and distinguish different devices in the network.
Timezone	A region divided by the coordinated global time, used to unify the standard time within a specific geographic area. Due to the rotation of the earth, there are differences in the alternation of day and night in areas of different longitudes. Time zones ensure that the time in the same area is consistent by dividing the earth into 24 areas with a theoretical width of 15 degrees of longitude (actually adjusted due to national boundaries, administrative regions, etc.).

7.1.2 Language

Pull down the menu button and select "Language".

Language options: English, Spanish, Hebrew, Korean, Portuguese, Russian, Vietnamese, Chinese Simplified.



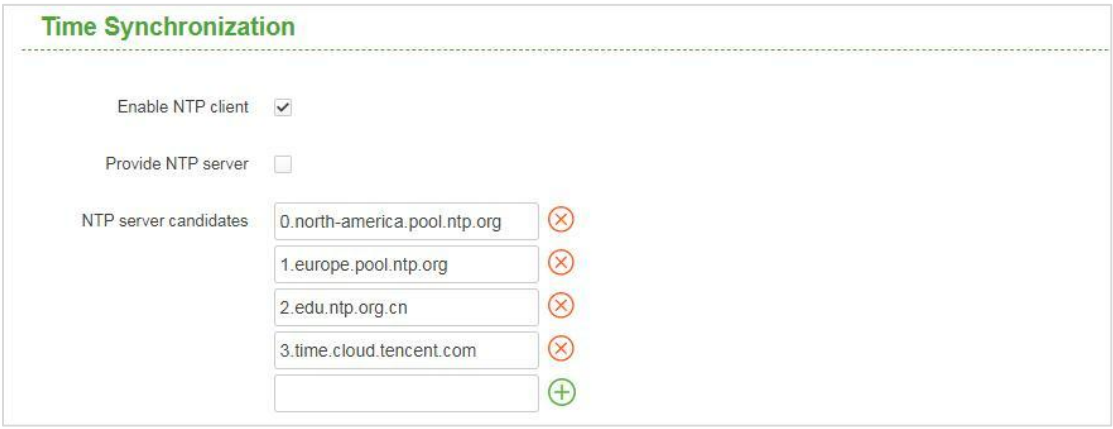
7.1.3 Web server

A web server is a network-based (usually the Internet) software system that aims to enable data interaction and function sharing between different systems through standard communication protocols (such as HTTP/HTTPS).

Check Secure Connection (HTTPS) to enable HTTPS protocol access.

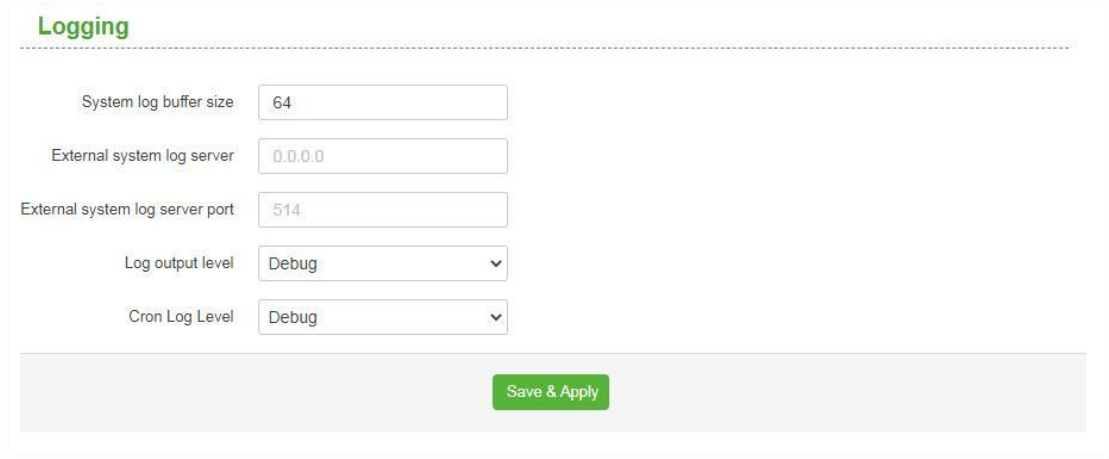
7.1.4 Time Synchronization

Time synchronization refers to the use of technical means to keep the clocks of different devices in the network (such as servers, computers, routers, etc.) consistent. Accurate time synchronization is crucial in scenarios such as distributed systems, financial transactions, log auditing, and scientific computing.



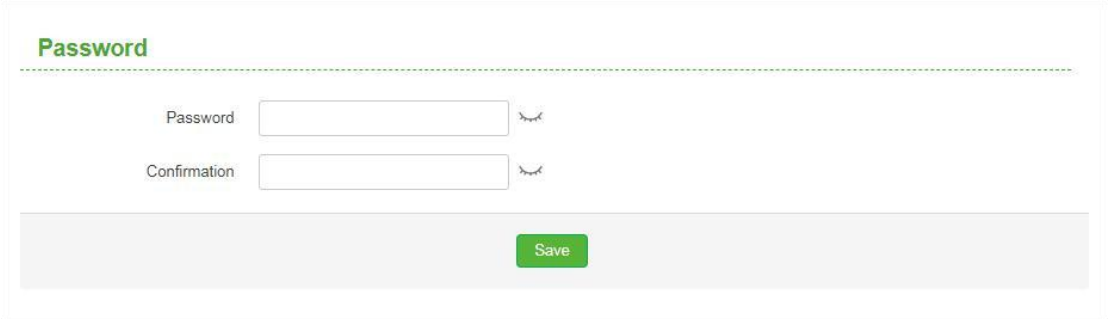
7.1.5 Logging

Log service related configuration.



7.2 Administration

Changing the administrator password for accessing the management interface.
Click【System】→【Administration】， enter this interface.



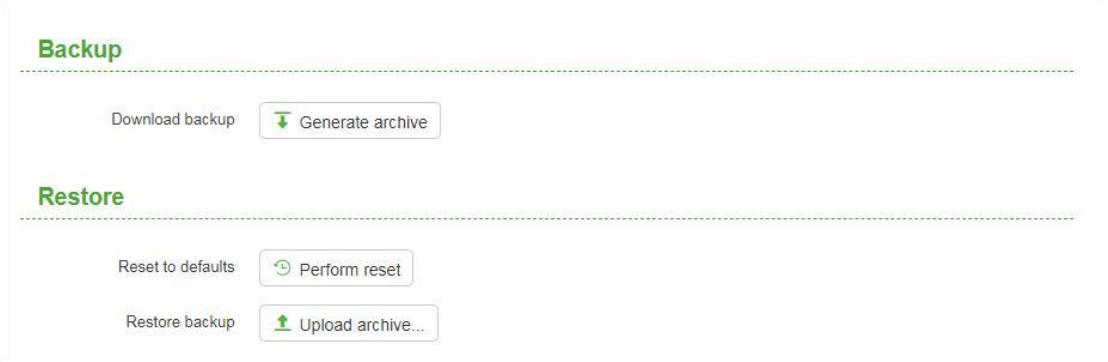
Note：

Click to view the entered administrator password. The password here only applies to the administrator login password, not the WIFI password.

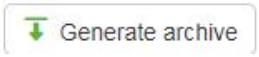
7.3 Backup / Upgrade

7.3.1 Backup / Restore

Back up the software configuration to facilitate import into other devices.



Backup steps:

1. Click 

.
2. Specify the backup file path. It is recommended to modify the file name.

3. Select the backup file to upload.

Restore backup steps：

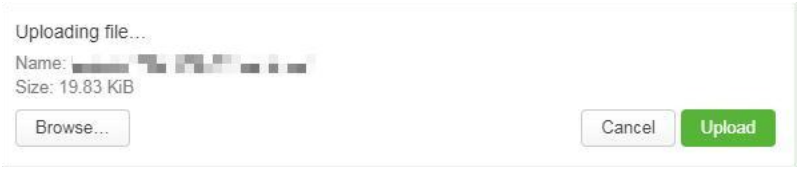
1. Click 

.
2. Click 

.
3. Select backup file to upload.

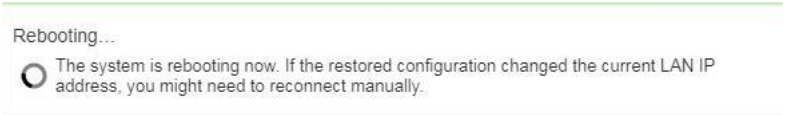
4. Confirm the uploaded file and click 

.



5. Find the button 

and click.
6. Wait for the backup to be restored. After the system configuration is restored successfully, it will automatically jump to the login interface.



Note: When restoring the system, please do not power off the device or unplug the network cable to avoid failure.

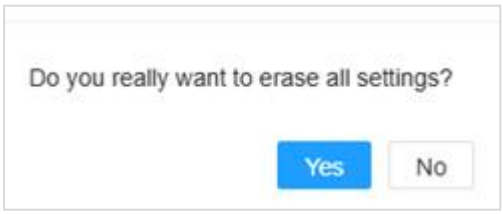
7.3.2 Restore

Through "Perform", the bridge configuration is restored to factory settings, and the configuration can also be restored to factory settings through the hardware (RST) key.

Steps:

1. Click 

.



2. System pop-up prompt“**Do you really want to erase all settings?**”, then click “**Yes**”.
3. Wait for firmware initialization.

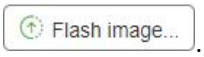
4. Device configuration reset complete.

Note: During the system reset process, please do not disconnect the power supply or unplug the network cable to avoid failure.

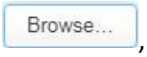
7.3.3 Flash new firmware image

Upgrade the firmware version.

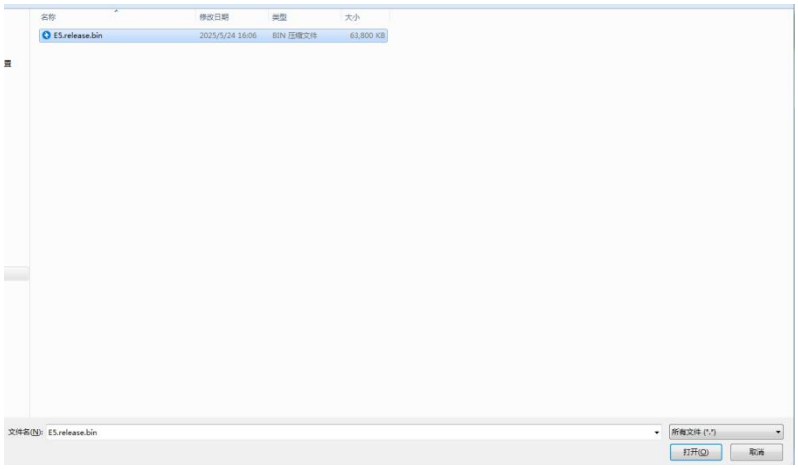
Steps:

1. Click 

.

2. Click 

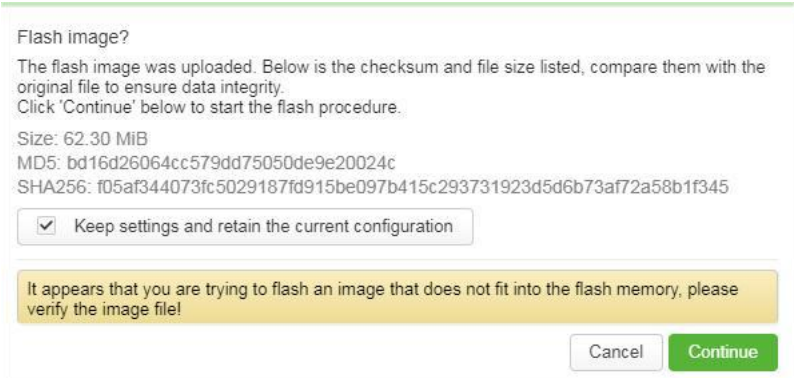
, select the correct software version.



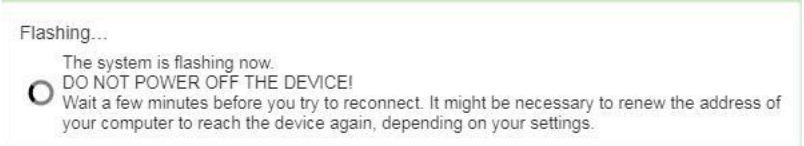
3. Confirm that the firmware has been uploaded correctly and click Upload.

4. Waiting for firmware to upload.

5. Click Continue, if you need to keep the original configuration after upgrading, check Keep settings and retain the current configuration. If you do not want to keep the configuration, do not check Keep settings and retain the current configuration.



6. Wait for the firmware to upgrade.



7. After the upgrade is completed, it will automatically jump to the login interface.

Note: During the device upgrade process, please do not turn off the power or unplug the network cable to avoid upgrade failure, it will cause the system damage .

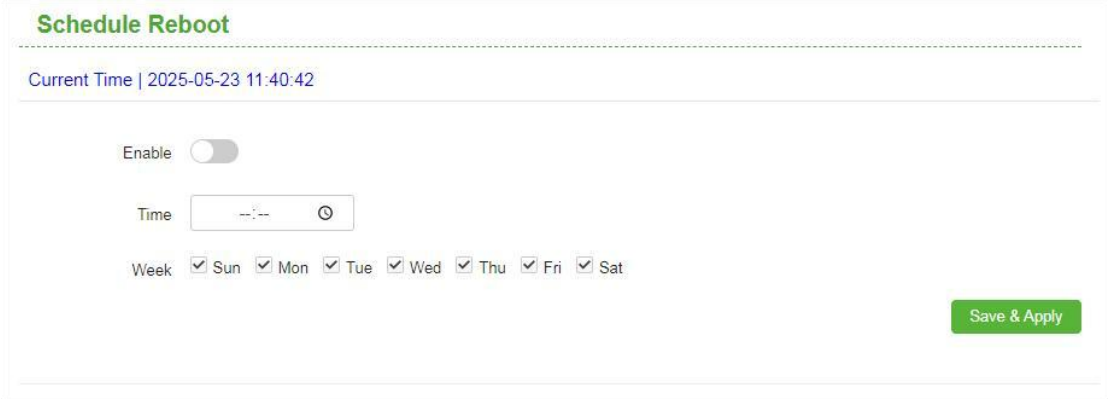
7.4 Reboot

7.4.1 Reboot

Restart the system immediately.

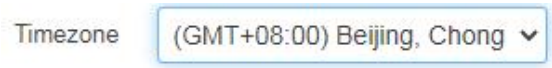
7.4.2 Schedule Reboot

Specify a device system to restart at a fixed time period. This function is often used in scenarios such as releasing resources, application updates, and fault self-healing.



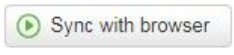
Setup Steps:

1. Go to【System】→【System】→"System Properties";
2. Change "Timezone" to the local time zone;



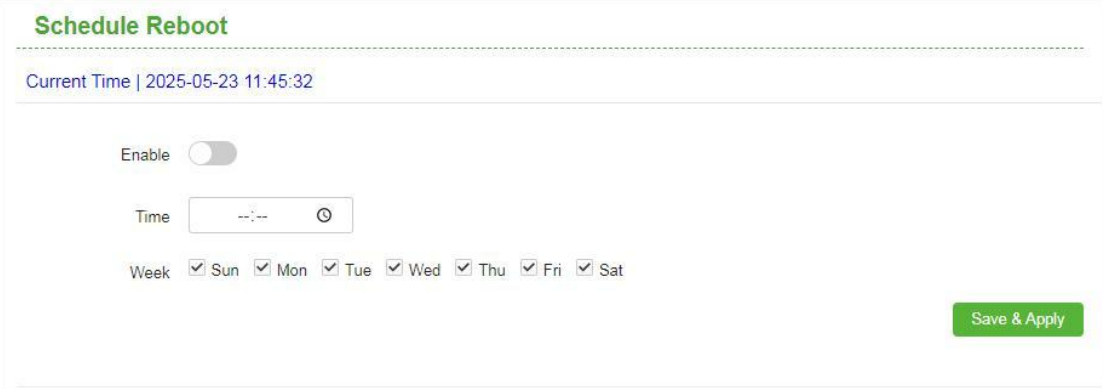
3. Scroll to the bottom of the page, click 

;

4. After configuring the application, click 

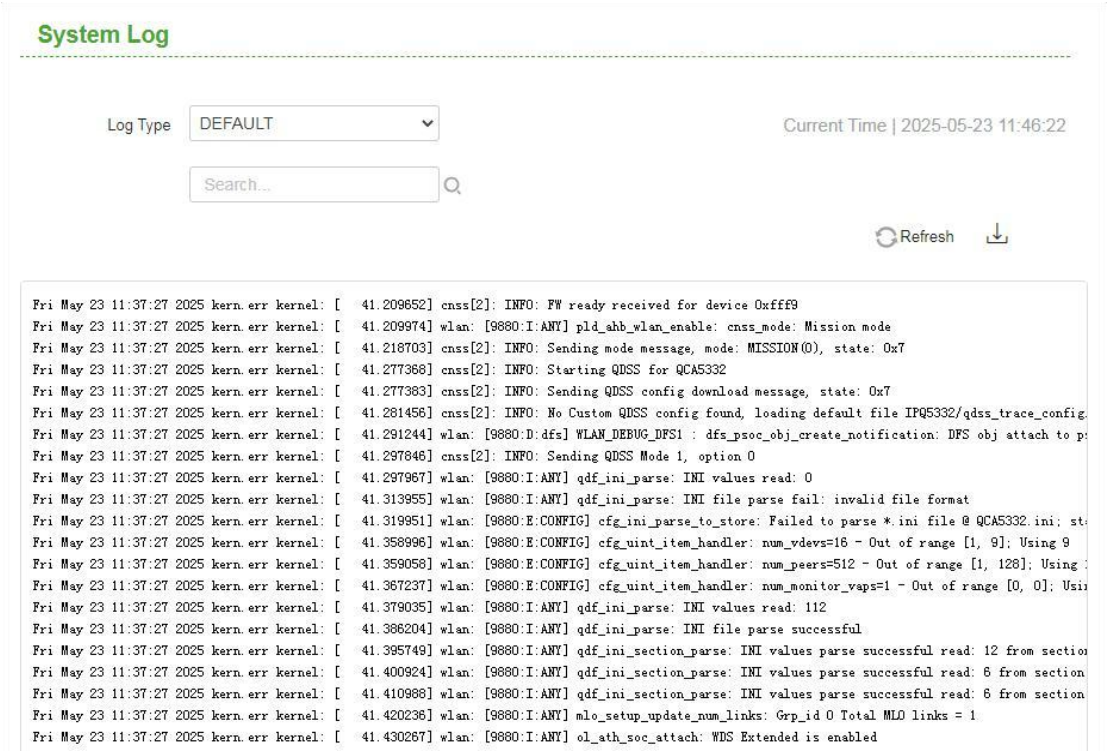
, the local time is converted to the local browser time;
5. Go to【System】→【Reboot】→"Schedule Reboot", the current time has been converted to the local browser time;

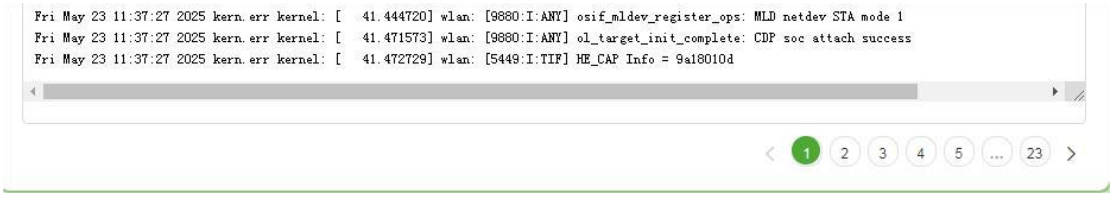
6. Enable: Enable scheduled restart;
7. Time: You can select the corresponding time through the clock table, or enter the value by hour and minute (e.g., 9:00);
8. Week: Specify on which day(s) of the week when the device system reboots. You can select all or select one, such as Monday/Thursday;
9. Click Save & Apply, complete configuration.



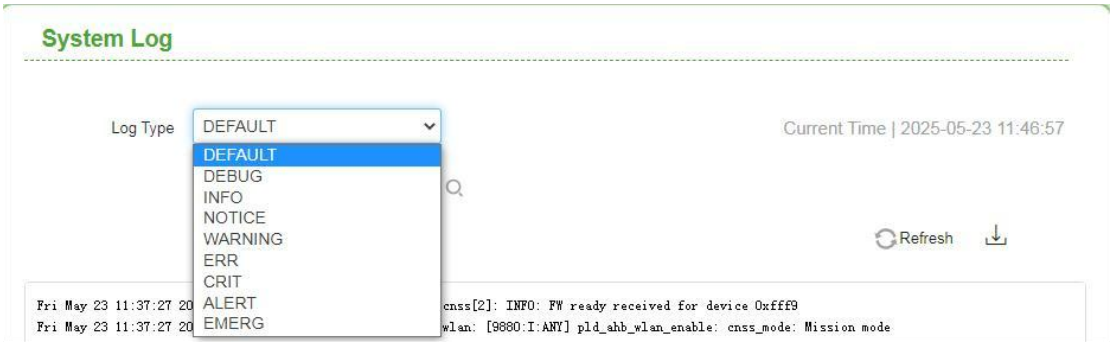
7.5 System Log

System Logs is a collection of files or data that records the operating status, events, and error information of the operating system, applications, hardware devices, etc. It is like a "black box" of the system, used to monitor health status, troubleshoot, audit operations and optimize performance.





Through the "log type" drop-down list, select the system log type, the system supports log type filtering: DEFAULT, DEBUG, INFO, NOTICE, WARNING, ERROR, CRIT, ALERT, EMERG.



Through the "Search" filter box, filter the specified information, such as filtering: cfg. Input completed, then click .

Click Refresh to refresh the system log.

Click the on the right side of the page to save the filtered logs locally.

Download LOG steps:

1. Select "Log Type" or filter the specified LOG through "Search".

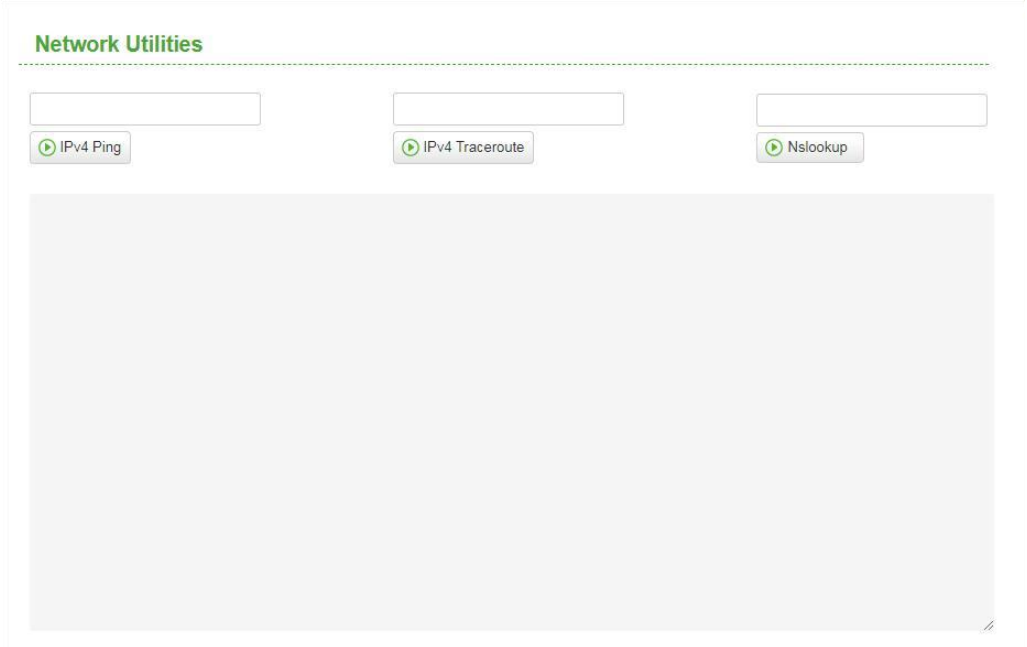
2. Chlick . The system pops up a file box.
3. Select the local file save path (e.g., E:\benfeiwenjian).
4. Modify the file name as needed; default: Event_Logs_2025-05-27T02-28-20-414Z.txt.
5. Click“**Save**”. Confirm to save to local.
6. Wait for the file to download. Go to the E:\benfeiwenjian path and check the LOG.

Chapter 8 Tools

8.1 Network Utilities

Network Utilities Tools， e.g., IPv4 Ping, IPv4 Traceroute, Nslookup。
Click【Tools】→【Network Utilities】 to enter this page.

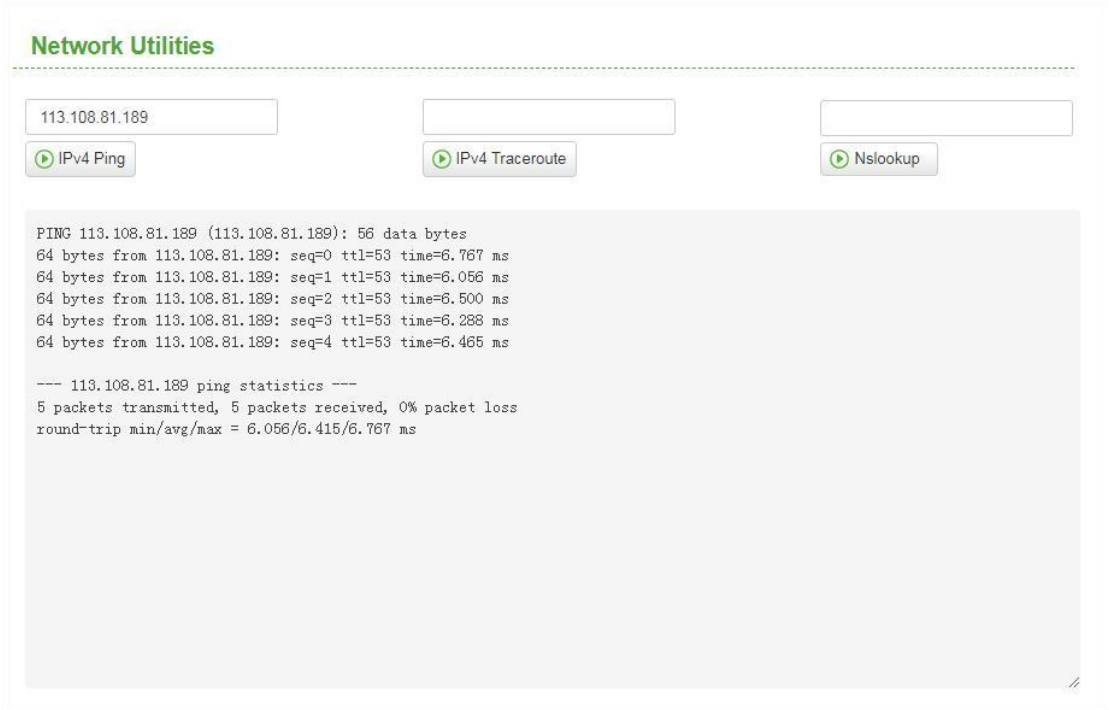
Note: When using this tool, the wireless bridge is required to connect to the Internet, or only test addresses within the LAN.



Ping Tool Usage Steps:

1. Specify the target IP address in the ping tool input box, eg. 113.108.81.189.
2. Click 

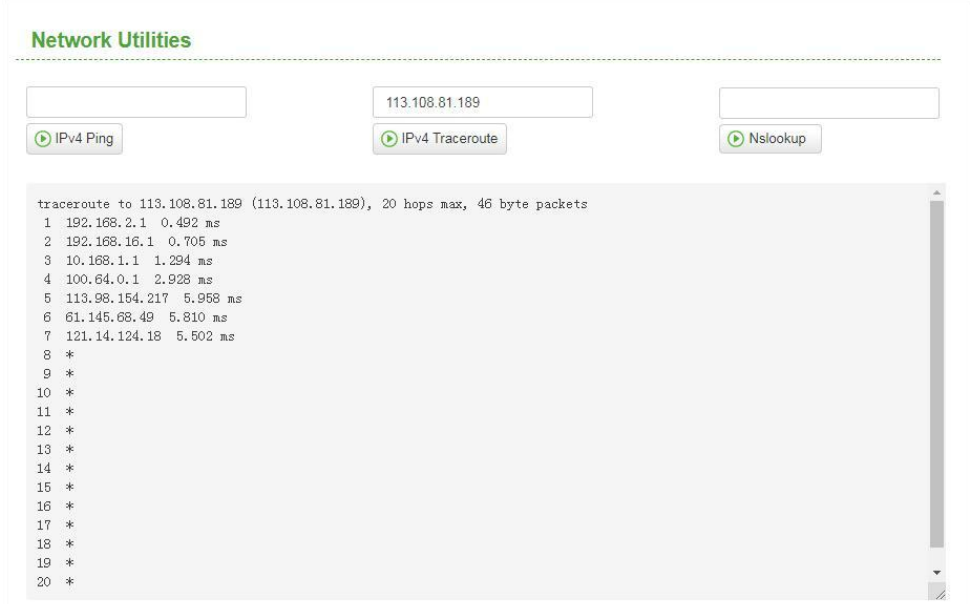
.
3. Wait a few seconds and the result will be displayed. The test is completed.



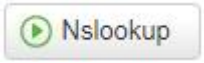
Traceroute Tool Usage Steps:

1. Specify the target IP address in the traceroute input box. e.g. 113.108.81.189。
2. Click 

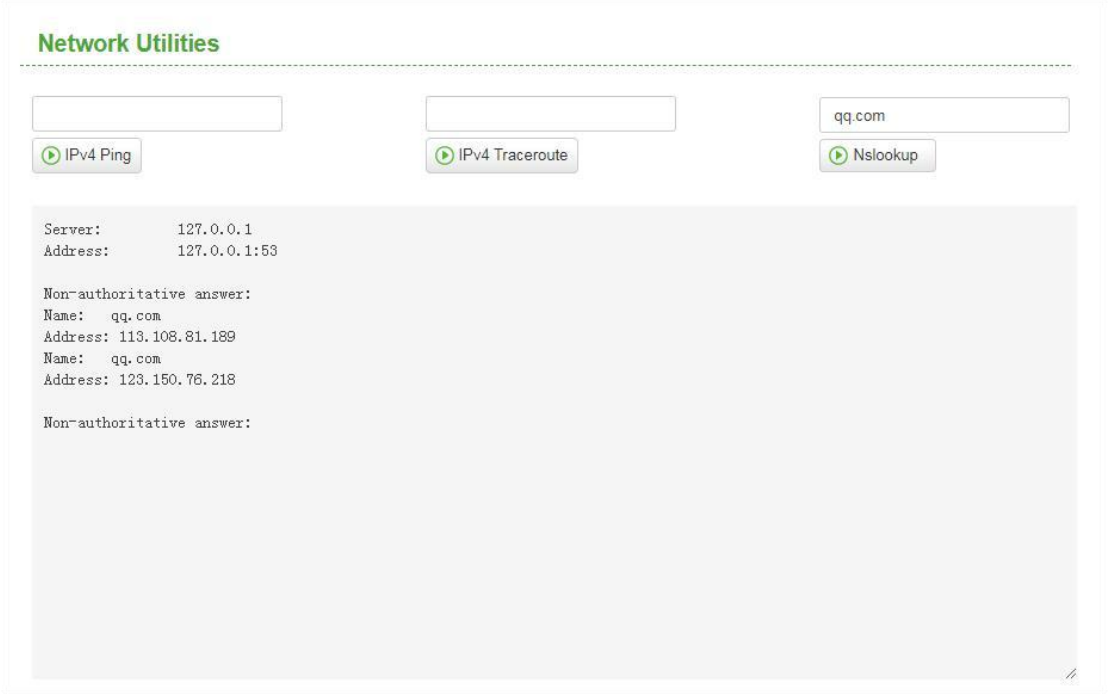
.
3. Wait for a few seconds and the result will show that the route tracing is completed.



DNS Resolution Usage Steps:

1. Specify the target domain name in the domain name resolution input box，e.g., qq.com.
2. Click 

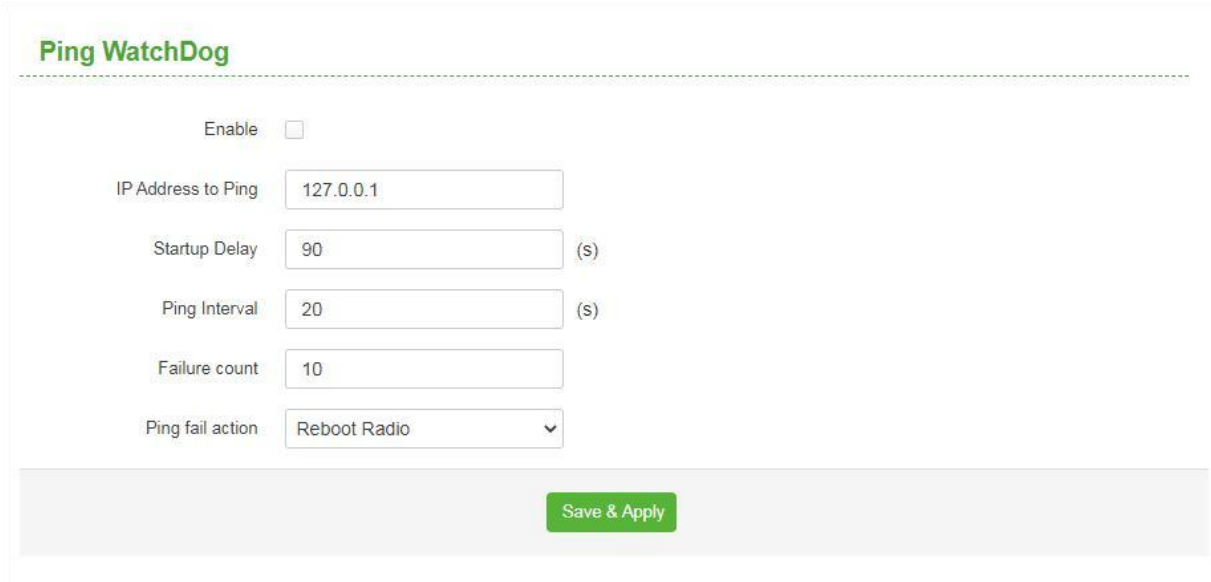
.
3. Wait a few seconds and the result will show that the domain name resolution is complete.



8.2 Ping WatchDog

Ping watchdog can be used to detect the network connectivity of the bridge in real time. However, if the network/destination address is not accessible, the bridge is specified to restart the system/network after the specified number of ping failures. By default, Ping watchdog is turned off.

Click【Tools】→【Ping WatchDog】， and enter this page.

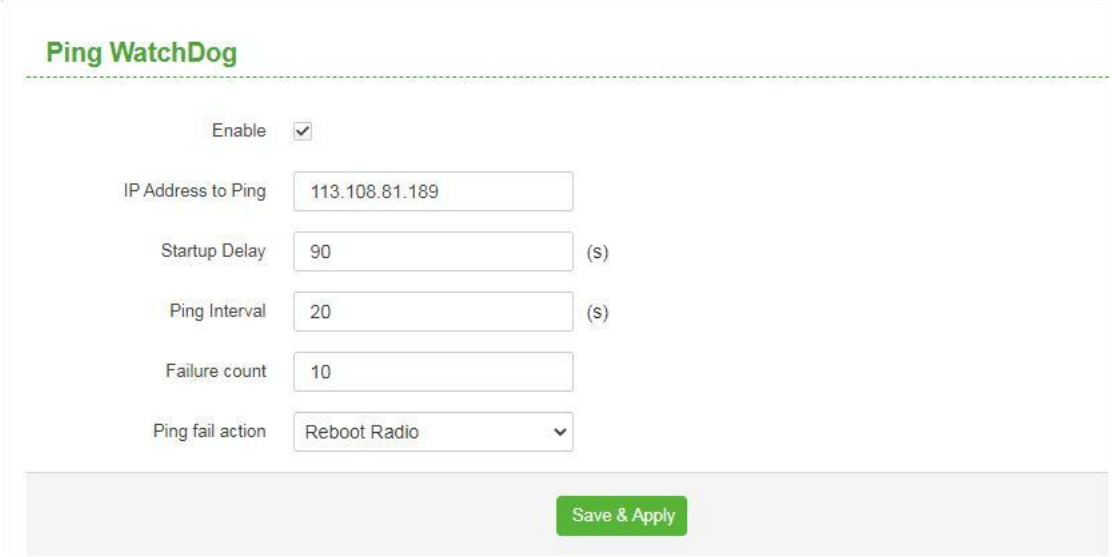


Parameter Description:

Parameter	Description
Enable	Enable/Disable Ping Watchdog.
Ping Address to Ping	Specifies the target IP address to ping.
Startup Delay	How long to wait before detecting activation.
Ping Interval	Specify the time interval between pings.
Failure count	Ping failure count detected.
Ping fail action	When the Ping detection fails for a specified number of times, the program will perform the specified operation, e.g., Reboot Radio、Restart wireless.

Ping Watchdog Steps：

1. Enable：Enable the Ping watchdog.
2. Ping Address to Ping：Specify the target IP address for Ping (e.g., 113.108.81.189).
3. Startup Delay：Specify the delay time before detecting the target IP(e.g., 90).
4. Ping Interval：Specify the Ping Interval (e.g., 20).
5. Failure count：Specify the number of ping failure (e.g., 10).
6. Ping fail action： When the ping detection fails for a specified number of times, the specified action is performed. In this example, the device is restarted.
7. Click Save & Apply, and complete configuration.



8.3 Discovery

Scan the product models and related information in the wireless bridge LAN.
Click【Tools】→【discovery】and enter this page.

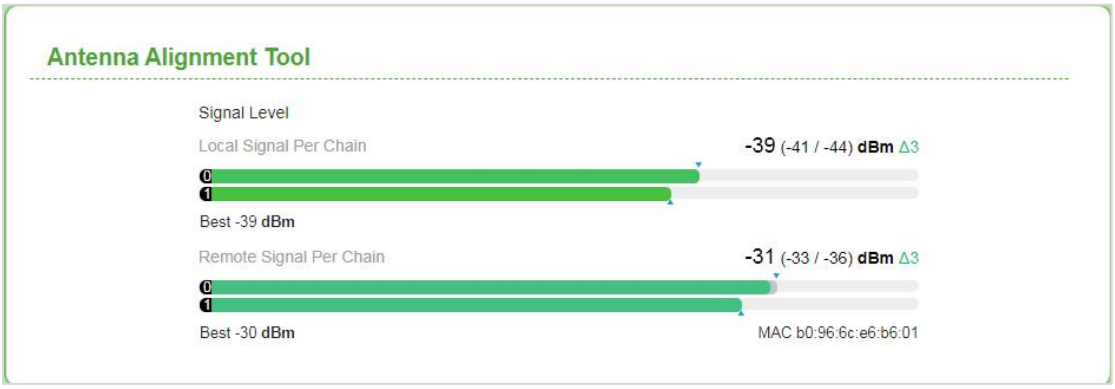
Parameter Description:

Parameter	Description
MAC ADDRESS	The physical address of the device scanned in the LAN.
RPODUCT	The identification number used on the product to distinguish it from others.
IP ADDRESS	The IP address of the device in the LAN can be either static or dynamic.
MODE	Wireless working mode of the device. Support： Access Point (AP), Client (STA) . It can be modified in【Wireless】→【Wireless Configuration】→“Mode”.
SSID	Wireless signal name, i.e., WIFI name.
DEVICE NAME	The host name of the device can be modified in 【 System 】 → 【 System 】 →“System Properties”→“Hostname”.
FREMWARE	System firmware version number, each system update will be replaced with a new firmware version number.
DEVICE TYPE	The device's working type, such as bridge, router, AP.

8.4 Antenna Alignment Tool

Wireless bridge antenna alignment is the core link to ensure the stability of long-distance wireless links, and its precision directly affects signal strength, transmission rate and anti-interference ability.

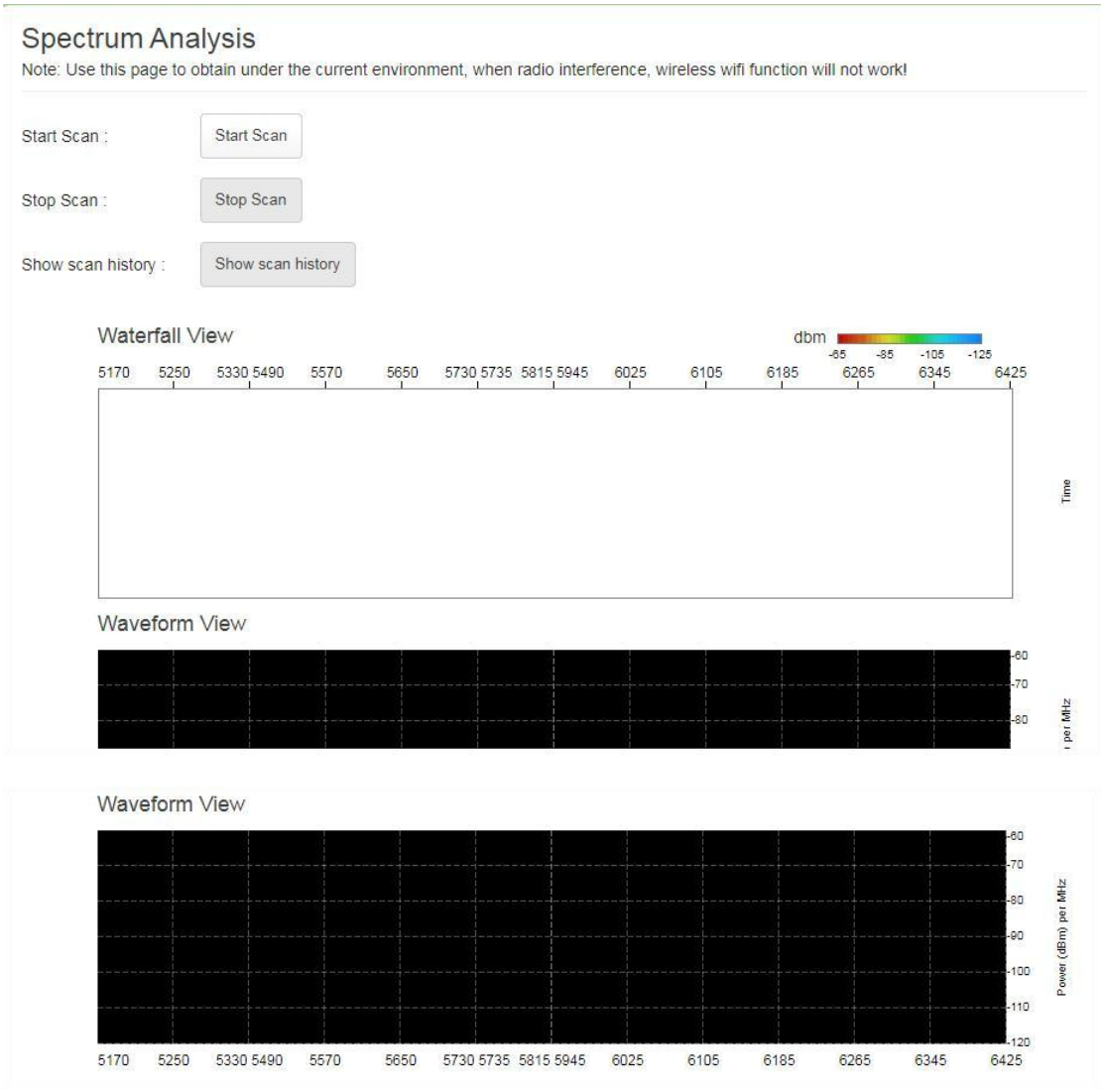
Use the antenna alignment tool to check the signal strength of the local and remote devices during long-distance interconnections. By adjusting the direction or elevation angle, you can achieve the ideal signal strength for the device connection.



8.5 Spectrum Analysis

Spectrum scanning is a core part of wireless communication system planning, deployment and maintenance. It provides data support for frequency planning, channel selection and network

optimization by analyzing signal distribution, strength and interference characteristics in the electromagnetic environment.



Perform the "Spectrum Scan" steps:

1. Click “Start Scan”.
2. Wait for the spectrum scan time to end.

3. During spectrum scanning, you can stop the spectrum scanning by clicking “Stop Scan”.
4. When the countdown ends, observe the "Waterfall" and "Waveform View".

5. Click "Show scan history" to view the spectrum scan records again.

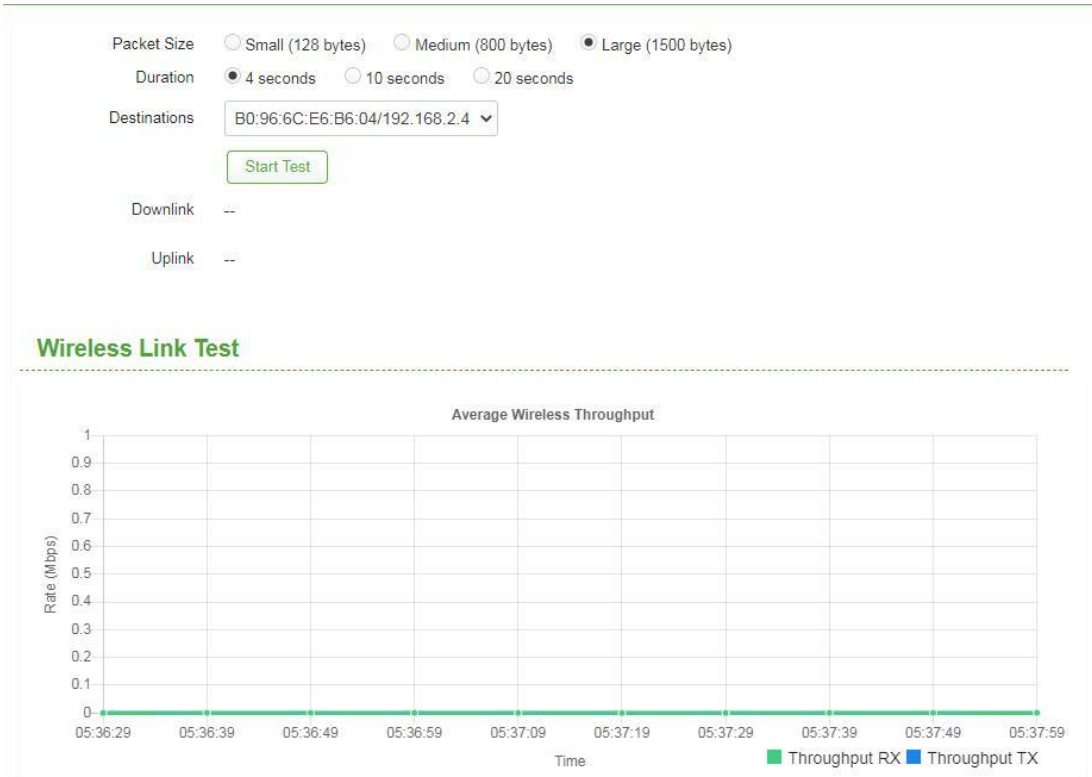
Notes:

1. When using the device to perform "Spectrum Analysis", the WiFi function will not work.
2. Devices in Client (STA) working mode do not support "Spectrum Analysis" now.

8.6 Wireless Link Test

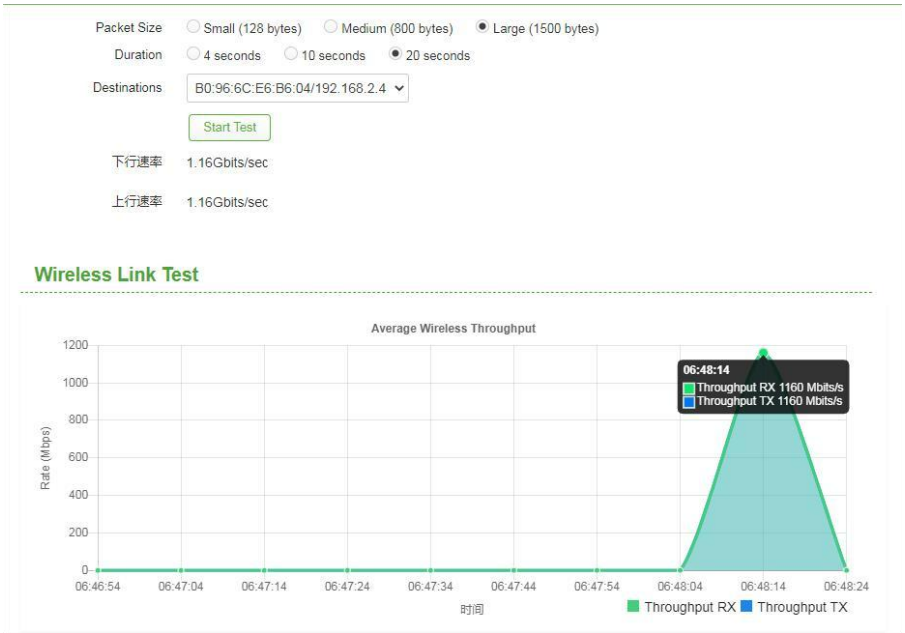
Wireless Link Test is an important means to evaluate wireless connection performance. It is mainly used to test the transmission rate, stability and bandwidth utilization between wireless devices.

Test the actual bandwidth of the point-to-point (PTMP) link to ensure smooth operation of services such as video surveillance and data backhaul.



"Test Setup" Execution Steps:

1. At least one client device is successfully connected.
2. Select "Packet Size"; "Large (1500 bytes)" is recommended.
3. Select "Duration"; "20 seconds" is recommended.
4. Select the terminal "Destinations". If there are multiple terminals, select the specified destination address by dropping down.
5. Click Start Test to start speed test. Select "Packet Size", it is recommended to use "Large (1500bytes)".
6. After the speed test is completed, check the "Downlink", "Uplink" and speed test traffic graph.



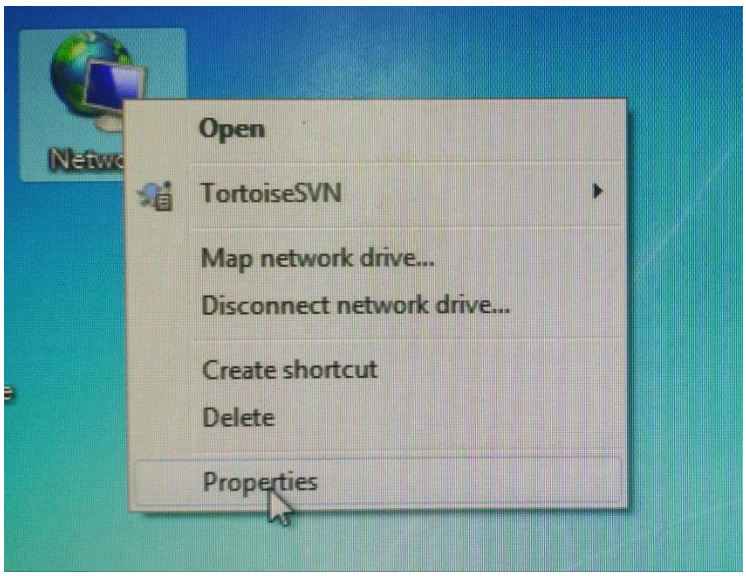
Appendix

9.1 Computer IP settings

Refer to the corresponding system version based on the computer OS to modify IP address settings: currently supports Window 7, Window 10, Window 11.

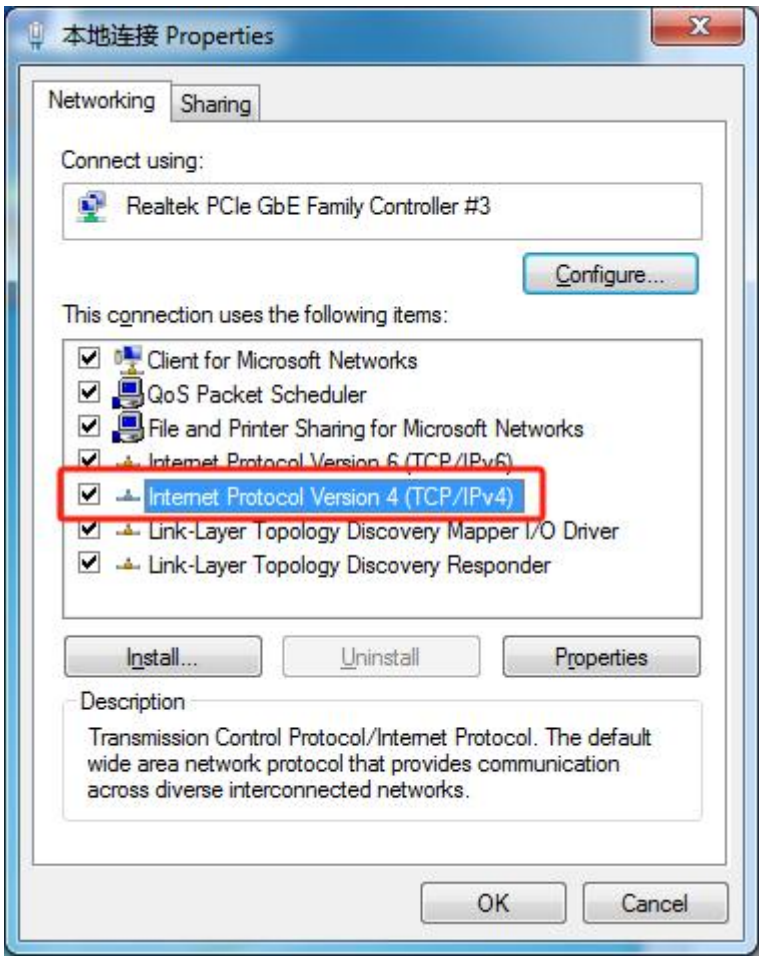
Window 7

1. Right-click "Network" on the desktop and select "Properties";

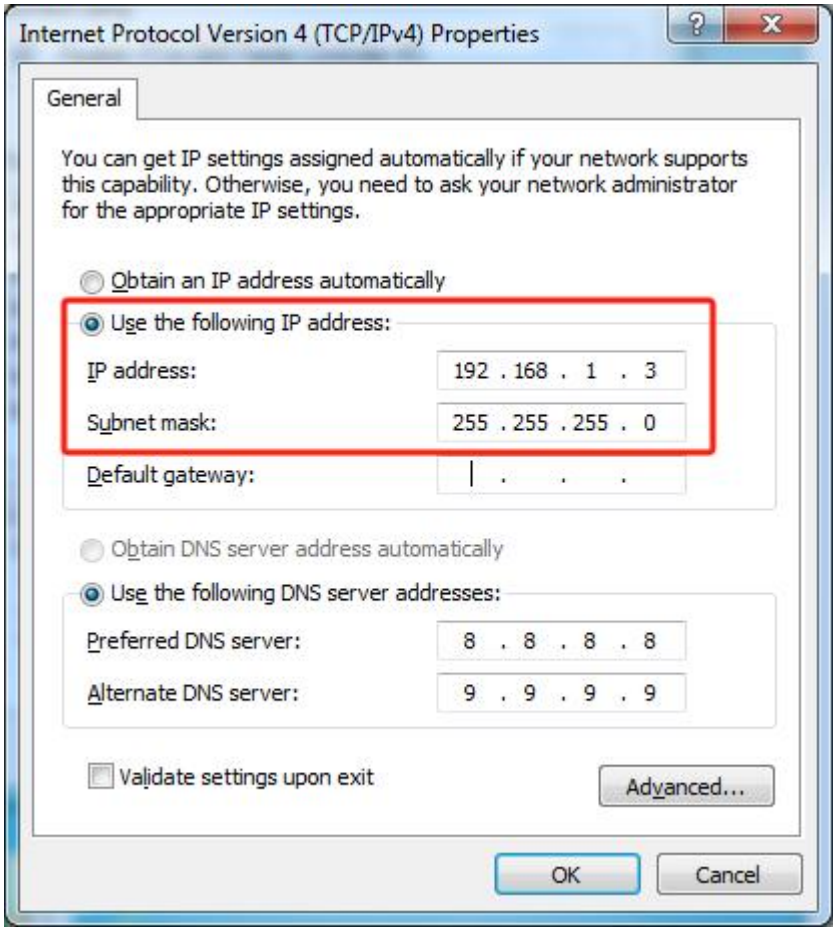


2. Click "Change adapter settings" and select the network interface directly connected to the wireless bridge;

3. Right-click the network interface, click "Properties", find and double-click "Internet Protocol Version 4 (TCP/IPv4)";



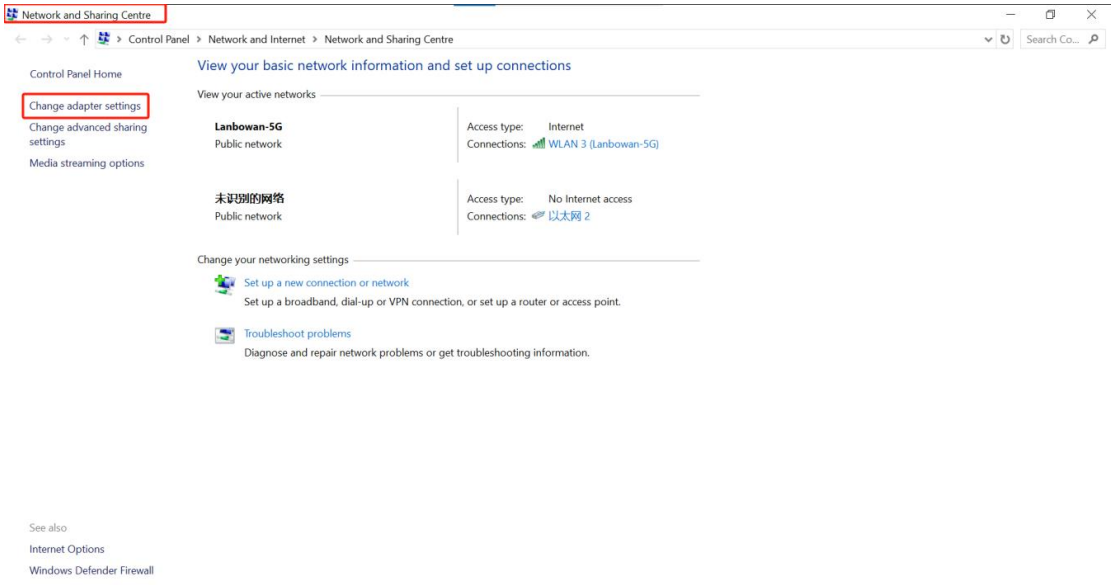
4. Manually set the IP address to "192.168.1.X (X: 3~254)" and the subnet mask to "255.255.255.0";
5. Click "OK", return to "Local Area Connection Properties", and click "OK" again";



Window 10

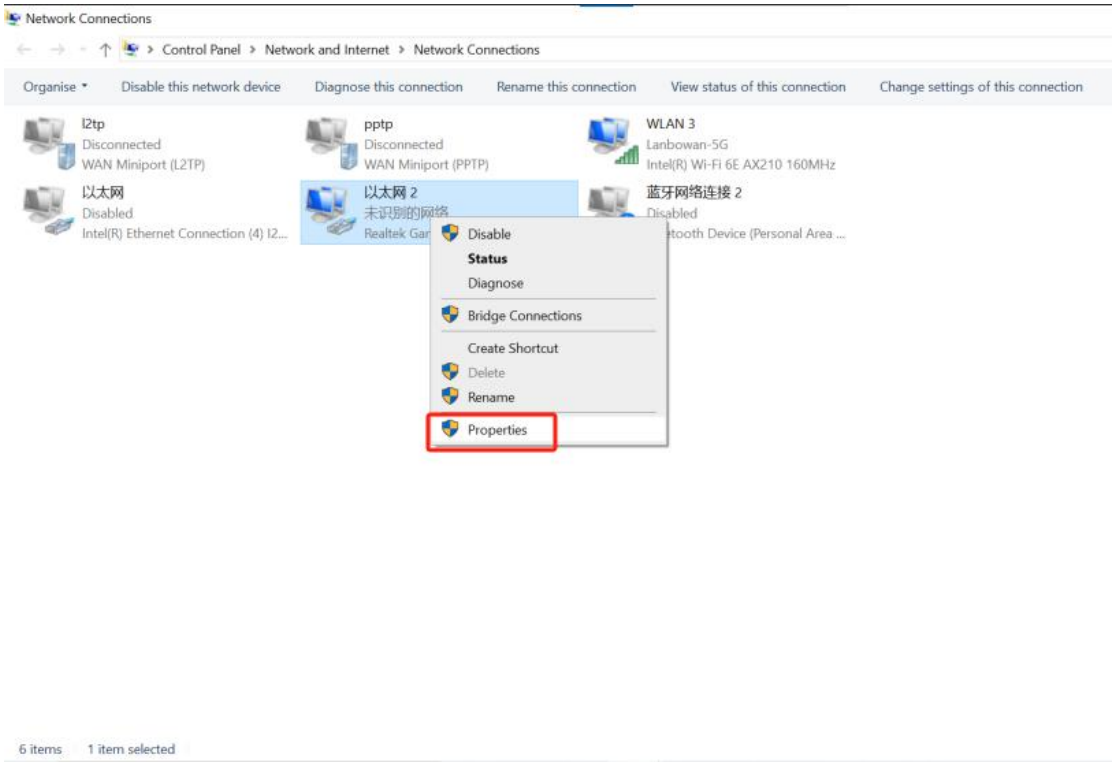
1. Right-click the "Network" icon on the desktop and select "Properties";

2. In the“Network and Sharing Centre”，click“Change adapter settings”;



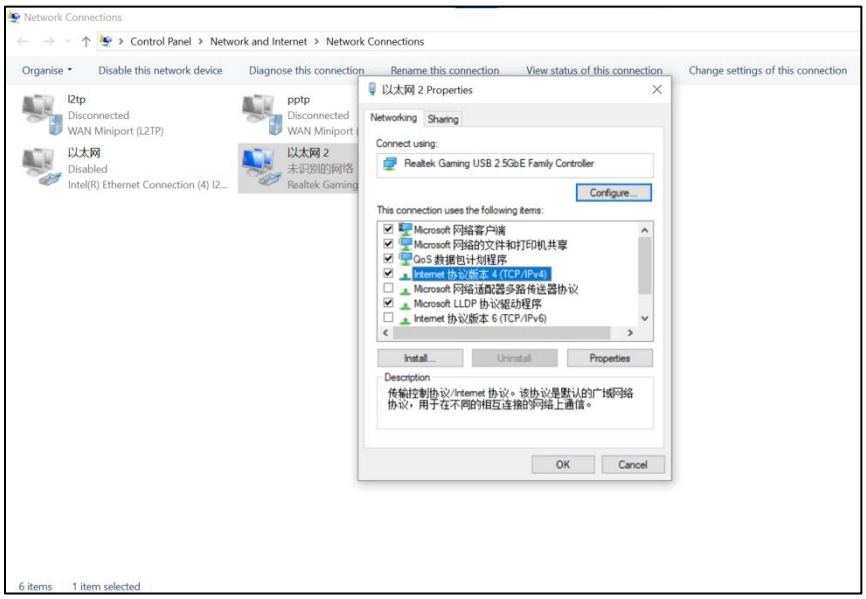
3. Select the computer Ethernet port connected to the LAN port of "bridge";

4. Right-click the Ethernet port to which the "Wireless Network Bridge" is connected and select "Properties";



5. In "This connection uses the following items", double-click "Internet Protocol Version 4

(TCP/IPv4)";



6. "Obtain an IP address automatically", select "Use the following IP address" to manually set the IP address "192.168.1.X (X: 3~254)", Subnet mask "255.255.255.0"; After the settings are completed, click "OK" below to apply the configuration.