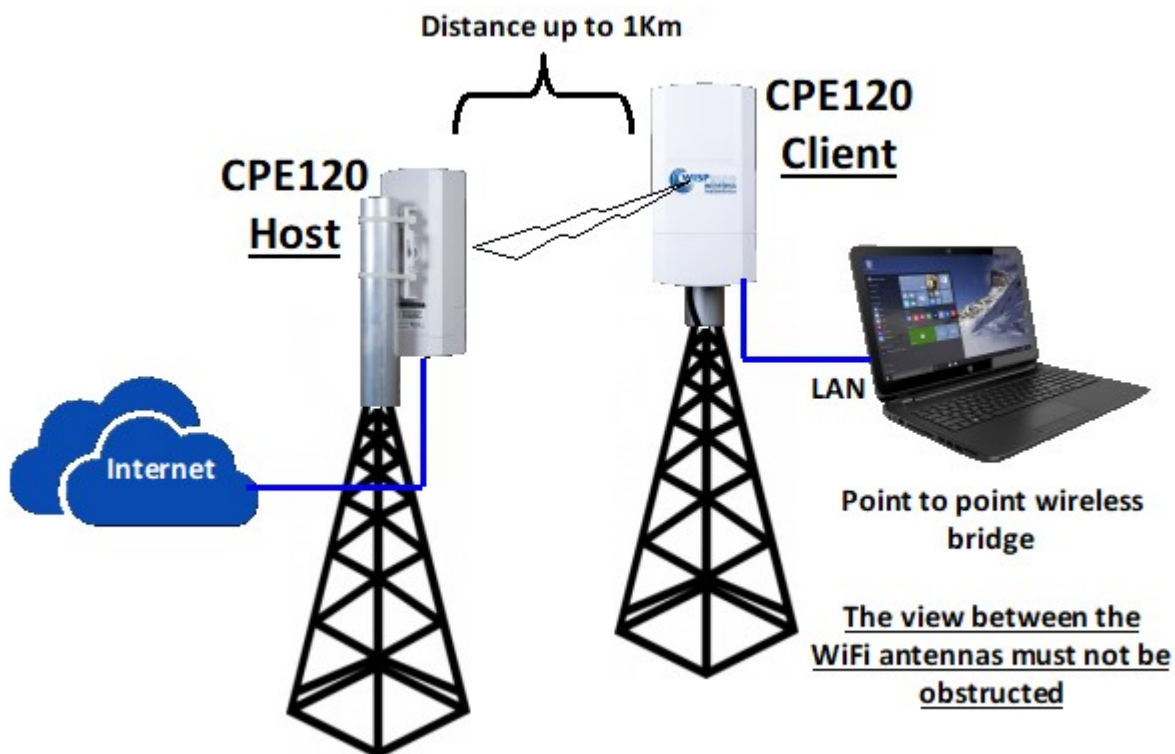


# **CPE120**

## Point-to-point wireless bridge installation and configuration guide



The CPE120 kit contains two wireless units, pre-configured as the HOST and CLIENT, see the diagram. A label on each product shows which is the HOST and which is the CLIENT. The products do not require configuration to install and operate them.

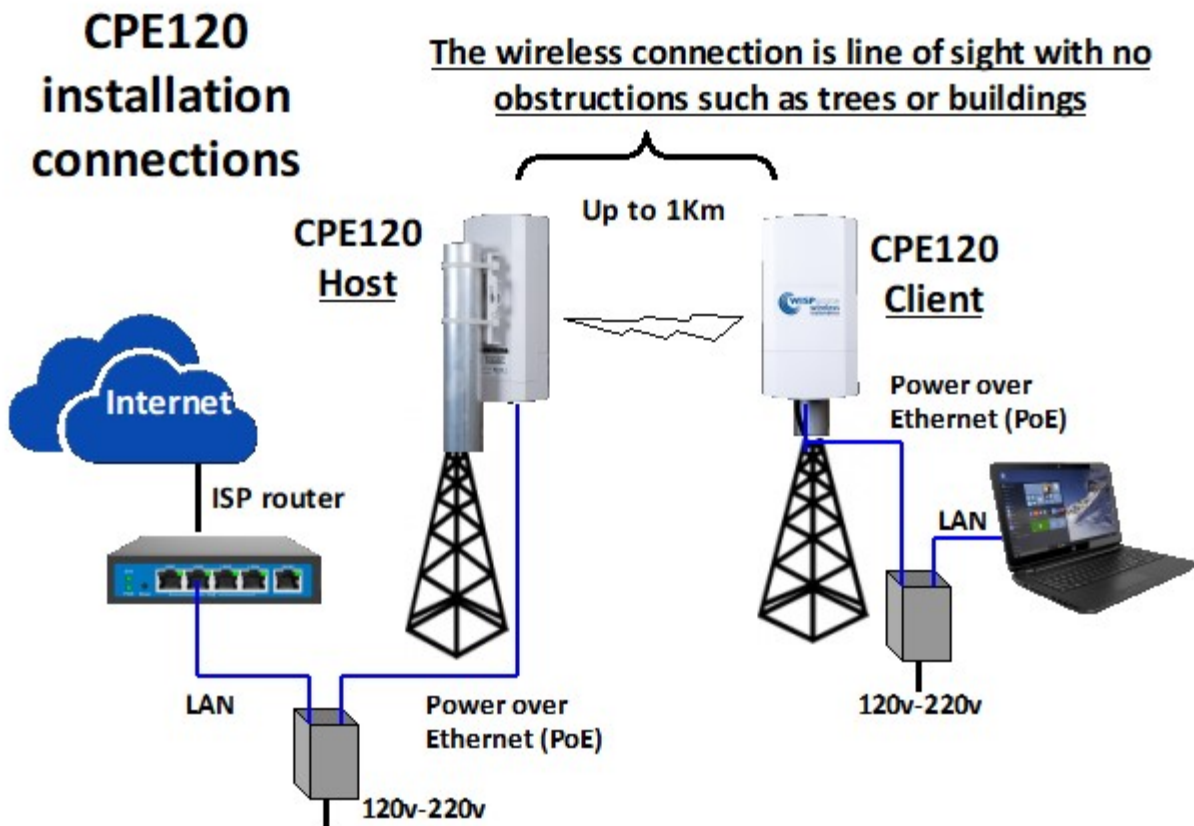
This document explains how the CPE120 products should be installed, and also shows how to change the product configuration if this becomes necessary.

## CPE120 Installation

Each CPE120 wireless unit is powered over the Ethernet cable using the power supply provided. This is called the PoE supply and plugs into a 120volt outlet.

The customer has to provide the Ethernet cable that connects the PoE supply to the CPE120 wireless product. The maximum length of this Ethernet cable is 100m (300ft).

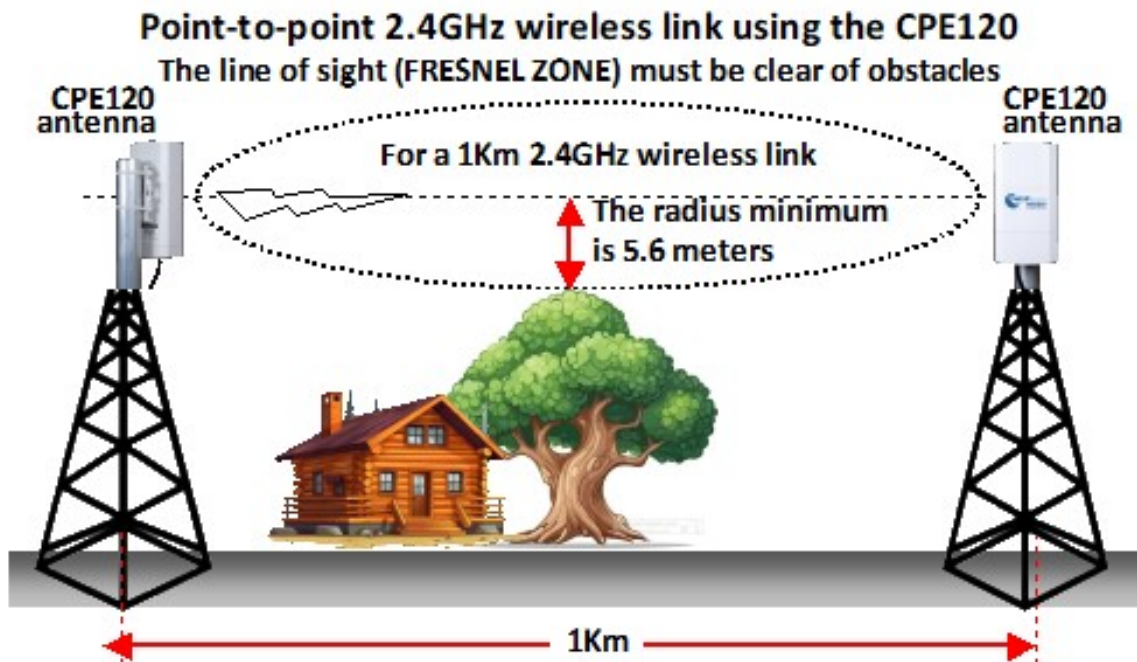
The next diagram shows the product connections with the PoE supplies.



The CPE120 HOST connects to the Internet service using the Ethernet cable provided to connect the PoE supply to the ISP router.

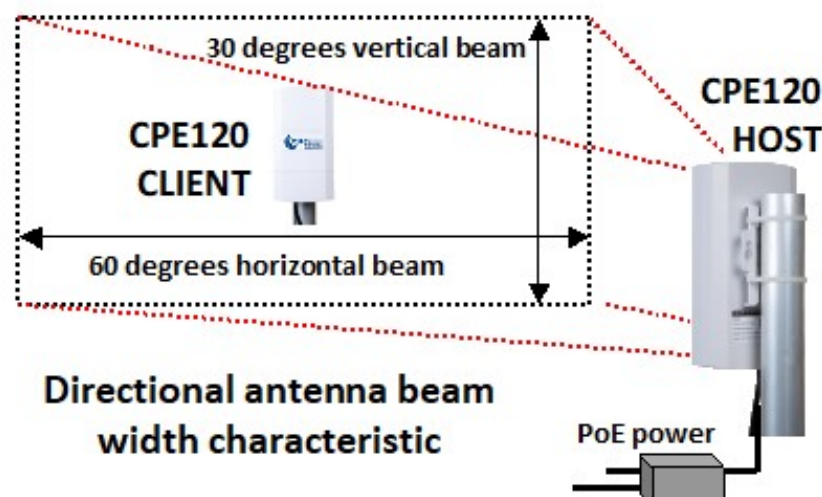
The CPE120 CLIENT connects to a computer. The CPE120 CLIENT can also connect to a wireless access point, or to a Guest Internet STAR kit when a number of people will connect to the Internet.

The CPE120 wireless units must be installed on towers so that there is a clear line of sight between the two antennas. There must also be a minimum clearance of 5.6m (18ft) between the centerline of the antennas and any obstacle on the ground. This is shown in the diagram.



If the clearance is not provided the antennas will not communicate.

The CPE120 wireless antennas are directional. Each antenna must be adjusted so that it points in the direction of the other antenna. The directional antenna characteristic is shown in the diagram.



The CPE120 products are pre-configured for a point-to-point link, no further configuration is required.

It is necessary to login to the configuration page of each unit and change the password from **admin** to a password of the users choice.

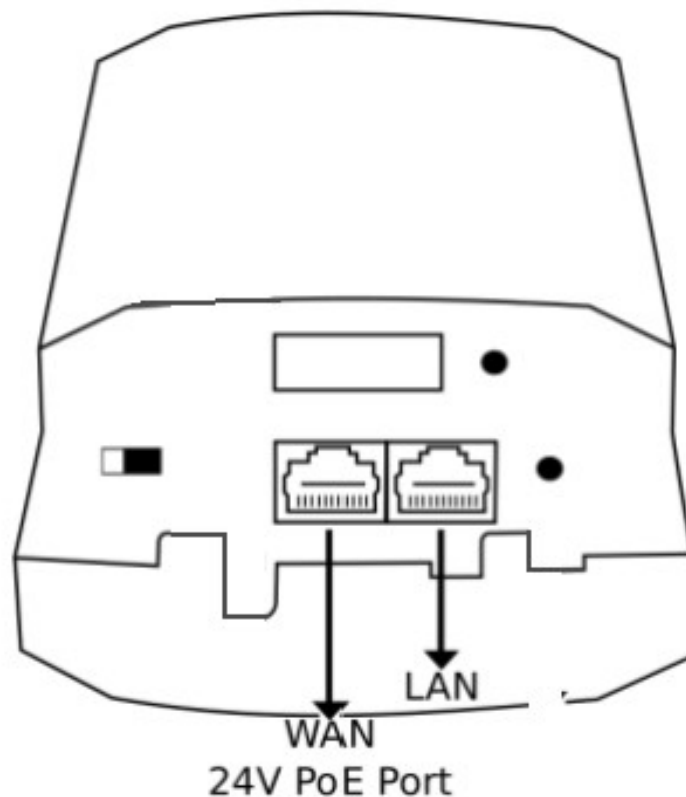
Each CPE120 is mounted to a pole using the plastic zip-ties provided with the products. This is shown in the diagram.



The Ethernet cables are connected to each CPE120 as shown in the diagram. Connect the WAN PoE to the PoE supply.

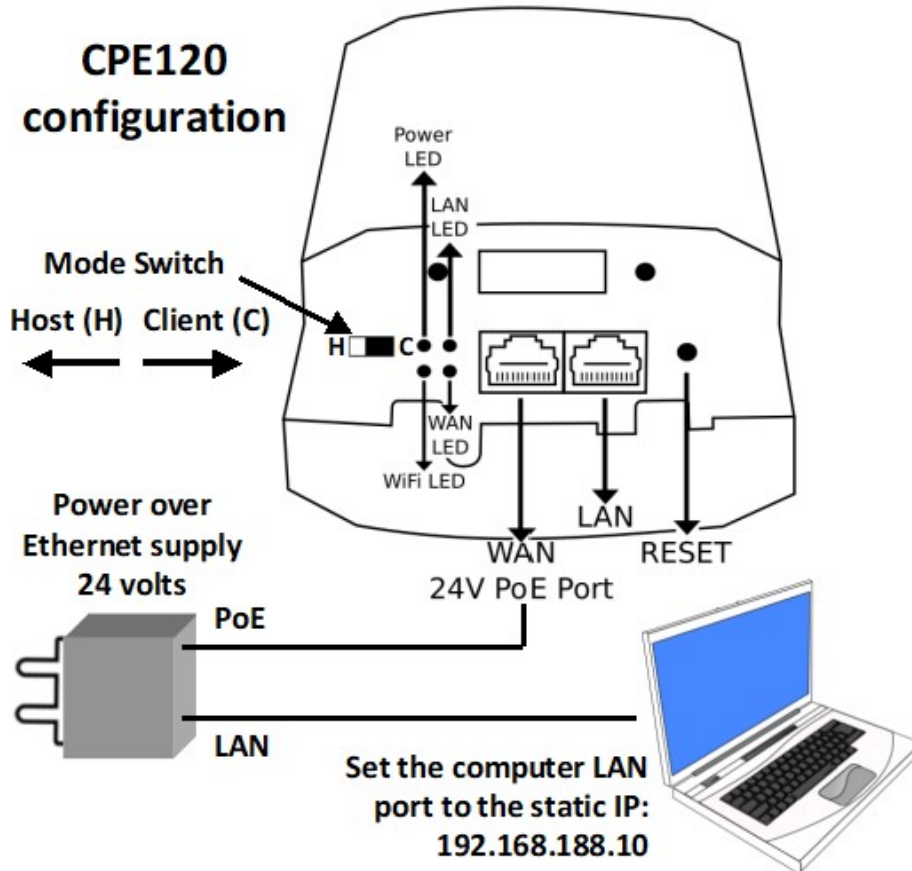
The HOST LAN port will connect to the ISP router Ethernet port.

The CLIENT LAN port will connect to a computer, or to a Guest Internet STAR kit.



## CPE120 procedure when a configuration change is required

Each CPE120 wireless unit is configured as a Host (H) or a Client (C). The Host configuration is a point-to-multipoint wireless access point. The Client configuration is a client premise equipment (CPE).



The Host or Client mode is selected using the switch shown in the diagram. When the mode has been selected then the configuration has to be made by selecting the parameters for that mode.

Connect the computer LAN port to the PoE supply LAN port with an Ethernet cable. The computer LAN port default configuration will be DHCP client.

Using the operating system utility, change the LAN port setting to a static IP address:

**192.168.188.10**

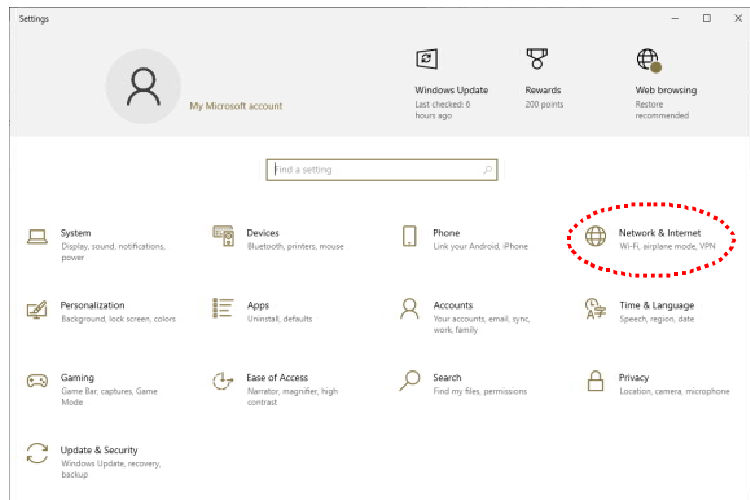
Verify that the WAN LED is lit on the CPE120.

Both Host and Client configurations use this setup configuration.

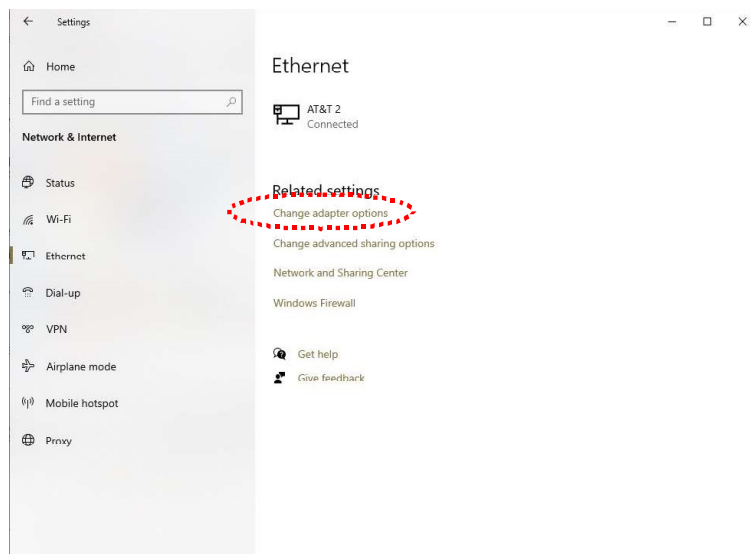


## How to set a Windows computer to a static IP address

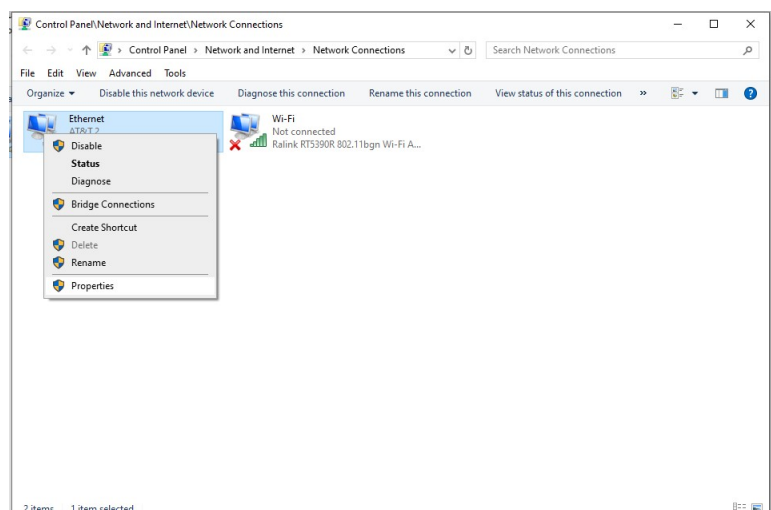
It is necessary to set the computer LAN port for a static IP address to configure each CPE120 wireless unit. Open the settings page, select network and Internet.



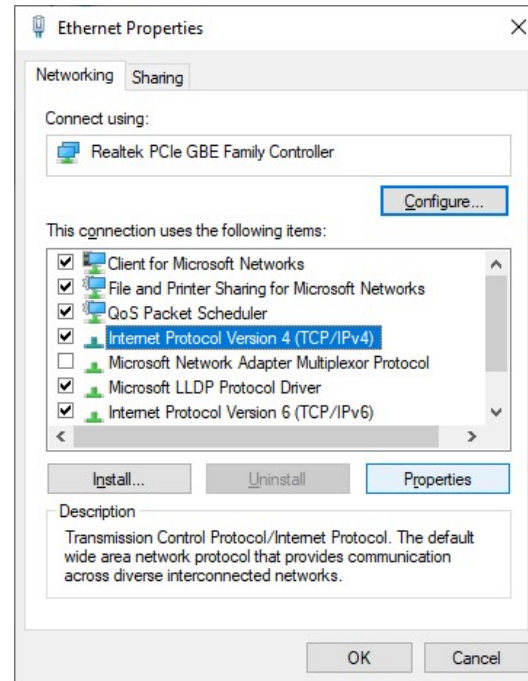
Select Ethernet then change adapter options.



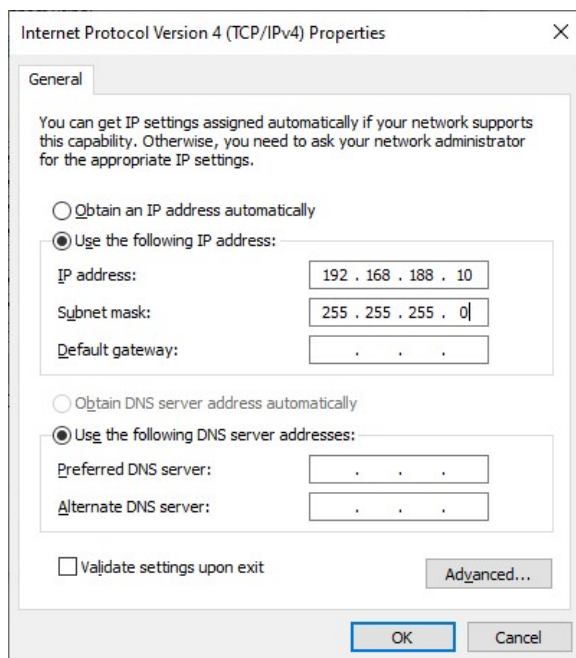
Right click on Ethernet then select properties.



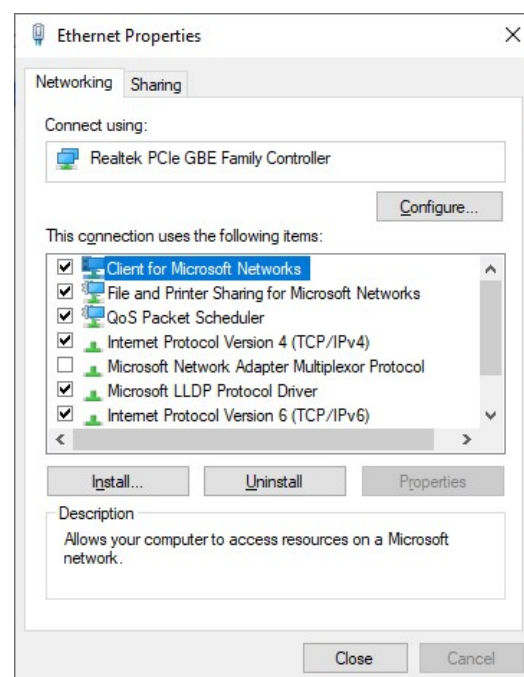
Select Internet protocol version 4 then click properties.



Select use the following IP address  
Enter the IP address: **192.168.188.10**  
Enter the subnet mask: 255.255.255.0  
Click the OK button.



Finally click close. The LAN port can now be connected to the CPE120 products to configure them as a HOST or as a CLIENT.



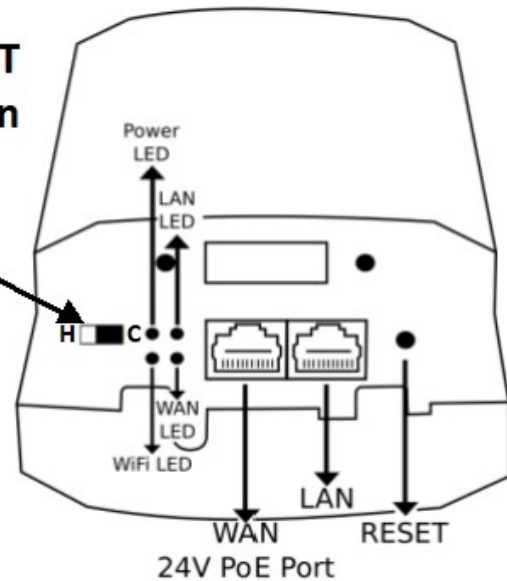
## Host Configuration

Set the switch to 'H', then power the CPE120.

### CPE120 HOST configuration

Mode Switch

Host (H)



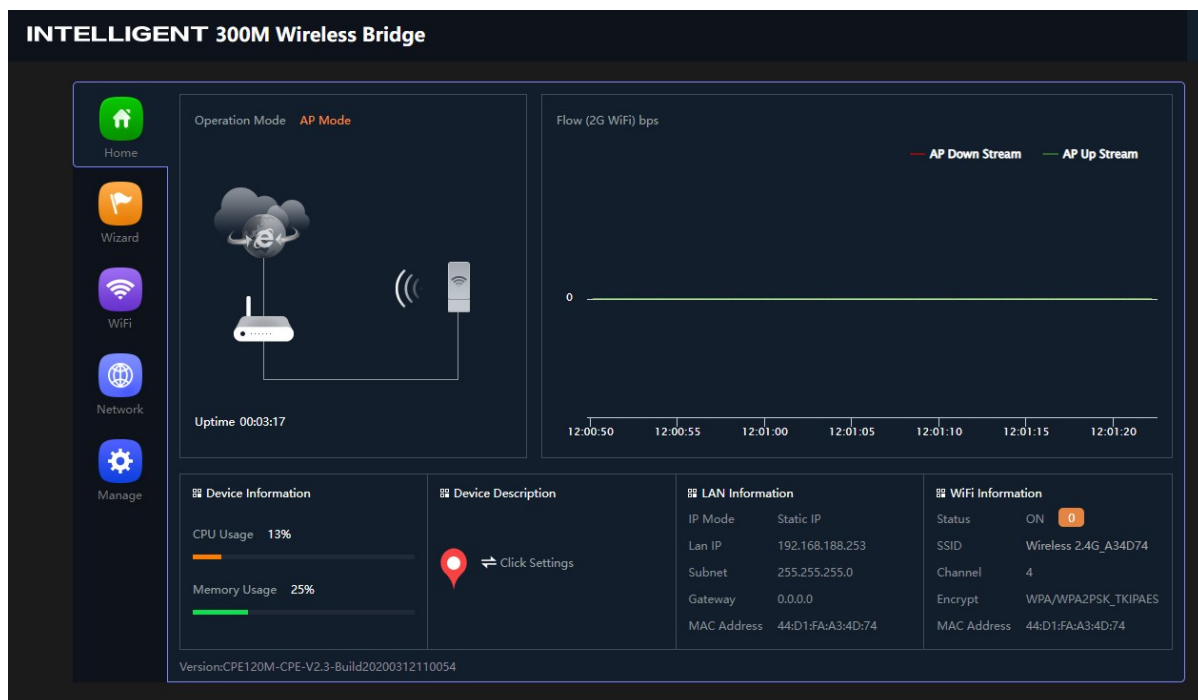
Open a new browser tab on the configuration computer.

Type the following IP address in the browser tab then press enter.

**192.168.188.253**

A box will open for the username and password, the default password is 'admin', enter the password and click login.

The home page is displayed.

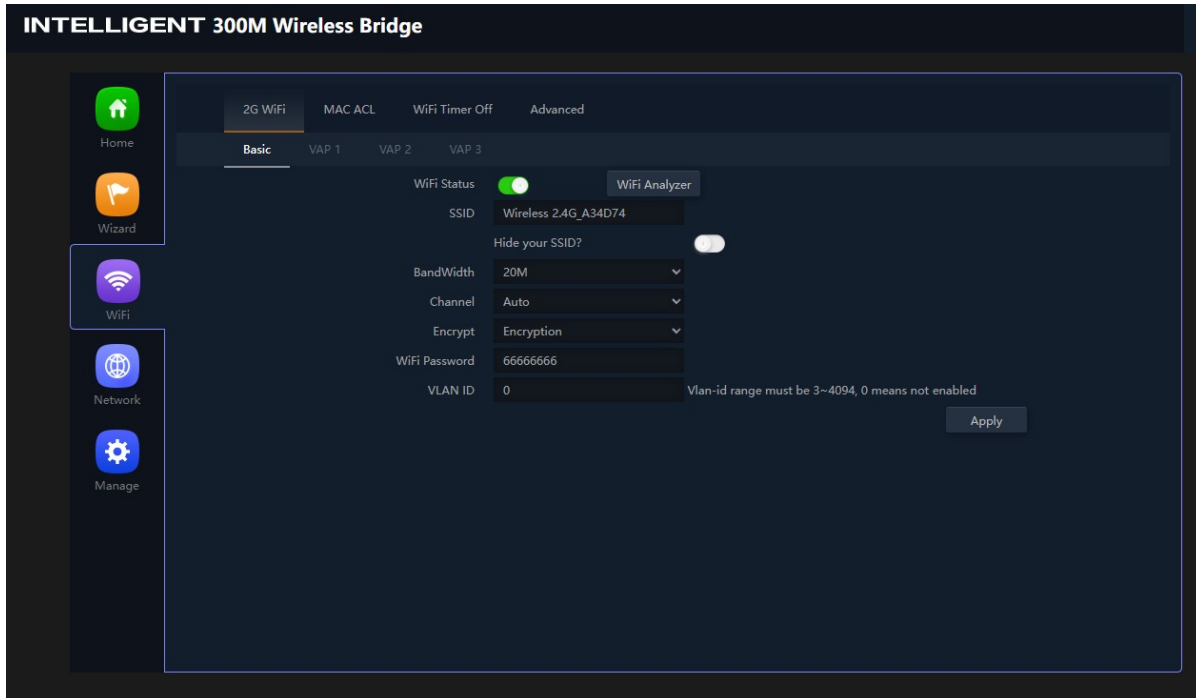




Click the WiFi page icon, see the next figure. Click the 2G WiFi tab.

Set the desired SSID (broadcast name). Note the name.

Set the wireless password (WPA key), the default is 66666666. Click apply.



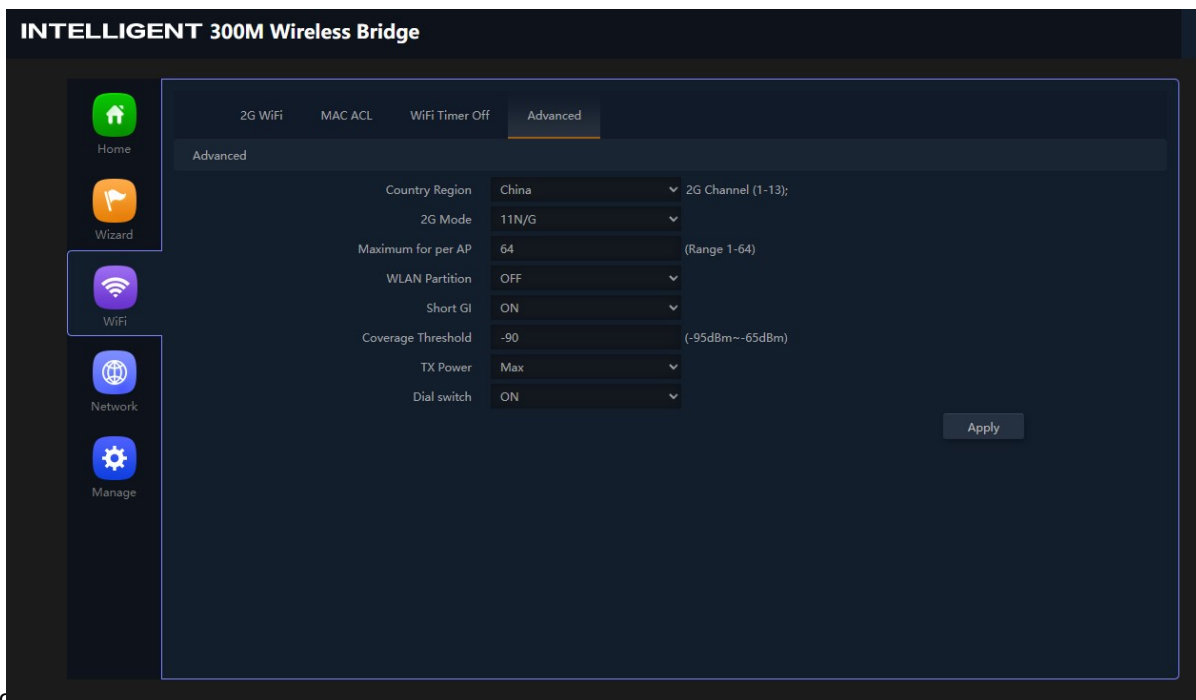
The screenshot shows the 'INTELLIGENT 300M Wireless Bridge' configuration interface. On the left is a sidebar with icons for Home, Wizard, WiFi, Network, and Manage. The main area has tabs for '2G WiFi', 'MAC ACL', 'WiFi Timer Off', and 'Advanced'. The '2G WiFi' tab is selected, showing a 'Basic' sub-tab. The configuration fields are as follows:

Field	Value
WiFi Status	On (indicated by a green dot)
SSID	Wireless 2.4G_A34D74
Hide your SSID?	Off (indicated by a grey dot)
BandWidth	20M
Channel	Auto
Encrypt	Encryption
WiFi Password	66666666
VLAN ID	0

A note at the bottom right states: 'Vlan-id range must be 3~4094, 0 means not enabled'. An 'Apply' button is located at the bottom right of the configuration area.

Continue on the WiFi page, click the advanced tab, see the next figure.

Set the country region. Click apply.



The screenshot shows the 'INTELLIGENT 300M Wireless Bridge' configuration interface, now with the 'Advanced' sub-tab selected under the '2G WiFi' tab. The configuration fields are as follows:

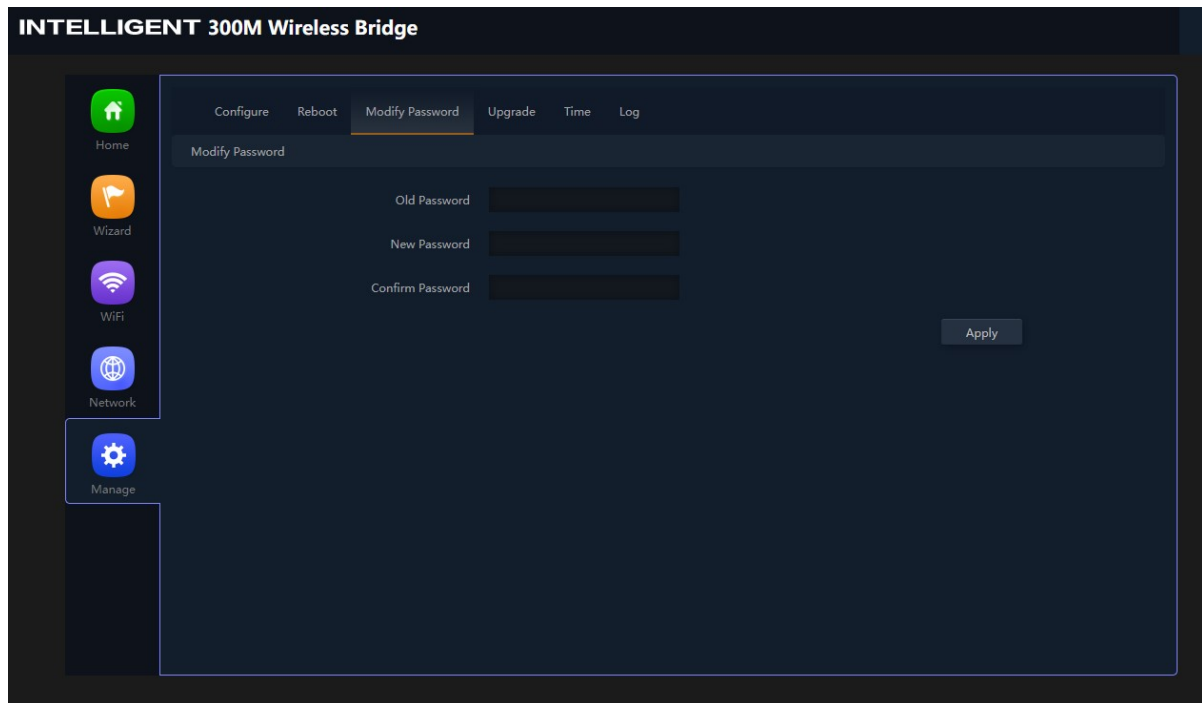
Field	Value	Notes
Country Region	China	2G Channel (1-13);
2G Mode	11N/G	
Maximum for per AP	64	(Range 1-64)
WLAN Partition	OFF	
Short GI	ON	
Coverage Threshold	-90	(-95dBm~-65dBm)
TX Power	Max	
Dial switch	ON	

An 'Apply' button is located at the bottom right of the configuration area.

Click the manage icon, see the next figure.

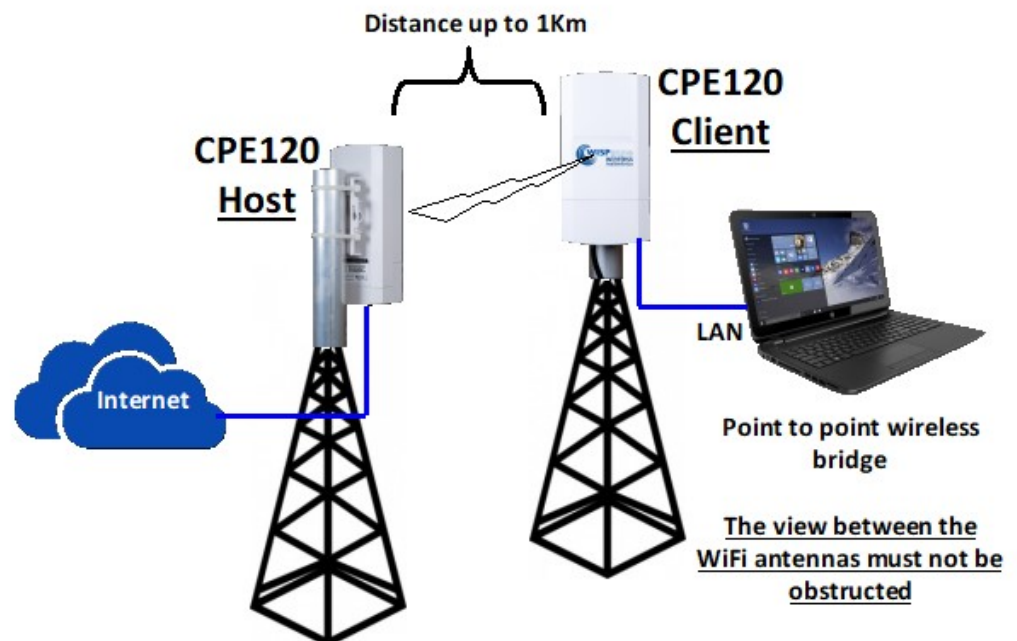
Click the modify password tab.

Enter the new password, make a note of the password. Click apply.



Configuration of the Host is complete.

Connect the Host to the Internet service; the configuration of the Client will require the Host to be broadcasting the WiFi signal.



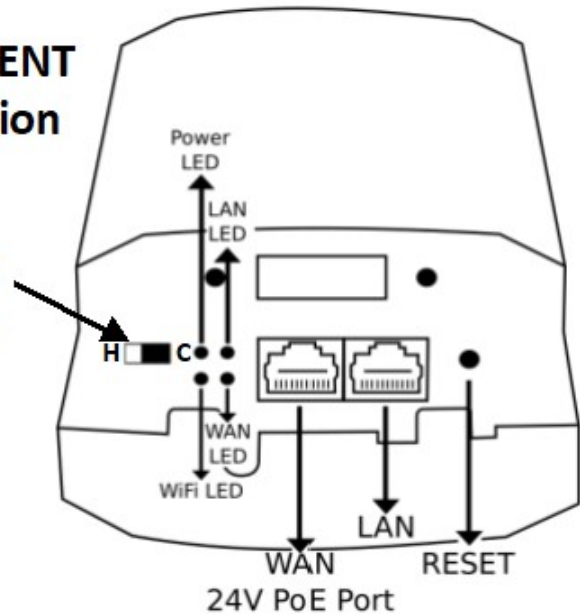
## Client Configuration

Set the switch to 'C', power the CPE120.

Point the Client antenna to the Host antenna.

### CPE120 CLIENT configuration

Mode Switch  
Client (C)



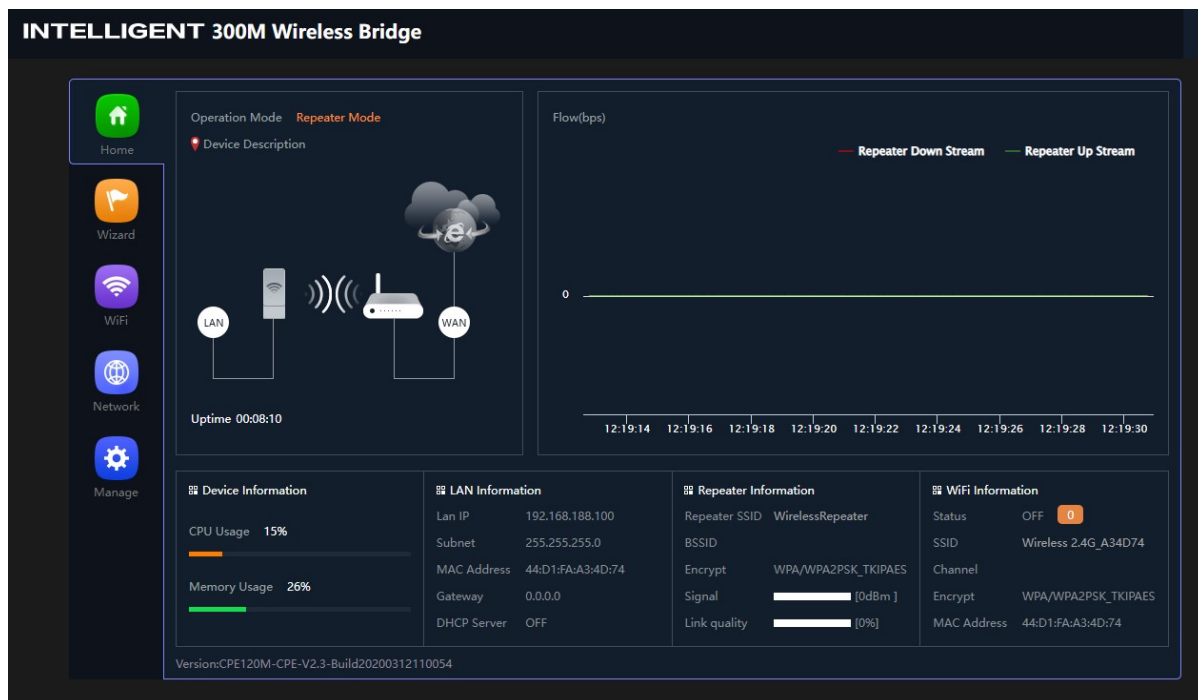
Open a new browser tab on the configuration computer.

Type the following IP address in the browser tab then press enter.

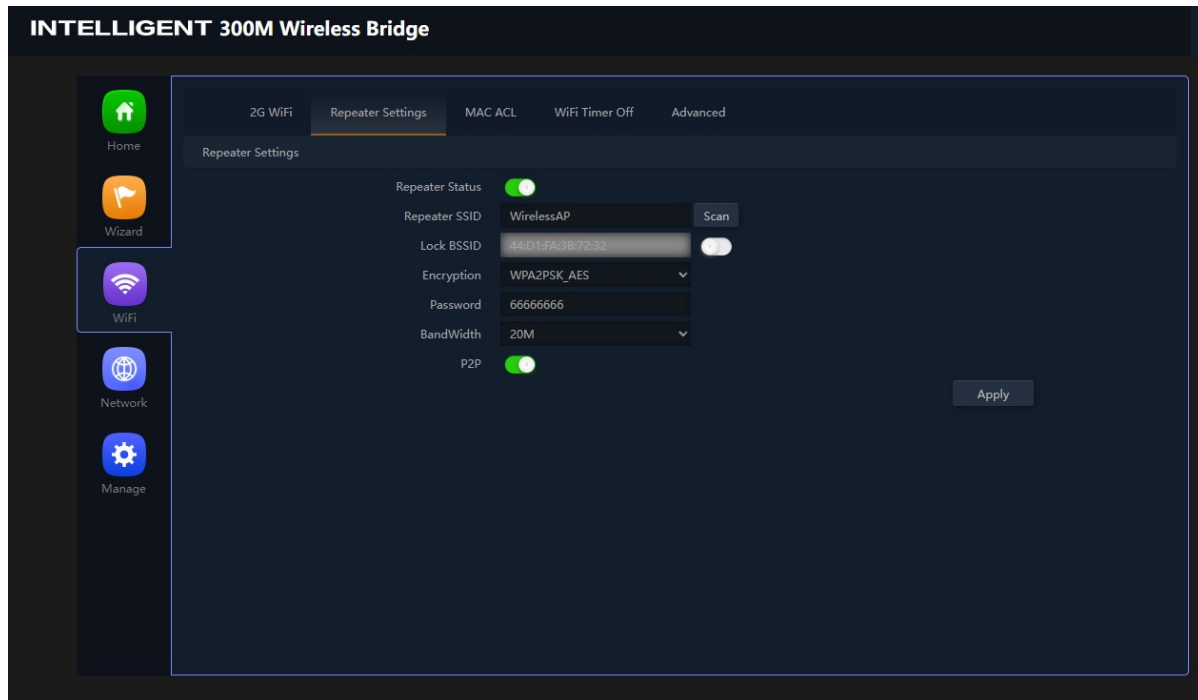
**192.168.188.100**

A box will open for the username and password, the default password is 'admin', enter the password and click login.

The home page is displayed. This is shown below.

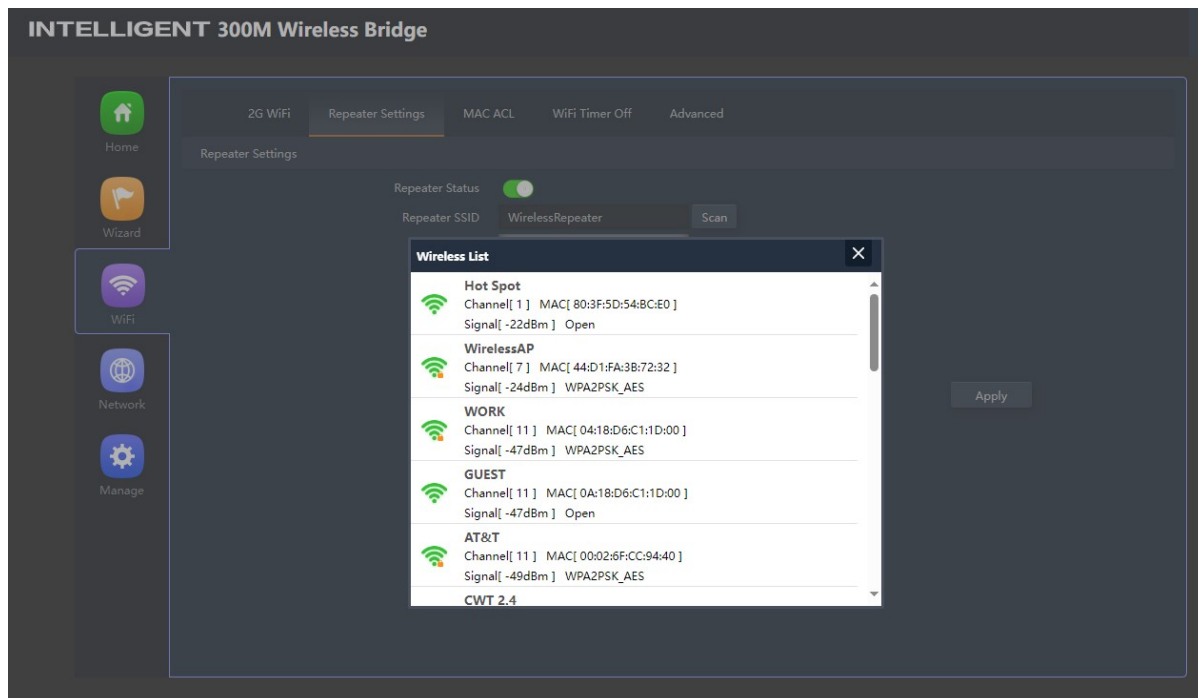


Click the WiFi page icon, the display is shown in the next figure

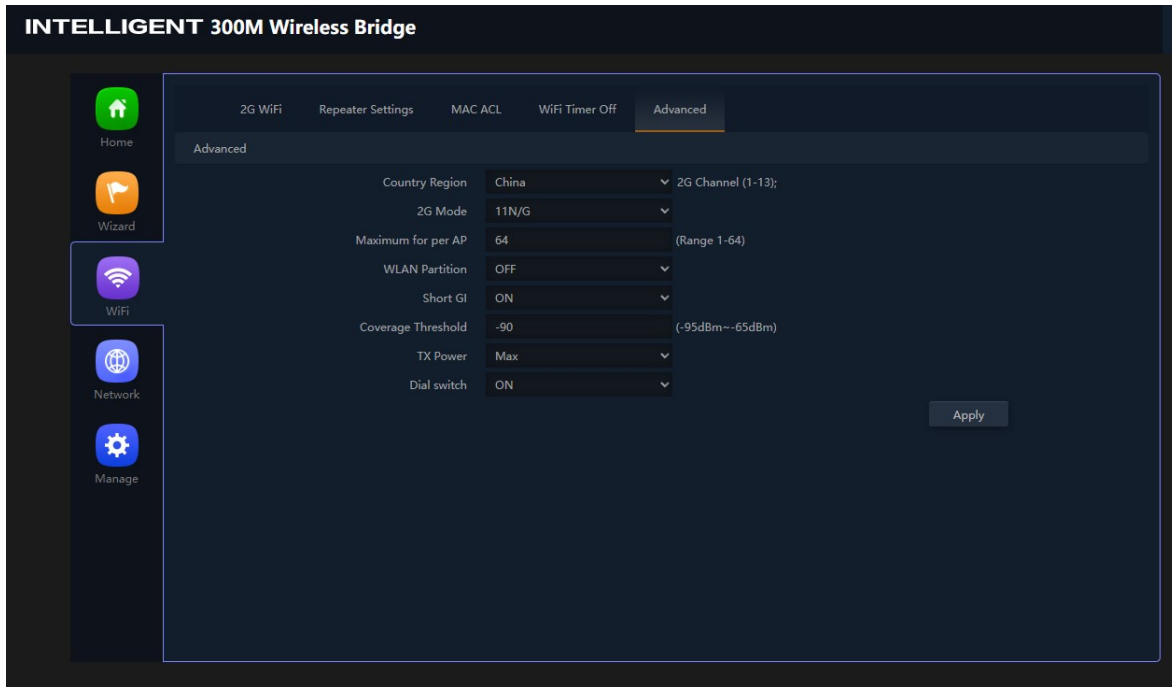


Click the tab repeater settings. Click the scan button, select the SSID of the Host from the list by clicking it.

Got to the password box, enter the WPA key that is configured in the Host. Click apply.



Continue with the WiFi page, click the advanced tab. Set the country region. Click apply.

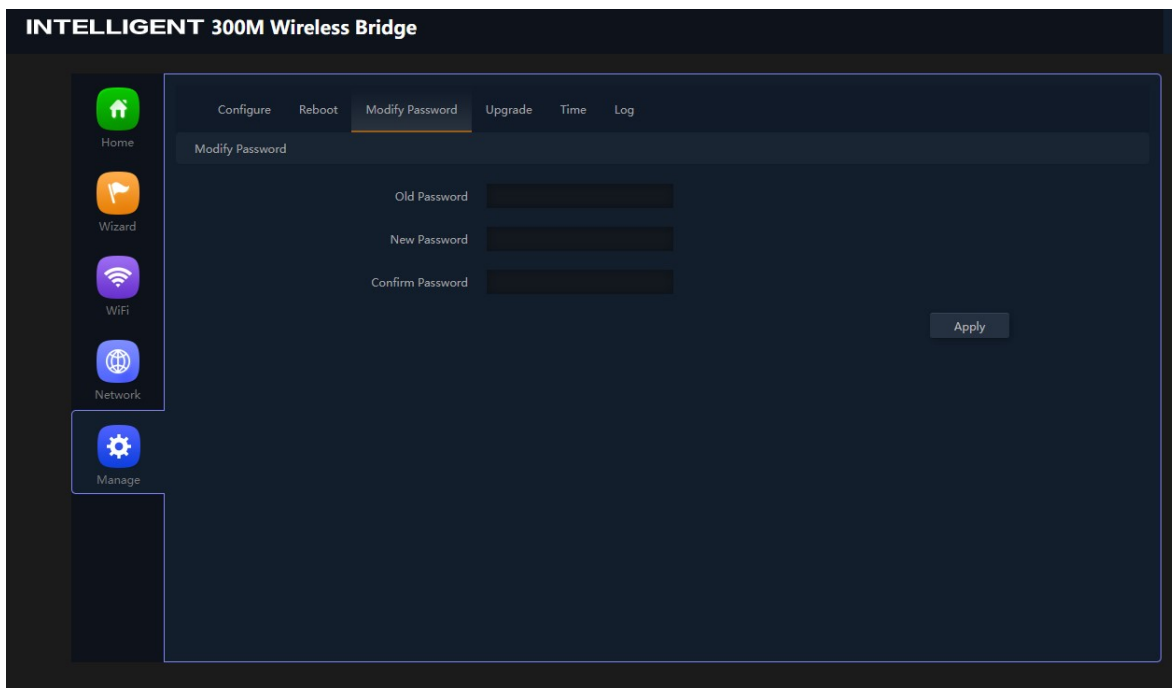


The screenshot shows the 'INTELLIGENT 300M Wireless Bridge' configuration interface. On the left is a sidebar with icons for Home, Wizard, WiFi, Network, and Manage. The main area has tabs for 2G WiFi, Repeater Settings, MAC ACL, WiFi Timer Off, and Advanced. The 'Advanced' tab is selected, showing a table of settings:

Setting	Value	Range/Options
Country Region	China	2G Channel (1-13):
2G Mode	11N/G	
Maximum for per AP	64	(Range 1-64)
WLAN Partition	OFF	
Short GI	ON	
Coverage Threshold	-90	(-95dBm--65dBm)
TX Power	Max	
Dial switch	ON	

An 'Apply' button is located at the bottom right of the settings table.

Click the manage icon, click the modify password tab. Enter the new password, make a note of the password. Click apply.



The screenshot shows the 'INTELLIGENT 300M Wireless Bridge' configuration interface. On the left is a sidebar with icons for Home, Wizard, WiFi, Network, and Manage. The main area has tabs for Configure, Reboot, Modify Password, Upgrade, Time, and Log. The 'Modify Password' tab is selected, showing a form with three input fields:

Field	Value
Old Password	
New Password	
Confirm Password	

An 'Apply' button is located at the bottom right of the form.

Configuration of the Client is complete.