Ueevii

WIRELESS BRIDGE

USER MANUAL



Model: CPE820/CPE830/CPE850

Tips:

Thank you for ordering and using UeeVii CPE820 Wireless Bridgge, please read the manual carefully before use. If there are any problems during the use, please contact us in time. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professicnal.

This manual is a universal version for CPE820, CPE830, and CPE850. The manual content uses the CPE820 model and pictures as examples.

Customer Service Email: support@ueevii.com

OVERVIEW

1. Introduce

UeeVii CPE820 is a long-distance 5.8G wireless transmission deviice. It uses wireless communication technology to transmit network data using airas a medium to perform long-distance point-to-point or point-to-mutipoint inter connection. The working data link layer realizes the interconnection cflocal area networks. The transmission distance can reach up to3km CPE820 Video Bridge Transmission usually consists of two devices in AP and Client mode respectively. On the Client-side (Receiving side) CPIE connects with IP Camera, at the AP side (Transmitting side) CPE connects witha video recorder. The AP can be receiving wireless data transmitted from multiple
Clients, and it is easy and convenient for centralized management of the remote equipment.
CPE is widely used in highways, reservoir river monitoring, elevaator monitoring systems, site crane monitoring systems, port terminal monitoring systtems, marine aquaculture monitoring systems, and so on. Point to point extend network WiFi range, extend the network inthe house to your barn, garage,church, warehouse, and even neighbor's house through wireless bridge signal transmission. No need to install a new modem and pay for it every month, saving you money.

2. Highlights

1. Transmission using 5.8Ghz wireless technology;

2. 1000MbpsRJ45 LAN port, support Gigabit;

3. Built-in 16dbi high gain WiFi antenna;

4. IEEE802.11ac IEEE802.11n,IEEE802.11a ,EEE802.3u;

5. Transmission distance up to 3km(Barrier-Free);

6. Masterbridge supports WiFi hotspot access;

7. Dialing to set the transmitter and receiver, is easy to use;

8. WDS networking mode, video network dual compatible;

9. Support point-to-point, point-to-multipoint mode;

10. Dynamic MIMO power saving mode (DMPS) and APSD;
11. Support 24V~48V POE power supply, easy to install and deploy;
12. Support WEB GUI access management device.

3. Specifications

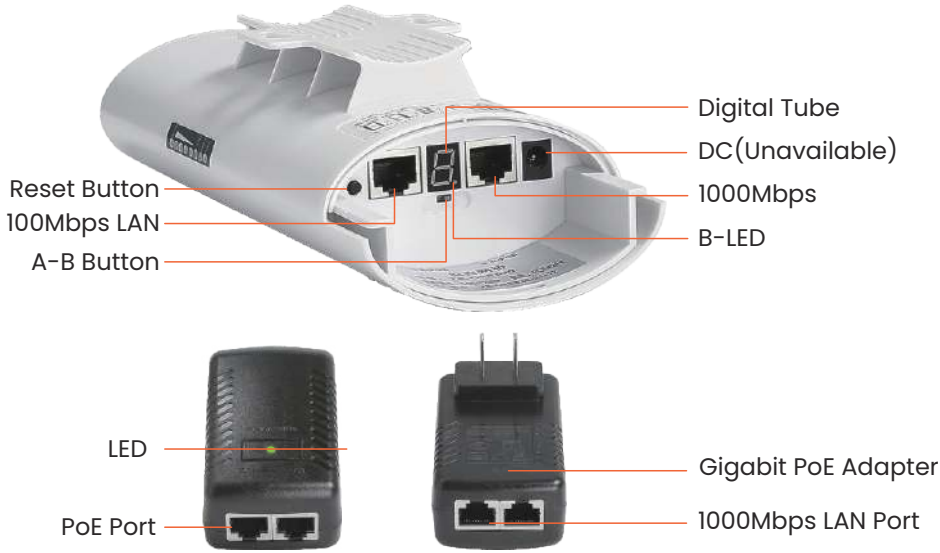
Brand	UeeVii
Model	CPE-820
CPU	7620A+7612E+IP1001
Flash	8MByte
DRAM	DDR2 64MByte
Interface	10/100/1000Mbps LAN*1 & 10/100Mbps LAN*1
Data rate	11a: 54M, 48M,3 6M, 24M, 18M, 12M, 9M, 6Mbps 11n: 7.2M, 14.4M, 21.7M, 28.9M, 43.3M, 57.8M, 65M, 72.2M, 14.4M, 28.9M, 43.3M, 57.8M, 86.7M, 115.6M, 130M, 144.4Mbps, 433Mbps
Transfer method	Direct Sequence Spread Spectrum(DSSS)
Modulation	OFDM/BPSK/QPSK/CCK/DQPSK/DBPSK
Protocol standard	IEEE802.11ac IEEE802.11n, IEEE802.11a, IEEE802.3u
Agreement	CSMA/CA, TCP/IP, IPX/SPX, NetBEUI, DHCP, NDIS3, NDIS4, NDIS5
Frequency Range	5180.0~5240.0Mhz, 5745.0~5825.0Mhz
Power	≤3W, 24V~48V Wide Vltage POE Injector/Switch
Antenna	16dBi, Horizontal 60°/Vertical 30°
WEP GUI	Support
Telnet	Support
Serial	Support
Safety	WEP 64/128bits,WPA,WPA2,802.1x
Temperature	-30～65℃
Box Size & Weight	11.8*11.5*2.7 inch & 2.2 LB

4. Package Included

2 * CPE820 Gigabit Bridge
2 * Gigabit POE Adapter (24V)
2 * Cat 5e Network Cable
2 * Metal Hoop
1 * User Manual



5. Interface Details



5.1. Button Operation

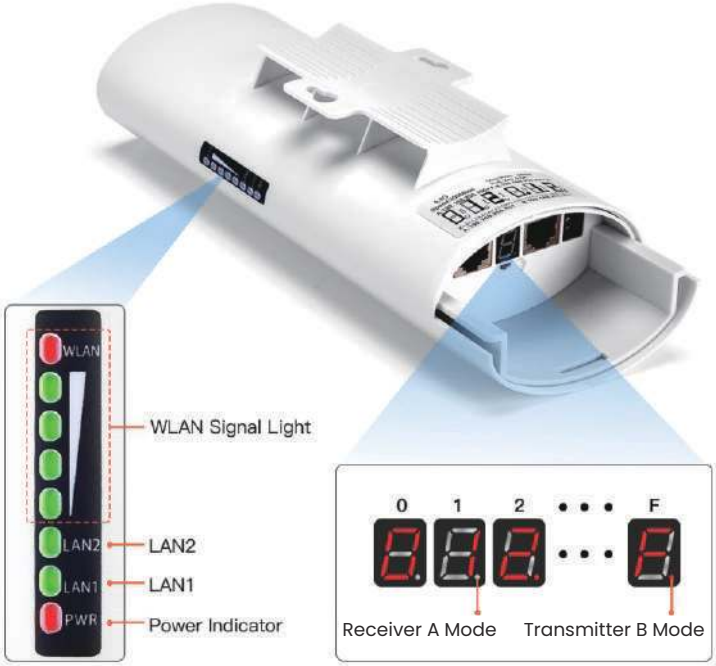
Reset Button:

Press and hold for 10S to reset the wireless bridge; in setup modde, short press once to toggle a different character to pairing.

A-B Button:

Pushing the button to "A" indicates that the bridge acts as the master bridge (transmitter), and pushing the button to "B" indicates that the bridge acts as the slave bridge (receiver).

6. LED Indicator Details



LED Light	Description
WLAN	The WLAN indicator light flashes to indicate that the wireless function of the wireless bridge is normal, and if it does not light up, it indicates that it is damaged.
Signal Lights	After the bridge is connected successfully, the WLAN light will be on, not connected the WLAN light will not be lit.
LAN1/LAN2	The data connection is successful, the LED light is on, otherwise, it is not bright.
PWR	Power indicator, the LED is on after the power is connected
Digital Tube	The digital tube displays paired numbers and letters, 0~9, A~F.
Point Light	A, B status lights, lighting is B mode, no lighting is A mode.

Quick Start

1. PoE Power Supply

The CPE820 wireless bridge adopts a POE power supply, which is easy to install and manage while saving costs.



1.1. According to the requirements, prepare a long enough network cablle (Recommended within 20 meters, must Cat 5e or up) to connect tiThe wireless bridge and the PoE power supply. The PoE port of the Pobpower supply is connected to the WAN port of the wireless bridge.

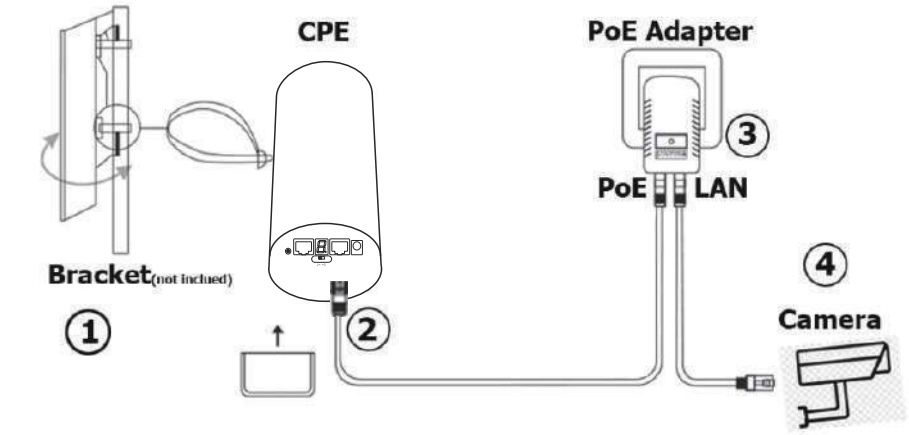
1.2. The LAN port of the PoE power supply is connected to thhe PC, router, and switch.

3. Point to Multipoint Pairing Step:

1 master bridge with 3 slave bridges

1. Switch one unit to A(Master Bridge) and 3 units to B(Slave Bridgge);
2. Connect the POE to each unit using the Ethernet cable and plugthe POE in;
3. Wait for them to power up, about 2 min;
4. Use the tiny reset button to click through until you get a channel with a letter. 1,2,3,..., A,B,C,...,F, here used C;
5. Then on the other 3 unit do the same. 4 units need to be onthe same channel;
6. Wait for 2-5 minutes to complete the pairing. When the number of the digital tube is solid and the signal light on the side turns on, it means their pairing is successful;
7. Finally connect other devices(Router, PC, Switch) and install them to the target location.

4. Installation



1. Place the CPE to the selected position and adjust the CPE front panel orientation to be approximately the same as the selected direction, then use the ties to fix the CPE, the bracket is not included in the package. Recommended UeeVii Universal Bracket (ASIN: B09NLLG8MZ).

2. Please, prepare a long enough network cable to connect the PoE adapter and CPE, the network cable is connected to the LAN port of the CPE, and the other end is connected to the PoE port of the PoE adapter. Recommend to use a cat 5 (or above) shielded network cable with a ground wire

3. Connect the PoE adapter PoE to CPE, and LAN to Camera, PC, Router or Switch based on the network topology. The role of PoE is to provide power and data transmission for CPE.

4. The master CPE's PoE adapter's LAN connection monitors the Internet, and the slave CPE's PoE adapter LAN connects cameras or routers and other equipment.

Note:

For point-to-point installation, the line of sight of the 2 wireless bridge brackets must be clear and cannot pass through the wall. The signal transmission angle of the bridge is 60 degrees. For point-to-multipoint installation, the angle of the slave bridge needs to be adjusted to ensure that it is within the 60-degree signal range of the main bridge. The antenna polarization direction is horizontal 60°/vertical 30°.

5. WiFi Function

1. The WiFi function is turned on by default for the master bridge.
   WiFi SSID: CPE5G-5GXXX
   WiFi PWD: zllinkcpe123456XXX
   XXX represents different channels, please refer to the comparison table in the user manual.

2. You can access the wireless bridge through your computer to set the SSID and new WiFi password. Please refer to the advanced settings section.

Digital & IP & WiFi Correspondence Chart

You can check the SSID and password through this chart

LED	A IP	B IP	5.8G ID	Wifi SSID	Password
0	192.168.255.100	192.168.255.200	0	CPE5G_5G0	zllinkcpe1234560
1	192.168.255.101	192.168.255.201	36	CPE5G_5G36	zllinkcpe12345636
2	192.168.255.102	192.168.255.202	40	CPE5G_5G40	zllinkcpe12345640
3	192.168.255.103	192.168.255.203	44	CPE5G_5G44	zllinkcpe12345644
4	192.168.255.104	192.168.255.204	48	CPE5G_5G48	zllinkcpe12345648
5	192.168.255.106	192.168.255.205	120	CPE5G_5G120	zllinkcpe123456120
6	192.168.255.106	192.168.255.206	124	CPE5G_5G124	zllinkcpe123456124
7	192.168.255.107	192.168.255.207	128	CPE5G_5G128	zllinkcpe123456128
8	192.168.255.108	192.168.255.208	132	CPE5G_5G132	zllinkcpe123456132
9	192.168.255.109	192.168.255.209	136	CPE5G_5G136	zllinkcpe123456136
a	192.168.255.110	192.168.255.210	140	CPE5G_5G140	zllinkcpe123456140
b	192.168.255.111	192.168.255.211	149	CPE5G_5G149	zllinkcpe123456149
c	192.168.255.112	192.168.255.212	153	CPE5G_5G153	zllinkcpe123456153
D	192.168.255.113	192.168.255.213	157	CPE5G_5G157	zllinkcpe123456157
E	192.168.255.114	192.168.255.214	161	CPE5G_5G161	zllinkcpe123456161
F	192.168.255.115	192.168.255.215	165	CPE5G_5G165	zllinkcpe123456165

（Ps:In this chart, SSIDs and Passwords are the default.）

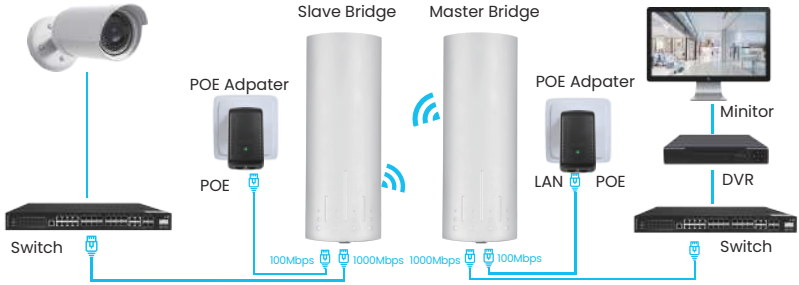
6. Application Case

6.1 Case 1: Point-to-point extended network WiFi range

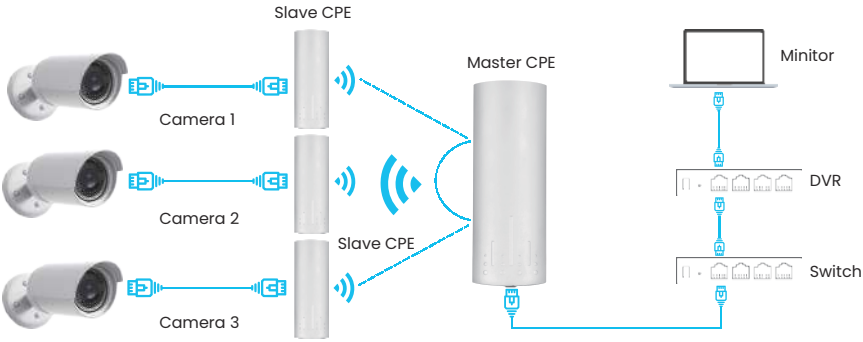
suitable for extending the network to second buildings, such as garages, shops, barns, etc.



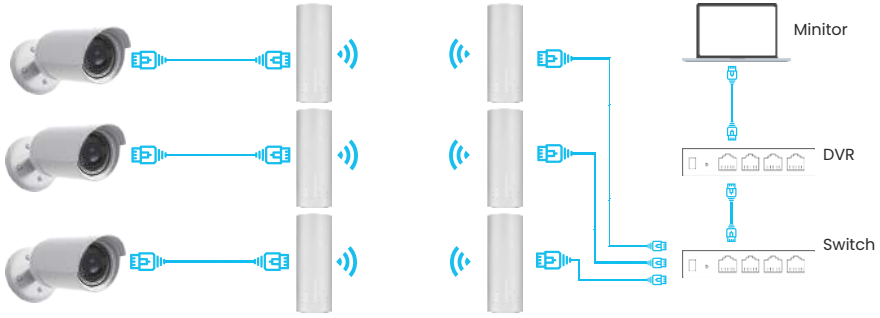
6.2 Case 2: Point-to-point extended of surveillance cameras range



6.3 Case 3: Point-to-multiple point extended surveillance cameras range



6.4 Case 4: Point-to-point extended surveillance cameras range



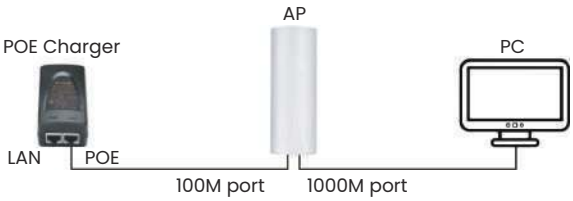
Advanced settings

Note:

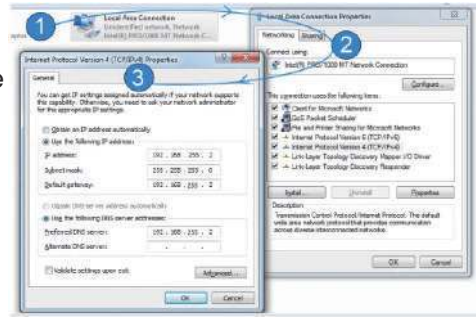
You can enable the device without advanced settings.

Computer Access

1. Connect the CPE to the computer
Refer to the figure left to connect the CPE to the computer through a PoE adapter and an Ethernet cable



2. Modify your computer's IP address, make your computer's IP and the bridge's IP address be on the same network segment(LAN) so that you can access them.



Step 1: Find and open "Open Network and Sharing Center" on your computer.
Tips: click the network icon in the lower right corner of the computer.

Step 2: Find and open the "Change adapter settings", select "Local Area Connection" to right-click to open the network properties. Refer to the picture above to open.

Step 3: Find and double-click open the "Internet Protocol Version 4(TCP/IPv4)", choose the " Use the following IP address" and enter IP address, subnet mask, Default gateway, Preferred DDS server.

3. Change your computer's IP address to 192.168.255.xxx (192.168.255.xxx cannot be the same as the IP of the CPE), then entry IP address is 192.168.255.xxx, subnet mask is 255.255.255.0(Autofill), Default gateway is 192.168.255.xxx, Preferred DDS server 192.168.255.xxx. You can use 192.168.255.2(xxx=2) in the reference picture to set.

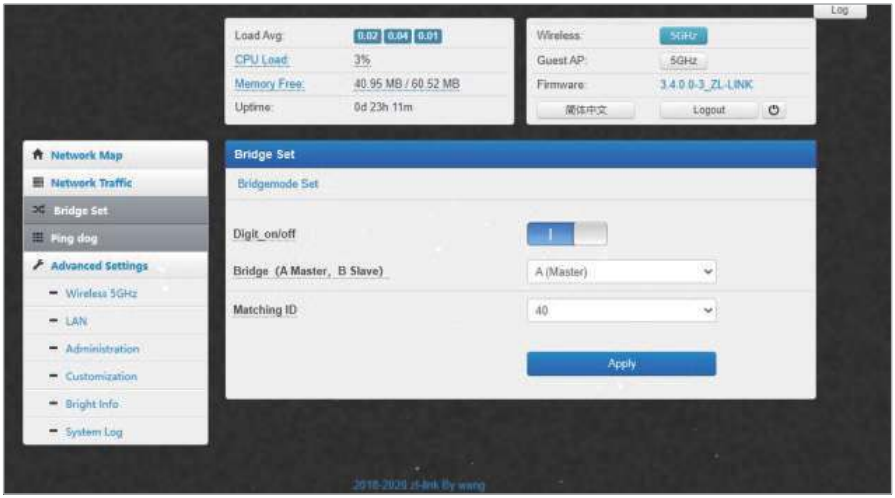


4. On the login screen, the default user name and login password of the wireless bridge is "admin", just entry password login.

Note:

"admin" is not the password of the WiFi SSID, it is just the password for WEB access.

5. Login successful, go to setting.

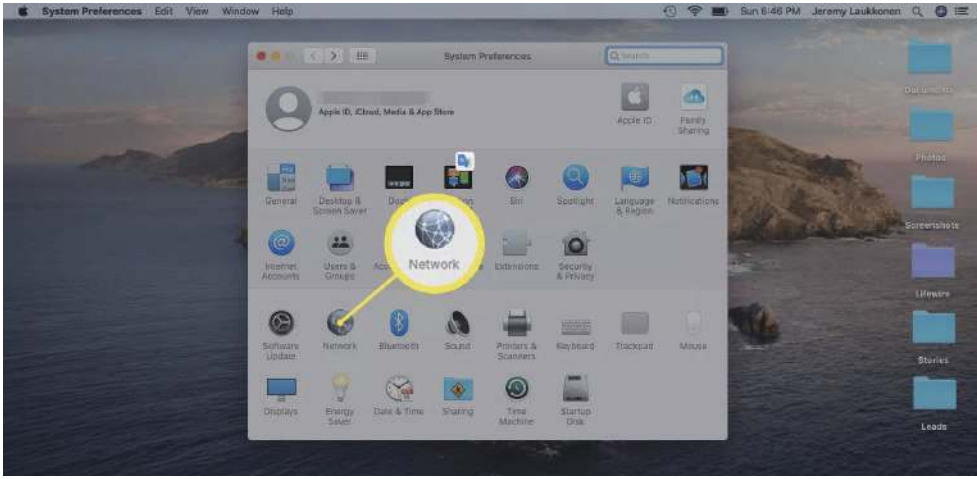


6. How to Change Your IP Address on Mac

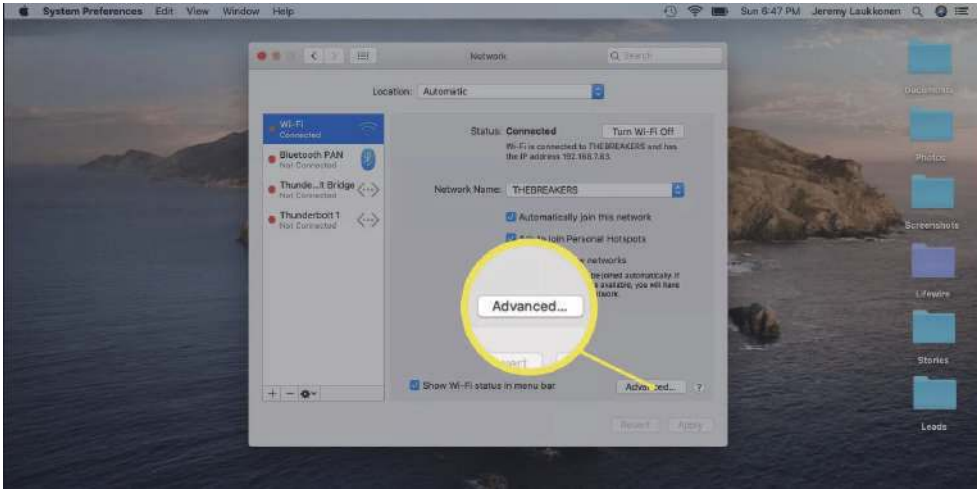
6.1 Click the Apple icon in the upper-left corner of the screen, and select System Preferences.



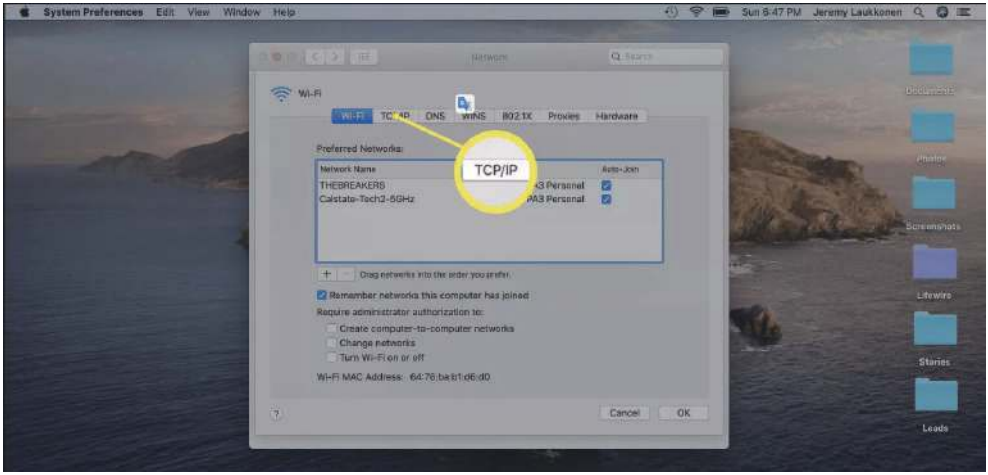
6.2 Click Network.



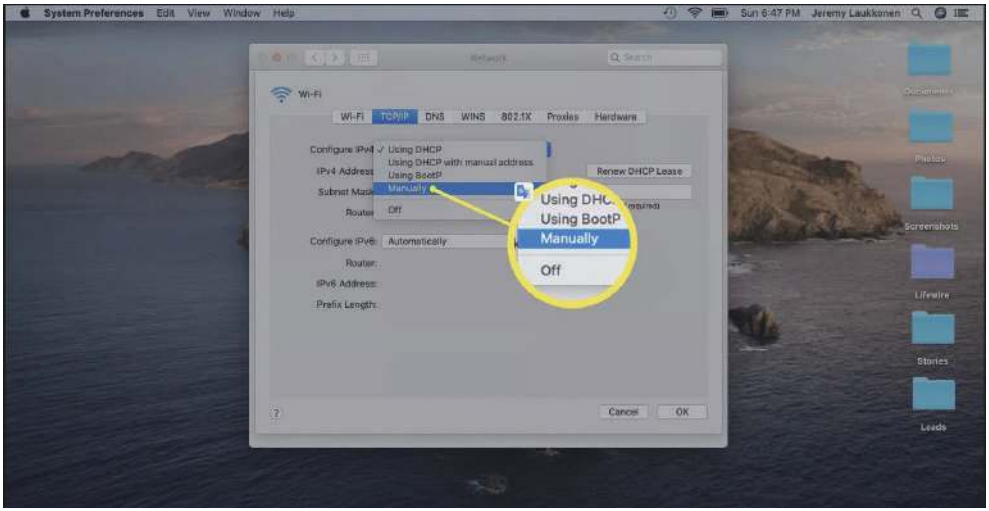
6.3 Click your current network on the left and then click Advanced in the lower-right corner of the window.



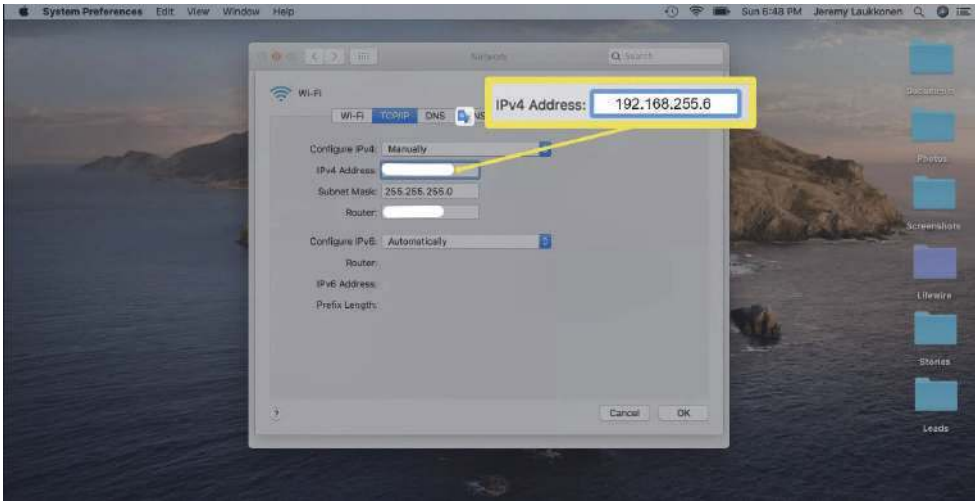
6.4 Click the TCP/IP tab.



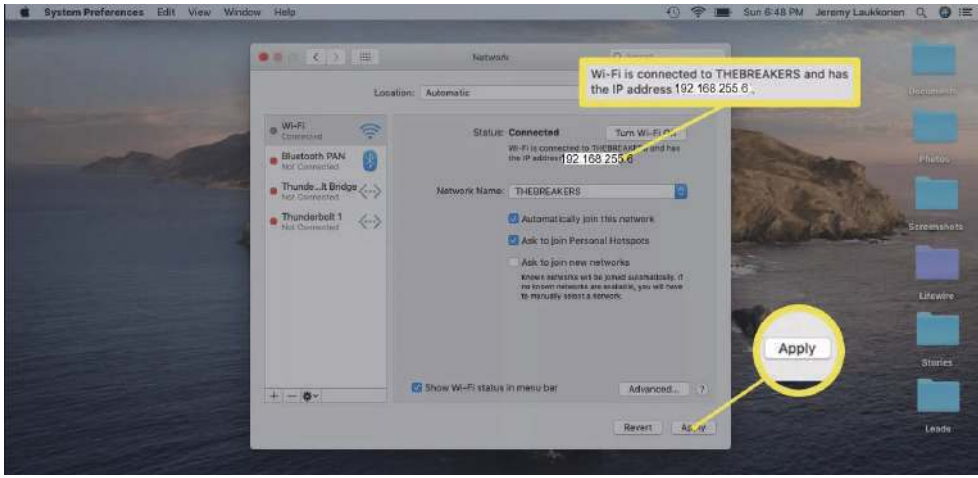
6.5 Click the drop-down box next to Configure IPv6 (or IPv4) and select Manually.



6.6 Enter the IP address you want to use
(enter 192.168.255.6; Router 192.168.255.1), and click OK.



6.7 Verify that your new local IP address is displayed and click Apply.

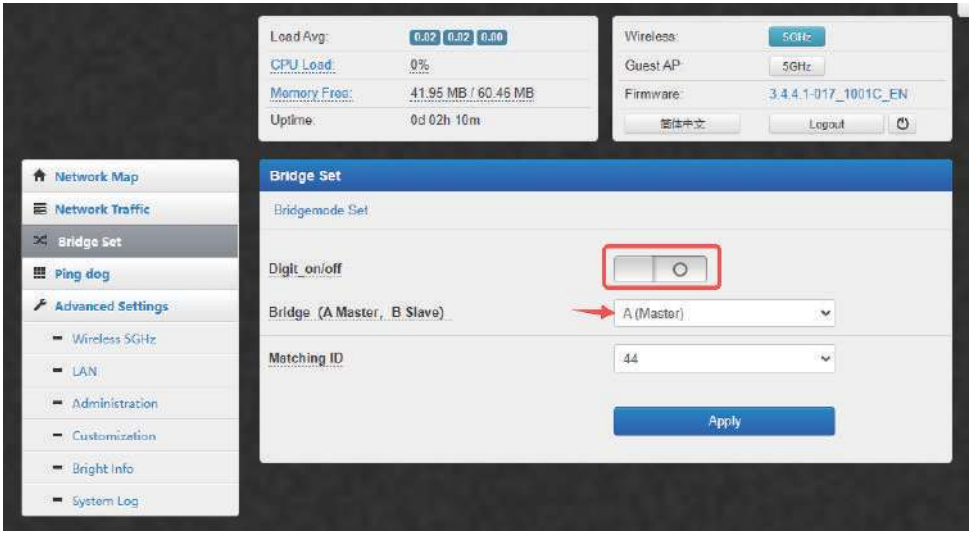


Setting Options

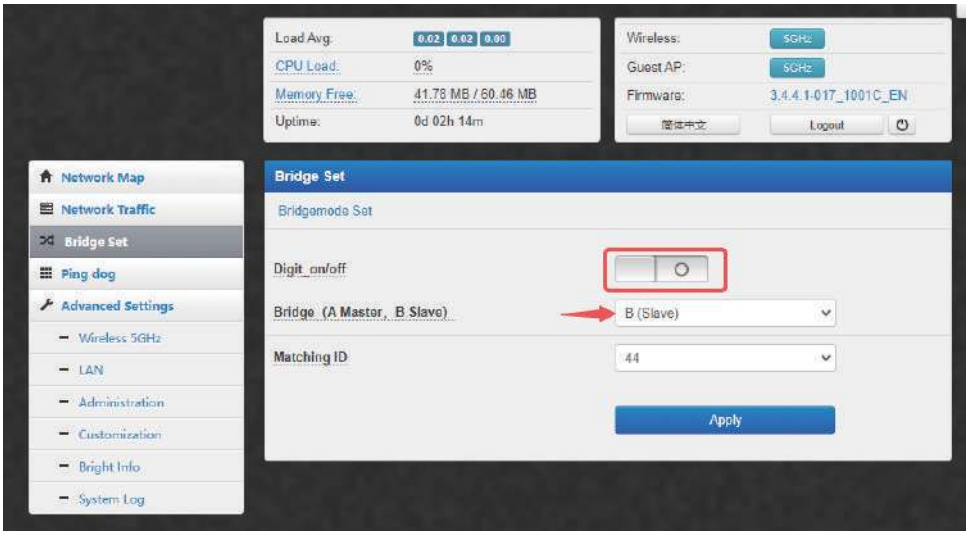
1. Digital_on/off Switch Function

The function of the digital_on/off switch is to control the pairing by dialing the digital switch, making the pairing simple;
When the digital_on/off switch is turned on, pairing can be done through dialing, but any modified wireless bridge parameters cannot be saved when the power is turned off or restarted, and the default parameters must be used;
When the digital_on/off switch is turned off, pairing cannot be performed by dialing the code, and the "RST" buttons will be disabled. However, the modified wireless bridge parameters can be saved when the power is turned off and restarted. The new pairing method is in the Modify WiFi SSID and Password section.
Both the master bridge and the slave bridge must turn off the digital_on/off switch before modifying the parameters.

A-Master Bridge digital_on/off switch is off



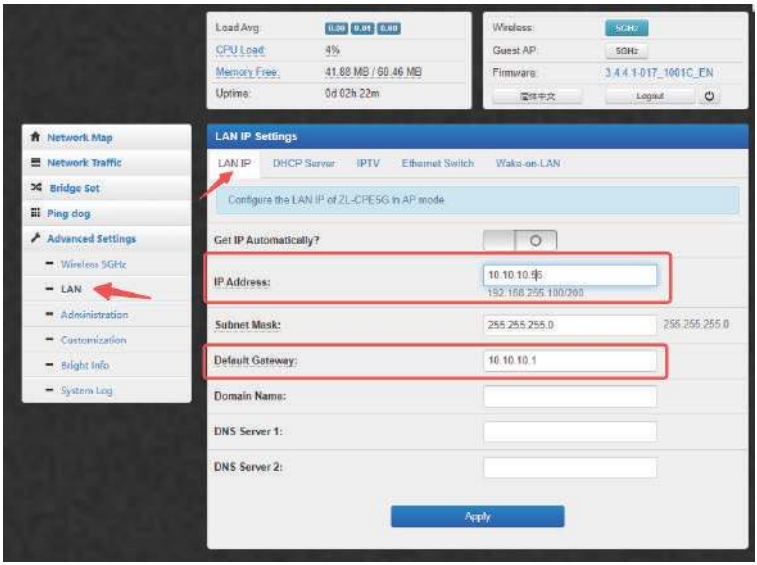
B-Slave Bridge digital_on/off switch is off



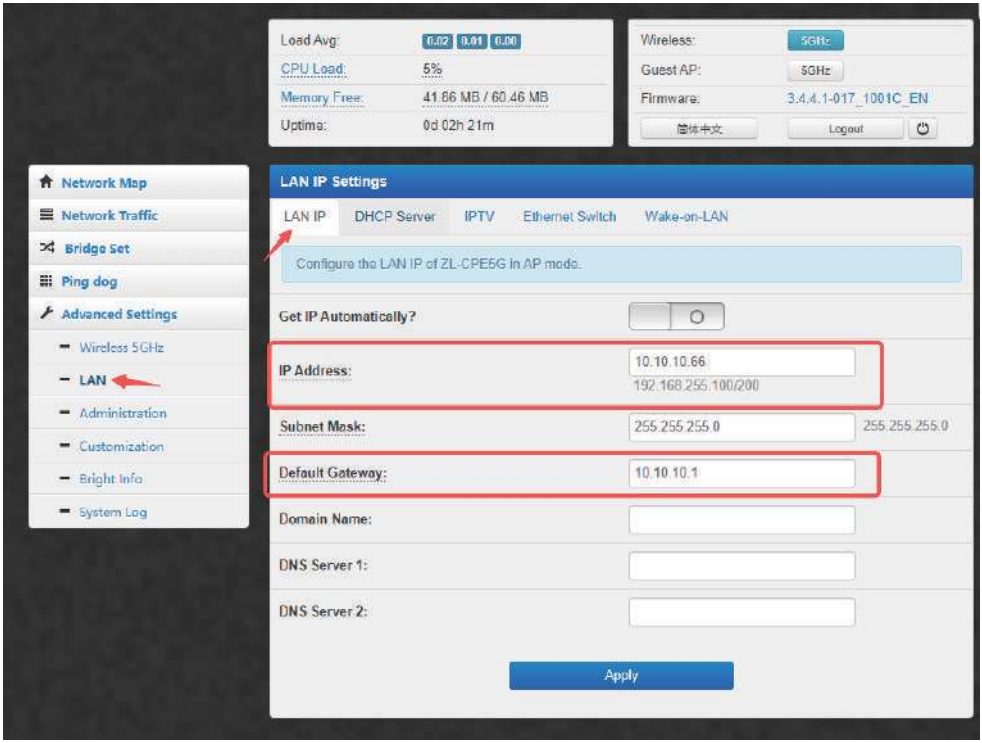
2. Modify IP Address

Modify the IP address of the wireless bridge to be compatible with your subnet or camera/NVR. The master bridge and slave bridge must be modified to have IP addresses in the same LAN.
For example, your network segment is 10.10.10.xxx

After the master bridge turns off the digital_on/off switch, you can set the new IP address of the main network bridge to 10.10.10.56



After the slave bridge turns off the digital_on/off switch, you can set the new IP address of the slave bridge to 10.10.10.66

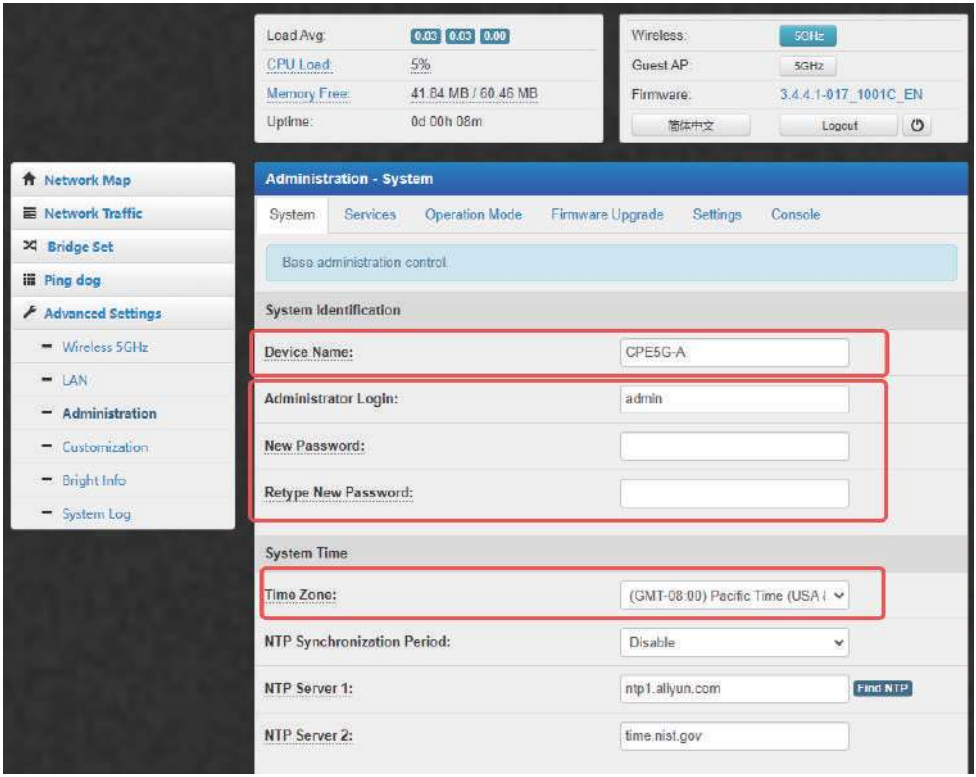


Note:

After you modify it successfully, the IPv4 address of the computer also needs to be modified to 10.10.10.6, and then re-enter 10.10.10.56 to access the main bridge and 10.10.10.66 to access the slave bridge.

2. Modify System Info

Path: Advanced Settings>Administration-System
Here you can set the name of the device, the new login name and password of the device, and the system time zone.

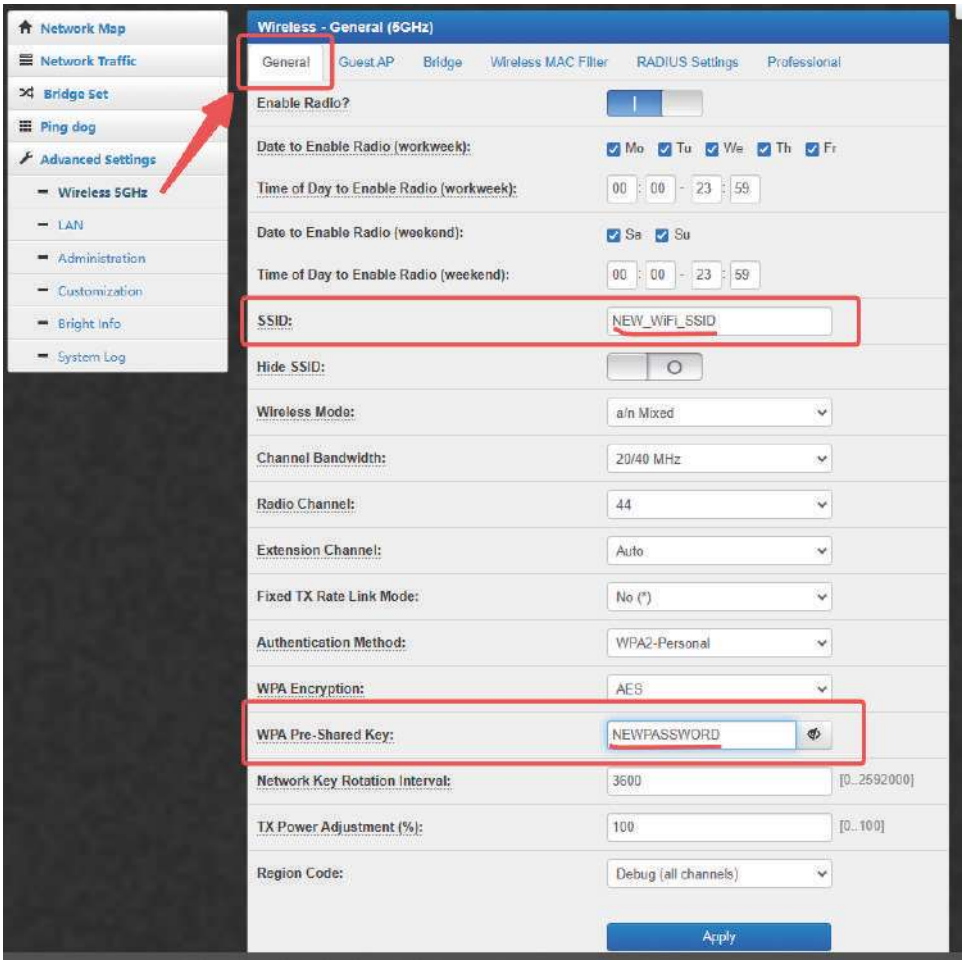


4. Modify WiFi SSID & Password

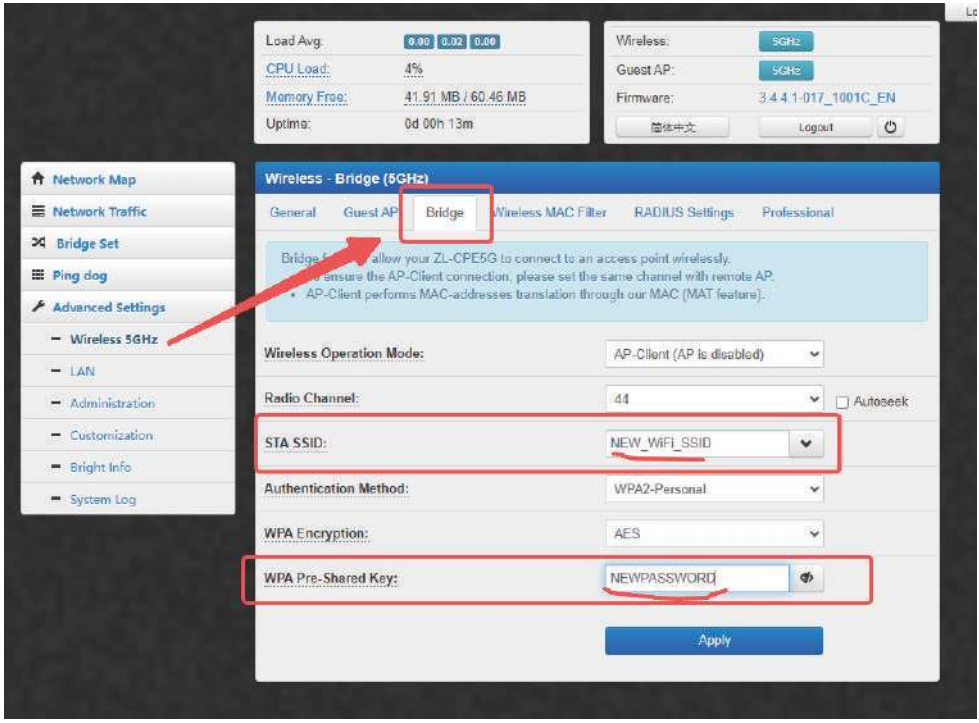
Note:

Only the master bridge of the wireless bridge broadcasts WiFi, and the slave bridge does not broadcast WiFi by default.

4.1. Connect the master bridge to the computer, and make sure to turn off the digital_on/off switch, then modify the new WiFi SSID and password in the “General” settings, save, and remember.



4.2.Connect the slave bridge to the computer and make sure the digital display switch is turned off. Enter the new WiFI SSID and password of the master bridge in the "bridge" column and save it.



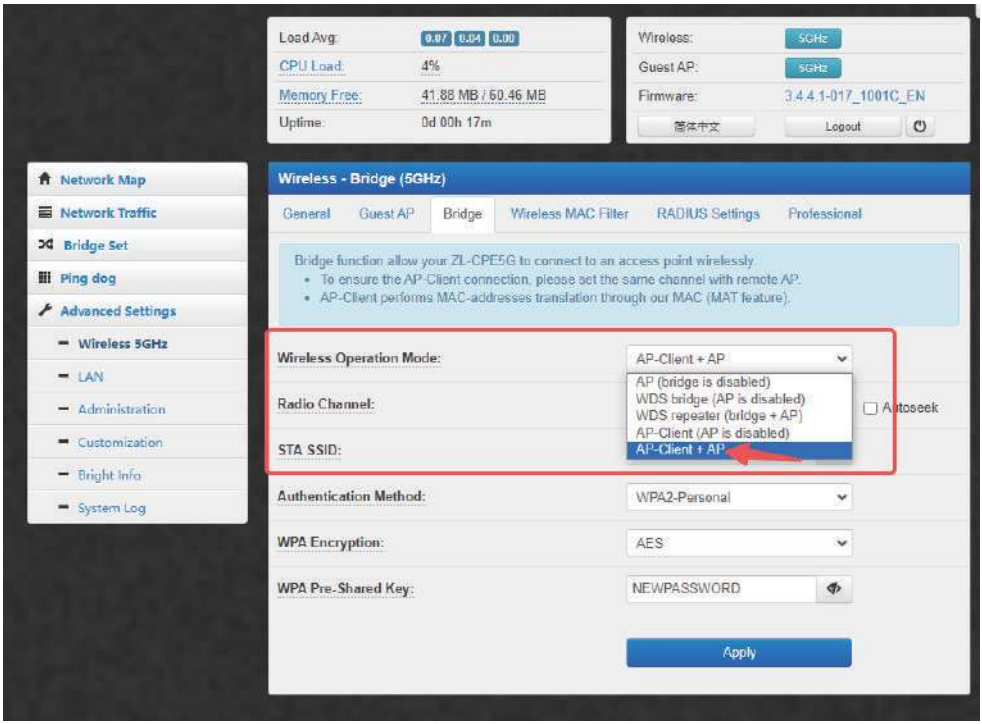
4.3 Then wait for them to pair successfully. When the signal indicators on the side of the 2 wireless bridges light up, it means the pairing is successful.

4.4 When the wireless bridge is reset, it will return to the default dial-code pairing mode. The above settings will not be saved, but they can be saved after a power outage reboot.

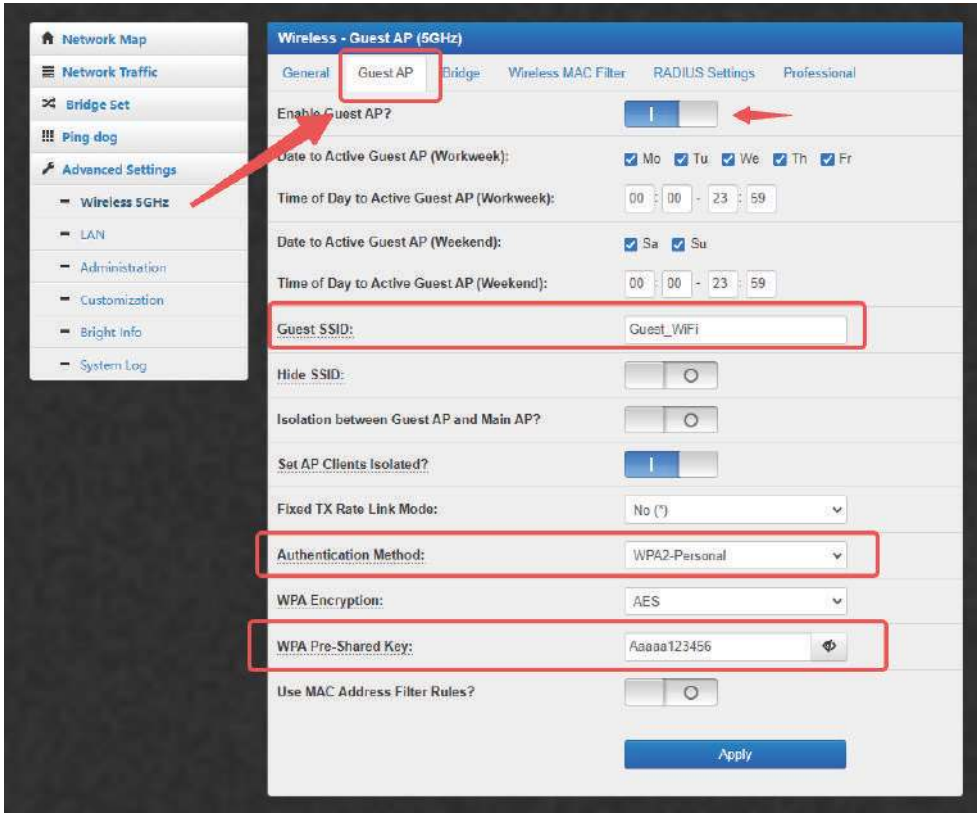
5. Slave Bridge Side Broadcasts WiFi

Method 1 (Recommended):
Connect a new router or AP on the slave bridge end, connect to the WAN port, and the new router broadcasts WiFi.
It is recommended to reset the new router or AP, set it to automatically obtain the network, and set a new SSID and password.

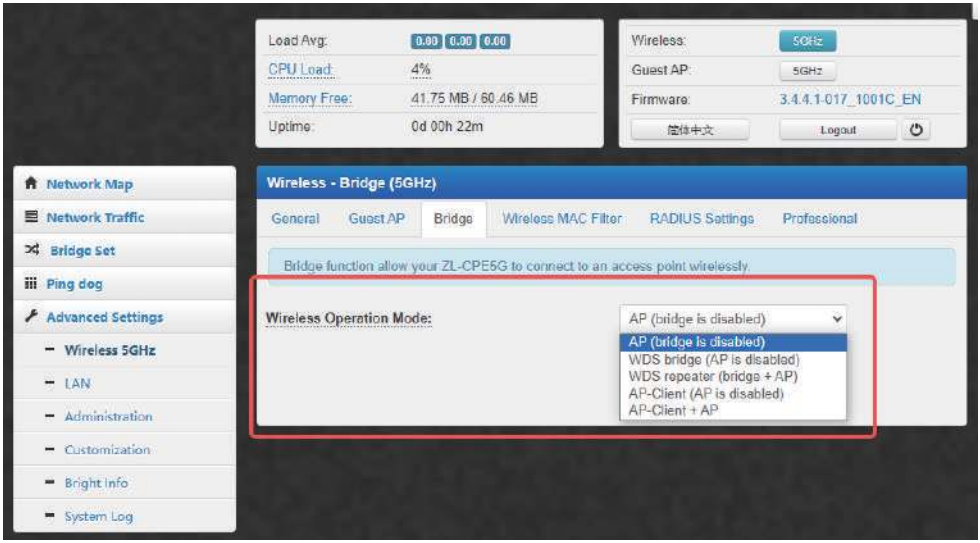
Method 2:
We can turn on the guest WiFi of the slave bridge and set a password.
Please refer to the following steps:
1. On the slave bridge side, path: Advanced Settings>Wireless 5Ghz>Bridge> Wireless Operatuon Mode， must choose "AP-Client+AP" mode.



2. On the slave bridge side, path: Advanced Settings>Wireless 5Ghz> Guest AP, Click the "Enable Guest AP?" button to turn on the guest WiFi, then set the new guest WiFi name, encryption method and password, and save it. Open your mobile phone's WiFi list to see the latest guest WiFi settings, enter the password to connect and test.



6. Wireless Mode



7. Privacy--Hidden WiFi SSID

Find "Hide SSID" in the "General" column and click the button to start hiding the SSID.



If you have guest WiFi turned on, find "Hide SSID" in the "Bridge" column and click the button to start hiding the SSID.



Troubleshooting

Trouble	Reason	Solution
Packet Latency	1. Wireless interference 2. Distance is too long, or there are some walls between them 3. CPE's angle in the wrong direction, weak signal	1. Use WiFi analysis to choose the best channel 2. CPE should be in the normal distance, and avoid the wall 3. Adjust the angle of CPE according to signal strength
Wrong Password	1. Forget the password 2. Input wrong password 3. Too much cookie 4. WiFi password is confused with the WEB access password	1. Press the "RST" button in 10s to reset the bridge, the default password is admin. 2. Re-input the password 3. Clear cookie, run arp -d to clear MAC table 4. WEB access user namer and password is "admin"

Can not login WEB	1. Local IP is not in the same network segment of CPE 2. IP is taken by other devices 3. LAN connection or ethernet cable has a problem 4. Too much cookie, MAC address haven't update	1. Ping 192.168.255.xxx to see the connection status 2. Stop other devices or change to another IP address 3. Check LAN connection and Ethernet cable 4. Clear cookie, run arp-d to clear MAC address
System LED light off	1. PoE power supply is not working 2. Some problem in CPE's PoE port 3. Ethernet cable is loose, RJ45 port is wrong power current/voltage lower or wrong	1. Check if the PoE adapter or PoE switch work 2. Check if the PoE port of CPE is ok 3. Check if Ethernet cable is loose if Ethernet cable plugged into PoE port 4. Check if the voltage is normal, if the socket has problem if the input voltage of the PoE adapter is normal
Low transmission Rate	1. Packet Latency 2. Ethernet cable circuit 3. Network virus attack 4. Too much access users 5. Network Cables type lower than Cat 5e?	1. Adjust the distance, angle and channel to decrease latency 2. Check if port isolated to avoid network virus and broadcast storm 4. Decrease the access users. 5. Change use a Cat 5e or above network cable.
Device always dead	1. Static electricity 2. Running time too long 3. Lightning stroke	1. Make CPE or PoE adapter need a ground connection 2. Running time over 7 days, reboot it 3. After lightning, device PoE port broken or unstable better to deploy lightning conductor

Technical Support and Service

A. Thank you for your order and for using UeeVii Wireless Bridge, please read the manual carefully before use. If there are any problems during the use, please contact us in time;

B. The installation of this device requires some network knowledge. If you can't install it, please let us know or contact a professional. Tech Service Email: **support@ueevii.com**

Website: https://www.ueevii.com
FaceBook: https://www.facebook.com/UeeVii
FB Group: https://www.facebook.com/groups/8869731233069487
YouTube channel:
https://www.youtube.com/channel/UCvcFqnEd44EJWDrBIb7wxWQ

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