

AdaLov

Wireless Bridge

USER MANUAL



Model:CPE882

Tips:

Thank you for ordering and using AdaLov CPE882 Wireless Bridge, please read the manual carefully before use. If there are any problems during use, please contact us in time.

Customer Service Email: cs@adalovus.com

Content

Introduction	01
Chapter 1 - Get to Know Your Wireless Bridge	03
1.1 Product Overview	03
1.2 Appearance	04
1.3 Specifications	05
Chapter 2 - Package	07
Chapter 3 - DIP switch pairing wireless bridge	07
3.1 POE Power Supply	07
3.2 Pairing wireless bridge	08
Chapter 4 - AP bridge & Station bridge Installation	10
4.1 Installation Best Practices	10
4.2 Wireless Bridge's Connection	11
Chapter 5 - Application	12
5.1 Network Extend Diagram	12
5.2 Video Transmission Diagram	12
5.3 Starlink Network Extend Diagram	11
5.4 Repeater Mode Connection Diagram	11
Chapter 6 - Web Configuration	14
6.1 Modify Computer's IP	14
6.2 Accessing the Bridge via Web Browser	18
Chapter 7 - Advanced settings	20
7.1 Button Configuration	20
7.2 Web Configuration	21
Chapter 8 - Safety Precautions	30
Chapter 9 - After-sales Service	30

Introduction

Product Features:

The Adalov CPE882 is a high-performance, high-bandwidth outdoor wireless bridge supporting WiFi 6, designed for long-range transmission. It offers extended coverage (5+ km), excellent penetration capability, and strong anti-interference performance.

Automatic A/B Networking

Supports automatic A/B networking in one-to-one, one-to-multiple, and WDS modes without additional configuration. Enables flexible switching between A and B roles while ensuring dual compatibility for video and data networks.

Automatic Power Adjustment

Dynamically adapts transmission power based on environmental conditions to maintain smooth video streaming even at ultra-close range.

Video Transmission Protocol

Features deep protocol optimization for wireless video surveillance, ensuring smooth and stable high-speed video transmission with no lag or drops. The underlying wireless driver is further enhanced for superior anti-interference capability and reliability.

Dual Gigabit Ethernet Ports

Equipped with two full Gigabit LAN ports.

Dual-Band High Speed

2.4GHz band: 600Mbps; 5.8GHz band: 1200Mbps.

High Transmission Power

High-power 2.4GHz band delivers excellent wall-penetration performance and extended coverage. High-power 5.8GHz band enables long-range transmission with strong signal stability and high speed.

Stability and Reliability

Integrated TVS lightning protection ensures stable operation in harsh environments.

Advanced thermal management design guarantees performance stability under high temperatures.

Router system with independent UI for user-friendly operation.

Simple Operation

Digital display and button controls for communication frequency (channel) configuration.

Chapter 1 - Get to Know Your Wireless Bridge

1.1 Product Overview



1.2 Appearance

1.2.1 Port and Button Description

Port or Buttons	Description
A-B Button	Pushing the button to "A" indicates that the bridge acts as the AP bridge (transmitter), and pushing the button to "B" indicates that the bridge acts as the Station bridge (receiver).
Reset Button	Short press once to toggle a different character to pairing; press and hold for 5s to reset the wireless bridge.
LAN 1 Port	The 1000Mbps adaptive RJ45 port, also can be used as a POE port.
LAN 2 Port	The 1000Mbps adaptive RJ45 port, also can be used as a POE port.
Digital Tube	Know the current configuration character through the digital tube.
DC	12V/1A(DC 5521).

POE Adapter	Description
POE port	Supply power for the bridge
LAN port	It is 1000Mbps RJ45 port. Same function as bridge LAN port

1.2.2 LED Explanation

Name	Indication
PWR	The power indicator shows the status of the wireless bridge.
WLAN	Wireless Status Indicator.
Signal Indicator	In AP bridge mode: lights show output power—more lights mean stronger signal. In Station bridge mode: after pairing, lights indicate signal strength—the more lights, the stronger the connection.
LAN1/LAN2	The green light stays solid when LAN1/LAN2 is connected and turns off when disconnected.
LED Display	The characters in the loop are: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, b, C, d, E, F.

1.3 Specifications

Main Control Unit	Model	CPE882
	CPU	MT7621+MT7915DAN+MT7975DN
	Flash	16MByte
	DRAM	DDR 64MByte
	Antenna	2.4G and 5.8G dual-band MIMO multi-mode antenna directional antenna
	Antenna gain	Built-in snap-on antenna, 14dBi * 4
	Ports	10/100/1000Mbps RJ45 * 2 DC Socket * 1 Set key * 1
	Indicator lights	SYS, LAN1, LAN2, 5G Wi-Fi signal lights * 4, WLAN
	Wireless rate	11b: 1/2/5.5/11Mbps
		11b: 1/2/5.5/11Mbps
		11b: 1/2/5.5/11Mbps
		11ac: up to 900Mbps
		11ax: up to 1200Mbps
	Transfer method	Direct Sequence Spread Spectrum (DSSS)
	Modulation	OFDM/BPSK/QPSK/CCK/DQPSK/DBPSK
	Protocol standard	IEEE802.11b/g/n, IEEE802.11a , IEEE802.11ac, IEEE802.3u
	Agreement	CSMA/CA with ACK
	Data Encryption	WPA-PSK/WPA2-PSK, WPA/WPA2
	Heatsink	Self-guiding heat dissipation design

Button	Frequency Hopping Button / Reset Button	Short press 1 second set the CPE jump frequency (channel), digital tube display 0 (void), 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F polling switching. Long press 5 seconds to restore factory Settings.
Power Supply (Choose either POE or DC power supply)	POE	24V 1.0A, POE gigabit power, UI/FCC certification European CE certification rules support standard 48V poe power supply, support with standard POE switch power supply.
	DC	12V 1.0A(MAX DC 54V), CCC power supply
RF Specifications	Maximum Transmit Power	<27dBm
Number of Connections	Maximum Number of Connections	50+terminals
Wi-Fi Parameters	SSID Hiding	Supported
	WDS Function	Supported
Size	Device	251*90*53mm
Weight	Network bridge	0.50kg
Environmental Parameters	ESD test	+/-6KV
	Surge test	+/-2KV
	Maximum power consumption	<15W
	Protection rating	IP65
	Operating environment	Normal Operating Temperature: -35°C to 75°C Extreme Operating Temperature: -40°C to 75°C Storage Temperature: -40°C to 85°C Humidity: 5% to 95% (non-condensing)

Chapter 2 - Package

2 x CPE882 Wireless Bridge
 2 x Bracket Mount x 2
 2 x Network Cable for Test x 2
 2 x Hose Clamps: Small x 2+Big x 4
 2 x PoE Adapter x 2
 2 x Wall Grommet x 2
 50 x Wire Clip
 1 x User Manual



Chapter 3 - DIP switch pairing wireless bridge

3.1 POE Power Supply

The CPE882 wireless bridge supports both 24V and 48V PoE power input. You can choose one of the following methods:

Method 1: Using the Included 24V PoE Adapter

Multi-Voltage Support

LAN1 Port:
 24-48V Active PoE

24V POE Adapter



Method 2: Using a PoE Switch



3.2 Pairing wireless bridge

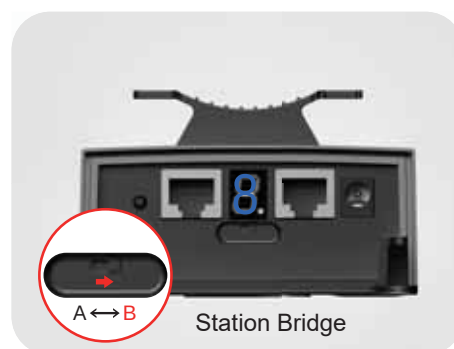
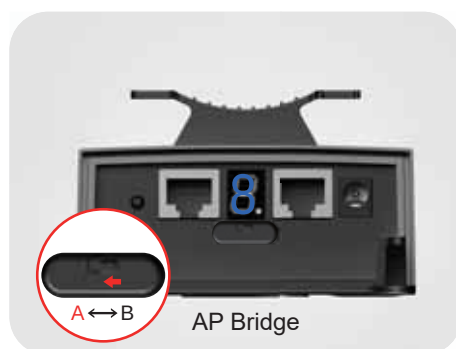
The bridges are pre-paired; simply connect them to the POE adapter, and they will auto-pair within a few minutes.

If the bridge fail to pair automatically, please follow these steps to pair them:

Step 1: Set AP bridge/Station bridge:

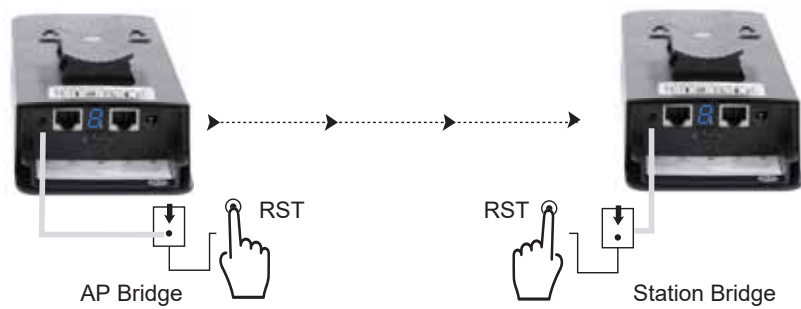
Set AP bridge--(switch "A-B" button to "A" position)

Set Station bridge-- (switch "A-B" button to "B" position)



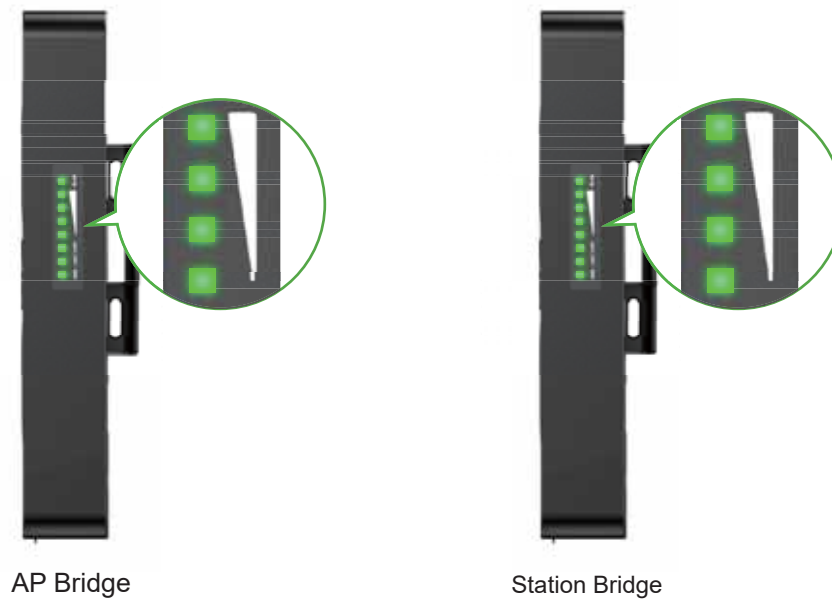
Step 2: Channel Selection:

- Press Reset to switch channels (0–9, A–F).
- The LED indicator displays the current channel.
- Set AP and Station to the same channel.



Step 3: Await Pairing Confirmation :

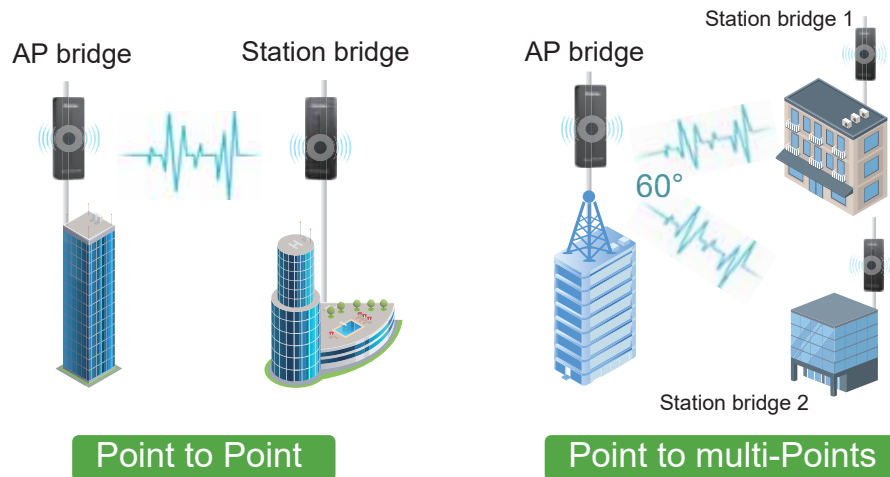
A lit signal light on the side indicates a successful pairing.



Chapter 4 - AP bridge & Station bridge Installation

4.1 Installation Best Practices

- 1. Power On and Pair Before Installation:** It is recommended to power on and successfully pair the main and Station bridges before physical installation.
- 2. Monitor signal strength during installation and avoid obstacles within the transmission range for the best communication quality.**
- 3. Face-to-Face Placement for PTP Links:** If setting up a Point-to-Point (PTP) connection, position the front sides of the devices so that they face each other directly. This ensures minimal signal interference.
- 4. Maintain Line of Sight:** Whenever possible, ensure a clear line of sight between the CPE devices. This maximizes signal strength and reliability.
- 5. Avoid Interference:** Position the CPE devices away from sources of interference like large metal objects, microwave ovens, or other electronic devices that may disrupt the signal.
- 6. Elevated Positioning:** Install the devices at the highest possible point, such as on poles or rooftops, to improve range and signal quality. The main bridge has a horizontal signal transmission angle of 60° and a vertical angle of 30°. Ensure all connected Station bridges fall within these angles for optimal performance.
- 7. Secure the Devices:** Use the provided ties or mounting hardware to securely fix the CPE devices in place. This prevents movement, ensuring stable signal alignment.
- 8. Cable Management:** Use Category 5 or higher Ethernet cables to connect the devices, ensuring all cables are neatly organized and secured to avoid disconnection or damage.
- 9. Regular Maintenance Checks:** Periodically check the devices for physical integrity, secure positioning, and software updates to ensure they are functioning optimally.



4.2 Wireless Bridge's Connection:

1. AP bridge connection:



Step 1: Connect the LAN port of the PoE adapter to the router's LAN port or the internet using an Ethernet cable.

Step 2: Use another Ethernet cable to connect the PoE port of the PoE adapter to the LAN port of the AP bridge.

Station bridge (or station bridges) Connection:

Step 1: Connect the POE port of the POE adapter to the LAN port of the Station bridge using an Ethernet cable.

Step 2: Connect the LAN port of the POE adapter to the computer or the WAN port of the router using another Ethernet cable.

Chapter 5 - Application

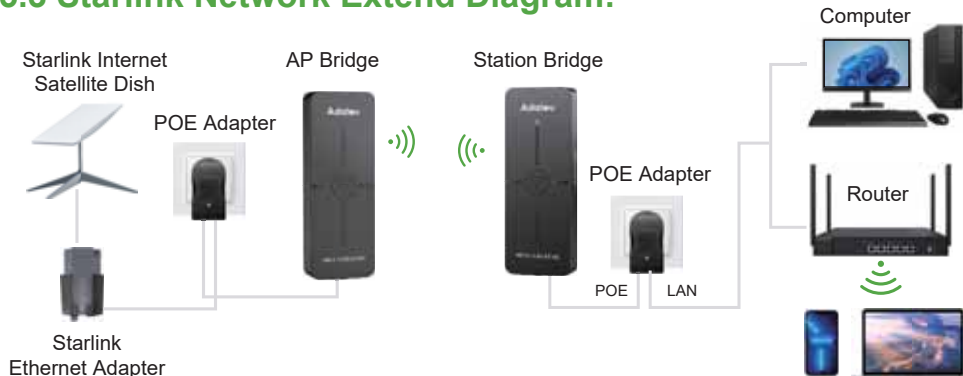
5.1 Network Extend Diagram:



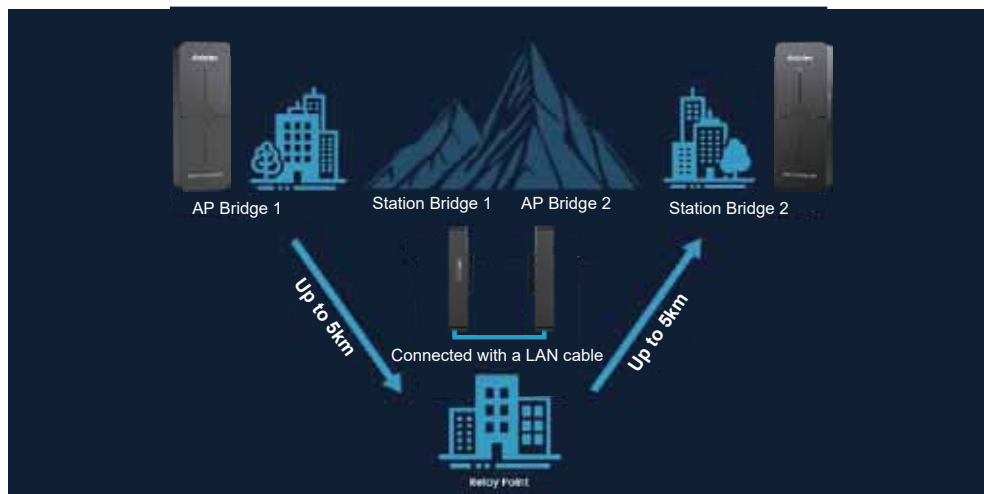
5.2 Video Transmission Diagram:



5.3 Starlink Network Extend Diagram:



5.4 Repeater Mode Connection Diagram:



Extending Your Network with Two Pairs of Wireless Bridges

To reach distant locations or multiple buildings, use two pairs of wireless bridges in a relay setup.

Connect the first pair as AP and Station to establish the main link.

Place the second pair near the first Station and set up another AP-Station link.

Note: Make sure the two pairs use different channels to avoid interference.

This relays the network signal, extending coverage beyond the range of a single pair.

Ensure line-of-sight placement for best performance.

Chapter 6 - Web Configuration

6.1 Modify Computer's IP

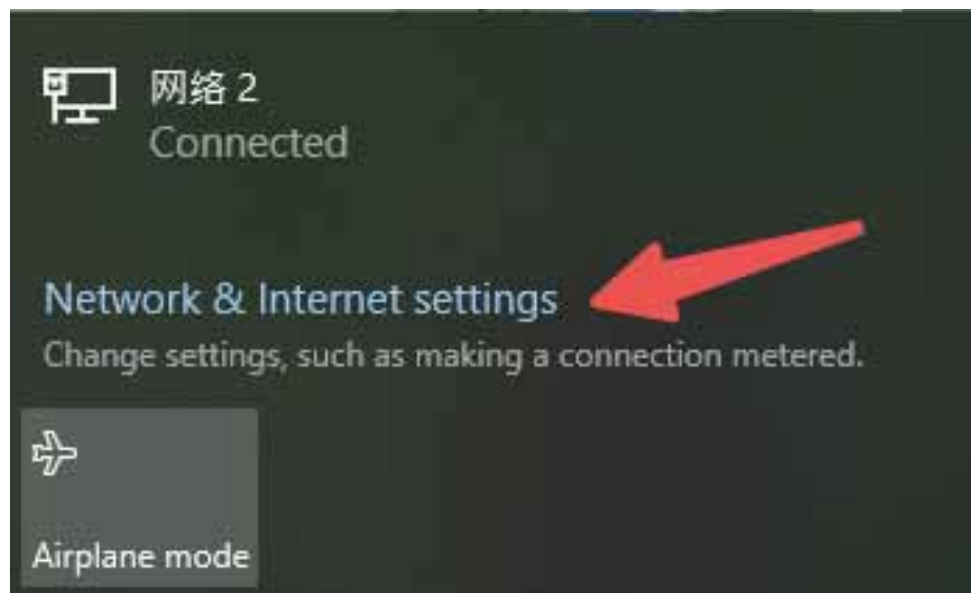
1. Connecting the CPE to a Computer Using a PoE Adapter and Ethernet Cable.



2. Modify your computer's IP address: Set Your Computer's IP Address on the Same Network Segment as a Bridge for LAN Access

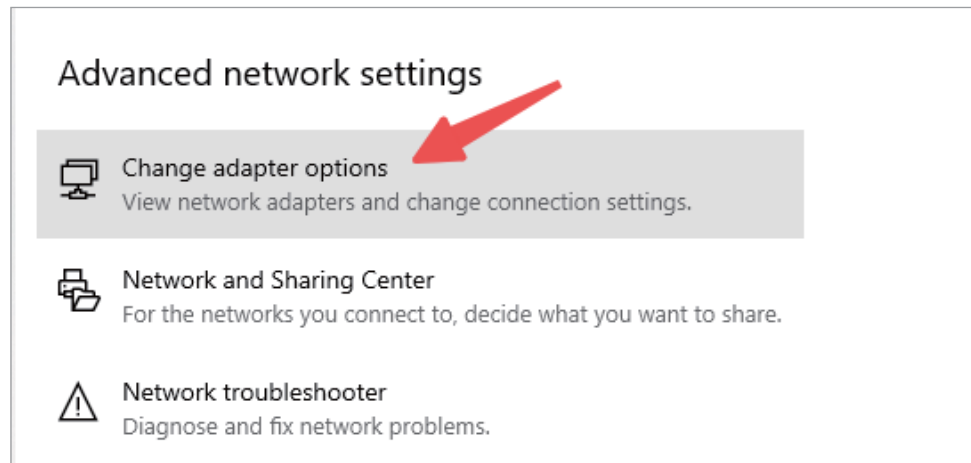
Step 1: Access Network Settings:

Click the network icon in the bottom-right corner of your screen.
Select "**Network & Internet settings**."

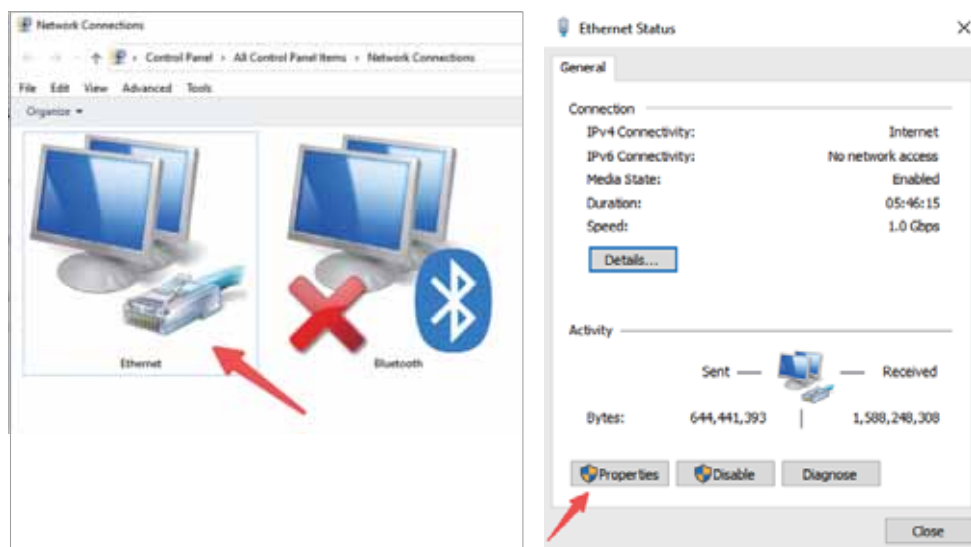


Step 2: Change Adapter Options:

In the Network & Internet settings window, click on **"Change adapter options."**

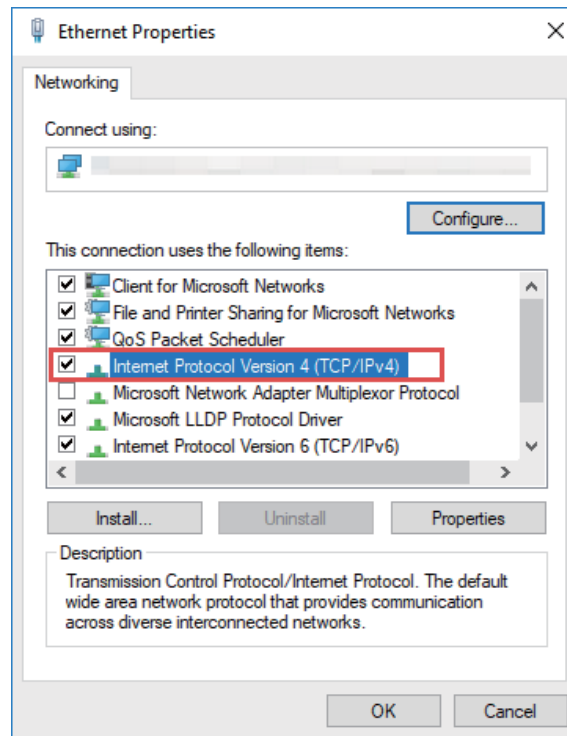
**Step 3: Open Network Properties:**

Right-click on the active network connection (Wi-Fi or Ethernet) and select **"Properties."**



Step 4: Configure IP Settings:

Scroll down and double-click on "Internet Protocol Version 4 (TCP/IPv4)."



Select **"Use the following IP address"** and set an IP address in the same range as your wireless bridge. (**Note:** The PC's IP can not be the same as the bridge.)
IP address: Check the device that you are connected to in order to locate the IP address. The first three sets of digits should match. For this tutorial, we will use IP address 192.168.255.123.

Example: If your bridge's IP address is 192.168.255.100, you could set your computer's IP to something like 192.168.255.123.
Set the Subnet Mask (usually 255.255.255.0), and match the Default Gateway to the bridge's default IP.

Internet 协议版本 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☐ Obtain an IP address automatically

☒ Use the following IP address:

IP address: 192 . 168 . 255 . 123

Subnet mask: 255 . 255 . 255 . 0

Default gateway:

☐ Obtain DNS server address automatically

☒ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

OK Cancel

Step 5: Apply the Settings:

After entering the appropriate details, click **"OK"** and then close all windows.

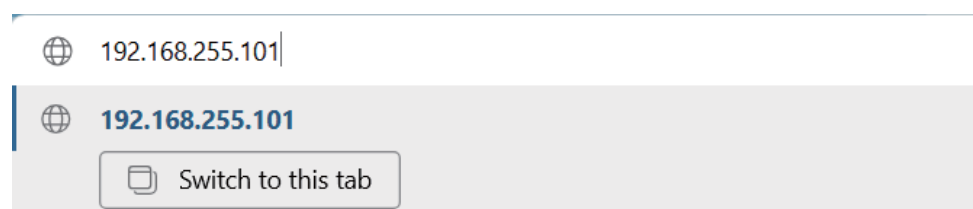
6.2 Accessing the Bridge via Web Browser

Open a browser and type in the bridge's IP address (e.g., 192.168.255.101) to see if you can access its interface.

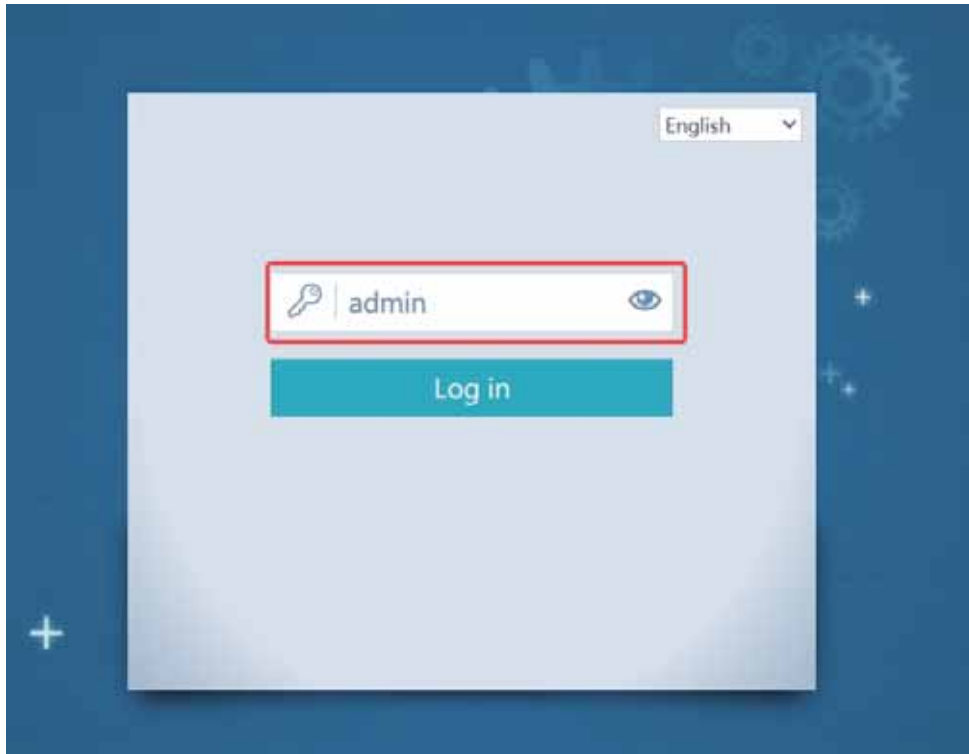
Digital & IP Chart

Digital & IP Chart	A (AP bridge)- IP	B (Station bridge) - IP	Channel	WiFi SSID	Password
0	192.168.255.100	192.168.255.200	0	CPE5G_5G64	smartcpe12345664
1	192.168.255.101	192.168.255.201	36	CPE5G_5G36	smartcpe12345636
2	192.168.255.102	192.168.255.202	40	CPE5G_5G40	smartcpe12345640
3	192.168.255.103	192.168.255.203	44	CPE5G_5G44	smartcpe12345644
4	192.168.255.104	192.168.255.204	48	CPE5G_5G48	smartcpe12345648
5	192.168.255.105	192.168.255.205	120	CPE5G_5G120	smartcpe123456120
6	192.168.255.106	192.168.255.206	124	CPE5G_5G124	smartcpe123456124
7	192.168.255.107	192.168.255.207	128	CPE5G_5G128	smartcpe123456128
8	192.168.255.108	192.168.255.208	132	CPE5G_5G132	smartcpe123456132
9	192.168.255.109	192.168.255.209	136	CPE5G_5G136	smartcpe123456136
A	192.168.255.110	192.168.255.210	140	CPE5G_5G140	smartcpe123456140
b	192.168.255.111	192.168.255.211	149	CPE5G_5G149	smartcpe123456149
C	192.168.255.112	192.168.255.212	153	CPE5G_5G153	smartcpe123456153
d	192.168.255.113	192.168.255.213	157	CPE5G_5G157	smartcpe123456157
E	192.168.255.114	192.168.255.214	161	CPE5G_5G161	smartcpe123456161
F	192.168.255.115	192.168.255.215	165	CPE5G_5G165	smartcpe123456165

For example, if channel 1 is selected, the IP address of the main bridge is 192.168.255.101



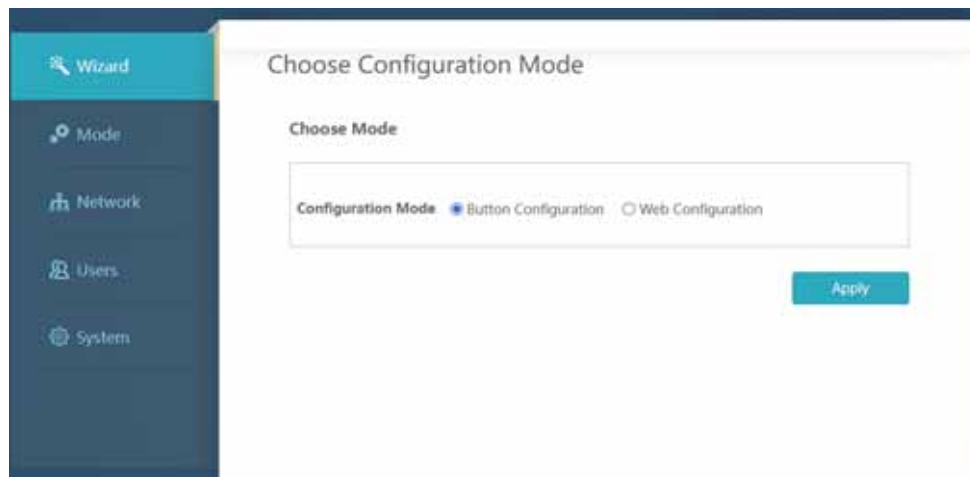
A login screen will appear, by default, the Username and Password of the wireless bridge all are "admin".



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

Chapter 7 - Advanced settings

7.1 Button Configuration



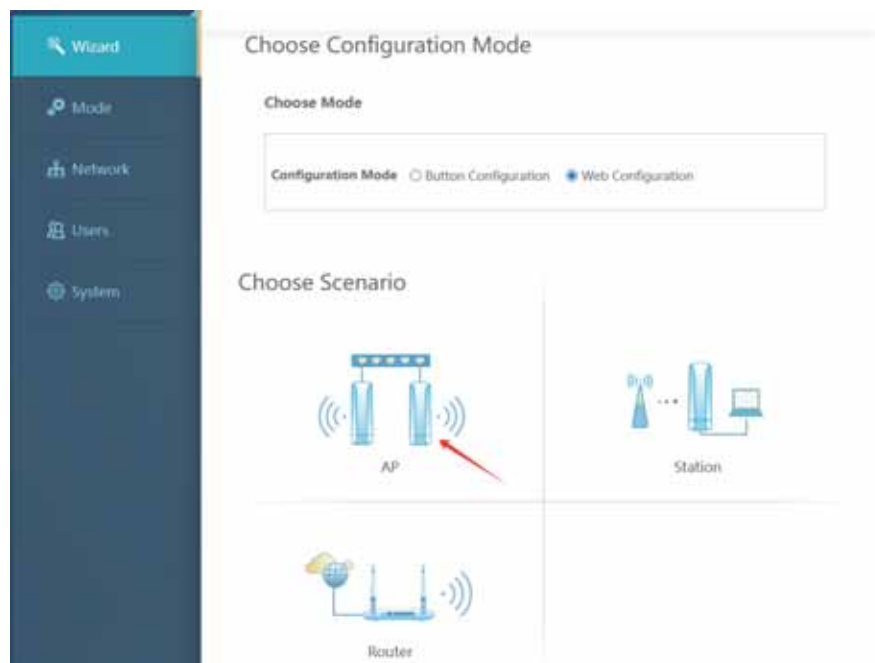
Please note:

- In Button Configuration mode (Dip switch pairing mode), the bridge's channel value is set via the reset button.
- The IP address, SSID, and password are automatically generated by the system based on the channel value. While these settings can be viewed by accessing the bridge, they cannot be modified.
- If you need to make changes, please switch to the WEB configuration mode.

7.2 Web Configuration

7.2.1 Set AP bridge

1. Select Web Configuration and click on the **AP** icon.



2. Configure the IP information for the AP bridge:

The screenshot shows the 'Scenario: AP' configuration wizard. The 'Device Settings' step is active, showing fields for IP Address, Netmask, Gateway, and DNS, all set to 169.254.100.100, 255.255.255.0, 169.254.100.1, and 169.254.100.1 respectively. The 'Static' radio button is selected.

- **IP Address:** Set the IP address according to your needs.
- **Netmask:** Configure the subnet mask based on the number of devices on the network. Typically, this is set to 255.255.255.0.
- **Gateway:** Set the gateway IP, which must be in the same subnet as the IP address.
- **DNS:** Set this to be the same as the gateway.

Note: After changing the IP address, you'll need to modify the IP address of your computer to be in the same subnet as the new IP address. Then, enter the new IP address in your browser to log back into the web interface.

DHCP mode is not recommended.

3. Configure the wireless network

The screenshot shows the 'WLAN Settings' page for 'Scenario:AP'. A progress bar at the top indicates '1 Device Settings' and '2 WLAN Settings' (current step). The left sidebar contains 'Wizard', 'Mode', 'Network', 'Users', and 'System'. The main content area is titled 'WLAN Settings' and contains the following fields:

- Working RF: ☒ 2.4G ☒ 5G
- 2.4G Name(SSID): CPE_TEST_A_2.4G
- 2.4G Password: [masked]
- 5G Name(SSID): CPE_TEST_A_5.8G
- 5G Password: [masked]

At the bottom right, there are 'Previous' and 'Next' buttons.

You can customize the SSID and password for both the 2.4GHz and 5.8GHz bands.

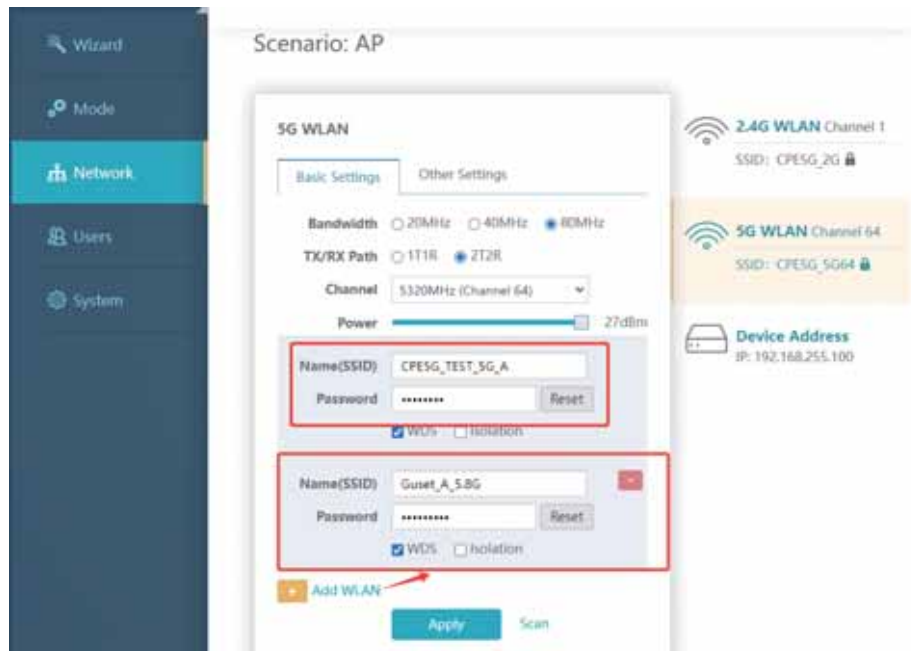
4. AP bridge Settings Overview

The screenshot shows the 'Your Settings' overview page for 'Scenario:AP'. The progress bar at the top shows '1 Device Settings' and '2 WLAN Settings' (current step). The left sidebar is the same as in the previous screenshot. The main content area is titled 'Your Settings' and displays the following configuration:

- IP Mode: Static
- IP Address: 169.254.100.100
- Working RF: 2.4G + 5G
- 2.4G SSID: CPE_TEST_A_2.4G
- 2.4G Encryption: WPA2-PSK AES
- 5G SSID: CPE_TEST_A_5.8G
- 5G Encryption: WPA2-PSK AES

Links for '2.4G More Settings' and '5G More Settings' are visible next to their respective encryption settings. At the bottom right, there are 'Previous' and 'Apply' buttons.

Click **Apply** to complete the AP bridge setup.



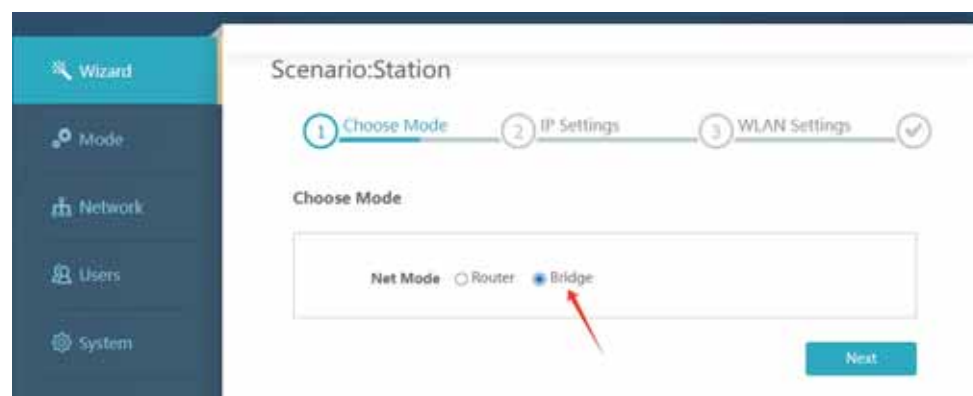
In this mode, you can modify the SSID and password for both the 2.4GHz and 5.8GHz bands on the AP and station bridges. You can also add a new SSID and password for the 2.4GHz band.

7.2.2 Station bridge Setup

1. Select Web Configuration and click on the **Station** icon:



2. Select the network mode as **Bridge**:



3. Configure the IP information for the station bridge:

Scenario: Station

1 Choose Mode 2 IP Settings 3 WLAN Settings ✓

Device Settings

IP Address	192.168.100.200
Netmask	255.255.255.0
Gateway	192.168.100.1
DNS	192.168.100.1

Previous Next

- **IP Address:** Set the IP address as needed.
- **Netmask:** Configure the subnet mask based on the number of devices in the network, typically set to 255.255.255.0.
- **Gateway:** Set the gateway IP, which must be in the same subnet as the IP Address.
- **DNS:** Set the DNS to the same as the Gateway.

Note: After changing the IP address, you will need to update your computer's IP address to match the new subnet, and enter the new IP address in your browser to log back into the web interface.

4. Set the bridge frequency to 5G, then click **"Scan"** to search for the SSID of the AP bridge:

Scenario: Station

1 Choose Mode 2 IP Settings 3 WLAN Settings

WLAN Settings

Working RF ☐ 2.4G ☒ 5G

Name(SSID) 1-32 characters

Password Empty or 8-32 chars

Lock ☒ OFF

[Previous](#) [Next](#)

5. Select the SSID of the AP bridge:

Scan Results

No.	BSSID	SSID	Encryption	Channel	Signal(dBm)	Operate
13	48:0E:EC:75:19:ED	123456	mixed WPA/WPA2 PSK (CCMP)	157	-71	Select
14	A2:10:77:73:BD:85	undefined	mixed WPA2/WPA3 PS K/SAE (CCMP)	36	-85	Select
15	18:7E:D5:50:A6:59	CPE_TEST_A_5.8G	WPA2 PSK (CCMP)	149	-14	Select
16	28:36:13:70:89:FE	VX_M282459	mixed WPA/WPA2 PSK (TKIP, CCMP)	60	-58	Select
17	BA:1A:3A:24:B2:C0	undefined	mixed WPA/WPA2 PSK (CCMP)	44	-80	Select
18	6A:77:DA:38:E9:D0	undefined	mixed WPA/WPA2 PSK (CCMP)	48	-79	Select
19	68:77:DA:68:E9:D0	ZTE-5Fbsu7	mixed WPA/WPA2 PSK (CCMP)	48	-79	Select

6. Enter the password for the AP bridge SSID:

Scenario: Station

1 Choose Mode 2 IP Settings 3 WLAN Settings ✓

WLAN Settings

Working RF ☐ 2.4G ☒ 5G

Name(SSID) CPE_TEST_A_5.8G Scan

Password 12345678

Lock ☒ Off 18:7E:55:50:A6:59

Previous Next

7. From the Bridge Settings preview, click **"More Settings"** to add guest Wi-Fi on the Station bridge:

Scenario: Station

1 Choose Mode 2 IP Settings 3 WLAN Settings ✓

Your Settings

Net Mode Scenario: Station-Bridge

IP Address 192.168.255.200

Working RF 5G

SSID CPE5G_5G_A

Encryption WPA2-PSK Auto

Lock Off

More Settings

Previous Apply

Scenario: Station

1 Choose Mode 2 IP Settings 3 WLAN Settings

More Settings

Power 27dBm

WDS ☐ ON

AP Extension ☐ ON

Working RF ☒ 2.4G ☒ 5G

2.4G Name(SSID) Guest_2.4G

2.4G Password

5G Name(SSID) Guest_5.8G

5G Password 87654321

Cancel Confirm

Click **Confirm** to complete the settings and start the pairing process. Wait for a moment, and when the signal indicators on the side of the bridge light up, the pairing is successful.

Chapter 8 - Safety Precautions

1. Follow the product instructions and safety specifications during installation.
2. Use this product within the specified temperature and humidity range.
3. Follow the relevant installation instructions to ensure correct and stable installation.
4. If you have any questions or encounter any issues, please contact our technical support team.

Chapter 9 - After-sales Service

1. Any accessories are missing from the package.
2. You are unable to use the product.
3. The wireless bridge or PoE power adapter is damaged.
4. The wireless bridge malfunctions or freezes after a period of use.
5. You cannot access the wireless bridge from your computer.
6. You need the latest PDF user manual or have other inquiries.
7. For any of the above issues, please contact us for assistance.



✉ **Tech Service Email:** cs@adalovus.com

ISED **FC**  **C** **€** **RoHS** **UK** **CA** 

Made in China

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party.

Responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices).

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.



Made in China