

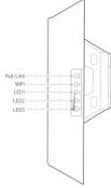
IP-COM

Quick Installation Guide

100m Outdoor Point-to-Point CPE Model CPE3

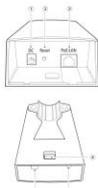
Get to Know the Devices

LED Indicators



LED Indicator	Status	Description
PoE/LAN	Active	Transceiver is operational and transmitting and/or receiving data.
	Blinking	Transceiver is negotiating link.
WAN	Active	WAN connection is established.
	Blinking	WAN connection is negotiating link.
LED1	Active	Device is working in AP mode and connected to a wireless client.
	Blinking	Device is working in AP mode and connected to a wireless client.
LED2	Active	Device is working in AP mode and connected to a wireless client.
	Blinking	Device is working in AP mode and connected to a wireless client.
LED3	Active	Device is working in Client mode and connected to a wireless client.
	Blinking	Device is working in Client mode and connected to a wireless client.

Ports & Button



ID	Port/Button	Description
1	DC	Power port. Use the provided power adapter to plug in to supply power to the device.
2	Reset	Reset button. Press the button to reset the device. Hold the button for 5 seconds. When all LEDs are on, the device has been reset. Release the button and wait for the device to boot up.
3	PoE/LAN	Full powered and auto negotiation port. It can be used to connect the PoE injector to a power socket. The PoE/LAN LED of the device lights up. Use an Ethernet cable to connect your computer to the LAN port of the PoE injector.
4	7	WAN
5	7	WAN
6	7	WAN

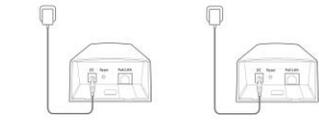
Application Scenario 1: CCTV Surveillance

1. Set up the Devices

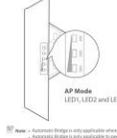
Tip: At least two devices are required for bridging.

Method 1: Automatic Bridging (Recommended)

- Place the two devices next to each other, as shown in the following figure.
- Press and push the button on the rear panel of the device to open the housing, and use the included power adapters to power the two devices. Wait until the WAN LEDs of the devices turn on.



- Wait for the two devices to negotiate and connect to each other automatically. The LED statuses are as follows if the devices are connected successfully:
 - AP Mode:** LED1, LED2 and LED3 are solid on.
 - Client Mode:** LED1, LED2 and LED3 blink.



Note: Automatic Bridging is only applicable when the devices are in factory state, and the bridge power back. See Step 1 in the device user manual for more details. **Warning:** Do not open the housing of the device when the device is powered on. **Warning:** Do not touch the device when the device is powered on. **Warning:** Do not touch the device when the device is powered on. **Warning:** Do not touch the device when the device is powered on.

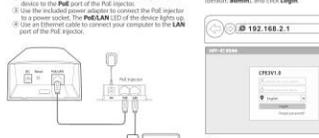
Method 2: Set up the Devices Using Web UI

Step 1: Place the two devices close to each other.



Step 2: Connect the computer to CPE 1.

- Press and push the button on the rear panel of the device to open the housing.
- Use an Ethernet cable to connect the PoE/LAN port of the device to the PoE injector.
- Use the included power adapter to connect the PoE injector to a power socket.
- Use an Ethernet cable to connect your computer to the LAN port of the PoE injector.



Step 3: Set CPE 1 to AP Mode.

- Start a web browser on your computer, and visit 192.168.2.1. Enter your user name and password (default: admin, and click **Login**.



Step 4: Select AP, and click **Next**.

- Select an SSID, which is IP-COM_123456 in this example, security mode (WPA2-PSK is recommended), and click **Next**.



Tip: The password page will not appear when you click **Next**.

- Click **Save**, and wait until the device reboots automatically to activate the settings.

Step 5: Set CPE 2 to Client Mode.

- Perform the procedure in Step 2 to connect the computer to CPE 2.
- Start a web browser on your computer, and visit 192.168.2.1. Enter the login user name and password (both are admin by default, and click **Login**.



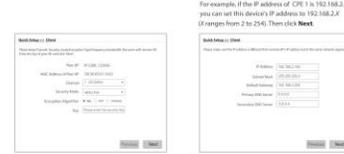
Step 6: Select Client, and click **Next**.

- Select the SSID you set on CPE 1, which is IP-COM_123456 in this example, and click **Next**.



Step 7: Enter the WAN IP address of CPE 1 in the Key box, and click **Next**.

- Set the IP address to an unused IP address belonging to the same network segment as that of CPE 1. For example, if the IP address of CPE 1 is 192.168.2.1, you can set the device's IP address to 192.168.2.2 (it ranges from 2 to 254). Then click **Next**.



Tip: The password page will not appear when you click **Next**.

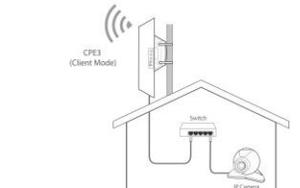
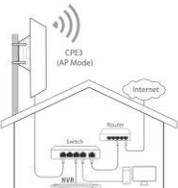
- Click **Save**, and wait until the device reboots to activate the settings. When LED1, LED2, and LED3 of CPE 1 are solid on, and LED1, LED2, and LED3 of CPE 2 blink, the bridge succeeds.

2. Install the Devices

- The device (transmitter in AP mode) with LED1, LED2 and LED3 solid on should be connected to the switch connecting to a network video recorder (NVR).
- The device (receiver in Client mode) with LED1, LED2 and LED3 blinking should be connected to the switch connecting to a monitoring IP camera.

Detailed procedures are as follows:

- Place the transmitter in the open air at the point where the NVR is located. Place the receiver in the open air at the point where the IP camera is located.
- Open the housing of the two devices, and connect the PoE/LAN parts of the devices to PoE injectors respectively. The PoE/LAN LED indicators light up.
- Adjust the two devices' direction or location until the LED1, LED2 and LED3 of the two devices light up.
- Use the pole-mounting straps to attach the two devices to the poles.

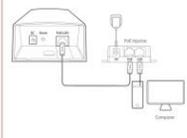


Application Scenario 2: Wireless ISP Hotspot Access

1. Set up the Device

Step 1: Connect the computer to the device.

- Press and push the button on the rear panel of the device to open the housing.
- Use an Ethernet cable to connect the PoE/LAN port of the device to the PoE injector.
- Use the included power adapter to connect the PoE injector to a power socket. The PoE/LAN LED of the device lights up.
- Use an Ethernet cable to connect your computer to the LAN port of the PoE injector.



Step 2: Set the device to WISP Mode.

- Start a web browser on your computer, and visit 192.168.2.1. Enter your user name and password (default: admin, and click **Login**.



Step 3: Select WISP, and click **Next**.



Step 4: Select the SSID of your ISP Internet Service Provider (ISP), which is IP-COM_123456 in this example, and click **Next**.



Step 5: Enter the WAN IP address of your ISP Internet Service Provider (ISP), which is 192.168.2.1 in this example, and click **Next**.



Step 6: Select the Internet Connection Type of your ISP hotspot. We take PPPoE as an example. Enter the PPPoE user name and password provided by your ISP, and click **Next**.



Step 7: Customize the SSID and Key, and click **Next**.



Step 8: Set an IP address belonging to different network segment as that of your ISP hotspot, for example, if the IP address of your ISP hotspot is 192.168.2.1, you can set the device's IP address to 192.168.2.2 (it ranges from 2 to 254 except 1). Then click **Next**.



Step 9: Click **Save**, and wait until the device reboots to activate the settings. When LED1, LED2, and LED3 of the device blink, the device is connected to your ISP hotspot successfully.



2. Install the Devices

- Place the device in an open air.
- Open the housing of the device, and connect the PoE/LAN port of the device to the WAN port of your wireless router. The PoE/LAN LED indicator lights up.
- Adjust the device's direction or location on the selected pole until the LED1, LED2 and LED3 of the device light up.
- Use the pole-mounting straps to attach the device to the pole.



FAQ

Q1: I cannot login to the web UI of the device by entering 192.168.2.1. What should I do?

- Try the following method, and try again.
- Ensure that the device has been connected to the power supply and the login computer properly.
- Ensure that the IP address of the login computer is 192.168.2.x (it ranges from 2 to 254).
- Reset the device to factory settings.

Q2: How to reset the device to factory settings?

- Warning:** Restoring the device will clear all settings, and you need to configure it again.
- Method One:** 1. Minus after the device is powered on; open the housing of the device, and hold down the **Reset** button for 7 seconds. When all LEDs light up, the device is restored to factory settings.
- Method Two:** Log in to the web UI of the device, click **Tools > Maintenance**, and click **Reset** button.

Q3: How to perform peer-to-peer bridging?

- Log in to the web UI of these devices refer to Method 2: Set up the Devices Using Web UI for details.
- Set the device connected to NVR to AP mode, and set the other connected to IP camera as Client mode.

Q4: How to determine whether the bridging signal is optimum when the devices are used for CCTV Surveillance?

Log in to the web UI of one device, and check the status on the following page:

Wireless Status		RSSI Address of Peer: 192.168.2.100	
Working Mode	Client	Signal Strength	100%
SSID	WISP	Security Mode	WPA2-PSK
Security Mode	WPA2-PSK	Channel	11
Channel	11	Frequency	2412 MHz
Network Authentication	WPA2-PSK	Transmit Power	100mW

Adjust the horizontal and vertical positions of the device until the Signal Strength and Background Noise. Stronger signal strength and less background noise is better than 90 dBm to better bridging signal.

CE

CE Mark Warning
This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures for mitigation. Equipment, the socket outlet of which shall be installed near the equipment and shall be easily accessible.
WARNING: The main plug is used as a disconnect device; the disconnect device shall remain readily operable.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radio interference, it is recommended to use a shielded RS-485 cable.
Declaration of Conformity
Shenzhen IP-COM Networks Co., Ltd. declares that the radio equipment type CPE3 is in compliance with Directive 2014/53/EU.
The full text of the Declaration of Conformity is available at the following internet address: <http://ip-com.com.cn/wireless.html>
Contact Frequency: 5212402, 24623240 (China, CHN); ERP Power (Max.): 1.0 W (EIRP); Software Version: V1.0.0.3

Manufacturer: SHENZHEN HEWESHEN NETWORK TECHNOLOGY CO., LTD.
Input: 100-240V AC, 50/60 Hz 0.3 A
Output: 5V DC, 400 mA
100% DC Voltage

FC

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. This device 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.
Radiation Exposure Statement
This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules.
Caution:
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RS-485 cable.

RoHS

RECYCLING
This product bears the selective sorting symbol for waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European Directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment. Use the checks to give the product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment.
Operating Temperature: -30 °C ~ 55 °C
Operating Humidity: 10% ~ 90% RH, non-condensing
Technical Support
Shenzhen IP-COM Networks Co., Ltd.
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Wholesale: wholesale@ip-com.com.cn
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The information provided in this document is subject to change without notice. The information is provided only for reference. The appearance, design, operation, structure, and other details of the product may vary without notice. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RS-485 cable.