IP-COM

Quick Installation Guide
300m Outdoor Point to Point CPE
Model: CPE3

Get to Know the Devices

▶ LED Indicators
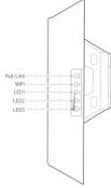
LED Indicator	Status	Description
PoE/LAN	Solid on	The power is supplied to the device properly, and no data is being transmitted.
	Blinking	The port is transmitting or receiving data.
	Off	No power is supplied to the device.
WiFi	Solid on	The wireless function is enabled, but no data are being transmitted.
	Blinking	Data is being transmitted in a wireless manner.
	Off	The wireless function is disabled.
LED1, LED2, LED3 Signal Strength LED	Solid on	The device is working in AP mode, and connected to a wireless client.
	Blinking	The device is working in Client or WISP mode, and connected to a remote AP.
	Off	The device is not connected to a wireless client or a remote AP.

▶ Ports & Button
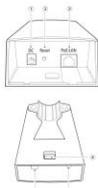
ID	Port/Button	Description
①	DC	Power Jack
②	Reset	Reset Button
③	PoE/LAN	PoE power input and data transmission port.
④	/	Power cord inlet
⑤	/	Ethernet cable inlet
⑥	/	Button for opening the housing.

Package Contents
- CPE3 * 1
- PoE Injector * 1
- Power Adapter * 1
- Quick Installation Guide * 1
- Screw * 2
- Cover to fix the PoE injector
- Expansion Anchor * 2
- Cover to fix the PoE injector
- Pole Mounting Strap * 2

Please read this quick installation guide before you start. You can visit our website at http://www.ip-com.com.cn for more information about the device.

Application Scenario 1: CCTV Surveillance

1. Set up the Devices

Tip: At least two devices are required for bridging.

Method 1: Automatic Bridging (Recommended)

① Place the two devices next to each other, as shown in the following figure.

② 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 WiFi LED indicators of the devices turn on.
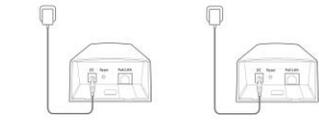
③ Wait for the two devices to negotiate and connect to each other automatically. The LED statuses are as follows if the devices are connected successfully:

CPE 1   CPE 2

AP Mode — LED1, LED2 and LED3 are solid on.
Client Mode — LED1, LED2 and LED3 blink.
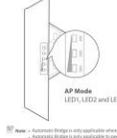
Note: Automatic Bridge is only applicable when the devices are in factory state, and the bridge process lasts less than 1 minute after the devices start.

Method 2: Set up the Devices Using Web UI

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

CPE 1   CPE 2

Step 2: Connect the computer to CPE 1.

① Press and push the button on the rear panel of the device to open the housing.
② Use an Ethernet cable to connect the PoE/LAN port of the device to the PoE port of the PoE injector.
③ Use the included power adapter to connect the PoE injector to a power socket. The PoE/LAN LED of the device lights up.
④ Use an Ethernet cable to connect your computer to the LAN port of the PoE injector.

PoE Injector
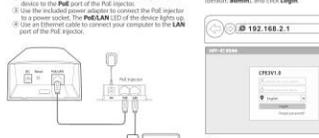
Computer

Step 3: Set CPE 1 to AP Mode.

① Start a web browser on your computer, and visit 192.168.2.1. Enter your user name and password (default: admin), and click Login.

CPE3V1.0

Tip: If the preceding page does not appear, please refer to Q1 in FAQ.

② Select AP, and click Next.

③ Set an SSID, which is IP-COM_123456 in this example, security mode (WPA2-PSK is recommended), and Key, and click Next.

④ Click Save, and wait until the device reboots automatically to activate the settings.

Step 4: Set CPE 2 to Client Mode.

① Perform the procedure in Step 2 to connect the computer to CPE 2.
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.

Tip: If the preceding page doesn't appear, please refer to Q1 in FAQ.

③ Select Client, and click Next.

④ Select the SSID you set on CPE 1, which is IP-COM_123456 in this example, and click Next.

⑤ Enter the WiFi password you set on CPE 1 in the Key text box, and click Next.

⑥ 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 this device's IP address to 192.168.2.X (X ranges from 2 to 254). Then click Next.
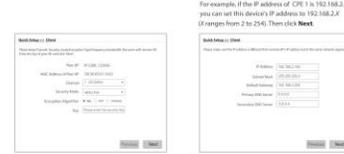
⑦ Click Save, and wait until the device reboots to activate the settings. When LED1, LED2, and LED3 of CPE 1 are solid on, and LED1, LED2, and LED3 of CPE 2 blink, the bridge succeeds.

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:
① 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.
② Open the housings of the two devices, and connect the PoE/LAN ports of the devices to PoE injectors respectively. The PoE/LAN LED indicators light up.
③ Adjust the two devices' direction or location until the LED1, LED2 and LED3 of the two devices light up.
④ Use the pole mounting straps to attach the two devices to the poles.

CPE3 (AP Mode)   CPE3 (Client Mode)

Internet / Router / Switch / NVR / Computer / IP Camera
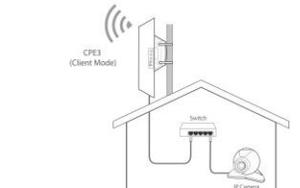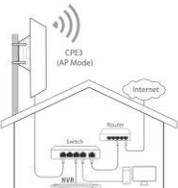
Application Scenario 2: Wireless ISP Hotspot Access

1. Set up the Device

Step 1: Connect the computer to the device.
① Press and push the button on the rear panel of the device to open the housing.
② Use an Ethernet cable to connect the PoE/LAN port of the device to the PoE port of the PoE injector.
③ Use the included power adapter to connect the PoE injector to a power socket. The PoE/LAN LED of the device lights up.
④ Use an Ethernet cable to connect your computer to the LAN port of the PoE injector.

Computer

Tip: If the preceding page does not appear, please refer to Q1 in FAQ.
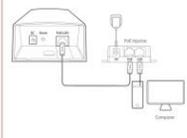
Step 2: Set the device to WISP Mode.
① Start a web browser on your computer, and visit 192.168.2.1. Enter your user name and password (default: admin), and click Login.

CPE3V1.0

② Select WISP, and click Next.

③ Select the SSID of your ISP (Internet Service Provider) hotspot, which is IP-COM_123456 in this example, and click Next.

④ Enter the WiFi password of your ISP (Internet Service Provider) hotspot in the Key text box, and click Next.

⑤ Select the Internet Connection Type of your ISP hotspot. We take PPPoE as an example here. Enter the PPPoE user name and password provided by your ISP, and click Next.

⑥ Customize the SSID and Key, and click Next.

⑦ 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 this device's IP address to 192.168.X.1 (X ranges from 0 to 254 except 2). Then click Next.

⑧ 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

① Place the device at an open air.
② Open the housings 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.
③ Adjust the device's direction or location on the selected pole until the LED1, LED2 and LED3 of the device light up.
④ Use the pole mounting straps to attach the device to the pole.

CPE3 (WISP Mode)

Router / ISP Hotspot

FAQ

Q1: I cannot log in to the web UI of the device by entering 192.168.2.1. What should I do?
- Try the following methods 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 (X ranges from 2 to 254).
- Reset the device to factory settings.

Q2: How to reset the device to factory settings?
- Note: Resetting the device will clear all settings, and you need to configure it again.
- Method One: 1 minute 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-multi peer bridging?
Step 1 Log in to the web UIs of these devices (refer to Method 2: Set up the Devices Using Web UI for details).
Step 2 Set the device connected to NVR to AP mode, and set the other connected to IP cameras to 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

Working Mode	Client	MAC Address of Peer AP	
SSID	N/A	Signal Strength	-46dBm
Security Mode	N/A	Background Noise	-92dBm
Channel/Radio Band	11N1E	TX/RX Link	283
Number of Wireless Client		Transmit/Receive Rate	5.0Mbps/54Kbps

Adjust the horizontal and vertical positions of the device and check Signal Strength and Background Noise. Stronger signal strength and less background noise (-100 is better than -90) lead to better bridging signal.