

CPE5 Wireless Bridge


Installation Guide

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Preface

Intended Audience

This document is intended for:

- Network engineers
- Technical support and servicing engineers
- Network administrators

Technical Support

- Official website: <https://help.lysoratech.com/>
- Technical support email: support@lysoratech.com

Conventions

1. Signs

The signs used in this document are described as follows:

Danger

An alert that calls attention to safety instruction that if not understood or followed can result in personal injury.

Warning

An alert that calls attention to important rules and information that if not understood or followed can result in data loss or equipment damage.

Caution

An alert that calls attention to essential information that if not understood or followed can result in function failure or performance degradation.

Note

An alert that contains additional or supplementary information that if not understood or followed will not lead to serious consequences.

✔ **Specification**

An alert that contains a description of product or version support.

2. Notes

This manual provides installation steps, troubleshooting, technical specifications, and usage guidelines for cables and connectors. It is intended for users who want to understand the above and have extensive experience in network deployment and management, and assume that users are familiar with related terms and concepts.

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1 Product Overview

1.1 Overview

The CPE5 (HVIN: L2528) is an 802.11ac wireless bridge launched by Lysora. It provides surveillance video backhaul function. CPE5 works in the 5 GHz frequency band, supports two spatial streams and 2 x 2 MIMO, and provides a wireless link speed of up to 867Mbps. The CPE5 utilizes the 2.4 GHz band in single-stream mode for bridge management, while the 5 GHz band is used for data transmission. The design of CPE5 adapts to inclement outdoor environments such as the cold and humidity. This substantially simplifies installation and maintenance.

1.2 Product Appearance

1.2.1 Front Panel

Figure 1-1 Appearance of the CPE5 Wireless Bridge



1.2.2 Back Panel

Figure 1-2 Side and Back View of the CPE5



i Note

The label is located on the back of the device.

Figure 1-3 Components on the Back Panel



Note

⚡+ indicates PoE+ port, which is compliant with IEEE 802.3af and IEEE 802.3at.

Table 1-1 Components on the Back Panel

| Mark | Item | Description |
|------|--------------------------------|---|
| 1 | DC power connector | Support 12 V/1.2 A DC power supply |
| 2 | PoE In port | 10/100/1000BASE-T Ethernet port, support 802.3af/at PoE or 24V=0.6A passive PoE injector |
| 3 | LAN Port | 10/100/1000BASE-T Ethernet port |
| 4 | Reset/One-Touch Pairing button | <ul style="list-style-type: none"> Press and hold the button for less than 2s: The wireless bridge pairs with another wireless bridge (the LED blinks during pairing). |

| Mark | Item | Description |
|------|------|---|
| | | <hr/> <p>i Note</p> <ul style="list-style-type: none"> ● After the One-Touch Pairing button is pressed, the wireless bridge is switched to the BaseStation mode regardless of whether it was in BaseStation or CPE mode. ● During one-touch pairing, the signal LEDs on the wireless bridge in BaseStation mode blink for 1 minute (it will stop blinking after 1 minute if no bridge connection is established). The signal LEDs on the bridge in CPE mode also blink until the pairing is complete. ● Only a bridge that has been reset to factory settings and has not been bridged before can be switched to the CPE mode through one-touch pairing. ● The one-touch pairing feature is enabled by default. ● One-touch pairing is disabled during interference scanning. <hr/> <ul style="list-style-type: none"> ● Press and hold the button for 2s to 10s: No action is triggered. ● Press and hold the button for more than 10s: Restores the wireless bridge to factory settings. |

1.2.3 LED

Figure 1-4 LEDs

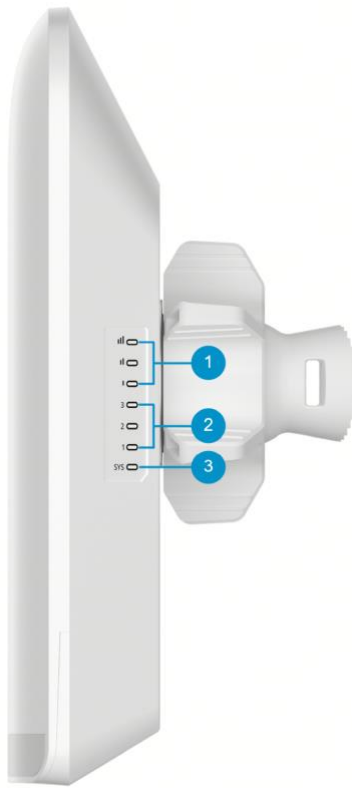






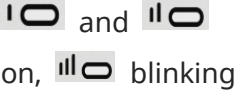
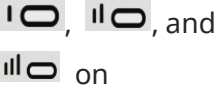



Table 1-2 LEDs

| No. | LED | Status | Description |
|-----|--------------------|--|--|
| 1 | Signal status LEDs | Off | The device is not bridged. |
| | |  blinking | The device is bridged and the RSSI is below -75 dBm. |
| | |  on | The RSSI is above -75 dBm. |
| | |  on,  blinking | The RSSI is above -73 dBm. |
| | |  and  on | The RSSI is above -71 dBm. |

| No. | LED | Status | Description |
|-----|--------------------|---|--|
| | |  | The RSSI is above -68 dBm. |
| | |  | The RSSI is above -64 dBm. |
| | |  | The mesh pairing is in progress. |
| 2 | Ethernet port LEDs | Solid green | A valid link is established, but the port is not receiving or sending data. |
| | | Blinking green | A valid link is established, and the port is receiving or sending data. |
| | | Off | No link is established. |
| 3 | System status LED | Solid green | The device is operating normally. |
| | | Fast Blinking | <ul style="list-style-type: none"> ● 8 to 10 times/second: The device is starting up. ● 2 times/second: <ul style="list-style-type: none"> ○ The device is initializing. ○ The device is upgrading. |
| | | Off | The device is NOT receiving power. |

1.3 Technical Specifications

Warning

- For DC power supply, the DC adapter required for this wireless bridge is not included in the package. You can purchase the DC adapter separately from us.
- For PoE power supply, use the provided PoE injector in the package. Do not use other models of PoE injectors or switches for power supply as it may lead to irreparable damage to the device.

- When using a DC power supply to power the device, ensure that the power output of the DC power supply is less than 100 W.

Table 1-3 Technical Specifications

| | | |
|------------------------------|-----------------------|--|
| System Specifications | Flash memory | 16 MB |
| | RAM | 128 MB DDR3 |
| Wi-Fi Radio | Radio design | Dual-radio 3 spatial streams <ul style="list-style-type: none"> ● Radio 1: 2.4 GHz, 1 spatial stream: 1 x 1, SISO ● Radio 2: 5 GHz, 2 spatial streams: 2 x 2, MIMO |
| | 2.4 GHz channel width | Auto/20/40 MHz |
| | 5 GHz channel width | Auto/20/40/80 MHz |
| | Wi-Fi standard | Wi-Fi 5 (IEEE 802.11ac) standard, compatible with IEEE 802.11a/b/g/n standards |
| | Receive sensitivity | 802.11b: -91 dBm (1 Mbps), -88 dBm (5 Mbps), -85 dBm (11 Mbps) 802.11a/g: -89 dBm (6 Mbps), -80 dBm (24 Mbps), -76 dBm (36 Mbps), -71 dBm (54 Mbps) 802.11n: -83 dBm@MCS0, -65 dBm@MCS7, -83 dBm@MCS8, -65dBm@MCS15 802.11ac HT20: -83 dBm (MCS0), -57 dBm (MCS9) 802.11ac HT40: -79 dBm (MCS0), -54 dBm (MCS9) 802.11ac HT80: -76 dBm (MCS0), -51 dBm (MCS9) |
| | Modulation | 802.11b: BPSK, QPSK, CCK |

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| | | |
|----------------|--------------------------------|--|
| | | 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM |
| | 2.4 GHz Wi-Fi | Wi-Fi 4 (IEEE 802.11b/g/n) |
| | 5 GHz Wi-Fi | Wi-Fi 5 (IEEE 802.11ac) |
| | Transmission rate | Maximum wireless data rate: 1017 Mbps <ul style="list-style-type: none"> ● Radio 1: 2.4 GHz, 150 Mbps ● Radio 2: 5 GHz, 867 Mbps |
| | Operating band | IEEE 802.11b/g/n, 2.400 GHz to 2.483 GHz IEEE 802.11a/n/ac, 5.150 GHz to 5.350 GHz IEEE 802.11a/n/ac, 5.470 GHz to 5.725 GHz IEEE 802.11a/n/ac, 5.725 GHz to 5.850 GHz Note: Available bands vary with countries and regions. To use the preceding frequency bands, ensure that your country or region supports these frequency bands. |
| | Maximum transmit power | 2.4 GHz: 20 dBm (20 dBm per link) 5 GHz: 29 dBm (26 dBm per link) Note: The transmit power varies according to regulations in different countries and regions. |
| | Highest QAM order | 256 |
| Antenna | Antenna horizontal orientation | 31° |
| | Antenna vertical orientation | 14° |
| | Antenna | 2.4 GHz: 1 x 1 Built-in omnidirectional antenna |

| | | |
|-------------------------------------|-----------------------------------|---|
| | | 5 GHz: 2 x 2 Built-in directional antenna, horizontal: 31°, vertical: 14° |
| | Antenna gain (2.4 GHz) | 1.75 dBi |
| | Antenna gain (5 GHz) | <ul style="list-style-type: none"> ● Ant1: 15.78 dBi ● Ant2: 14.90 dBi |
| WLAN | Maximum bridge distance | 5 km (3.11 miles) |
| Port Specifications | Number of fixed LAN ports | 3 |
| | Number of 10/100/1000BASE-T ports | 3 |
| | Reset button | 1 |
| | LEDs | 1 x system status LED 3 x Ethernet port LEDs 3 x signal status LEDs |
| Power Supply and Consumption | Power supply | Power supply options: <ul style="list-style-type: none"> ● DC power adapter ● Passive PoE injector |
| | Power input | DC power adapter: <ul style="list-style-type: none"> ● Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz ● Rated input current: 0.5 A Max. Output: <ul style="list-style-type: none"> ● Rated output voltage: 24 V DC ● Maximum output current: 0.6 A |

| | | |
|------------------------------|--------------------------------|---|
| | | <p>Passive PoE injector:</p> <ul style="list-style-type: none"> ● Rated input voltage: 24 V DC ● Rated input current: 0.6 A <p>Output:</p> <ul style="list-style-type: none"> ● Rated output voltage: 24 V DC ● Maximum output current: 0.6 A |
| | Number of PoE In ports | 1 |
| | Number of PoE/PoE+ In ports | 1 |
| | Dimensions of the DC connector | <p>Outer Diameter: 5.50 mm ± 0.05 mm (0.22 in. ± 0.002 in.)</p> <p>Inner Diameter: 2.10 mm ± 0.05 mm (0.08 in. ± 0.002 in.)</p> <p>Depth: 9 mm (0.35 in.)</p> |
| | Maximum power consumption | 12 W |
| Dimensions and Weight | Product dimensions (W x D x H) | 240 mm x 133mm x 108 mm (9.45 in. x 5.24 in. x 4.25 in.) (excluding mounting bracket) |
| | Color | Elegant white |
| | Weight | 0.56 kg (1.24 lbs) (without packaging materials) |
| | Package dimensions (W x D x H) | 394 mm x 311 mm x 104 mm (15.51 in. x 12.24 in. x 4.09 in.) |
| | Shipping weight | 2.55 kg (5.62 lbs) |

| | | |
|--|-----------------------|--|
| Environment and Reliability | Surge protection | Service port: ±4 kV for common mode Power connector: ±4 kV for common mode and ±2 kV differential mode |
| | Cooling | Natural cooling |
| | Altitude | Operating altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.) Storage altitude: -500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.) |
| | IP rating | IP55 |
| | Operating temperature | -30°C to +65°C (-22°F to +149°F) |
| | Storage temperature | -40°C to +85°C (-40°F to +185°F) |
| | Operating humidity | 5% RH to 95% RH (non-condensing) |
| | Storage humidity | 5% RH to 95% RH (non-condensing) |
| | MTBF | 400,000 hours (about 45 years) |
| | ESD protection | Standard test: contact discharge=8 kV, air discharge=15 kV, Class B |
| | Mounting options | Wall/Pole |
| Certification and Regulatory Compliance | EMC | FCC 47 CFR Part 2 Subpart J FCC 47 CFR Part 15 Subpart E IC RSS-247 Issue 3 FCC 47 CFR Part 15 Subpart B ICES-003 Issue 7 |
| | Safety compliance | UL 62368-1:2019 |

| | | |
|--|---------------|-----------------|
| | Certification | FCC, IC, cTUVus |
|--|---------------|-----------------|

! Warning

- Operation of this equipment in a residential environment could cause radio interference.
 - This device does not support the 6GHz frequency band (5925MHz-7125MHz).
-

2 Preparing for Installation

2.1 Package Contents

Upon unpacking the product, carefully inspect each item according to the provided package contents. If there is any discrepancy with the actual contents, please contact the supplier or distributor.

Table 2-1 Package Contents

| No. | Item | Quantity |
|-----|------------------|---|
| 1 | Device | 2 |
| 2 | Power adapter | 2 Note: 24 V/0.6 A DC power adapter |
| 3 | PoE injector | 2 |
| 4 | Mounting bracket | 2 x Ball joint mount 2 x Lock ring 2 x Mounting bracket |
| 5 | Hose clamp | 2 |
| 6 | Screw | 6 x Wall anchors 8 x Phillips pan head screws (self-tapping screws 4.2 mm x 19 mm) |
| 7 | User Manual | 1 |
| 8 | Warranty Card | 1 |

Note

The package contents above are intended to provide a general overview, and are subject to the terms of the order contract. Please check your goods carefully against the

package contents or order contract. If you have any questions, please contact the distributor.

2.2 Safety Guidelines

Note

- To avoid personal injury or equipment damage, review the safety guidelines in this chapter before you begin the installation.
 - The following safety guidelines may not include all the potentially hazardous situations.
-

2.2.1 General Precautions

- Do not expose the equipment to high temperatures, dust, or harmful gases. Do not install the equipment in an inflammable or explosive environment. Keep the equipment away from electromagnetic interference (EMI) sources such as large radar stations, radio stations, and substations. Do not subject the equipment to unstable voltage, vibration, and noises.
 - The installation site should be dry. It is not recommended that the equipment be installed in a place near the sea. Keep the equipment at least 500 m (1640.42 ft.) away from the ocean and do not face it towards the sea breeze.
 - The installation site should be free from water flooding, seepage, dripping, or condensation. The installation site should be selected according to network planning and communications equipment features, and considerations such as climate, hydrology, geology, earthquake, electrical power, and transportation.
-

Caution

Follow the procedures in the user manual to install and remove the equipment.

2.2.2 Chassis-Lifting Guidelines

- Avoid moving the equipment frequently.
 - Turn off all power supplies and disconnect all cables before lifting or moving the equipment.
-

2.2.3 Electricity Safety

! Warning

- Any deviation from standard or improper electrical operations can result in accidents such as fires or electric shocks, potentially causing severe or even fatal harm to both individuals and equipment.
- Direct or indirect touch through a wet object on high-voltage and mains supply can bring a fatal danger.

- Always observe the local regulations and standards. Only qualified personnel should be allowed to operate the equipment.
- Carefully check the work area for potential hazards, including ungrounded power system, and absent safety grounds.

2.3 Site Requirements

To ensure the normal operation and prolonged service life of the equipment, the installation site must meet the following requirements.

2.3.1 Installation Site

- The equipment should be installed in an open environment if possible. If the environment is enclosed, confirm that a good ventilation and heat dissipation system is available.
- The installation site is sturdy enough to support the weight of the equipment and its accessories.
- The equipment should be installed at an installation site with sufficient space and a proper clearance should be maintained around the equipment for heat dissipation.

| Bridge Type | Distance Between Base Station and Customer Premises Equipment (CPE) | Recommended Installation Height (Above the Obstacle) |
|--------------|---|--|
| 5 GHz bridge | 500 m (0.31 mi.) | 2.6 m (8.53 ft.) |

| Bridge Type | Distance Between Base Station and Customer Premises Equipment (CPE) | Recommended Installation Height (Above the Obstacle) |
|----------------|---|--|
| | 1 km (0.62 mi.) | 3.5 m (11.48 ft.) |
| | 2 km (1.24 mi.) | 5.2 m (17.06 ft.) |
| | 3 km (1.86 mi.) | 6.3 m (20.67 ft.) |
| | 4 km (2.49 mi.) | 7.3 m (23.95 ft.) |
| | 5 km (3.11 mi.) | 8.2 m (26.9 ft.) |
| | 6 km (3.73 mi.) | 9 m (29.53 ft.) |
| | 7 km (4.35 mi.) | 9.7 m (31.82 ft.) |
| | 8 km (4.97 mi.) | 10.5 m (34.45 ft.) |
| | 9 km (5.59 mi.) | 11 m (36.09 ft.) |
| | 10 km (6.21 mi.) | 11.6 m (38.06 ft.) |
| | 11 km (6.84 mi.) | 12 m (39.37 ft.) |
| | 12 km (7.46 mi.) | 12.8 m (41.99 ft.) |
| | 13 km (8.08 mi.) | 13.3 m (43.64 ft.) |
| | 14 km (8.70 mi.) | 13.8 m (45.28 ft.) |
| | 15 km (9.32 mi.) | 14.3 m (46.92 ft.) |
| 2.4 GHz bridge | 50 m (164.04 ft.) | 1.2 m (3.94 ft.) |
| | 100 m (328.08 ft.) | 1.7 m (5.58 ft.) |
| | 300 m (984.25 ft.) | 3 m (9.84 ft.) |
| | 500 m (1640.42 ft.) | 4 m (13.12 ft.) |

2.3.2 Surge Protection

- When the connection cable between the main grounding conductor and local equipotential earthing terminal board (LEB) on each floor is short, use a stranded copper wire with a sectional area not less than 1.318 mm² (16 AWG) for the connection cable.
- Use a shielded Ethernet cable if possible, ensure that devices connected to both ends of the shielded Ethernet cable are reliably grounded, and make sure that the sheath of the shielded Ethernet cable is also grounded if possible. If no shielded Ethernet cable is available, wire the Ethernet cable through a steel pipe and bury the steel pipe for lead-in, and properly ground both ends of the steel pipe.
- The equipment has a built-in high-grade lightning arrester, so an additional surge protector is typically not required. If a higher-level surge protection is needed, an external lightning arrester needs to be installed. During installation, ensure that the lightning arrester is properly grounded with a grounding wire.
- The product and power supply equipment can only be installed and used in the same building.

2.3.3 Temperature and Humidity

To ensure the normal operation and prolonged service life of the equipment, maintain appropriate temperature and humidity in the equipment room. Prolonged exposure to inappropriate temperature and humidity conditions can cause damage to the equipment.

- In an environment with high relative humidity, insulating materials are prone to poor insulation or even electricity leakage. Sometimes, high humidity may cause changes in the mechanical properties and cause rusting of metal parts.
- In an environment with low relative humidity, insulating gaskets may shrink, resulting in screw loosening.
- A high temperature can accelerate the aging process of insulation materials, greatly reducing the availability of the equipment and severely affecting its service life.

Table 2-2 Operating Temperature and Humidity Requirements

| Operating Temperature | Operating Humidity |
|----------------------------------|----------------------------------|
| -30°C to +65°C (-22°F to +149°F) | 5% RH to 95% RH (non-condensing) |

2.3.4 Preventing Electromagnetic Interference

- Take interference prevention measures for the power supply system.
- Keep the equipment away from the grounding system or lightning protection grounding system of the power facility.
- Keep the equipment far away from high-frequency current equipment such as a high-power radio transmitting stations and radar launchers.

2.4 Tools

Table 2-3 Tools

| | |
|---------------------------|---|
| Common Tools | Marker, Phillips screwdriver, hammer drill, hammer, hose clamp, cables, diagonal pliers, cable ties |
| Dedicated Tools | ESD-preventive gloves, wire stripper, crimping pliers, RJ45 crimping pliers, wire cutter, and waterproof tape |
| Meters | Multimeter and Ethernet cable tester |
| Relevant Equipment | PC, display, and keyboard |

Note

The equipment is delivered without a toolkit. Prepare the preceding tools by yourself.

3 Installation

Caution

Before installing the device, make sure you have carefully read the requirements described in Chapter 2.

3.1 Before You Begin

Carefully plan and arrange the installation location, networking mode, power supply, and cabling of the device before installation. Confirm the following points before installation:

- The installation site provides sufficient space for heat dissipation.
- The installation site meets the temperature and humidity requirements of the device.
- The power supply and required current are available in the installation site.
- The selected power supply modules meet the system power requirement.
- The network cables have been deployed in the installation site.
- The installation site meets all requirements described in this guide.
- The device meets the customers' requirements.

3.2 Safety Precautions During Installation

The device can be mounted on a wall or a pole with a diameter of 35 mm to 89 mm (1.38 in. to 3.50 in.). If the diameter of the pole is out of the range, the customer should prepare a hose clamp. In this case, we strongly recommend you to use a hose clamp with thickness of 2.5 mm (0.10 in.) at least. Otherwise, the device may fall down and cause injuries. To ensure minimal interference when installing multiple wireless bridges in close proximity, maintain a horizontal installation distance of at least 2 meters (6.56 ft), or a vertical installation distance of at least 0.5 meters (1.64 ft) between each wireless bridge. Ensure that the horizontal angle formed by the two wireless bridges is greater than 120 degrees. The specific installation location of the wireless bridge should be determined by professionals after conducting a thorough site survey.

Before installation, ensure that the installation location meets the requirements in [2.3 Site Requirements](#), and pay attention to the following:

- Use the supplied 24 V/0.6 A DC power adapter or an equivalent power source with the same specifications to power the equipment. Do not use adapters with different specifications.
- When the equipment is powered by 24 V passive PoE injector and is operating under full load (with simultaneous 2.4 GHz, 5 GHz, and wired connectivity), the maximum recommended cable length for the CAT5e cable is 80 m (262.47 ft).
- Ensure that the Ethernet cable and power cord are securely connected.

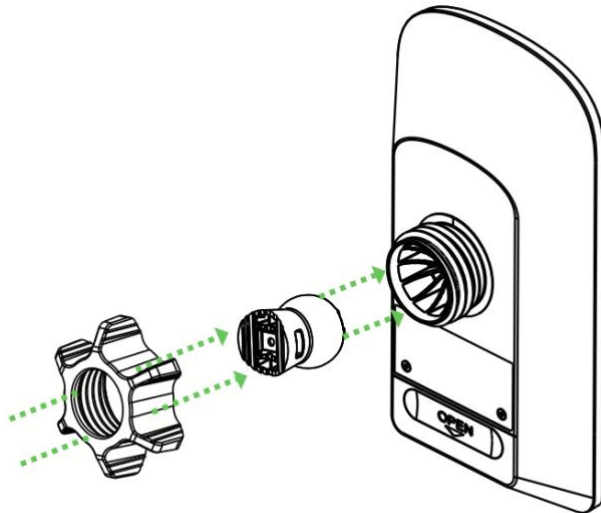
3.3 Mounting the Device

Caution

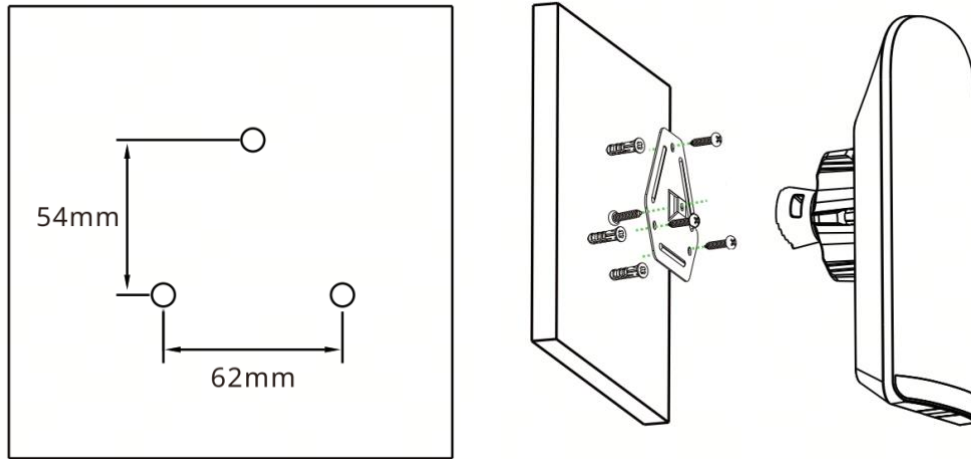
- Install the device in a manner that maximizes the coverage area of the antenna.
- The schematic diagram provided is for reference purposes only. The actual product should be installed based on its physical specifications and design.

3.3.1 Wall Mounting

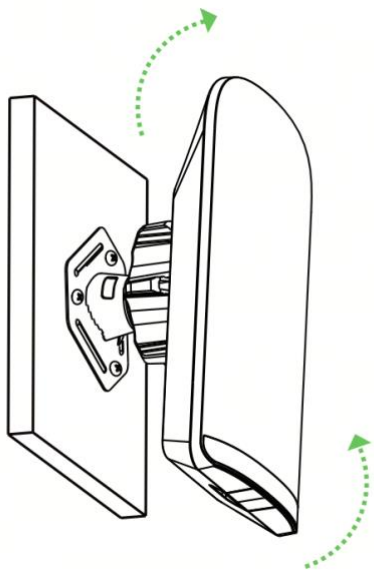
- (1) Pass the ball joint mount through the lock ring and align it with the internal threaded hole at the bottom of the device. Then tighten the lock ring to secure it on the device.



- (2) Mark the installation positions on the wall using a mounting bracket. Drill three holes at the marked positions, each with a depth equal to the length of the expansion screws, and then insert the expansion screws into the holes.
- (3) Secure the mounting bracket to the wall using screws. Then fix the device to the mounting bracket.

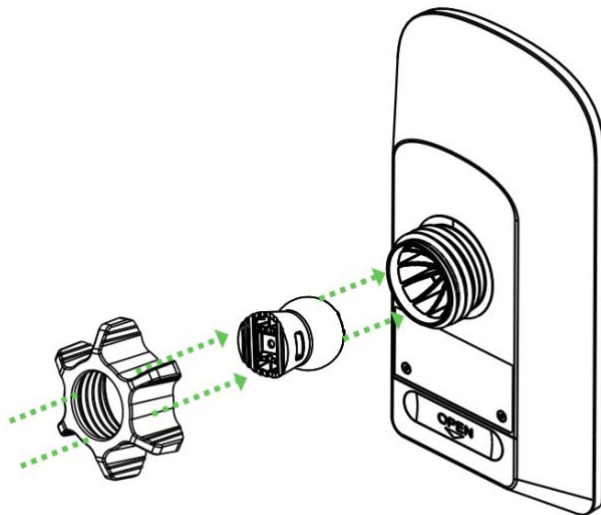


(4) Adjust the device angle.

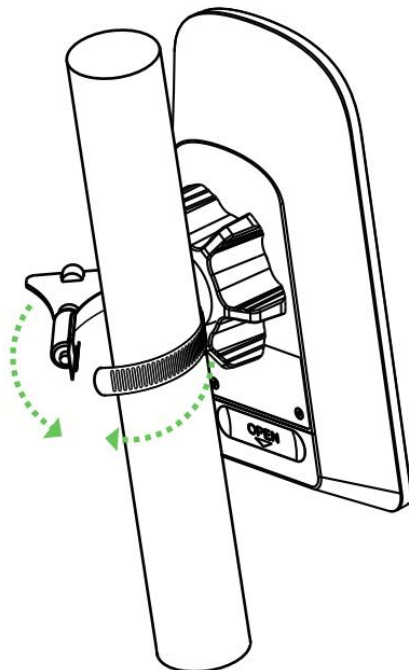


3.3.2 Pole Mounting

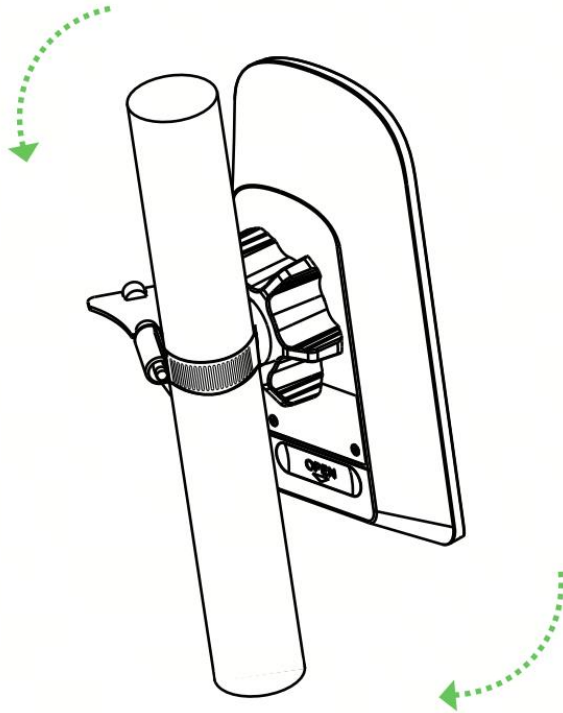
- (1) Pass the ball joint mount through the lock ring and align it with the internal threaded hole at the bottom of the device. Then tighten the lock ring to secure it on the device.



- (2) Thread the hose clamp through the small hole of the ball joint mount and secure the hose clamp on a pole.



- (3) Adjust the device angle.



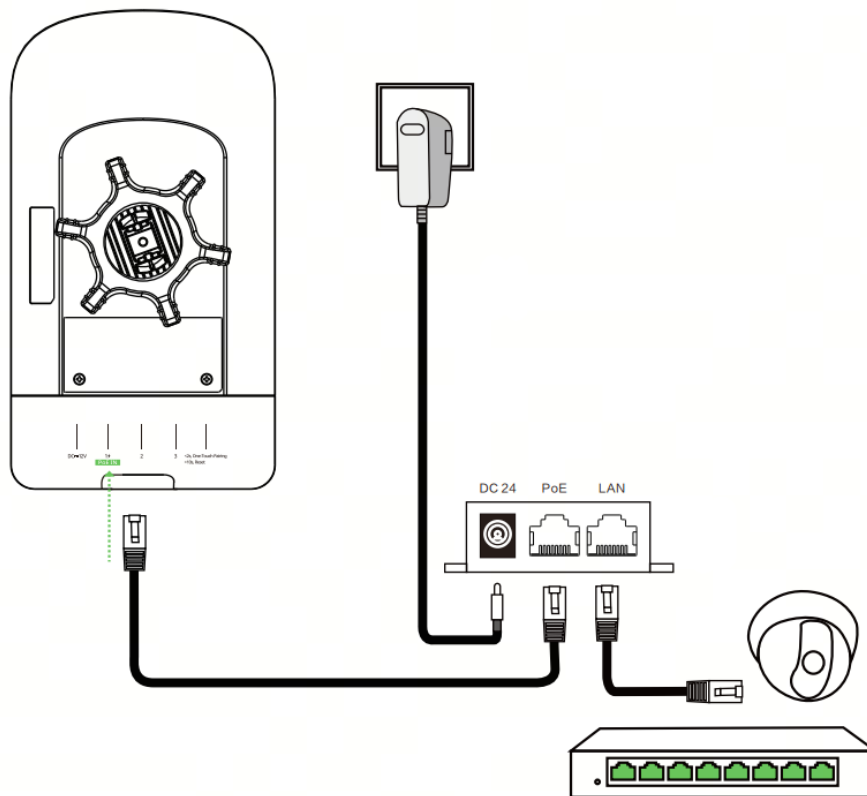
3.4 Connecting Cables

Note

Select or make an Ethernet cable suitable for the distance between the bridge and the power source equipment. (The bridge supports CAT5e or higher cables up to 100 meters (328.08 ft) for PoE power supply.)

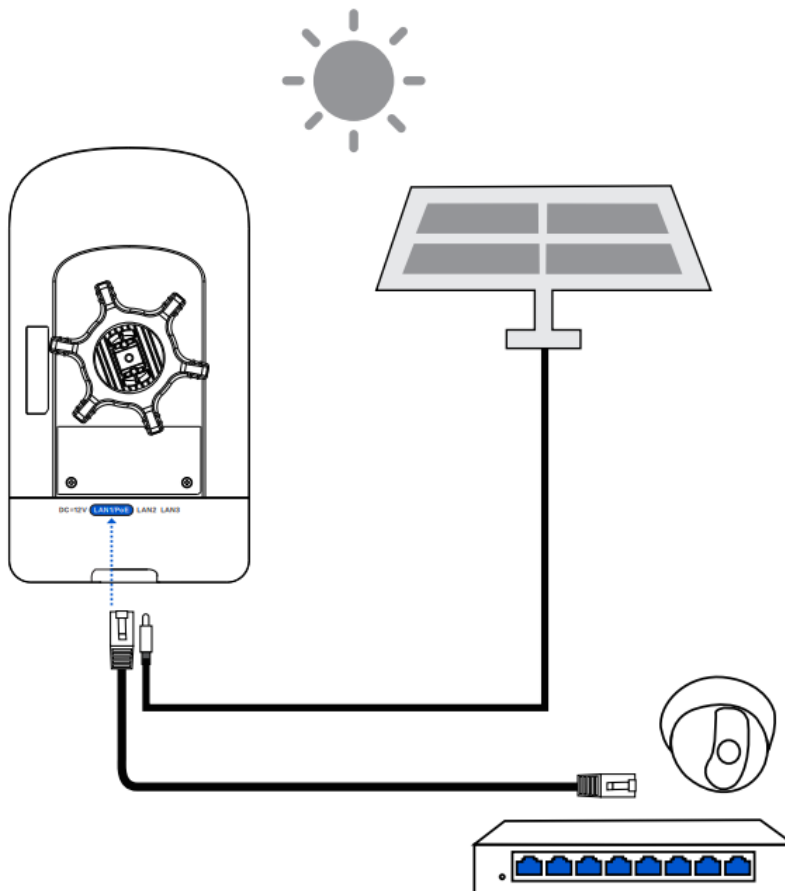
You can connect the cables in the following ways:

- **Connect the Ethernet cable to the passive PoE injector:**
 - (1) Connect one end of the Ethernet cable to the **PoE port** of the 24 V passive PoE injector, and the other end to the **PoE IN port** on the bridge.
 - (2) Connect the LAN port of the 24 V passive PoE injector to a server or IP camera using another Ethernet cable.
 - (3) Connect the 24 V/0.6 A DC power adapter to the DC power connector of the PoE injector for power supply.

Figure 3-1 Connecting the Ethernet Cable to the Passive PoE Injector

- **Connect the Ethernet cable to a solar panel:**

- (1) Connect one end of the Ethernet cable to an Ethernet port on the bridge, and the other end to a server or IP camera.
- (2) Connect a 12 V/1.2 A DC solar panel to the DC connector of the bridge for power supply.

Figure 3-2 Connect the Ethernet cable to a solar panel

Solar Panel

Solar panels convert light energy from sunlight into electrical energy. The CPE5 requires a solar power panel with an output specification of 12V/1.2A DC.

Notes for Installing the Solar Panel

Because the sun's position differs between the Northern and Southern Hemispheres, the solar panel should face south in the Northern Hemisphere and north in the Southern Hemisphere to achieve optimal power output. Additionally, the tilt angle of the solar panel affects the efficiency of solar energy conversion. The optimal tilt angle varies with latitude. The following table shows the optimal tilt angles for different latitude ranges.

| Latitude Range | Optimum Tilt |
|----------------|-------------------|
| 0°~10° | 10°~20° |
| 10°~20° | 20°~30° |
| 20°~30° | 30°~40° |
| 30°~40° | 40°~50° |
| 40°~50° | 50°~60° |
| 50°~60° | Approximately 60° |

! Warning

- Remember to install the bottom cover for waterproof and dustproof purpose.
 - Please do not use a switch or a PoE injector of another model. Otherwise, the device may be damaged.
-

3.5 Verifying the Installation

(1) Check the device

- Verify that the external power supply matches the specification.
- Verify that the device is firmly and reliably secured.

(2) Check the power supply

- Verify that the power cord is properly connected and meet safety requirements.
- Verify that the device works properly after power-on.

4 Commissioning

4.1 Power-On

(1) Checklist Before Power-on

- The power cord is reliably connected.
- The input voltage meets the requirement.

(2) Checklist after Power-on (Recommended)

The LED status is normal.

4.2 Configuring the Wireless Bridge through Web Login

- (1) Connect the LAN port of the wireless bridge to a PC using an Ethernet cable for wired connection, or connect your smartphone or PC to the device's SSID (default SSID: ***Lysora-bxxxx***) for wireless connection.
- (2) Enter **10.100.111.254** in a browser to access the device's web interface.
- (3) Enter the device password (default password: admin) and click **Login** to log in to web interface for configuration.

Caution

- Enter the initial password **admin** to log in and begin configuration.
 - To ensure device security, set a password after login and change the password regularly.
-

5 Monitoring and Maintenance

5.1 Monitoring

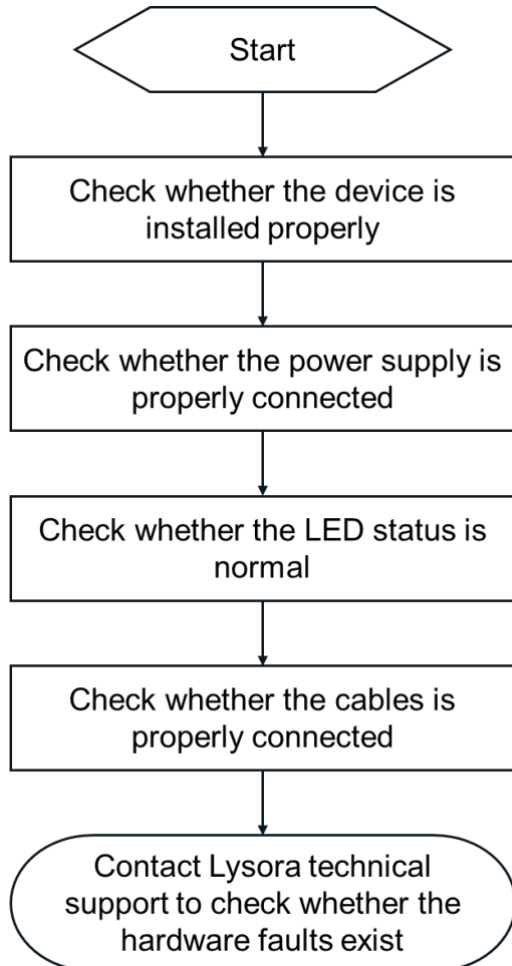
When the device is running, you can monitor the device status by observing the indicator.

5.2 Maintenance

If a hardware error occurs, please contact Lysora Technical support for help.

6 Troubleshooting

6.1 General Troubleshooting Procedure



7 Appendix: Connectors and Media

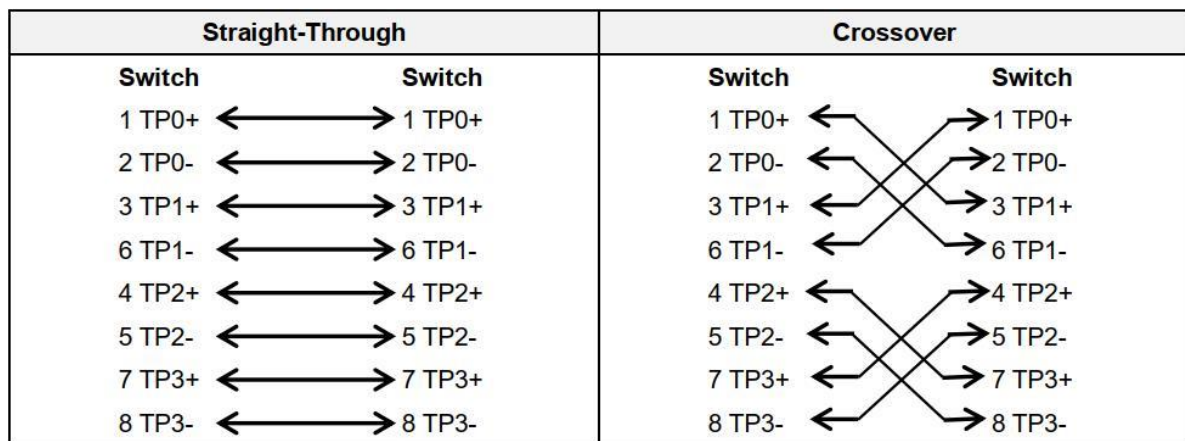
10/100/1000BASE-T Port

The 10/100/1000BASE-T port supports auto-negotiation for 10 Mbps, 100 Mbps, and 1000 Mbps connections and also supports auto MDI/MDIX Crossover.

Compliant with IEEE 802.3ab, a 1000BASE-T port connects to a 100-ohm Category 5 Enhanced (CAT5e) Unshielded Twisted Pair (UTP) or recommended Shielded Twisted Pair (STP) cable with a maximum distance of 100 meters (328.08 feet).

The 1000BASE-T port requires that all four pairs of wires be connected for data transmission. The following figure shows twisted pair connections for the 1000BASE-T port.

Figure 7-1 Twisted Pair Connections for 1000BASE-T Ports



The 100BASE-TX or 10BASE-T ports can also be connected by cables of the preceding specifications. Besides, the 10BASE-T ports can be connected by 100-ohm CAT3, CAT4, and CAT5 cables with a maximum distance of 100 meters (328.08 feet). The 100BASE-TX ports can be connected by 100-ohm CAT5 cables with a maximum distance of 100 meters (328.08 feet). The following table lists pin assignments for the 10BASE-T or 100BASE-T ports.

Table 7-1 Pin Assignments for 100BASE-TX or 10BASE-T Ports

| Pin | Socket | Plug |
|-----|---------------------|-----------------------|
| 1 | Input Receive Data+ | Output Transmit Data+ |

| Pin | Socket | Plug |
|------------|-----------------------|-----------------------|
| 2 | Input Receive Data- | Output Transmit Data- |
| 3 | Output Transmit Data+ | Input Receive Data+ |
| 6 | Output Transmit Data- | Input Receive Data- |
| 4, 5, 7, 8 | Not Used | Not Used |

The following table shows wiring of straight-through and crossover cables for the 100BASE-TX or 10BASE-T ports.

Figure 7-2 Twisted Pair Connections for 100BASE-TX or 10BASE-T Ports

