Ruijie Reyee RG-EST330F-P Wireless Bridge

Installation Guide

Document Version: V1.2
Date: January 27, 2026

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Preface

Intended Audience

This document is intended for:

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

Technical Support

- The official website of Ruijie Reyee: https://reyee.ruijie.com
- Technical Support Website: https://reyee.ruijie.com/en-global/support
- Case Portal: https://www.ruijie.com/support/caseportal
- Community: https://community.ruijie.com
- Technical Support Email: service_rj@ruijie.com
- Online Robot/Live Chat: https://reyee.ruijie.com/en-global/rita

Conventions

1. Signs

This document also uses signs to indicate some important points during the operation. The meanings of these signs are as follows:

Caution

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.

Note

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

Instruction

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. Note

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 Overview

1.1 About the RG-EST330F-P

The RG-EST330F-P is an IEEE 802.11ac-compliant wireless bridge launched by Ruijie Reyee for applications such as video surveillance backhaul and remote data transmission in scenarios covering elevators, tower cranes, factories, campuses, and construction sites.

The RG-EST330F-P operates on the 5 GHz frequency band and supports 2 x 2 Multiple Input Multiple Output (MIMO) with two spatial streams, delivering a maximum wireless throughput of 866 Mbps on the 5 GHz band for bridging applications. This meets users' bandwidth demands for data links. Additionally, the RG-EST330F-P supports the IEEE 802.11n standard, offering a maximum data rate of 300 Mbps on the 2.4 GHz band, which is ideal for remote device management. The RG-EST330F-P also supports IEEE 802.3af-compliant PoE and features two PoE-out ports, with a total output power of 15.4 W.

1.2 Package Contents

Table 1-1 Package Contents

No.	Item	Quantity
1	Device	1
2	Power adapter	1 Note: 24 V/1.5 A DC power adapter
3	PoE injector	1
4	User Manual	1
5	Warranty Card	1
6	Band clamp	2
7	Screw	4 x Wall anchors 4 x Phillips pan head screws (self-tapping screws 4.2 mm x 19 mm)
8	Mounting template	1

Note

The package contents are subject to the purchase contract, and actual delivery may vary. Please check the items carefully against the package contents or purchase contract. If you have any questions, please contact the distributor.

1.3 Product Appearance

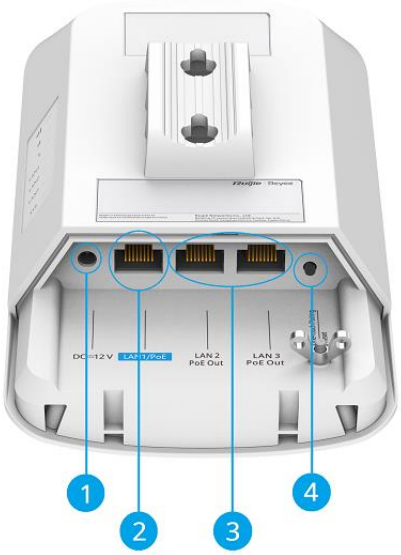
1.3.1 Appearance of the RG-EST330F-P

Figure 1-1 Front View of the RG-EST330F-P

Figure 1-2 Side and Back View of the RG-EST330F-P

1.3.2 Components on the Back Panel

Figure 1-3 Components on the Back Panel



Note

The label is located on the back of the wireless bridge.

Table 1-2 Components on the Back Panel

No.	Component	Description
1	DC power connector	Connected to a DC power adapter.
2	LAN1/PoE port	● 10/100BASE-T port. ● Connected to a CAT5e or higher cable. ● Supporting 24 V passive PoE power supply. ● Supporting IEEE 802.3at/af-compliant PoE power supply.
3	LAN2 and LAN3 PoE-out ports	● 10/100BASE-T ports. ● Supporting IEEE 802.3at/af-compliant PoE output.
4	Reset/One-Touch Pairing button	● Press and hold the button for less than 2s: The wireless bridge pairs with another wireless bridge in 30s (the LED blinks during pairing). ● Press and hold the button for 2s to 10s: No action is triggered. ● Press and hold the button for more than 10s: The wireless bridge is restored to factory settings.

Caution

When the bridge is powered by a 12 V DC adapter, 48 V passive PoE, or IEEE802.3af standard PoE, the PoE-out function is not supported. However, when powered by a 24 V passive PoE or IEEE802.3at standard PoE, the PoE-out function is supported.

Note

- After the One-Touch Pairing button is pressed, the wireless bridge is switched to BaseStation mode regardless of whether it is 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 wireless bridge in CPE mode also blink until the pairing is complete.
- Only a wireless bridge that has been reset to factory settings and has not been bridged before can be switched to CPE mode through one-touch pairing.
- The one-touch pairing feature is enabled by default and can be disabled through eWeb.
- One-touch pairing is disabled during interference scanning.

Figure 1-4 LEDs

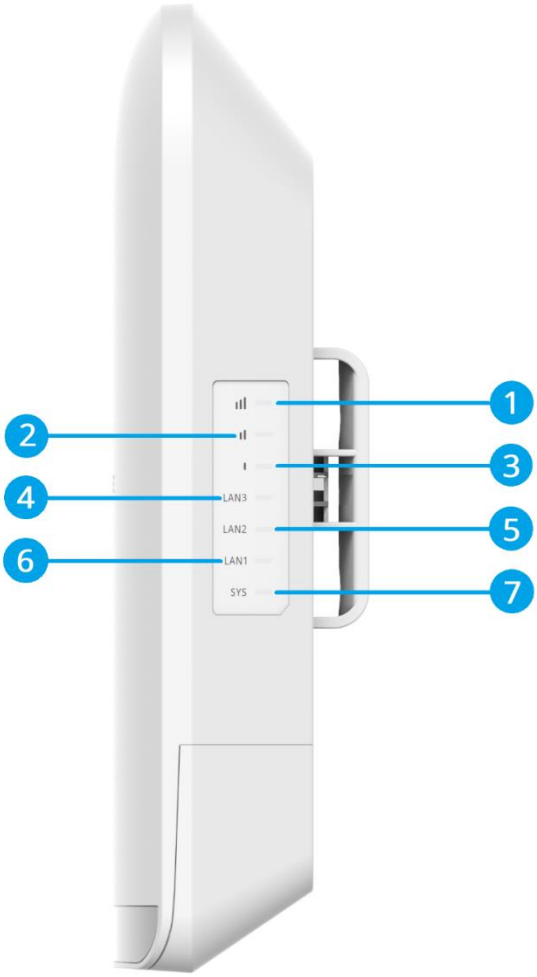


Table 1-3 LEDs

No.	LED	Description
1, 2, and 3	Signal status LEDs	● LED 3, LED 2, and LED 1 off: The bridge is not paired with another bridge. ● LED 3 on or blinking: The bridge is paired with another bridge, and the Received Signal Strength Indicator (RSSI) is lower than –75 dBm. ● LED 3 on: The bridge is paired with another bridge, and the RSSI is greater than –75 dBm. ● LED 3 on and LED 2 blinking: The bridge is paired with another bridge, and the RSSI is greater than –73 dBm. ● LED 3 and LED 2 on: The bridge is paired with another bridge, and the RSSI is greater than –71 dBm. ● LED 3 and LED 2 on and LED 1 blinking: The bridge is paired with another bridge, and the RSSI is greater than –68 dBm. ● LED 3, LED 2, and LED 1 on: The bridge is paired with another bridge, and the RSSI is greater than –64 dBm. ● LED 3, LED 2, and LED 1 blinking: The bridge is pairing with another bridge.

No.	LED	Description
4 and 5	Ethernet port LEDs	● Off: The port is not connected. ● Solid on: The port is connected, but is not receiving or sending data. ● Fast blinking: The port is connected, and is receiving and sending data.
6	System status LED	● Off: The bridge is not powered on. ● Solid on: The bridge is operating normally. ● Slow blinking: The bridge is operating but an alarm or a power failure occurs. ● Fast blinking (8 to 10 times/second): The bridge is starting up. ● Fast blinking (2 times/second): The bridge is initializing or upgrading.

1.4 Technical Specifications

Table 1-4 Technical Specifications

System Specifications	Flash memory	16 MB
	RAM	64 MB DDR2
Wi-Fi Radio	Radio design	Dual-radio 3 spatial streams ● 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, -65 dBm@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 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: 1166 Mbps ● Radio 1: 2.4 GHz, 300 Mbps ● Radio 2: 5 GHz, 866 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	Frequency bands and maximum Effective Isotropic Radiated Power (EIRP): Note: Country specific restrictions apply. European Union & United Kingdom: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5470–5725 MHz, EIRP ≤ 30 dBm Myanmar: 2400–2483.5 MHz, EIRP ≤ 23 dBm 5725–5850 MHz, EIRP ≤ 30 dBm Thailand: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm 5470–5725 MHz, EIRP ≤ 30 dBm 5725–5850 MHz, EIRP ≤ 30 dBm Indonesia: 2400–2483.5 MHz, EIRP ≤ 36 dBm 5725–5825 MHz, EIRP ≤ 36 dBm Egypt: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm

		Vietnam: 2400-2483.5 MHz, EIRP ≤ 23 dBm 5150-5350 MHZ, EIRP ≤ 23 dBm 5470-5725 MHz, EIRP ≤ 30 dBm 5725-5850 MHz, EIRP ≤ 30 dBm
	Maximum transmit power (2.4 GHz)	Combined power: 20 dBm (single stream power: 20 dBm) Note: The transmit power varies according to regulations in different countries and regions.
	Maximum transmit power (5 GHz)	Combined power: 29 dBm (single stream power: 26 dBm) Note: The transmit power varies according to regulations in different countries and regions.
	Highest QAM order	256
Antenna	Antenna horizontal orientation	30°
	Antenna vertical orientation	30°
	Antenna	2.4 GHz: 1 x 1 Built-in omnidirectional antenna 5 GHz: 2 x 2 Built-in directional antenna, horizontal: 30°, vertical: 30°
	Antenna gain (2.4 GHz)	2 dBi
	Antenna gain (5 GHz)	13 dBi
WLAN	Maximum bridge distance	3 km (1.86 miles)
Port Specifications	Number of fixed LAN ports	3
	Number of 10/100BASE-T ports	3
	Reset button	1
	LEDs	1 x system status LED 3 x Ethernet port LEDs 3 x signal status LEDs
	Power supply	Power supply options: ● DC power adapter

Power Supply and Consumption		● Passive PoE injector ● IEEE 802.3af/at (PoE/PoE+) Note: If both a DC power adapter and PoE (passive PoE injector or IEEE 802.3af/at) are available for power supply, the DC power adapter takes priority.
	Power input	DC power adapter: ● Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz ● Rated input current: 1 A Max. Output: ● Rated output voltage: 24 V DC ● Maximum output current: 1.5 A Passive PoE injector: ● Rated input voltage: 24 V DC ● Rated input current: 1.5 A Output: ● Rated output voltage: 24 V DC ● Maximum output current: 1.5 A PoE/PoE+: compliance with 802.3af/at
	Power supply to external devices	Yes Note: 1. When powered by 24 V passive PoE or 802.3at, the device can supply power to other devices via PoE. 2. When powered by 12 V DC or 802.3af, the device cannot supply power to other devices via PoE.
	PoE power pins	1-2 (+), 3-6 (-);4-5 (+), 7-8 (-)
	Number of PoE In ports	1
	Number of PoE/PoE+ In ports	1
	PoE Out standard	IEEE 802.3af (PoE)
	PoE budget	15.4 W (PoE budget for two ports)
	Number of PoE Out ports	2
	PoE budget per port	15.4 W
	Dimensions of the DC connector	Outer Diameter: 5.50 mm ± 0.05 mm (0.22 in. ± 0.002 in.)

		Inner Diameter: 2.10 mm ± 0.05 mm (0.08 in. ± 0.002 in.) Depth: 9 mm (0.35 in.)
	Maximum power consumption	9 W (Without PoE Out) 24.4 W (With PoE Out)
Dimensions and Weight	Product dimensions (W x D x H)	240 mm x 133mm x 71 mm (9.45 in. x 5.24 in. x 2.80 in.) (excluding mounting bracket)
	Color	Elegant white
	Weight	0.37 kg (0.82 lbs) (without packaging materials)
	Package dimensions (W x D x H)	276 mm x 165 mm x 107 mm (10.87 in. x 6.50 in. x 4.21 in.)
	Shipping weight	0.91 kg (2.01 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 +55°C (–22ºF to +131ºF)
	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	EN 55032 EN 55035 EN 61000-3-3 EN 61000-3-2

		EN 301489-1 EN 301489-3 EN 301489-17
	Safety compliance	EN62368-1
	Certification	CE, CB

Warning

Operation of this equipment in a residential area is likely to cause radio interference.

1.5 Power Supply Technical Specifications

The RG-EST330F-P can be powered by 24 V/1.5 A DC power supply, 24 V passive PoE power supply, and IEEE 802.3at/af-compliant PoE power supply. It is supplied with a 24 V/1.5 A DC power adapter and a passive PoE injector.

Technical specifications of the DC power adapter:

Table 1-5 Technical Specifications of the DC Power Adapter

Inner Diameter	Outer Diameter	Insertion Depth	Polarity
2.10 mm ± 0.05 mm (0.08 in. ± 0.002 in.)	5.50 mm ± 0.05 mm (0.22 in. ± 0.002 in.)	9 mm (0.35 in.)	Center: positive (+); Barrel: negative (-). Reverse polarity symbol is not allowed.

Warning

- Avoid using PoE injectors or switches of other models to power the bridges in BaseStation and CPE modes, as this may cause irreparable damage to the bridges.
- To ensure reliable operation of the bridge, use the supplied DC power adapter or passive PoE injector indoors.
- When the bridge is operating at full load, ensure the ambient temperature remains below 55°C (131°F).
- 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.

2 Safety Precautions

2.1 Safety Guidelines

Note

- To prevent personal injury and device damage, carefully read the safety guidelines before installing the equipment.
- The following safety guidelines may not cover all potential hazards.

2.1.1 General Safety Guidelines

- Do not expose the equipment to high temperatures, dust, or harmful gases. Do not install the equipment in flammable or explosive environments. Keep the equipment away from sources of electromagnetic interference (EMI), such as large radar stations, radio stations, and substations. Do not subject the equipment to unstable voltage, vibration, or excessive noise.
- The installation site should be dry. Do not install the equipment in a place near the sea. Keep the equipment at least 500 meters (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, communications equipment features, and considerations such as climate, hydrology, geology, earthquake, electrical power, and transportation.

Caution

Always install and remove the equipment according to the installation procedures outlined in this document.

2.1.2 Chassis-Lifting Guidelines

- After the equipment is installed, avoid handling it frequently.
- Cut off all power supplies and unplug all power cords before moving or handling the equipment.

2.1.3 Electric Safety

Warning

- Improper or incorrect electric operations may cause a fire, electric shock, and other accidents, and lead to severe and fatal personal injury and equipment damage.
- Direct or indirect contact with high voltage or mains power supply via wet objects may cause fatal dangers.

- Observe local regulations and specifications during electric operations. Only personnel with relevant qualifications can perform such operations.
- Check whether there are potential risks in the work area. For example, check whether the power supply is grounded, and whether the grounding is reliable.

2.2 Site Requirements

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

2.2.1 Installation Requirements

- The equipment should be installed in an open environment if possible. If the environment is enclosed, verify that a good ventilation and heat dissipation system is available.
- Ensure that the installation position is sturdy enough to support the weight of the RG-EST330F-P and its accessories.
- Ensure that the installation location is suitable for the RG-EST330F-P, leaving sufficient space on the front, back, left, and right sides for heat dissipation.

2.2.2 Lightning Protection Requirements

- 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 mm^2 (16 AWG) for the connection cable.
- Use a shielded network cable if possible. Ensure that devices connected to both ends of the shielded network cable are reliably grounded, and that the sheath of the shielded network cable is also grounded if possible. If no shielded network cable is available, wire the network cable through a steel pipe and bury the steel pipe for lead-in, and properly ground both ends of the steel pipe.
- The RG-EST330F-P features a built-in 4 kV surge protector, so generally no additional surge protector is needed. However, if higher surge protection is required, an external surge protector can be added, and it should be connected to a grounding cable during installation.

2.2.3 Temperature/Humidity Requirements

To ensure proper operation and extend the service life of the equipment, maintain an appropriate temperature and humidity in the operating environment. The operating environment with too high or too low temperature and humidity for a long period of time may damage the equipment.

- In an environment with high humidity, the insulating material may have poor insulation or even leak electricity. Sometimes high humidity may causes changes in the mechanical properties and causes rusting of metal parts.
- In an environment with low relative humidity, static electricity is prone to occur and damage the internal circuits of the equipment.
- Too high temperatures can accelerate the aging of insulation materials, greatly reducing the reliability of the equipment and severely affecting its service life.

Table 2-1 Temperature and Humidity Requirements

Operating Temperature	Operating Humidity
–30°C to +55°C (–22ºF to +131ºF)	5% RH to 95% RH (non-condensing)

2.2.4 Electromagnetic Interference

- Take interference prevention measures for the power supply system.

- Keep the equipment far away from grounding or lightning protection devices for power equipment.
- Keep the equipment away from radio stations, radar stations, high-frequency high-current devices, and microwave ovens.

2.3 Tools

Table 2-2 Tools

Common Tools	Marker, Phillips screwdriver, hammer drill, hammer, hose clamp, power cords, Ethernet cables, diagonal pliers, cable ties
Special Tools	Anti-ESD gloves, wire stripper, crimper, RJ45 connector crimping plier, and wire cutter
Meters	Multimeter and Ethernet cable tester
Relevant Devices	PC, display, and keyboard

Note

The RG-EST330F-P is not shipped with a tool kit. You need to prepare a tool kit by yourself.

2.4 Checking Before Installation

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.

3 Installation

Caution

Before installing the equipment, make sure that you have carefully read the requirements described in Section 2 Safety Precautions.

3.1 Before You Begin

Carefully plan and arrange the installation position, networking mode, power supply, and cabling before installation. Confirm the following requirements before installation:

- The installation site provides sufficient space for proper ventilation.
- The installation site meets the temperature and humidity requirements of the equipment.
- The power supply and required current are available in the installation site.
- The selected power modules meet the system power requirements.
- The installation site meets the cabling requirements of the equipment.
- The installation site meets the site requirements of the equipment.
- The customized equipment meets the client-specific requirements.

3.2 Safety Precautions During Installation

Before installation, ensure that the installation site meets the requirements described in Section 2.2 Site Requirements, and pay attention to the following:

- Use the supplied 24 V/1.5 A DC power adapter or an equivalent power source with the same specifications to power the equipment. Do not use adapters with different specifications.
- The supplied DC power adapter and passive PoE injector support power supply over Ethernet cables up to 100 meters (328.08 ft.). Before using an Ethernet cable for power supply, ensure that the power switches on the power modules are turned off.
- Ensure that the Ethernet cable and power cord are securely connected.

3.3 Installing the RG-EST330F-P

Caution

- When installing the equipment, ensure that it is positioned to maximize the coverage area for antenna radiation.
- This installation guide is for reference only. The actual installation procedure may differ depending on the specific product.

3.3.1 Pole Mounting using Band Clamps

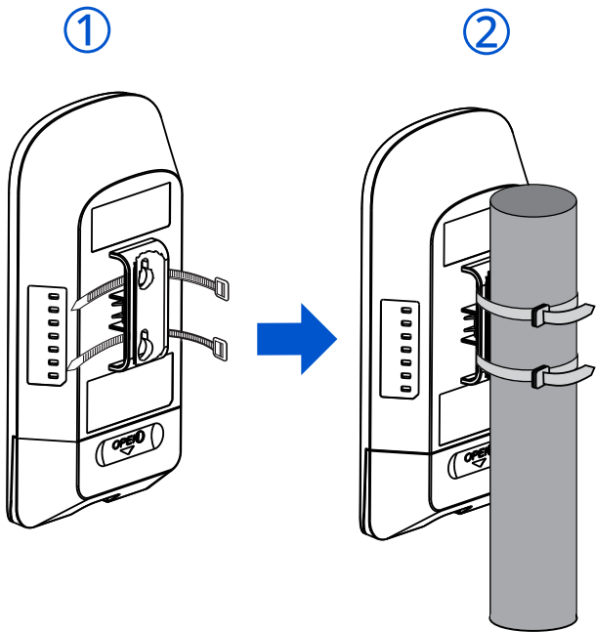
Note

The recommended pole diameter ranges from 35 mm (1.38 in.) to 89 mm (3.50 in.). If the pole falls outside this range, you will need to use hose clamps with a wall thickness of at least 2.5 mm (0.10 in.).

(1) Thread the band clamps through the mounting bracket on the back of the bridge.

(2) Tighten the band clamps to secure it to the pole.

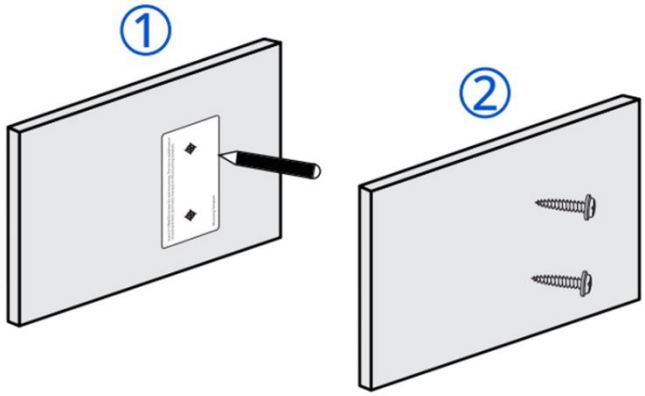
Figure 3-1 Mounting the RG-EST330F-P on a Vertical Pole



3.3.2 Mounting the RG-EST330F-P on a Wall

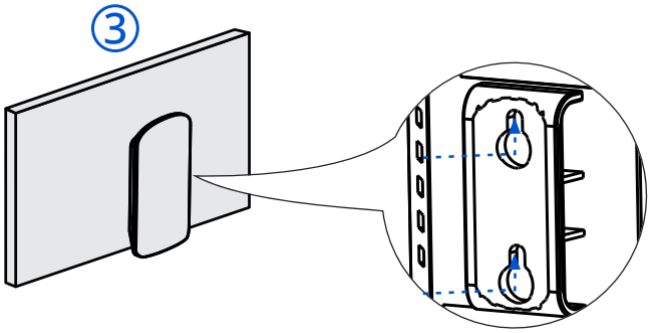
(1) Use the mounting template to mark the screw holes on the wall, then drill the holes and insert the 4.2 mm x 19 mm (0.17 in. x 0.75 in.) BA (SS) tapping screws.

Figure 3-2 Drilling Holes and Securing the Screws



(2) Align the holes on the mounting bracket with the screws, then slide the device into place.

Figure 3-3 Mounting the Device



3.4 Connecting the Cables

Warning

- After connecting the device to an Ethernet cable, cover the Ethernet port to ensure it is waterproof and dustproof.
- Do not use PoE injectors or switches of different models for power supply, as this may damage the device.
- If a solar panel is used to power the bridge, ensure that the power of the solar panel is less than 100 W.

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:**

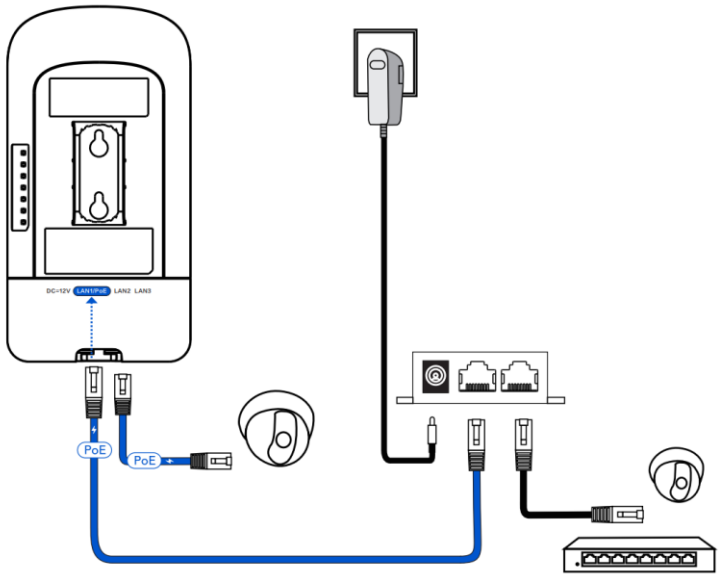
(1) Connect one end of the Ethernet cable to the PoE port of the passive PoE injector, and the other end to the LAN1/PoE port on the bridge.

(2) Connect the LAN port of the passive PoE injector to a server or IP camera.

(3) Connect the 24 V/1.5 A DC power adapter to the DC power connector of the PoE injector for power supply.

(4) Connect one end of the Ethernet cable to the LAN2 or LAN3 port on the bridge, and the other end to an IP camera.

Figure 3-4 Connecting the Ethernet Cable to the Passive PoE Injector

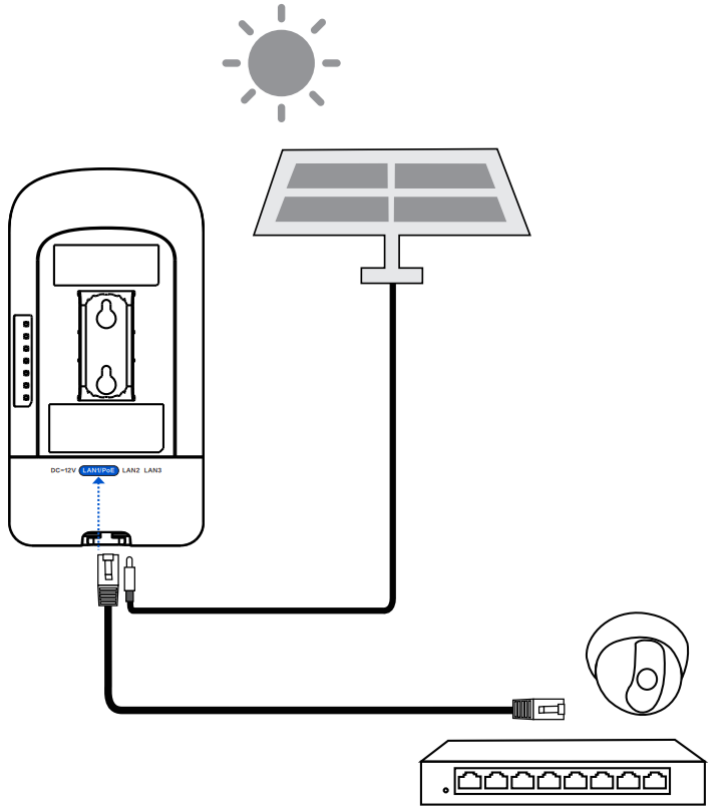


- **Connect the Ethernet cable to a solar panel:**

(1) Connect one end of the Ethernet cable to the LAN1/PoE, LAN2, or LAN3 port on the bridge, and the other end to a server or IP camera.

(2) Connect the 12 V/1.5 A DC solar panel to the DC connector on the bridge for power supply.

Figure 3-5 Connect the Ethernet cable to a solar panel



Solar Panel

Solar panels convert light energy from sunlight into electrical energy. The RG-EST330F-P requires a solar power panel with an output specification of 12 V/1.5 A 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.

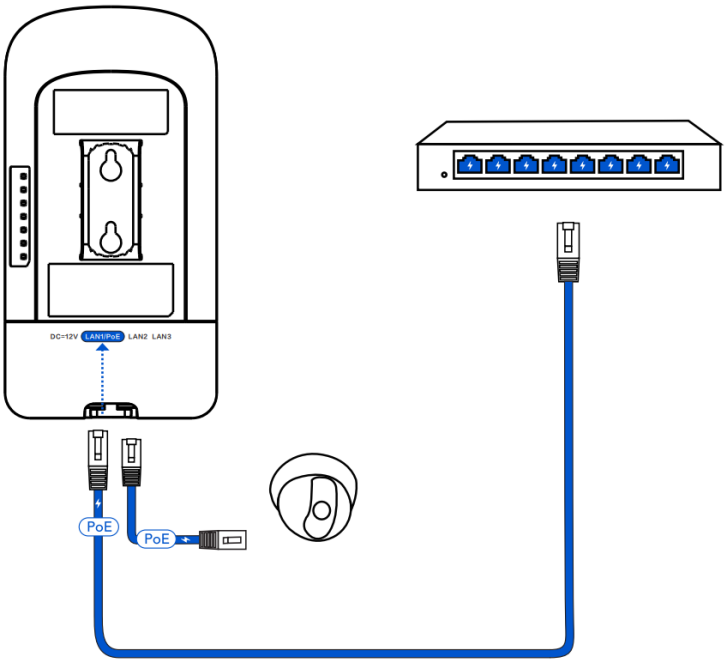
Latitude Range	Optimum Tilt
0°–10°	10°–20°
10°–20°	20°–30°
20°–30°	30°–40°
30°–40°	40°–50°
40°–50°	50°–60°
50°–60°	Approximately 60°

- **Connect the Ethernet cable to a PoE switch:**

(1) Connect one end of the Ethernet cable to a PoE port on the PoE switch, and the other end to the LAN1/PoE port on the bridge.

(2) Connect one end of the Ethernet cable to the LAN2 or LAN3 port on the bridge, and the other end to an IP camera.

Figure 3-6 Connect the Ethernet cable to a PoE switch



3.5 Verifying the Installation

(1) Checking the Bridge

- Verify that the external power supply meets the requirement of the wireless bridge.
- Verify that the wireless bridge is securely fastened.

(2) Checking the Power Supply

- Verify that the power cord is properly connected and meets safety requirements.
- Connect the power supply to the bridge and verify that it works properly.

4 Debugging

4.1 Powering On

(1) Checklist Before Power-on

- The power cord is properly connected.
- The power voltage meets the requirement.

(2) Recommended: After the bridge is powered on, check whether the LED status is normal.

4.2 Configuring the Bridge

- **Method 1: Configure the bridge through Ruijie Reyee App**

(1) The power cord is properly connected.

(2) Scan the QR code on this page or on the device to download and install Ruijie Reyee App.

(3) Log in to Ruijie Reyee App.

- **Method 2: Log in to eWeb for configuration**

(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: @Ruijie-bxxxx) for wireless connection.

(2) Enter **10.44.77.254** in a browser to access the device's eWeb.

(3) Enter the device password (default password: admin) and click **Login** to log in to eWeb 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

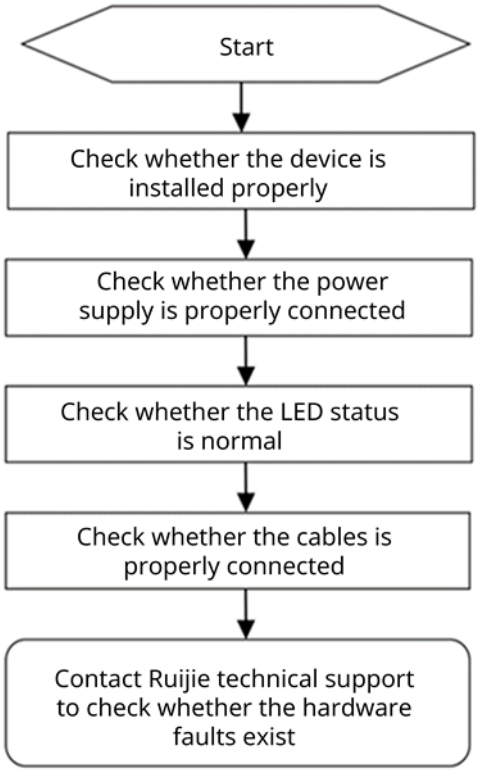
You can observe the LEDs to monitor the device in operation.

5.2 Hardware Maintenance

If the hardware is faulty, please contact Ruijie Networks technical support.

6 Common Troubleshooting

6.1 Troubleshooting Flowchart



7 Appendix

7.1 Connectors and Media

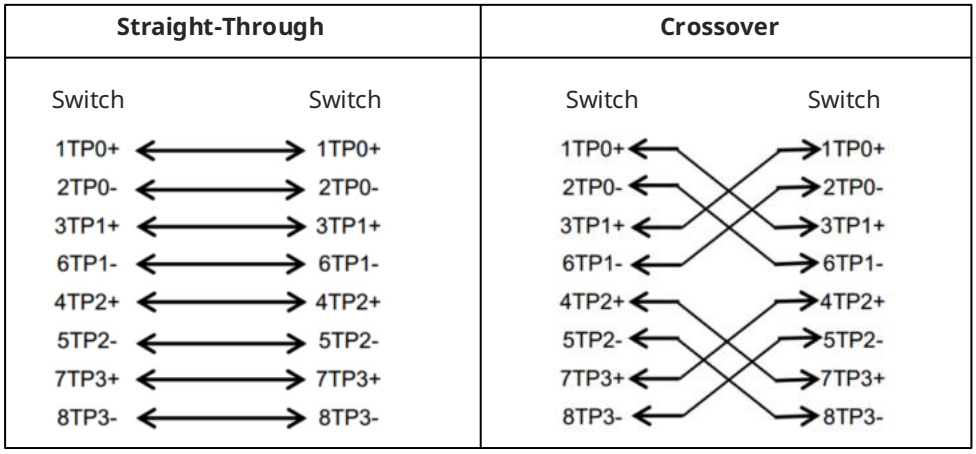
1000BASE-T/100BASE-TX/10BASE-T Port

The 1000BASE-T/100BASE-TX/10BASE-T is a 10/100/1000 Mbps port that supports auto MDI/MDIX Crossover.

Compliant with IEEE 802.3ab, 1000BASE-T requires CAT5e 100-ohm UTP or STP (STP is recommended) with a maximum distance of 100 meters (328 ft.).

The 1000BASE-T port requires all four pairs of wires to be connected for data transmission. Figure 7-1 shows the connection of four twisted pairs of a 1000BASE-T port.

Figure 7-1 1000BASE-T Twisted Pair Connections



A 100BASE-TX/10BASE-T port can be interconnected using cables of the preceding specifications. For 10 Mbps, the 100BASE-TX/10BASE-T port can be connected using 100-ohm Category 3, Category 4, and Category 5 cables; for 100 Mbps, the 100BASE-TX/10BASE-T port can be connected using 100-ohm Category 5 cables with a maximum connection distance of 100 meters (328 ft.). Table 7-1 lists 100BASE-TX/10BASE-T pin assignments.

Table 7-1 100BASE-TX/10BASE-T Pin Assignments

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

Figure 7-2 shows feasible connections of the straight-through and crossover twisted pairs for a 100BASE-TX/10BASE-T port.

Figure 7-2 100BASE-TX/10BASE-T Twisted Pair Connections