

RG-EST330F-P

3 km, 13 dBi Wireless Bridge



Highlights

- 3 x FE Ports, including 2 x PoE Out Ports
- Support 3 Power Supply Options: 12 V DC, Passive PoE, 802.3af/at
- Support TDMA
- Support SON

Highlight Features

RG-EST330F-P

3 km Working Distance EST Bridge

13 dBi 5 GHz, 867 Mbps H: 30°, V: 30° 3 km TDMA IP55 Weatherproof

Triple Power Input Options for Flexible Deployment

12 V DC Solar Power Supply 802.3af/at or Passive PoE

3 x FE Ports or 3-Year Warranty

Dual PoE-Out for Cost-Effectiveness

LAN2 PoE Out LAN3 PoE Out

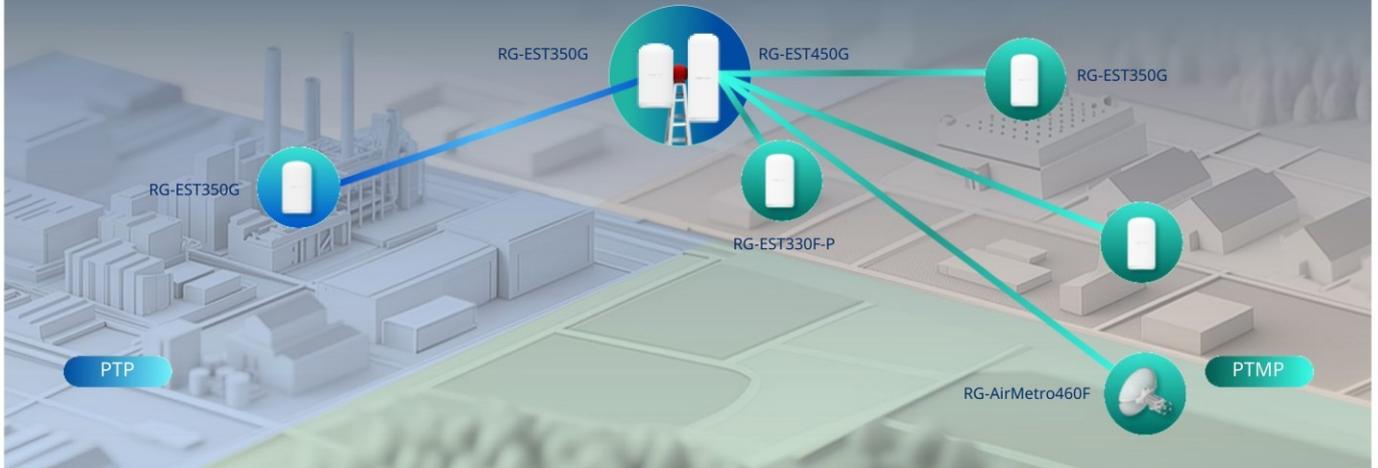
Total Output Power: 802.3af

Note: Actual output power depends on the bridge's input power and real project environments.

Highlight Features

Bridging for TDMA-Powered Devices of Different Series

The new EST and AirMetro can be mixed for bridging with TDMA enabled



Cloud, Make Your Business Easy

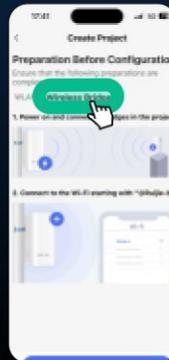
SON

Alignment Tool

Spectrum Scan

Monitoring & Configuration

Quick Self-Organizing Network for Bridge



/ Product Information

| Model | RG-EST330F-P |
|--------------|--------------|
| Product Type | Bridge |
| Accessory | No |

/ Hardware Specifications

| Model | RG-EST330F-P |
|-----------------------------|---|
| Applicable Scenarios | |
| Applicable Scenarios | CCTV |
| 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 |
| 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. For details, see Channels for Countries & Regions (official website link to be added). |
| Wi-Fi standard | Wi-Fi 5 (IEEE 802.11ac) standard, compatible with IEEE 802.11a/b/g/n standards |
| 2.4 GHz Wi-Fi | Wi-Fi 4 (IEEE 802.11b/g/n) |
| 5 GHz Wi-Fi | Wi-Fi 5 (IEEE 802.11ac) |
| 2.4 GHz channel width | Auto/20/40 MHz |
| 5 GHz channel width | Auto/20/40/80 MHz |
| Transmission rate | Maximum wireless data rate: 1166 Mbps <ul style="list-style-type: none">• Radio 1: 2.4 GHz, 300 Mbps• Radio 2: 5 GHz, 866 Mbps |
| Maximum transmit power | Frequency bands and maximum Effective Isotropic Radiated Power (EIRP): |

Hardware Specifications

| Model | RG-EST330F-P |
|---|--|
| | <p>Note: Country specific restrictions apply.</p> <p>European Union & United Kingdom: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>Myanmar: 2400–2483.5 MHz, EIRP ≤ 23 dBm 5725–5850 MHz, EIRP ≤ 30 dBm</p> <p>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</p> <p>Indonesia: 2400–2483.5 MHz, EIRP ≤ 36 dBm 5725–5825 MHz, EIRP ≤ 36 dBm</p> <p>Egypt: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>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</p> |
| 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. |
| 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 |
| Highest QAM order | 256 |
| Antenna | |

Hardware Specifications

| Model | RG-EST330F-P |
|-------------------------------------|--|
| 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 |
| Antenna horizontal orientation | 30° |
| Antenna vertical orientation | 30° |
| System Specifications | |
| CPU | Single-core processor, 575/580 MHz clock frequency |
| Flash memory | 16 MB |
| RAM | 64 MB DDR2 |
| Dimensions and Weight | |
| Weight | 0.37 kg (0.82 lbs) (without packaging materials) |
| Shipping weight | 0.91 kg (2.01 lbs) |
| Product dimensions (W x D x H) | 103mm x 53.4 mm x 199 mm (4.06 in. x 2.1 in. x 7.83 in.) (excluding mounting bracket) |
| 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.) |
| Color | Elegant white |
| 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 and Consumption | |
| Power supply | Power supply options: <ul style="list-style-type: none">• DC power adapter• Passive PoE injector |

Hardware Specifications

| Model | RG-EST330F-P |
|----------------------------------|---|
| | <ul style="list-style-type: none"> IEEE 802.3af/at (PoE/PoE+) <p>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.</p> |
| Power input | <p>DC power adapter:</p> <ul style="list-style-type: none"> Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz Rated input current: 1 A Max. <p>Output:</p> <ul style="list-style-type: none"> Rated output voltage: 24 V DC Maximum output current: 1.5 A <p>Passive PoE injector:</p> <ul style="list-style-type: none"> Rated input voltage: 24 V DC Rated input current: 1.5 A <p>Output:</p> <ul style="list-style-type: none"> Rated output voltage: 24 V DC Maximum output current: 1.5 A <p>PoE/PoE+: Compliance with 802.3af/at</p> |
| Number of PoE In ports | 1 |
| Number of PoE/PoE+ In ports | 1 |
| PoE power pins | 1-2 (+), 3-6 (-); 4-5 (+), 7-8 (-) |
| Local power supply | <p>Yes, one DC power connector (12 V, 1.5 A)</p> <p>Note: When powered by 12 V DC or 802.3af, the device cannot supply power to other devices via PoE.</p> |
| 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> |
| Power supply to external devices | <p>Yes</p> <p>Note:</p> <ol style="list-style-type: none"> When powered by 24 V passive PoE or 802.3at, the device can supply power to other devices via PoE. When powered by 12 V DC or 802.3af, the device cannot supply power to other devices via PoE. |
| Number of PoE Out ports | 2 |
| PoE Out standard | IEEE 802.3af (PoE) |
| PoE budget | 15.4 W (PoE budget for two ports) |

Hardware Specifications

| Model | RG-EST330F-P |
|--|--|
| PoE budget per port | 15.4 W |
| Maximum power consumption | 9 W (Without PoE Out) 24.4 W (With PoE Out) |
| Environment and Reliability | |
| Mounting options | Wall/Pole |
| Operating temperature | -30°C to +55°C (-22°F to +131°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) |
| 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.) |
| MTBF | 400,000 hours (about 45 years) |
| Cooling | Natural cooling |
| IP rating | IP55 |
| ESD protection | Standard test: contact discharge=8 kV, air discharge=15 kV, Class B |
| Surge protection | Service port: ±4 kV for common mode Power connector: ±4 kV for common mode and ±2 kV differential mode |
| Certification and Regulatory Compliance | |
| Safety compliance | EN62368-1 |
| EMC | EN 55032 EN 55035 EN 61000-3-3 EN 61000-3-2 EN 301489-1 EN 301489-3 EN 301489-17 |
| Certification | CE, CB |

Software Specifications

| Model | RG-EST330F-P |
|--|--|
| WLAN | |
| BaseStation/CPE mode switching | Yes |
| Enhanced one-to-many transmission (TDMA) | Yes |
| Bridge SSID hiding | Yes |
| WPA2-PSK encryption | Yes |
| WPA-PSK encryption | No |
| WPA/WPA2-PSK encryption | No |
| Recommended channel | Yes |
| Bridge speed test | Yes |
| Random security key upon configuration delivery | No |
| Configuring a security key for network-wide bridges | Yes |
| Configuring a security key for a single bridge group | Yes |
| Configuring a security key for a single bridge | Yes |
| Bridge SSID, channel, and power configuration | Yes |
| WMM | Yes |
| Maximum PTMP connections | 16 |
| Maximum bridge distance | 3 km (1.86 miles) |
| One-touch pairing | Yes |
| Maximum effective distance of one-touch pairing | 20 m (65.62 ft.) |
| Bridge performance | 90 Mbps/0.5 km (0.31 miles) (HT40) 80 Mbps/1 km (0.62 miles) (HT40) 60 Mbps/2 km (1.24 miles) (HT40) 40 Mbps/3 km (1.86 miles) (HT40) |
| RSSI | -53 dBm/0.5 km (0.31 miles) -59 dBm/1 km (0.62 miles) |

Software Specifications

| Model | RG-EST330F-P |
|--|---|
| | -65 dBm/2 km (1.24 miles) -70 dBm/3 km (1.86 miles) |
| Recommended number of connected cameras (3 Mbps) | 18/0.5 km (0.31 miles) 16/1 km (0.62 miles) 12/2 km (1.24 miles) 8/3 km (1.86 miles) |
| Recommended number of connected cameras (4 - 5 Mbps) | 12/0.5 km (0.31 miles) 10/1 km (0.62 miles) 8/2 km (1.24 miles) 5/3 km (1.86 miles) |
| Recommended number of connected cameras (6 - 7 Mbps) | 8/0.5 km (0.31 miles) 7/1 km (0.62 miles) 5/2 km (1.24 miles) 3/3 km (1.86 miles) |
| Recommended number of connected cameras (7-8 Mbps code streams) | 5/0.5 km (0.31 miles) 5/1 km (0.62 miles) 2/2 km (1.24 miles) 1/3 km (1.86 miles) |
| Real-time signal strength | Yes |
| Optimal signal strength | Yes |
| Active/Standby channel | Yes |
| Restoring to the active channel | Yes |
| Maximum number of devices on the SON | 200 |
| Basic Configurations | |
| eWeb login with the username and password | Yes |
| Local upgrade | Yes |
| Configuration backup | Yes |
| System language | Chinese (Simplified), English |
| System time settings | Yes |
| Ethernet Switching | |
| Interface rate | 10/100 Mbps auto-negotiation |

Software Specifications

| Model | RG-EST330F-P |
|--|---|
| VLAN | Yes |
| Link aggregation | No |
| IP Service | |
| IPv4 ping | Yes |
| IPv4 traceroute | Yes |
| DHCP server | Yes |
| DHCP client | Yes |
| Security | |
| Broadcast storm control | Yes |
| Network Management and Monitoring | |
| SON | Yes |
| AI heatmap | Yes |
| Camera detection | No |
| Network-wide management SSID configuration | Yes |
| Network connection through the management SSID | Yes |
| Ruijie Cloud management | Yes |
| Restarting devices through Ruijie Reyee App | Yes |
| SNMPv1, v2c, and v3 | No |
| Fault diagnosis | Yes Note: support for network tools (ping, traceroute, and nslookup), fault alarms, and fault collection |
| Restart cause prompt | Yes |
| Disconnection cause prompt | No |
| Cloud alarms on DFS signal detection | No |

Package Contents

| Model | RG-EST330F-P |
|--------------------|---|
| Device | |
| Device | 1 |
| Accessories | |
| Cable tie | 2 |
| Power adapter | 1 Note: 24 V/1.5 A DC power adapter |
| PoE injector | 1 |
| Mounting Template | 1 |
| Screw | 4 x Wall anchors 4 x Phillips pan head screws (self-tapping screws 4.2 mm x 19 mm) |
| Manual | |
| User Manual | 1 |
| Warranty Card | 1 |

Ruijie | REYEE

 Redefine your easy network



Ruijie Networks Co., Ltd.

Official Website: <https://Reyee.Ruijie.com>