

# 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

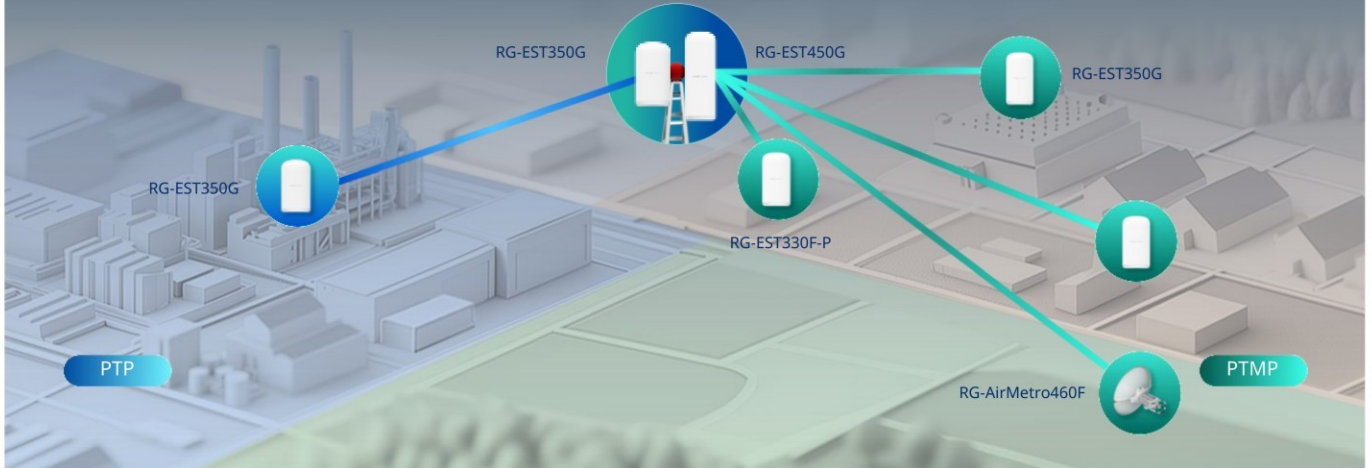
Total Output Power: 802.3af

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

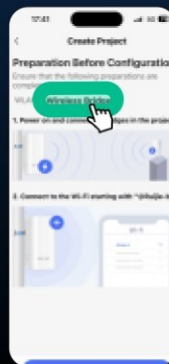
SON

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
<b>Applicable Scenarios</b>	
Applicable Scenarios	CCTV
<b>Wi-Fi Radio</b>	
Radio design	Dual-radio 3 spatial streams <ul style="list-style-type: none"><li>• Radio 1: 2.4 GHz, 1 spatial stream: 1 x 1, SISO</li><li>• Radio 2: 5 GHz, 2 spatial streams: 2 x 2, MIMO</li></ul>
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"><li>• Radio 1: 2.4 GHz, 300 Mbps</li><li>• Radio 2: 5 GHz, 866 Mbps</li></ul>
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 &amp; 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>
<b>Maximum transmit power (2.4 GHz)</b>	Combined power: 20 dBm (single stream power: 20 dBm) Note: The transmit power varies according to regulations in different countries and regions.
<b>Maximum transmit power (5 GHz)</b>	Combined power: 29 dBm (single stream power: 26 dBm) Note: The transmit power varies according to regulations in different countries and regions.
<b>Receive sensitivity</b>	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)
<b>Modulation</b>	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
<b>Highest QAM order</b>	256
<b>Antenna</b>	

# 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°
<b>System Specifications</b>	
CPU	Single-core processor, 575/580 MHz clock frequency
Flash memory	16 MB
RAM	64 MB DDR2
<b>Dimensions and Weight</b>	
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
<b>Port Specifications</b>	
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
<b>Power Supply and Consumption</b>	
Power supply	Power supply options: <ul style="list-style-type: none"><li>• DC power adapter</li><li>• Passive PoE injector</li></ul>

# Hardware Specifications

Model	RG-EST330F-P
	<ul style="list-style-type: none"> <li>IEEE 802.3af/at (PoE/PoE+)</li> </ul> <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"> <li>Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz</li> <li>Rated input current: 1 A Max.</li> </ul> <p>Output:</p> <ul style="list-style-type: none"> <li>Rated output voltage: 24 V DC</li> <li>Maximum output current: 1.5 A</li> </ul> <p>Passive PoE injector:</p> <ul style="list-style-type: none"> <li>Rated input voltage: 24 V DC</li> <li>Rated input current: 1.5 A</li> </ul> <p>Output:</p> <ul style="list-style-type: none"> <li>Rated output voltage: 24 V DC</li> <li>Maximum output current: 1.5 A</li> </ul> <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"> <li>When powered by 24 V passive PoE or 802.3at, the device can supply power to other devices via PoE.</li> <li>When powered by 12 V DC or 802.3af, the device cannot supply power to other devices via PoE.</li> </ol>
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)
<b>Environment and Reliability</b>	
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
<b>Certification and Regulatory Compliance</b>	
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
<b>WLAN</b>	
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
<b>Basic Configurations</b>	
eWeb login with the username and password	Yes
Local upgrade	Yes
Configuration backup	Yes
System language	Chinese (Simplified), English
System time settings	Yes
<b>Ethernet Switching</b>	
Interface rate	10/100 Mbps auto-negotiation

# Software Specifications

Model	RG-EST330F-P
VLAN	Yes
Link aggregation	No
<b>IP Service</b>	
IPv4 ping	Yes
IPv4 traceroute	Yes
DHCP server	Yes
DHCP client	Yes
<b>Security</b>	
Broadcast storm control	Yes
<b>Network Management and Monitoring</b>	
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
<b>Device</b>	
Device	1
<b>Accessories</b>	
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)
<b>Manual</b>	
User Manual	1
Warranty Card	1

*Ruijie* | ReYee

 Redefine your easy network



**Ruijie Networks Co., Ltd.**

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