

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



Triple Power Input Options for Flexible Deployment



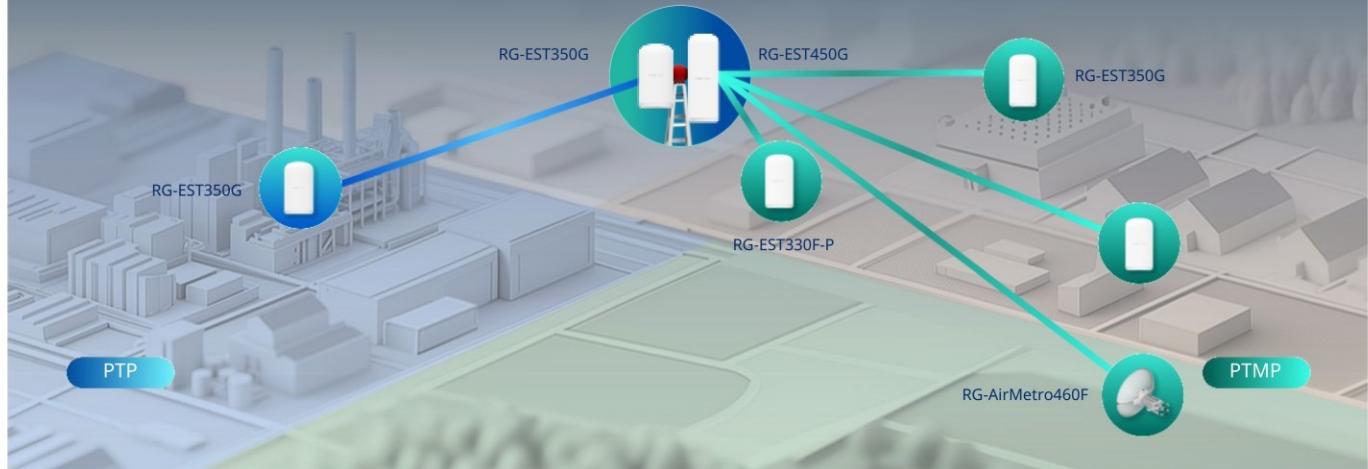
Dual PoE-Out for Cost-Effectiveness



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

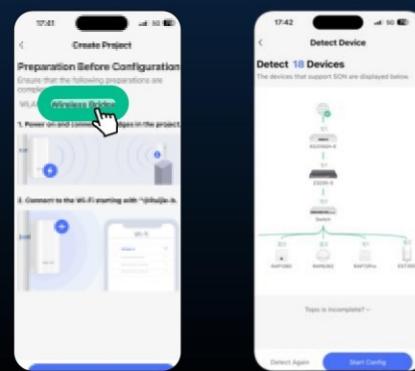
SON

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	<p>Dual-radio 3 spatial streams</p> <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	<p>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</p> <p>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).</p>
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	<p>Maximum wireless data rate: 1166 Mbps</p> <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:</p> <p>2400–2483.5 MHz, EIRP ≤ 20 dBm</p> <p>5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>Myanmar:</p> <p>2400–2483.5 MHz, EIRP ≤ 23 dBm</p> <p>5725–5850 MHz, EIRP ≤ 30 dBm</p> <p>Thailand:</p> <p>2400–2483.5 MHz, EIRP ≤ 20 dBm</p> <p>5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>5725–5850 MHz, EIRP ≤ 30 dBm</p> <p>Indonesia:</p> <p>2400–2483.5 MHz, EIRP ≤ 36 dBm</p> <p>5725–5825 MHz, EIRP ≤ 36 dBm</p> <p>Egypt:</p> <p>2400–2483.5 MHz, EIRP ≤ 20 dBm</p> <p>5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>Vietnam:</p> <p>2400–2483.5 MHz, EIRP ≤ 23 dBm</p> <p>5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>5725–5850 MHz, EIRP ≤ 30 dBm</p>
Maximum transmit power (2.4 GHz)	<p>Combined power: 20 dBm (single stream power: 20 dBm)</p> <p>Note: The transmit power varies according to regulations in different countries and regions.</p>
Maximum transmit power (5 GHz)	<p>Combined power: 29 dBm (single stream power: 26 dBm)</p> <p>Note: The transmit power varies according to regulations in different countries and regions.</p>
Receive sensitivity	<p>802.11b: -91 dBm (1 Mbps), -88 dBm (5 Mbps), -85 dBm (11 Mbps)</p> <p>802.11a/g: -89 dBm (6 Mbps), -80 dBm (24 Mbps), -76 dBm (36 Mbps), -71 dBm (54 Mbps)</p> <p>802.11n: -83 dBm@MCS0, -65 dBm@MCS7, -83 dBm@MCS8, -65 dBm@MCS15</p> <p>802.11ac HT20: -83 dBm (MCS0), -57 dBm (MCS9)</p> <p>802.11ac HT40: -79 dBm (MCS0), -54 dBm (MCS9)</p> <p>802.11ac HT80: -76 dBm (MCS0), -51 dBm (MCS9)</p>
Modulation	<p>802.11b: BPSK, QPSK, CCK</p> <p>802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM</p> <p>802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM</p>
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 adapterPassive PoE injector

Hardware Specifications

Model	RG-EST330F-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
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 \pm 0.05 mm (0.22 in. \pm 0.002 in.)</p> <p>Inner Diameter: 2.10 mm \pm 0.05 mm (0.08 in. \pm 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	PoE/PoE+ (IEEE802.3af/at) or Non-standard PoE (24 V DC power supply)
PoE budget	15.4 W (PoE budget for two ports)
PoE budget per port	15.4 W
Maximum power consumption	9 W (Without PoE Out) 24.4 W (With PoE Out)
Environment and Reliability	

Hardware Specifications

Model	RG-EST330F-P
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

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