

RG-EST330F-P

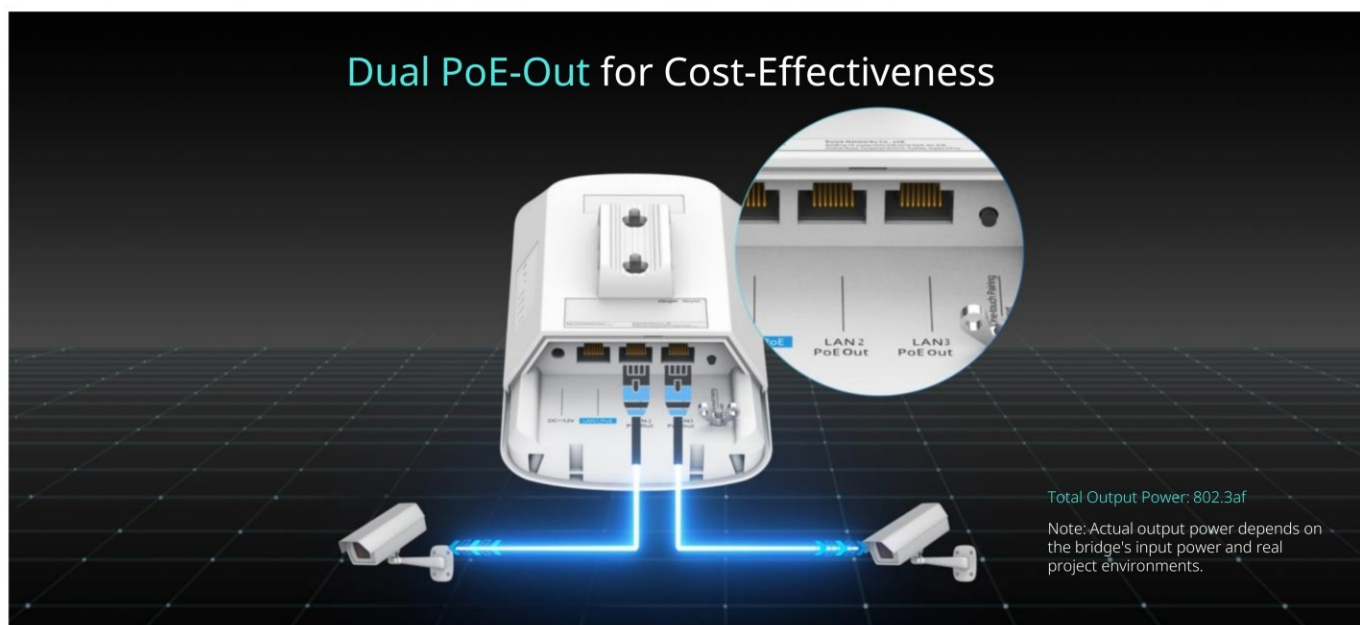
3 km, 13 dBi Wireless Bridge



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

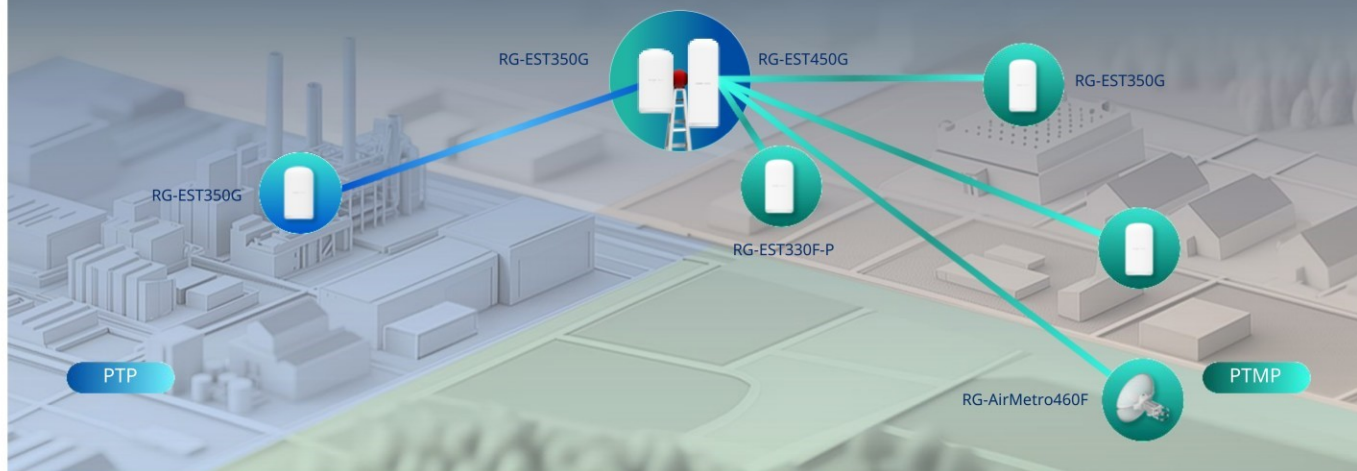
Highlight Features



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

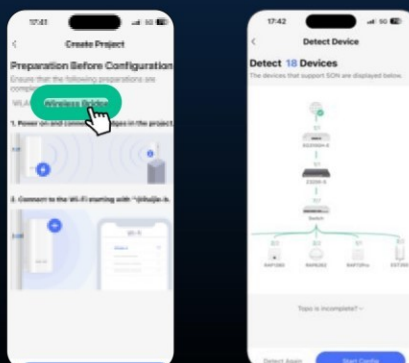
SON

Alignment Tool

Spectrum Scan

Monitoring & Configuration

Quick Self-Organizing Network for Bridge



/ Product Information

Model	RG-EST330F-P
Product Type	Wireless bridge
Accessory	No

/ Hardware Specifications

Model	RG-EST330F-P
Applicable Scenarios	
Applicable Scenarios	CCTV
Wi-Fi Radio	
Radio design	Dual-radio
	3 spatial streams
Operating band	• Radio 1: 2.4 GHz, 1 spatial stream: 1 x 1, SISO • Radio 2: 5 GHz, 2 spatial streams: 2 x 2, MIMO
	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

Hardware Specifications

Model	RG-EST330F-P
	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 • 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): Note: Country specific restrictions apply. European Union & United Kingdom: 2400–2483.5 MHz, EIRP $\leq$ 20 dBm 5470–5725 MHz, EIRP $\leq$ 30 dBm Myanmar: 2400–2483.5 MHz, EIRP $\leq$ 23 dBm 5725–5850 MHz, EIRP $\leq$ 30 dBm Thailand:

Hardware Specifications

Model	RG-EST330F-P
	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.

Hardware Specifications

Model	RG-EST330F-P
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	
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°

Hardware Specifications

Model	RG-EST330F-P
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

Hardware Specifications

Model	RG-EST330F-P
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
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
System Specifications	
CPU	Single-core processor, 575/580 MHz clock frequency
Flash memory	16 MB
RAM	64 MB DDR2
Power Supply and Consumption	

Hardware Specifications

Model	RG-EST330F-P
Power supply	Power supply options: • DC power adapter • 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

Hardware Specifications

Model	RG-EST330F-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	Yes, one DC power connector (12 V, 1.5 A) Note: When powered by 12 V DC or 802.3af, the device cannot supply power to other devices via PoE.
Dimensions of the DC connector	Outer Diameter: 5.50 mm $\pm$ 0.05 mm (0.22 in. $\pm$ 0.002 in.) Inner Diameter: 2.10 mm $\pm$ 0.05 mm (0.08 in. $\pm$ 0.002 in.) Depth: 9 mm (0.35 in.)
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.
Number of PoE Out ports	2
PoE Out standard	IEEE 802.3af (PoE)
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)

/ Hardware Specifications

Model	RG-EST330F-P
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

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
5 MHz offset	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

Software Specifications

Model	RG-EST330F-P
WMM	Yes
Recommended PTMP connections	5
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) -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)

Software Specifications

Model	RG-EST330F-P
	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

Software Specifications

Model	RG-EST330F-P
System language	Chinese (Simplified), English
System time settings	Yes
IP Service	
IPv4 ping	Yes
IPv4 traceroute	Yes
DHCP server	Yes
DHCP client	Yes
Security	
Broadcast storm control	Yes
Ethernet Switching	
Interface rate	10/100 Mbps auto-negotiation
VLAN	Yes
Link aggregation	No
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

Software Specifications

Model	RG-EST330F-P
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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Ruijie Networks Co., Ltd.

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