

# RG-EST100-E

## 2.4 GHz Dual-stream 500 m Wireless Bridge



### Highlights

- RG-EST100-E can easily transmit data from 500 m away in real time
- Factory-free configuration, without complex alignment
- IP55 Weatherproof, -30°C~60°C guarantee stable operating at outdoor or elevator environment
- Support maximum 10 x 3MP cameras loading at 100 m, 5 x 3MP cameras loading at 500 m

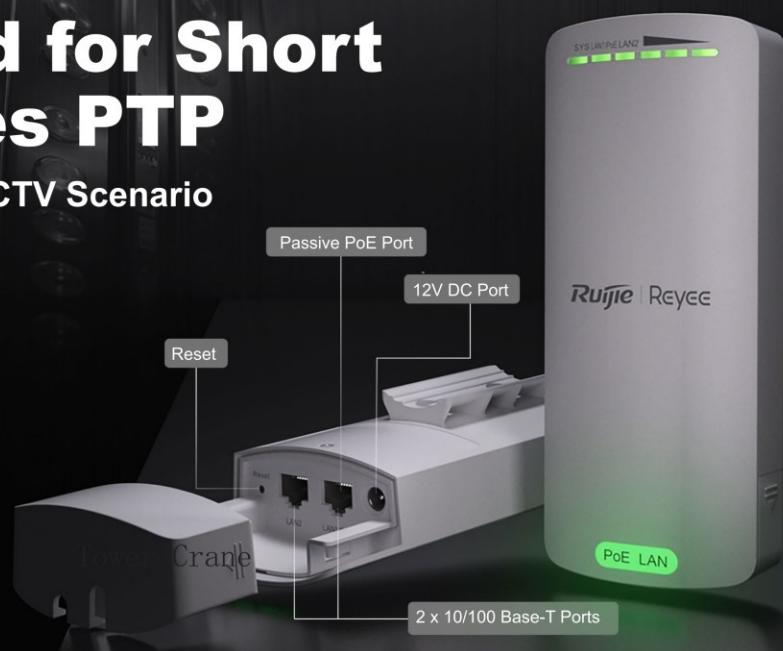
## Highlight Features

# Designed for Short Distances PTP

Unique Value for CCTV Scenario

**RG-EST100-E**

Performance Scenarios

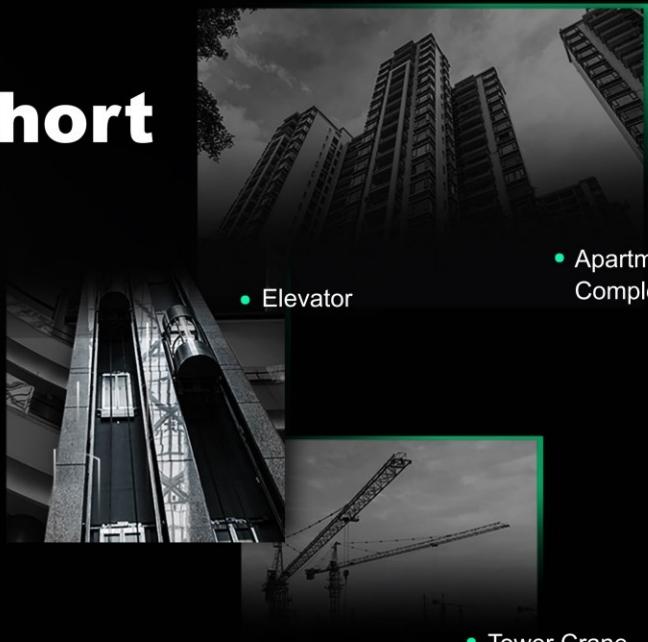


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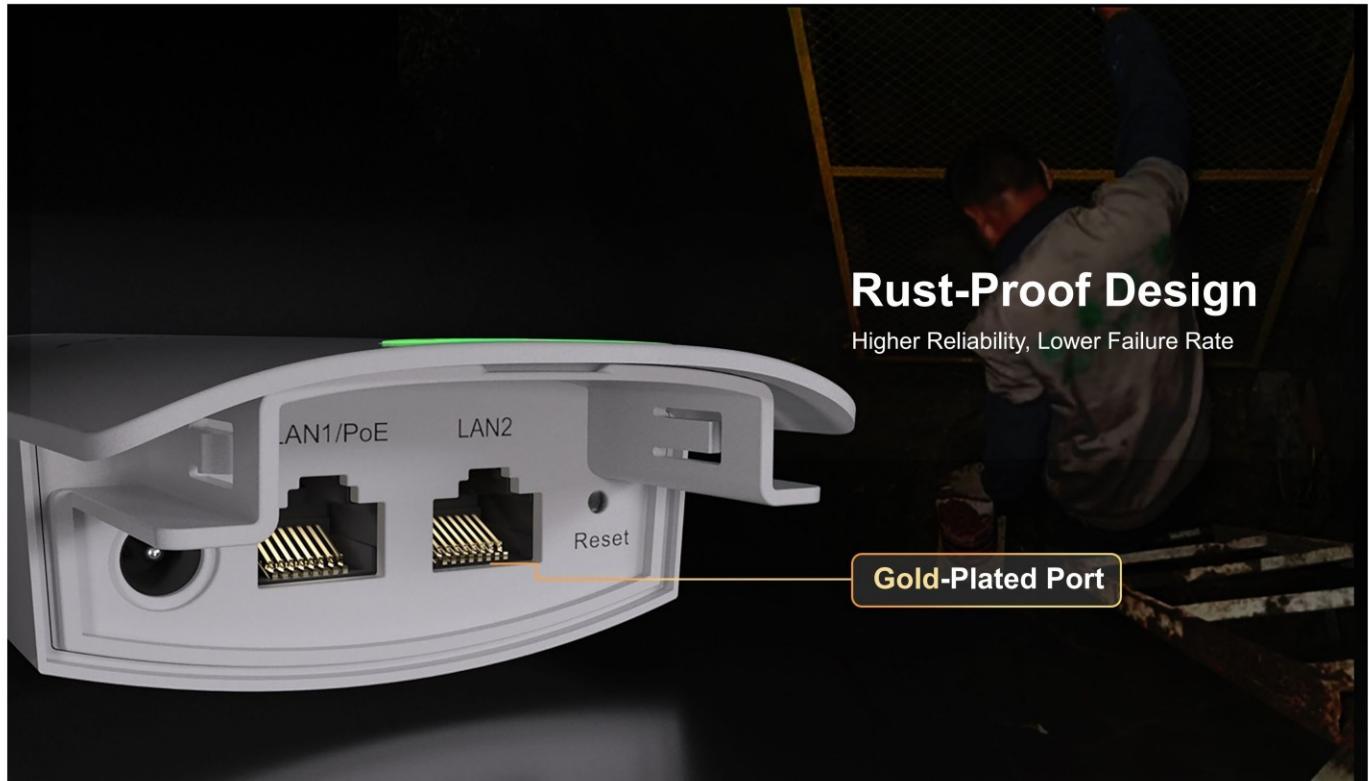
Unique Value for CCTV Scenario

**RG-EST100-E**

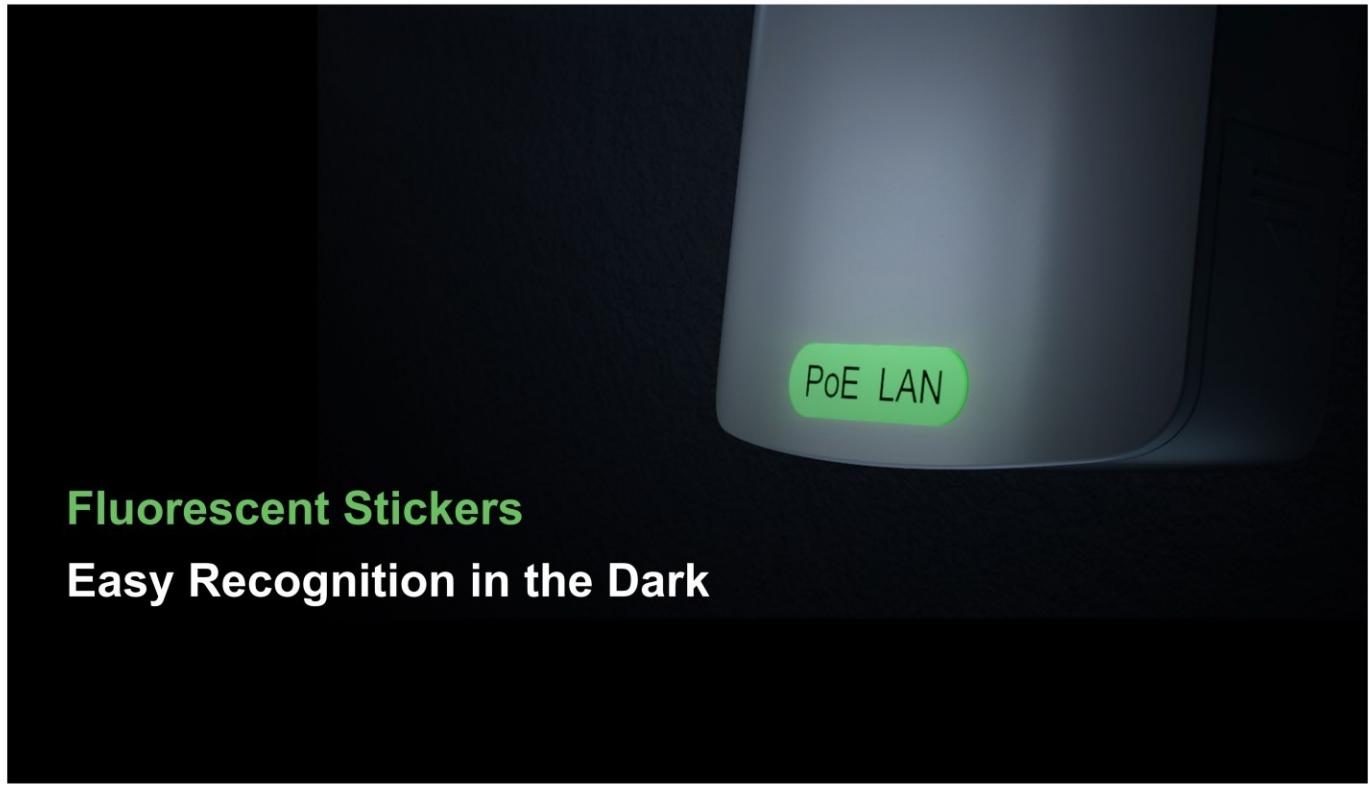
Performance Scenarios



## Highlight Features



## Highlight Features



### Fluorescent Stickers Easy Recognition in the Dark

## Cloud, Make Your Business Easy

Visually Statistics Monitoring on Ruijie Cloud



## Product Information

Model	RG-EST100-E
Product Type	Bridge
Accessory	No

## Hardware Specifications

Model	RG-EST100-E
<b>Applicable Scenarios</b>	
Applicable Scenarios	CCTV
<b>Wi-Fi Radio</b>	
Radio design	Single-radio 2 spatial streams • Radio 1: 2.4 GHz, 2 spatial streams: 2 x 2, MIMO IEEE 802.11b/g/n: 2.400 GHz to 2.483 GHz
Operating band	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 4 (IEEE 802.11n) standard, compatible with IEEE 802.11b/g standards
2.4 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11b/g/n)
2.4 GHz channel width	Auto/20/40 MHz
Transmission rate	Maximum wireless data rate: 300 Mbps • Radio 1: 2.4 GHz, 300 Mbps  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 Myanmar: 2400–2483.5 MHz, EIRP ≤ 23 dBm Thailand: 2400–2483.5 MHz, EIRP ≤ 20 dBm Indonesia: 2400–2483.5 MHz, EIRP ≤ 36 dBm
Maximum transmit power	

# Hardware Specifications

Model	RG-EST100-E
	<p>Egypt: 2400–2483.5 MHz, EIRP <math>\leq</math> 20 dBm (Indoor use only)</p> <p>Vietnam: 2400–2483.5 MHz, EIRP <math>\leq</math> 23 dBm</p>
<b>Maximum transmit power (2.4 GHz)</b>	Combined power: 23 dBm (single stream power: 20 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) 802.11g: -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
<b>Modulation</b>	802.11b: BPSK, QPSK, CCK 802.11g/n: BPSK, QPSK, 16-QAM, 64-QAM
<b>Highest QAM order</b>	64
<b>Antenna</b>	
<b>Antenna</b>	2.4 GHz: 2 x 2 Built-in directional antenna, horizontal: 70°, vertical: 70°
<b>Antenna gain (2.4 GHz)</b>	8 dBi
<b>Antenna horizontal orientation</b>	70°
<b>Antenna vertical orientation</b>	70°
<b>System Specifications</b>	
<b>CPU</b>	Single-core processor, 575/580 MHz clock frequency
<b>Flash memory</b>	8 MB
<b>RAM</b>	64 MB DDR2
<b>Dimensions and Weight</b>	
<b>Weight</b>	0.14 kg (0.31 lbs) (without packaging materials)
<b>Shipping weight</b>	0.3 kg (0.66 lbs)
<b>Product dimensions (W x D x H)</b>	68.7 mm x 42 mm x 165.5 mm (2.70 in. x 1.65 in. x 6.52 in.)
<b>Package dimensions (W x D x H)</b>	224 mm x 208 mm x 92 mm (8.82 in. x 8.19 in. x 3.62 in.)

# Hardware Specifications

Model	RG-EST100-E
Color	Elegant white
<b>Port Specifications</b>	
Number of fixed LAN ports	2
Number of 10/100BASE-T ports	2
Reset button	1
LEDs	1 x system status LED 2 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>
Power input	DC power adapter: <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: 0.3 A</li></ul> Output: <ul style="list-style-type: none"><li>• Rated output voltage: 12 V DC</li><li>• Maximum output current: 1 A</li></ul> Passive PoE injector: <ul style="list-style-type: none"><li>• Rated input voltage: 12 V DC</li><li>• Rated input current: 1 A</li></ul> Output: <ul style="list-style-type: none"><li>• Rated output voltage: 12 V DC</li><li>• Maximum output current: 1 A</li></ul>
Number of PoE In ports	1
Local power supply	Yes, one DC power connector (12 V, 1 A)
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.)
Maximum power consumption	5 W
<b>Environment and Reliability</b>	
Mounting options	Wall/Pole
Operating temperature	-30°C to +60°C (-22°F to +140°F)

# Hardware Specifications

Model	RG-EST100-E
<b>Storage temperature</b>	-40°C to +70°C (-40°F to +158°F)
<b>Operating humidity</b>	5% RH to 95% RH (non-condensing)
<b>Storage humidity</b>	5% RH to 95% RH (non-condensing)
<b>Altitude</b>	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.)
<b>MTBF</b>	400,000 hours (about 45 years)
<b>Cooling</b>	Natural cooling
<b>IP rating</b>	IP55
<b>ESD protection</b>	Standard test: contact discharge=8 kV, air discharge=15 kV, Class B
<b>Surge protection</b>	Service port: $\pm 6$ kV for common mode Power connector: $\pm 4$ kV for common mode and $\pm 2$ kV differential mode
Certification and Regulatory Compliance	
<b>Safety compliance</b>	EN62368-1
<b>EMC</b>	EN 55032 EN 55035 EN 61000-3-3 EN 61000-3-2 EN 301489-1 EN 301489-3 EN 301489-17
<b>Certification</b>	CE, FCC, CB, ISED, cTUVus

# Software Specifications

Model	RG-EST100-E
<b>WLAN</b>	
<b>BaseStation/CPE mode switching</b>	Yes
<b>Enhanced one-to-many transmission (TDMA)</b>	No
<b>Bridge SSID hiding</b>	Yes
<b>WPA2-PSK encryption</b>	Yes
<b>WPA-PSK encryption</b>	No
<b>WPA/WPA2-PSK encryption</b>	No
<b>Recommended channel</b>	Yes
<b>Bridge speed test</b>	Yes
<b>Random security key upon configuration delivery</b>	No
<b>Configuring a security key for network-wide bridges</b>	Yes
<b>Configuring a security key for a single bridge group</b>	Yes
<b>Configuring a security key for a single bridge</b>	Yes
<b>Bridge SSID, channel, and power configuration</b>	Yes
<b>WMM</b>	Yes
<b>Maximum PTMP connections</b>	1
<b>Maximum bridge distance</b>	0.5 km (0.31 miles)
<b>One-touch pairing</b>	Yes
<b>Maximum effective distance of one-touch pairing</b>	20 m (65.62 ft.)
<b>Bridge performance</b>	60 Mbps/100 m (328.08 ft.) (HT20) 30 Mbps/500 m (0.31 miles) (HT20)
<b>RSSI</b>	- 58 dBm/100 m (328.08 ft.) - 68 dBm/500 m (0.31 miles)

# Software Specifications

Model	RG-EST100-E
<b>Recommended number of connected cameras (3 Mbps)</b>	10/100 m (328.08 ft.) 5/500 m (0.31 miles)
<b>Recommended number of connected cameras (4 - 5 Mbps)</b>	6/100 m (328.08 ft.) 3/500 m (0.31 miles)
<b>Recommended number of connected cameras (6 - 7 Mbps)</b>	3/100 m (328.08 ft.) 1/500 m (0.31 miles)
<b>Recommended number of connected cameras ( 7-8 Mbps code streams)</b>	3/100 m (328.08 ft.) 1/500 m (0.31 miles)
<b>Real-time signal strength</b>	Yes
<b>Optimal signal strength</b>	Yes
<b>Active/Standby channel</b>	No
<b>Restoring to the active channel</b>	No
<b>Maximum number of devices on the SON</b>	200
<b>Basic Configurations</b>	
<b>eWeb login with the username and password</b>	Yes
<b>Local upgrade</b>	Yes
<b>Configuration backup</b>	Yes
<b>System language</b>	Chinese (Simplified), English
<b>System time settings</b>	Yes
<b>Ethernet Switching</b>	
<b>Interface rate</b>	10/100 Mbps auto-negotiation
<b>VLAN</b>	Yes
<b>Link aggregation</b>	No
<b>IP Service</b>	
<b>IPv4 ping</b>	Yes
<b>IPv4 traceroute</b>	Yes

# Software Specifications

Model	RG-EST100-E
<b>DHCP server</b>	Yes
<b>DHCP client</b>	Yes
<b>Security</b>	
<b>Broadcast storm control</b>	Yes
<b>Network Management and Monitoring</b>	
<b>SON</b>	Yes
<b>AI heatmap</b>	No
<b>Camera detection</b>	No
<b>Network-wide management SSID configuration</b>	Yes
<b>Network connection through the management SSID</b>	No
<b>Ruijie Cloud management</b>	Yes
<b>Restarting devices through Ruijie Reyee App</b>	Yes
<b>SNMPv1, v2c, and v3</b>	No
<b>Fault diagnosis</b>	Yes Note: support for network tools (ping, traceroute, and nslookup), fault alarms, and fault collection
<b>Restart cause prompt</b>	Yes
<b>Disconnection cause prompt</b>	No
<b>Cloud alarms on DFS signal detection</b>	No

## Package Contents

Model	RG-EST100-E
<b>Device</b>	
<b>Device</b>	2
<b>Accessories</b>	
<b>Cable tie</b>	4
<b>Power adapter</b>	2 Note: 12 V/1 A DC power adapter
<b>PoE injector</b>	2
<b>Mounting Template</b>	1
<b>Manual</b>	
<b>User Manual</b>	1
<b>Warranty Card</b>	1

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