DATASHEET

RG-EST100-E

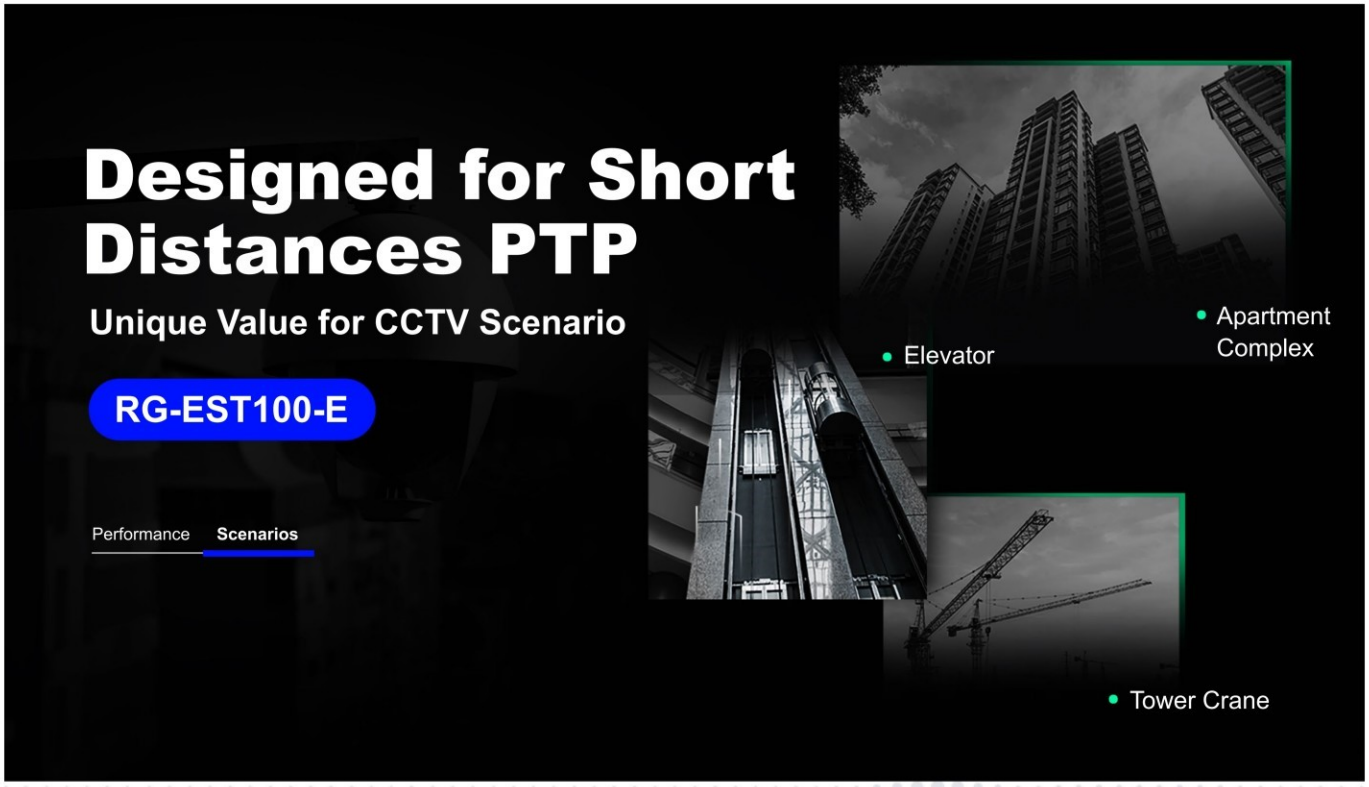
2.4 GHz Dual-stream 500 m Wireless Bridge

Highlights

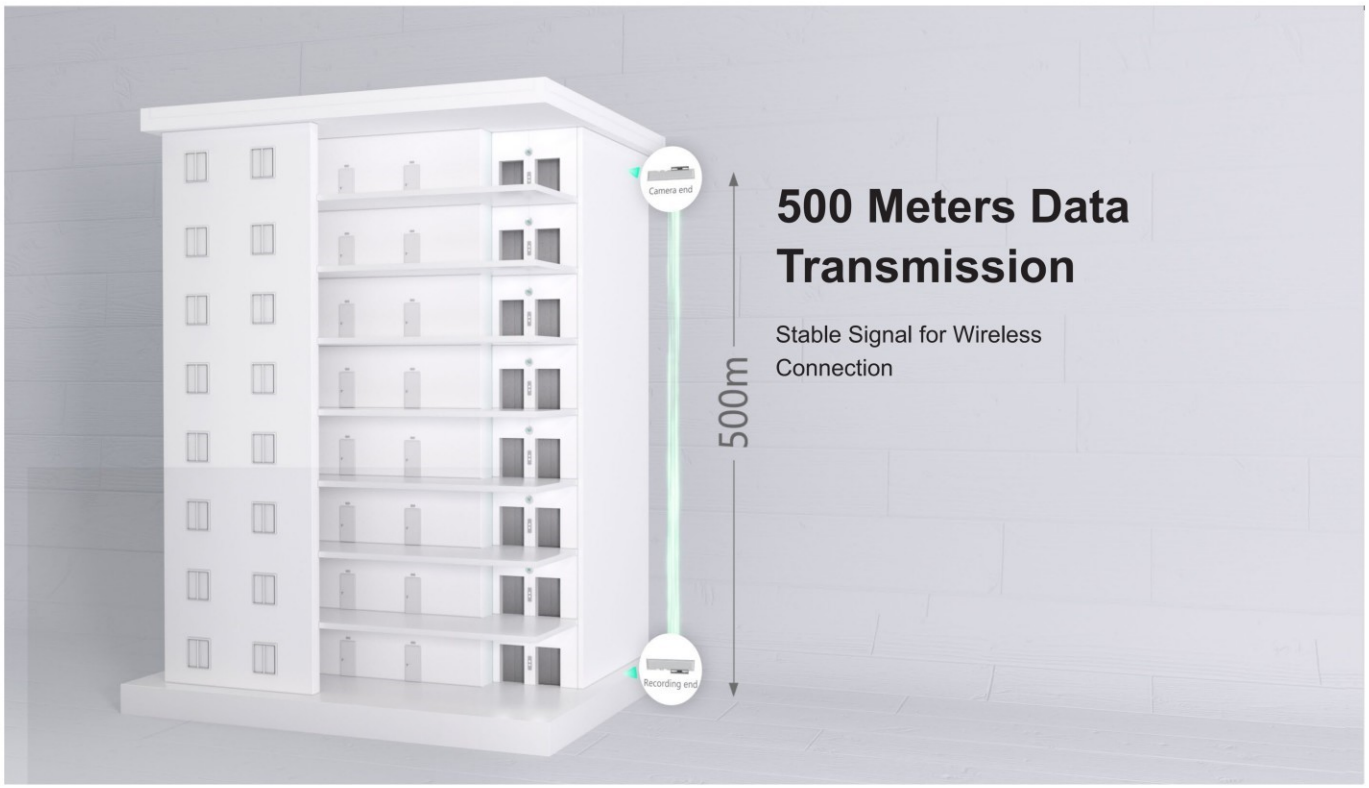
- RG-EST100-E can easily transmit data from 500 m away in real time
- Factory-free configuration, without complex alignment
- IP55 Weatherproof, -30℃~60℃ guarantee stable operating at outdoor or elevator environment
- Support maximum 10 x 3MP cameras loading at 100 m, 5 x 3MP cameras loading at 500 m

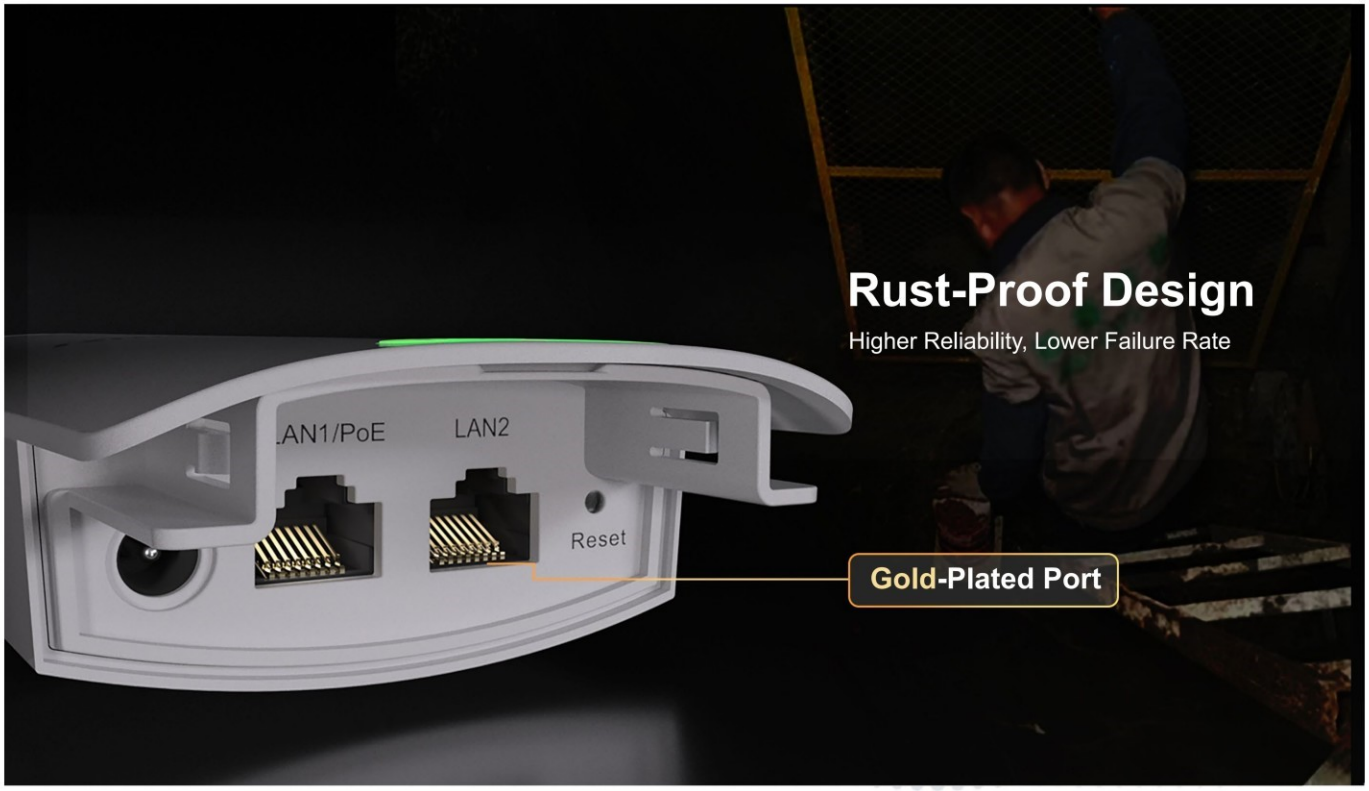
Date: 2026.7.24

Highlight Features



Highlight Features





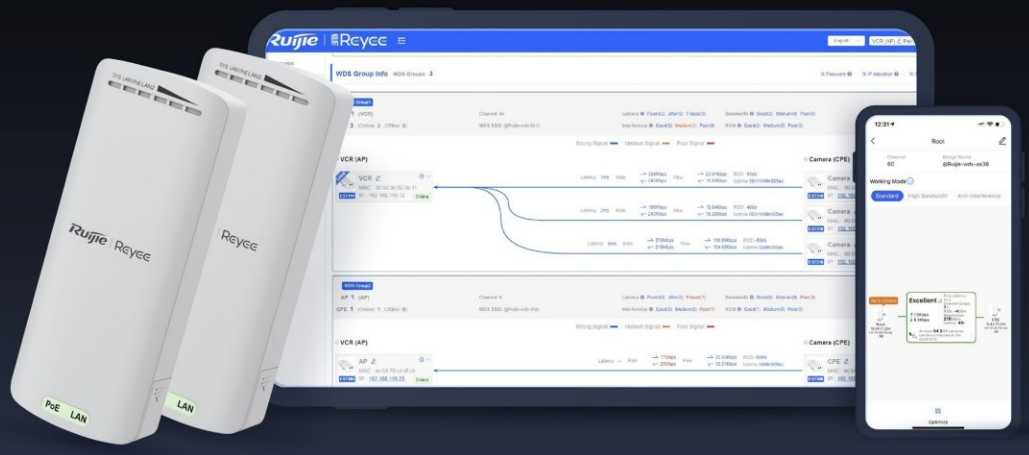
Highlight Features

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
Antenna	
Antenna	2.4 GHz: 2 x 2 Built-in directional antenna, horizontal: 70°, vertical: 70°
Antenna gain (2.4 GHz)	8 dBi
Antenna horizontal orientation	70°
Antenna vertical orientation	70°
System Specifications	
CPU	Single-core processor, 575/580 MHz clock frequency
Flash memory	8 MB
RAM	64 MB DDR2
Dimensions and Weight	
Weight	0.14 kg (0.31 lbs) (without packaging materials)
Shipping weight	0.3 kg (0.66 lbs)
Product dimensions (W x D x H)	68.7 mm x 42 mm x 165.5 mm (2.70 in. x 1.65 in. x 6.52 in.)
Package dimensions (W x D x H)	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
Environment and Reliability	
Mounting options	Wall/Pole
Operating temperature	–30°C to +60°C (–22°F to +140°F)
Storage temperature	–40°C to +70°C (–40°F to +158°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: ±6 kV for common mode Power connector: ±4 kV for common mode and ±2 kV differential mode
Port Specifications	
Number of fixed LAN ports	2

Hardware Specifications

Model	RG-EST100-E
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
Applicable Scenarios	
Applicable Scenarios	CCTV
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, FCC, CB, ISED, cTUVus
Power Supply and Consumption	
Power supply	Power supply options: ● DC power adapter ● Passive PoE injector

Hardware Specifications

Model	RG-EST100-E
Power input	DC power adapter: ● Rated input voltage: 100 V AC to 240 V AC, 50 Hz to 60 Hz ● Rated input current: 0.3 A Output: ● Rated output voltage: 12 V DC ● Maximum output current: 1 A Passive PoE injector: ● Rated input voltage: 12 V DC ● Rated input current: 1 A Output: ● Rated output voltage: 12 V DC ● Maximum output current: 1 A
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 ± 0.05 mm (0.22 in. ± 0.002 in.) Inner Diameter: 2.10 mm ± 0.05 mm (0.08 in. ± 0.002 in.) Depth: 9 mm (0.35 in.)
Maximum power consumption	5 W
Wi-Fi Radio	

Hardware Specifications

Model	RG-EST100-E
Radio design	Single-radio 2 spatial streams ● Radio 1: 2.4 GHz, 2 spatial streams: 2 x 2, MIMO
Operating band	IEEE 802.11b/g/n: 2.400 GHz to 2.483 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 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
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 ≤ 20 dBm Myanmar:

Hardware Specifications

Model	RG-EST100-E
	2400–2483.5 MHz, EIRP ≤ 23 dBm Thailand: 2400–2483.5 MHz, EIRP ≤ 20 dBm Indonesia: 2400–2483.5 MHz, EIRP ≤ 36 dBm Egypt: 2400–2483.5 MHz, EIRP ≤ 20 dBm (Indoor use only) Vietnam： 2400-2483.5 MHz, EIRP ≤ 23 dBm
Maximum transmit power (2.4 GHz)	Combined power: 23 dBm (single stream power: 20 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) 802.11g: -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
Modulation	802.11b: BPSK, QPSK, CCK 802.11g/n: BPSK, QPSK, 16-QAM, 64-QAM
Highest QAM order	64

Software Specifications

Model	RG-EST100-E
IP Service	
IPv4 ping	Yes
IPv4 traceroute	Yes
DHCP server	Yes
DHCP client	Yes
Ethernet Switching	
Interface rate	10/100 Mbps auto-negotiation
VLAN	Yes
Link aggregation	No
Security	
Broadcast storm control	Yes
Network Management and Monitoring	
SON	Yes
AI heatmap	No
Camera detection	No
Network-wide management SSID configuration	Yes
Network connection through the management SSID	No
Ruijie Cloud management	Yes

Software Specifications

Model	RG-EST100-E
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
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
WLAN	
BaseStation/CPE mode switching	Yes
Enhanced one-to-many transmission (TDMA)	No
Bridge SSID hiding	Yes

Software Specifications

Model	RG-EST100-E
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
Recommended PTMP connections	1
Maximum bridge distance	0.5 km (0.31 miles)
One-touch pairing	Yes
Maximum effective distance of one-touch pairing	20 m (65.62 ft.)

Software Specifications

Model	RG-EST100-E
Bridge performance	60 Mbps/100 m (328.08 ft.) (HT20) 30 Mbps/500 m (0.31 miles) (HT20)
RSSI	– 58 dBm/100 m (328.08 ft.) – 68 dBm/500 m (0.31 miles)
Recommended number of connected cameras (3 Mbps)	10/100 m (328.08 ft.) 5/500 m (0.31 miles)
Recommended number of connected cameras (4 – 5 Mbps)	6/100 m (328.08 ft.) 3/500 m (0.31 miles)
Recommended number of connected cameras (6 – 7 Mbps)	3/100 m (328.08 ft.) 1/500 m (0.31 miles)
Recommended number of connected cameras (7-8 Mbps code streams)	3/100 m (328.08 ft.) 1/500 m (0.31 miles)
Real-time signal strength	Yes
Optimal signal strength	Yes
Active/Standby channel	No
Restoring to the active channel	No
Maximum number of devices on the SON	200

Package Contents

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

Ruijie | Reyee

Redefine your easy network

Ruijie Networks Co., Ltd.

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