

RG-EST100-E

2.4GHz Dual-Stream 500m Wireless Bridge

DATASHEET



Highlights

- RG-EST100-E can easily transmit data from 500m away in real time
- Factory-free configuration, without complex alignment
- IP55 Weatherproof, -30°C~60°C guarantee stable operating at outdoor environment or elevator environment
- Support maximum 14 * 3MP cameras loading at 100m, 5 * 3MP cameras loading at 500m
- Visually Intuitive statistics monitoring on Ruijie cloud, easy maintenance at remotely

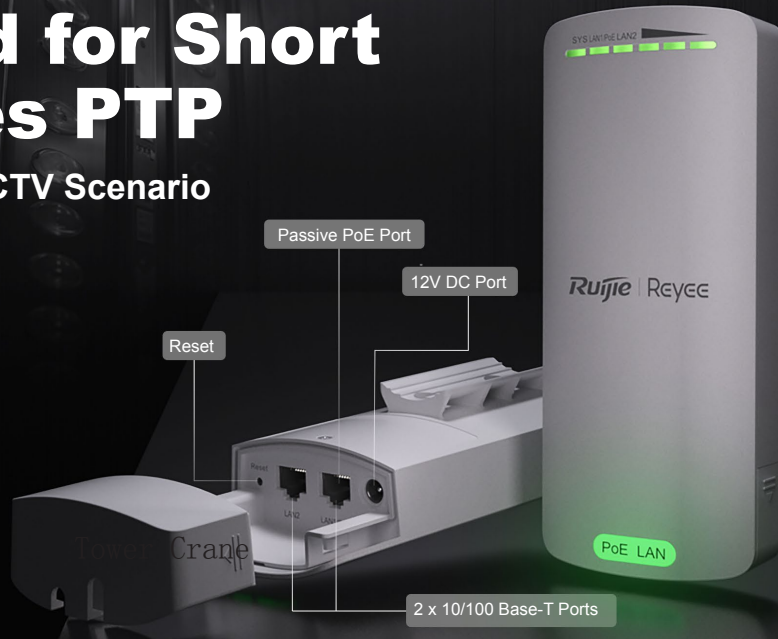
Highlight Features

Designed for Short Distances PTP

Unique Value for CCTV Scenario

RG-EST100-E

Performance Scenarios

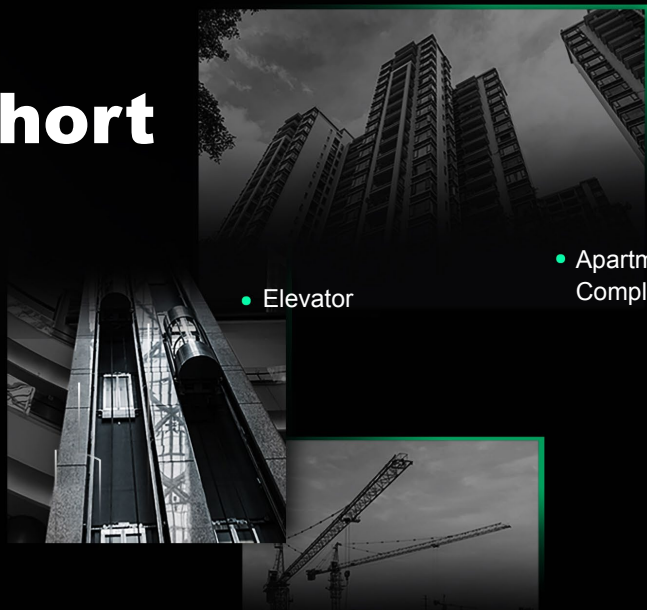


Designed for Short Distances PTP

Unique Value for CCTV Scenario

RG-EST100-E

Performance Scenarios

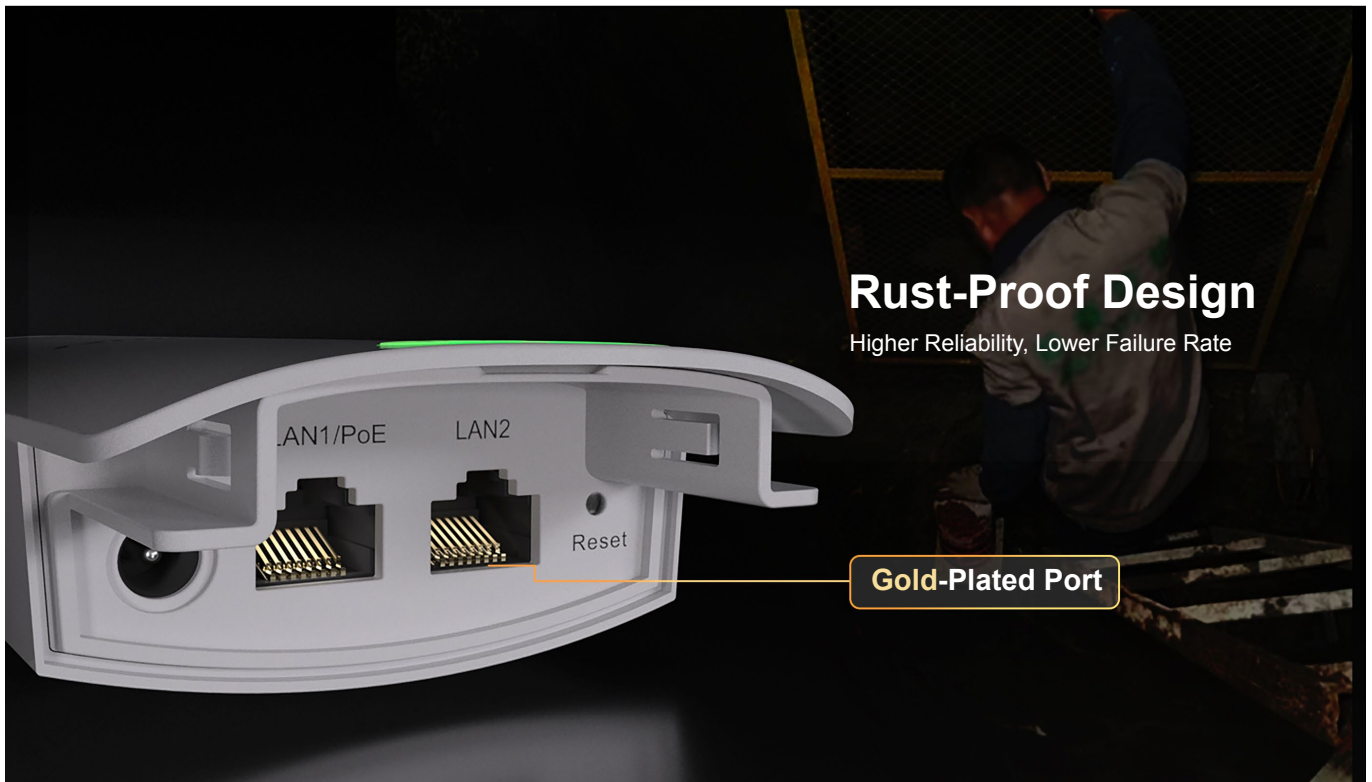
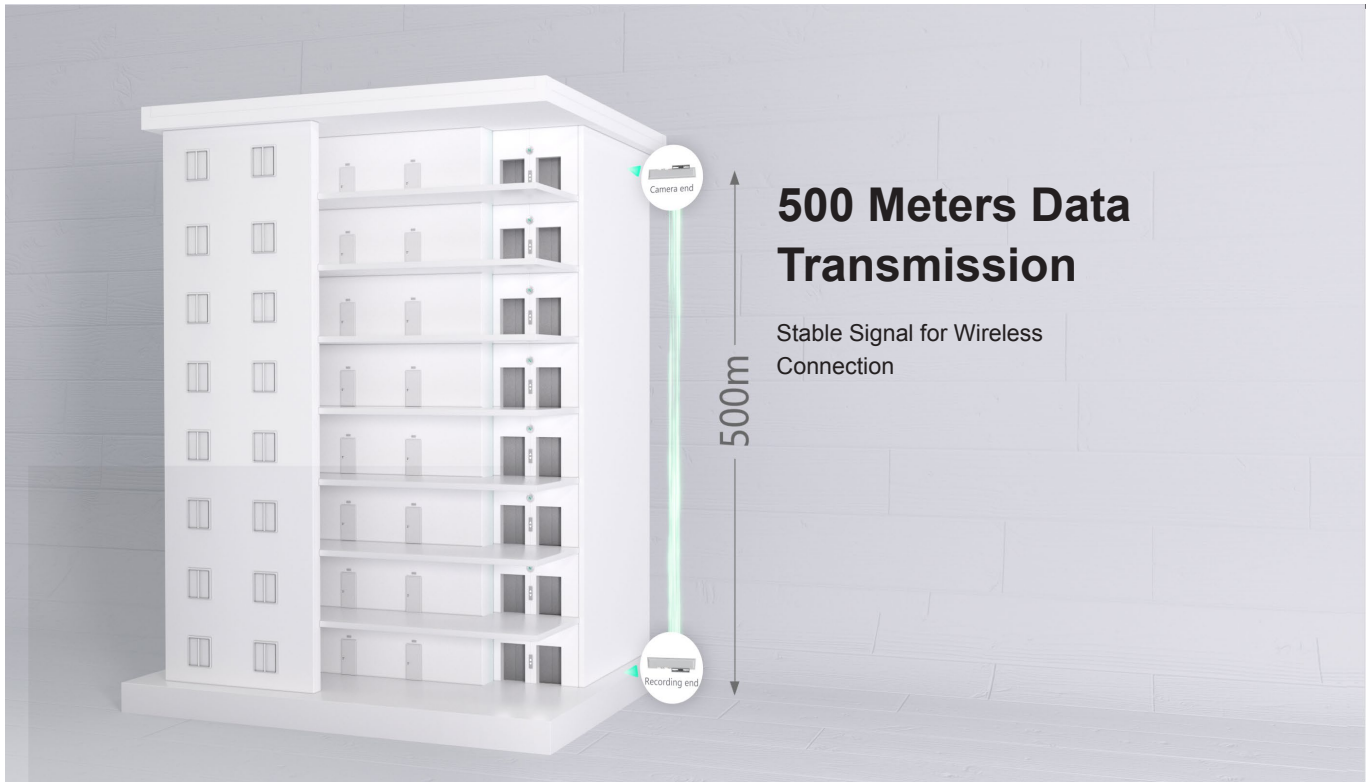


• Elevator

• Apartment Complex

• Tower Crane

Highlight Features



Highlight Features



Fluorescent Stickers
Easy Recognition in the Dark

Cloud, Make Your Business Easy

Visually Statistics Monitoring on Ruijie Cloud



Specifications

Specification

Basic

Radio Design	2 GHz Single-Band Dual-Stream
Transmission Protocol	IEEE 802.11b/g/n
Operating Band	802.11b/g/n: 2.400~2.483GHz
Antenna	Directional antennas, 8 dBi
Polarization	Horizontal: 70°, Vertical: 70°
Bridging Distance	500m (recommended)
Spatial Streams	2x2, MU-MIMO
Memory/Flash	64 MB/8 MB
Maximum Throughput	Up to 300 Mbps at 2.4 GHz
Ports	2 10/100Base-T Ethernet ports, port 1 with Passive PoE
Max. Transmit Power	≤100 mW(20 dBm) (adjustable)
IP Rating	IP55
Lightning Protection	±6 KV(Common Mode)
Installation	Wall-mounted/ Pole-mounted
Weight	0.3 kg
Dimensions (D x W x H)	165.5mm×68.7mm×42mm

Software Features

Layer 2 Features

Ethernet	LAN Port Working in Bridging Mode
VLAN	802.1Q VLAN

L3 Features

IPv4	ARP Ping Traceroute
------	---------------------------

Specifications

Software Features

UCAST	Default Route
Internet	
DHCP Client	✓
Static IP Address	✓
WAN Address Collision Avoidance	Changing LAN Address Automatically upon WAN Address Collision
Device Access	10.44.77.254 192.168.120.1 10.44.77.254
Routing	
Default Route	✓
Management Features	
SN Management	Entering SN Importing SN by Excel File
Wizard	Project Settings: Project Name, Password and Type
MQLink	MQLink
Networking Management	Adding Device to Network Based on LNID Set Up New Device (LNID=0) One-to-Many Removing the device from project when the device is reset to factory settings. Restoring LNID to 0 and password to admin when the device is removed from project. Network Migration Device Deletion Discovering neighboring devices automatically and reporting the device whose LNID is 0 or inconsistent with the network LNID. Migrating the device automatically after users enter the password.
Basic Settings	AP/CPE Switchover LAN Settings Hostname Settings Password Settings Country/Region Code Settings Time Zone Settings Clock Settings

/ Specifications

Software Feature	
Network Settings	<ul style="list-style-type: none"> Password Settings IP Address Settings SSID Settings
Configuration Synchronization	<p>Synchronizing configuration when the device is added.</p> <p>After users edit settings on Eweb, MACC will receive the timestamp reported by the device and trigger synchronization.</p> <p>A device goes online after settings are changed. The device will be synchronized with configuration based on its timestamp.</p> <p>Synchronizing configuration among Ruijie Cloud, Eweb and MACC</p>
Alarm	
Alarm	<ul style="list-style-type: none"> Default Configuration Notification IP Conflict Networkwide Management SSID Notification WDS Link Exception Alarm Disconnection Alarm
Diagnostics	
Diagnostics	<ul style="list-style-type: none"> Network Tools Fault Collection
System Tools	
System Time	
Upgrade	<ul style="list-style-type: none"> Upgrade to Specified Version Upgrade All Devices Local Upgrade
Maintenance	<ul style="list-style-type: none"> System Time Reboot Reset to Factory Settings Web Session Timeout
Deployment Tool	Deployment Tool
Device List	
Device List	Hostname, Type, Client Count, Channel, Online/Offline Status

Specifications

Software Feature	
Device Details	
Device Details	Hostname, SN, MAC Address, Management IP Address, Type, Firmware Version
Remote SSH	
-	✓
Remote Web	
-	✓
WDS	
WDS Settings	<p>One-click optimization</p> <p>Switching among multiple working modes (high-bandwidth/normal/anti-interference)</p> <p>WDS: SSID Hiding, Not Open</p> <p>AP/CPE Switchover</p> <p>SSID, Channel and Power Settings</p> <p>Bridging Status LED</p> <p>LED off: No bridging</p> <p>One LED blinking: < -78dBm</p> <p>One LED on: -78dBm < RSSI < -72dBm</p> <p>Two LEDs on: -72dBm < RSSI < -65dBm</p> <p>Three LEDs on: RSSI > -65dBm</p> <p>Root AP RSSI: The lowest RSSI shall prevail.</p> <p>Link Quality: High, Medium and Low</p> <p>If the CPE end detects bridging failure and fails to connect again in 5 minutes, it will be rebooted automatically to set up bridging again.</p> <p>Unlocked: Default SSID (Broadcast, Open), @ruijie-bXXXX</p> <p>Locked: Default SSID (Hidden, Open), @ruijie-bXXXX</p> <p>The locked device supports re-pairing on Eweb and can be locked again.</p> <p>AP/CPE supports fetching AP SSID/BSSID list by scanning.</p> <p>Display Recommended Camera Count</p> <p>Multi-VLAN Transparent Transmission</p>
Security Features	
Basic Features	Login Authentication (password, none)
Password Security	Static Password with Encrypted Transmission and Storage
Developer Mode	Developer Mode

Specifications

Software Feature	
Application Protocol Features	
DNS	DNS client
SSH	SSH TFTP Client DHCP-Server DHCP Client CLIENT
WLAN Basic Features	
Local Forwarding	Local Forwarding Local Association
WLAN RF Features	
802.11 Protocol	Country Code Channel Expansion
WLAN Encryption and Security	Link Authentication Access Authentication Security (WPA-PSK/WPA2-PSK/WPA-WPA2-PSK) Key Agreement Protocol
Bridging Security	Bridging key for the entire network Bridging key for a pair of wireless bridges Bridging key for a wireless bridges
WLAN QOS	
WLAN QoS/WMM	WMM
Storm Control	
Multicast/Broadcast Conversion to Unicast	Multicast/Broadcast Conversion to Unicast (Four-Address)
Multicast/Broadcast Rate Increase	Three-Address Broadcast/Multicast Packet Rate: 11 Mbps
Multicast/Broadcast Packet Suppression	Limiting the Rate of DHCP and ARP Broadcast Packets Limiting the Rate of SSDP and mDNS Multicast Packets Limiting the Rate of All Types of Broadcast Packets Limiting the Rate of All Types of Multicast Packets
Monitoring	
WDS Link Quality	Displaying WDS Link Quality
Real Topology	Displaying Real Topology

Specifications

Software Feature

Networking

Self-Organizing Network	Establishing a Self-Organizing Network Between Bridges
-------------------------	--------------------------------------------------------

Hardware Features

Physical Features

LED indicator	LEDs indicate the bridging quality: LED off: No bridging LED blinking: $\leq -78\text{dBm}$ One LED on: $-78\text{dBm} < \text{RSSI} \leq -72\text{dBm}$ Two LEDs on: $-72\text{dBm} < \text{RSSI} \leq -65\text{dBm}$ Three LEDs on: $> -65\text{dBm}$
---------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Hardware Button	1 reset button
-----------------	----------------

Power Supply	12 VDC power supply or 12 VDC Passive PoE
--------------	-------------------------------------------

Power Consumption	$< 5\text{W}$
-------------------	---------------

Environment	Operating temperature: -30°C to 60°C (-22°F ~ 140°F) Storage temperature: -40°C to 70°C (-40°F ~ 158°F) Operating humidity: 5% to 95% (noncondensing) Storage humidity: 5% to 95% (noncondensing)
-------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

MTBF	$> 400,000\text{H}$
------	---------------------

RSSI

RSSI	$-58\text{ dBm}/100\text{ meters}$ $-68\text{ dBm}/500\text{ meters}$
------	--------------------------------------------------------------------------

Camera Number

3M	14/100 meters 5/500 meters
----	-------------------------------

4-5M	6/100 meters 3/500 meters
------	------------------------------

6-7M	3/100 meters 1/500 meters
------	------------------------------

Package Contents

Device	RG-EST100-E * 2
Cable tie	2
Power supply	Power adapter * 2
User Manual	1
Package Weight	852g
Package Dimension (w x d x h)	220 mm * 202 mm * 87 mm

Ruijie | Rcycc

 **Redefine your easy network**

Copyright ©2000-2023 Ruijie Networks Co., Ltd. All rights reserved.

No part of this document may be reproduced or transmitted in any form or any means without prior written consent of Ruijie Networks Co., Ltd.

Notice

This content is applicable only to regions outside the China mainland. Ruijie Networks Co., Ltd. reserves the right to interpret this content.

The information contained herein is subject to change without notice. Nothing herein should be construed as constituting an additional warranty. Ruijie Networks Co., Ltd. shall not be liable for technical or editorial errors or omissions contained herein.



Ruijie Networks Co., Ltd.
Building 19, Juyuanzhou Industrial Park, No.618
Jinshan Road, Cangshan District, Fuzhou, Fujian, China
Website: <https://www.ruijienetworks.com>