

# RG-EST450G

5 GHz, 120°, PTMP Station  
With 3 x 10/100/1000 Mbps Ports

DATASHEET

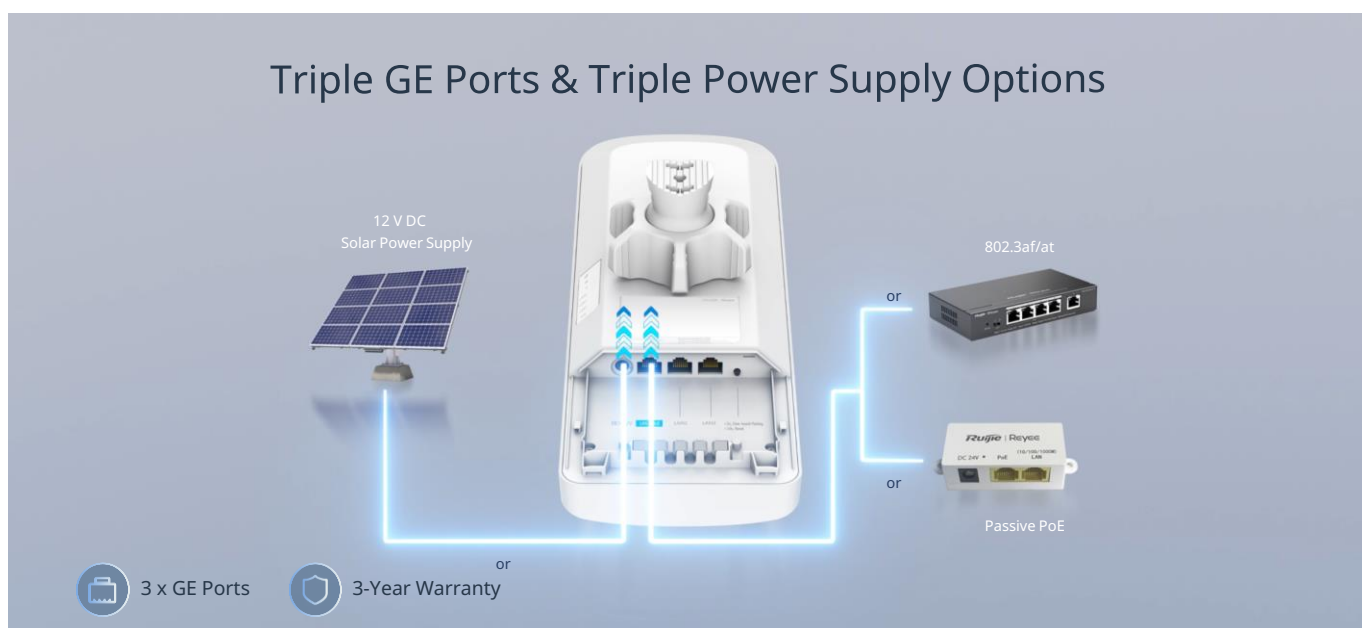
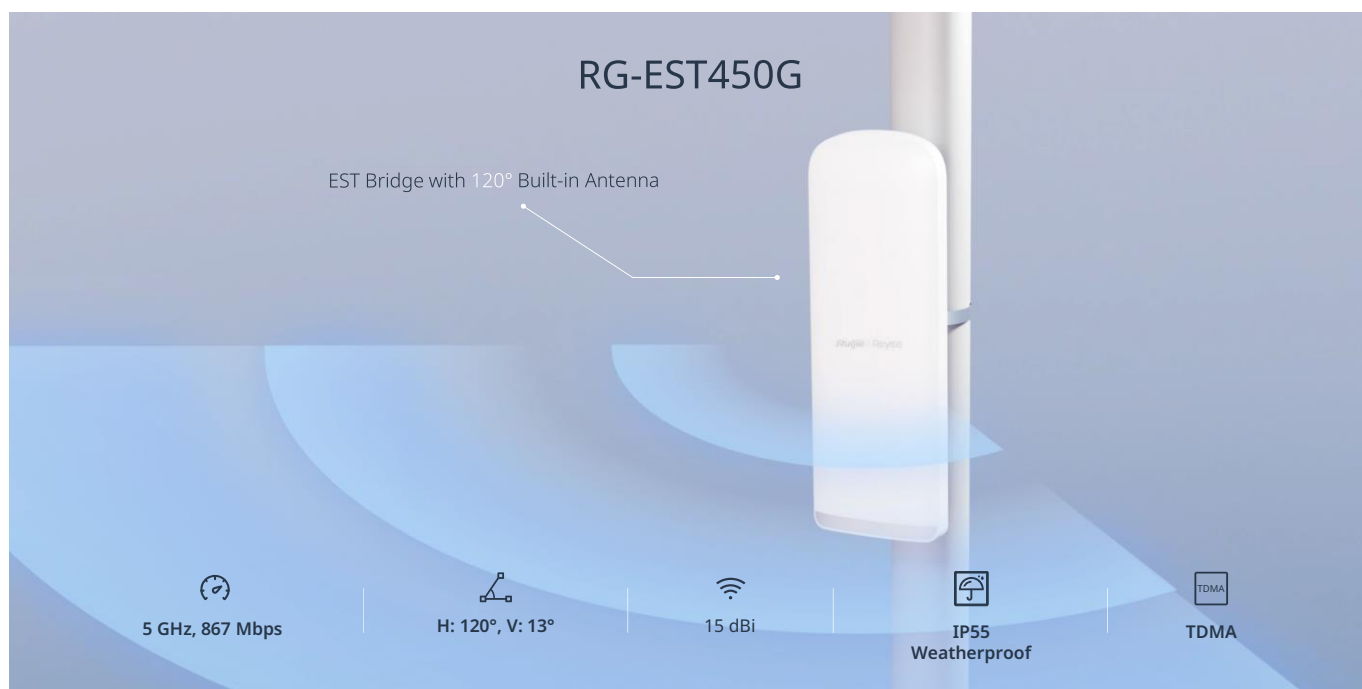
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## Highlights

- H: 120°, V: 13°;
- RG-EST450G supports TDMA;
- Supports 3 power supply options: 802.3af/at, Passive PoE, DC
- Supports Self-Organizing Network.

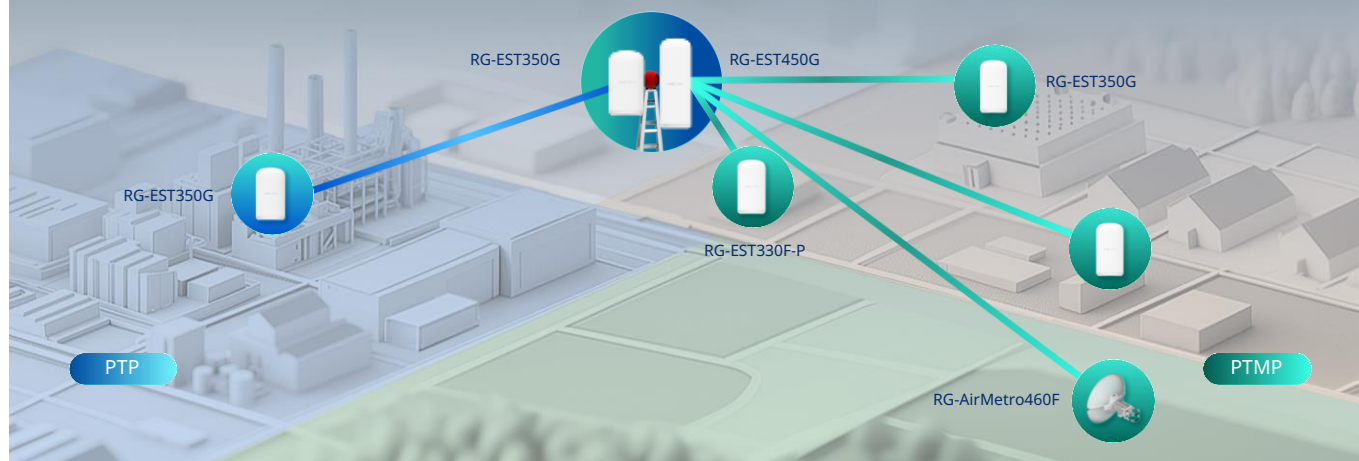
## Highlight Features



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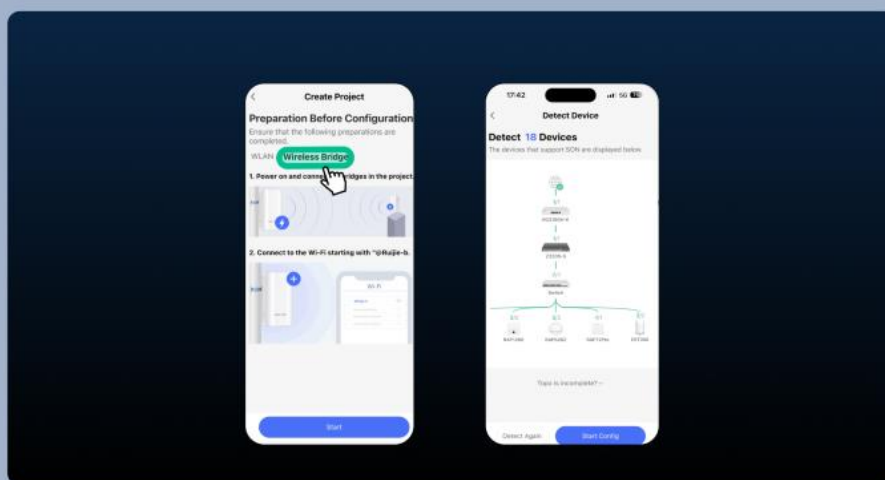
### Bridging for TDMA-Powered Devices of Different Series

The new EST and AirMetro can be mixed for bridging with TDMA enabled



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- SON
- Alignment Tool
- Spectrum Scan
- Monitoring & Configuration



# Specifications

Model	RG-EST450G
Hardware Features	
Radio Design	5 GHz dual-stream 2.4 GHz single-stream
2.4 GHz Band	Yes
5 GHz Band	Yes
Protocol and Standard	5 GHz: 802.11ac/n/a 2.4 GHz: 802.11b/g/n
Wi-Fi Standard	Wi-Fi 5
Spatial Streams	5 GHz dual-stream, 2x2 MIMO 2.4 GHz single-stream
2.4 GHz Channel Width	Auto/20/40 MHz
5 GHz Channel Width	Auto/20/40/80 MHz
Receiver Sensitivity	11a: -89 dBm (6 Mbps), -80 dBm (24 Mbps), -76 dBm (36 Mbps), -71 dBm (54 Mbps); 11n: -83 dBm@MCS0, -65 dBm@MCS7, -83 dBm@MCS8, -65 dBm@MCS15; 11ac: -86 dBm (MCS0), -63 dBm (MCS9)
Nominal Receive Sensitivity @20 MHz Channel	-91 dBm (MCS0) to -57 dBm (MCS9)
Nominal Receive Sensitivity @40 MHz Channel	-83 dBm (MCS0) to -57 dBm (MCS9)

Model	RG-EST450G
Nominal Receive Sensitivity @80 MHz Channel	-76 dBm (MCS0) to -51 dBm (MCS9)
Modulation Levels (Adaptive)	MCS0 (BPSK) to MCS9 (256QAM)
Wi-Fi Protocols (2.4 GHz)	Wi-Fi 4
Wi-Fi Protocols (5 GHz)	Wi-Fi 5 (IEEE 802.11ac)
Wireless Data Rate	1017 Mbps
Wireless Data Rate (2.4 GHz)	150 Mbps
Wireless Data Rate (5 GHz)	867 Mbps
Frequency Bands	2.4 GHz: 802.11b/g/n: 2.4000 GHz to 2.483 GHz 5 GHz: 802.11a/n/ac: 5.150 GHz to 5.350 GHz, 5.470 GHz to 5.725 GHz, 5.725 GHz to 5.850 GHz Note: Country-specific restrictions apply.
2.4 GHz Max. Transmit Power	20 dBm
5 GHz Max. Transmit Power	26 dBm
Surge Protection	Common mode: ±4 kV Differential mode: ±2 kV
Dimensions (W x D x H)	355 mm x 124 mm x 48 mm (13.98 in. x 4.88 in. x 1.89 in.) (without bracket)
Weight	0.83 kg (1.83 lbs.)
Number of Fixed LAN Ports	3
Max. LAN Port Rate	1000 Mbps
Number of 10/100/1000BASE-T Ports	3

Model	RG-EST450G
Reset	Yes
Status LED	Yes
Power Supply	12 V DC or 24 V passive PoE or 802.3af/at
Local Power Supply	Yes
PoE Out	No
Supported PoE Standards	802.3af/at
Antenna Type	Built-in antenna, horizontal 120°/vertical 13°
Hardware Button	1 x reset button
DC Power Connector Size	Inner Diameter: 2.10 mm ± 0.1 mm (0.083 in. ± 0.004 in.) Outer Diameter: 5.50 mm ± 0.1 mm (0.217 in. ± 0.004 in.) Depth: 10.0 mm ± 0.5 mm (0.394 in. ± 0.020 in.)
DC Voltage/Current	12 V/1.2 A, 24 V/0.6 A
LEDs	1 x system LED 3 x port LEDs 3 x signal strength LEDs
2.4 GHz Antenna Gain	2 dBi
5 GHz Antenna Gain	15 dBi
Power Consumption	< 12 W
IP Rating	IP55
Color	Elegant white
Operating Temperature	−30°C to +65°C (−22°F to +149°F) (−40°C to +80°C [−40°F to +176°F] in publicity materials)

Model	RG-EST450G
Storage Temperature	–40°C to +85°C (–22°F to +185°F)
Operating Humidity	5% RH to 95% RH (non-condensing)
Storage Humidity	5% RH to 95% RH (non-condensing)
MTBF	> 400000 hours
Working Distance	5 km
Bridging Performance	200 Mbps/1 km (HT40) 130 Mbps/3 km (HT40) 80 Mbps/5 km (HT40)
RSSI (dBm)	–54 dBm/1 km –62 dBm/3 km –66 dBm/5 km (Pairing with the CPE RG-EST350G)
Throughput & Camera Limits: 3 MP	40/1 km 30/3 km 15/5 km
Throughput & Camera Limits: 4 to 5 MP	25/1 km 18/3 km 10/5 km
Throughput & Camera Limits: 6 to 7 MP	18/1 km 10/3 km 7/5 km
Throughput & Camera Limits: 7 to 8 MP	13/1 km 8/3 km 5/5 km
Management Radio	2.412 GHz to 2.472 GHz
Number of PtMP Links	16
ESD Protection	ESD tolerance: contact discharge=8 kV, air discharge=15 kV
Certification	CE
Software Features	

Model	RG-EST450G
Operating Mode	BaseStation/CPE
TDMA	Fixed Mode/Flexible Mode
WLAN Security	WPA2-PSK
Management SSID	@Ruijie-bxxxx
Management SSID for Internet Access	Yes
SSID Hiding	Yes
Spectrum Scan	Yes
Antenna Aligment	Yes
One-Touch Pairing	Yes
WMM	Yes
Storm Control	Yes
VLAN Packet Transmit	Yes
DHCP Server	Yes
DHCP Client	Yes
Network Diagnosis	Ping/Traceroute/DNS Lookup
Time & Date	Yes
Firmware Upgrade	Yes
Backup/Restore	Yes
Cloud Management	Yes
Power Configuration	Yes
Country/Region Code	Yes
Remote Restart	Yes
SON (Self-organizing Networking with all Reyee Devices)	Yes
SNMP	Yes
Link Aggregation	No
Bridge Speed Test	Yes



Model	RG-EST450G
Max. Number of Devices on a SON	200
Ping	Yes
Traceroute	Yes
AI Heatmap	Yes

# Package Contents

Model	RG-EST450G
Wireless Bridge/Antenna	1
PoE Injector	1
DC Power Adapter	1
Mounting Bracket	1
Gross Weight	1.61 kg (3.55 lbs.)
Package Dimensions (W x D x H)	415 mm x 185 mm x 113 mm (16.34 in. x 7.28 in. x 4.45 in.)

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