

RG-RAP73Pro

Ruijie Wi-Fi 7 BE14000 Tri-Band Ceiling Access Point



/ Highlights

- Next-generation performance with Wi-Fi 7, delivering extra-high wireless speeds
- Ideal for high-density scenarios
- Superior streaming with Wi-Fi 7's exclusive MLO feature
- Enhanced data transmission with 4K-QAM for faster speeds
- Equipped with a SFP+ port, unleashing the full potential of Wi-Fi 7
- Ideal for integrating with Multi-G switches to create a robust network

Product Overview

The RG-RAP73Pro is a tri-band IEEE 802.11be-compliant Wi-Fi 7 wireless access point (AP) launched by Ruijie Networks for general education, higher education, government, finance, business, and other indoor high-density scenarios. Supporting 2.4 GHz ,5 GHz and 6 GHz frequency bands, it delivers a data rate of up to 13.346 Gbps.

The RG-RAP73Pro incorporates essential features like wireless network security, radio control, mobile access, QoS, and seamless roaming scalability. Paired with Ruijie Cloud, the RG-RAP73Pro can realize wireless client access control, O&M, and secure access control.

The RG-RAP73Pro can work in IEEE 802.11be, IEEE 802.11ax, IEEE 802.11ac Wave 2, IEEE 802.11ac Wave 1, and IEEE 802.11n modes simultaneously. It supports both local power supply and Power over Ethernet (PoE), providing flexible installation options based on the actual environment. It is well-suited for compact office spaces such as hotels, apartments, healthcare facilities, and educational institutions.

Product Pictures



Product Highlights

Next-generation performance with Wi-Fi 7, delivering ultra-high wireless speeds

As a new product supporting Wi-Fi 7, the RG-RAP73Pro features advanced technologies such as a wider channel width (320 MHz), higher-order modulation (4K-QAM), more flexible spectrum utilization (Multi-RU), enhanced stability (MLO) and multi-AP collaboration, which enable the RG-RAP73Pro to provide data rates of up to 13.346 Gbps with reduced latency.

Ideal for high-density scenarios

With a maximum connection capacity of 600 users and a recommended concurrent Internet access for up to 200 users, the RG-RAP73Pro is ideal for high-density environments such as conference halls and gymnasiums, providing improved signal coverage and robust network connection.

Superior streaming with Wi-Fi 7's exclusive MLO feature

The RG-RAP73Pro adopts Multi-Link Operation (MLO) technology, which allows devices to simultaneously send and receive data over multiple frequency bands to create a single aggregated connection. Devices can be automatically switched to other frequency bands in response to interference or heavy load, thus improving performance, reducing latency, and ensuring uninterrupted data flow.

Enhanced data transmission with 4K-QAM for faster speeds

Wi-Fi 6 supports 1024-QAM, while Wi-Fi 7 advances to 4096-QAM, which increases the amount of information carried per symbol from 10 bits to 12 bits. This enhancement theoretically boosts throughput and data density by 20%, and the peak rate for devices connecting to a Wi-Fi 7 access point is also improved by 20% compared to Wi-Fi 6 access points.

Equipped with an SFP+ port, unleashing the full potential of Wi-Fi 7

The RG-RAP73Pro is equipped with an SFP+ port that supports both optical fiber and cable. This allows for direct fiber optic connections to the access point, overcoming the difficulties of long-distance cabling to the server room. Additionally, it includes a 2.5G RJ45 port for easy integration with nearby devices, simplifying network expansion.

Ideal for integrating with multi-G switches to create a robust network

The RG-RAP73Pro features a 2.5G port that, when connected to a Multi-G switch, overcomes the Gigabit barrier and unleashes the full potential of Wi-Fi 7.

Product Features

High Speed and Intelligent Network Optimization, Improving User Access Experience

- Tri-band design (2.4 GHz + 5 GHz+ 6 GHz), eight spatial streams, and up to 13.346 Gbps peak data rate.
- Supports universal media converters, allowing for fiber backhaul.
- MLO, OFDMA, MU-MIMO, optimizing multi-user access experience.

Secure and Reliable Network System

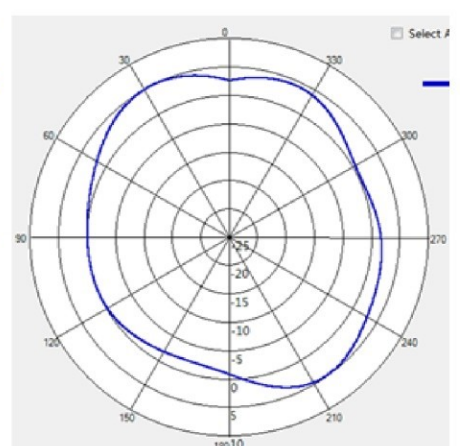
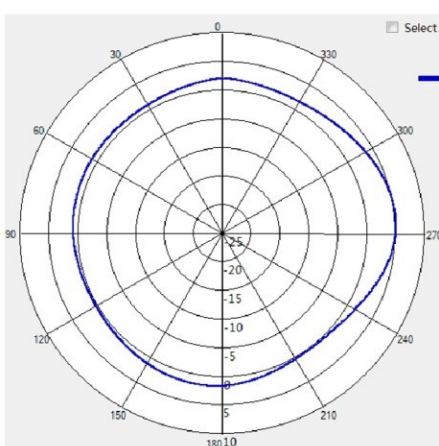
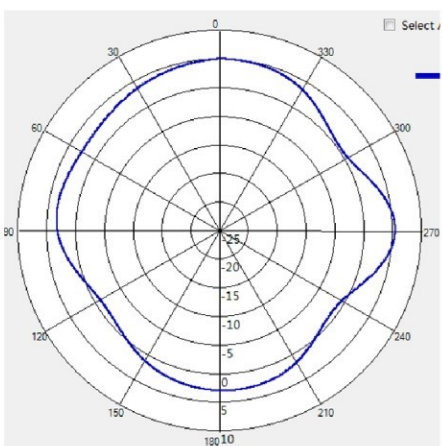
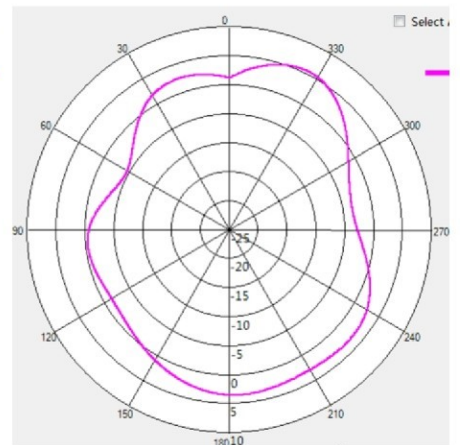
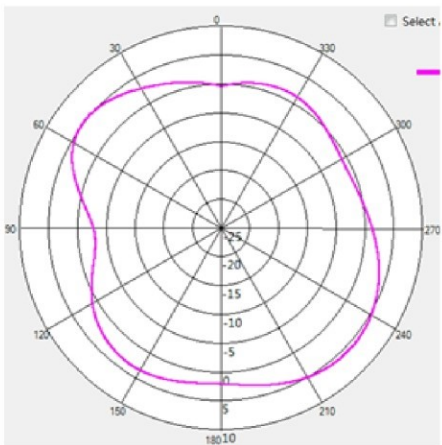
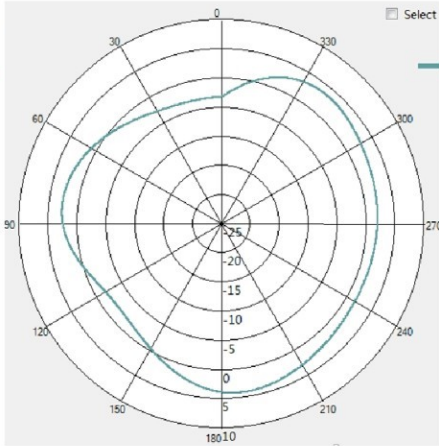
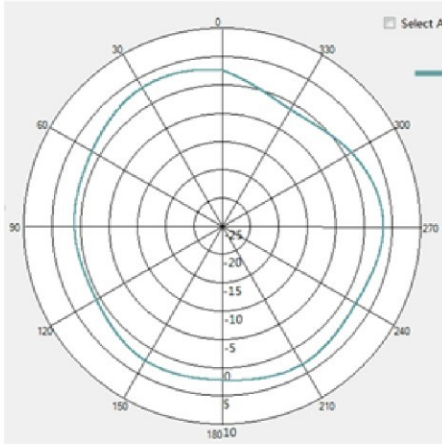
- User-level secure access, providing secure authentication upon user access.
- Authentication and encryption technologies such as Wi-Fi Protected Access 3 (WPA3), and enhanced open security, improving data security.

Flexible Networking

- Local and cloud management modes and intelligent wireless network optimization, reducing the total cost of operation (TCO) and maximizing the return on investment (ROI).
- Access through optical and Ethernet cables for flexible networking and high-speed backhaul over 10 Gbps optical links.
- IEEE 802.11k/v/r support, roaming stickiness optimization, and remote association improvement for better user experience.

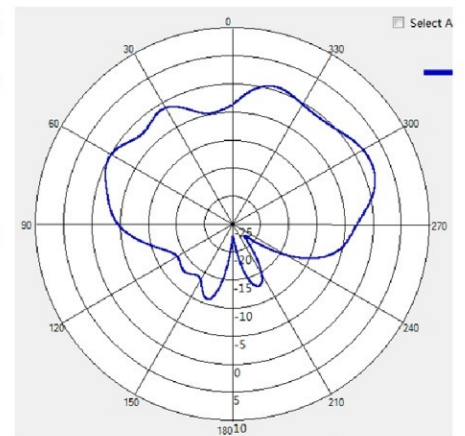
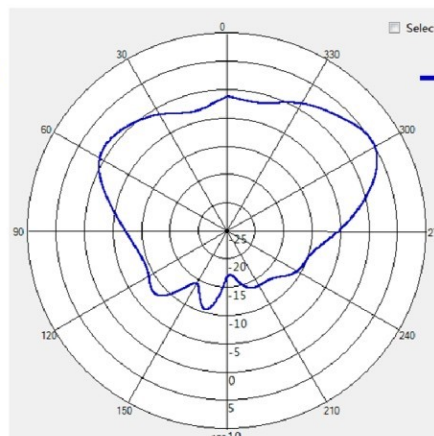
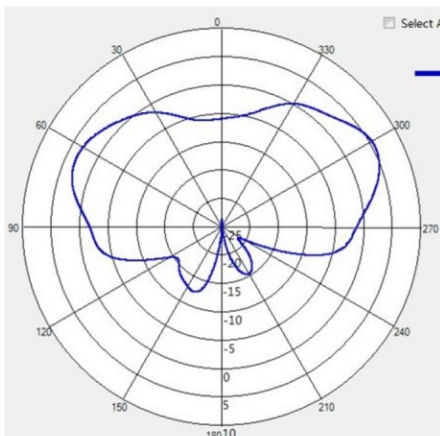
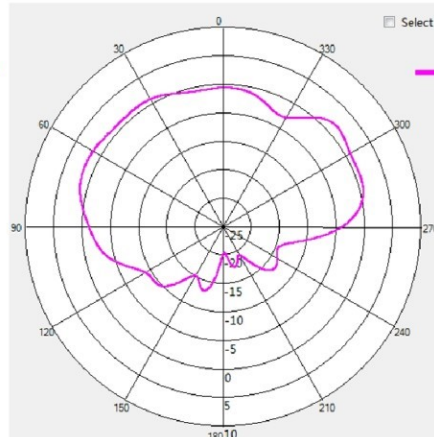
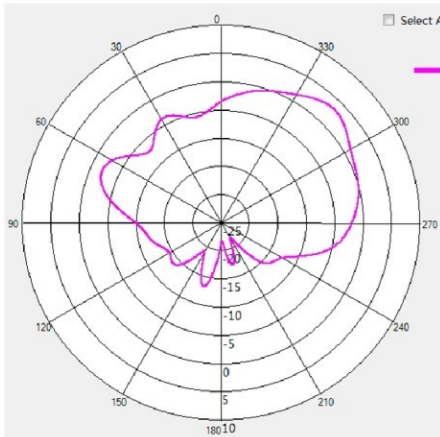
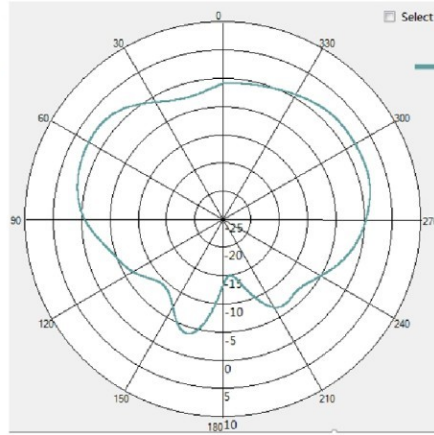
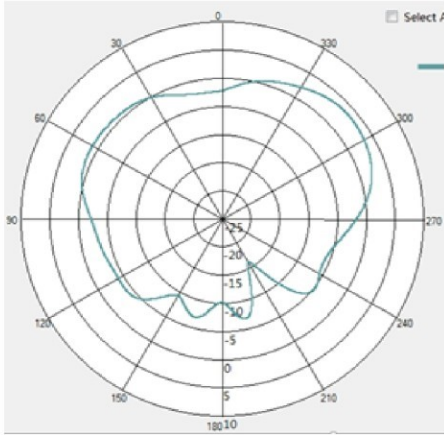
Antenna Pattern Plots

Horizontal Planes (Top View)



Antenna Pattern Plots

Vertical Planes (Front View)



Product Information

Model	RG-RAP73Pro
Product Type	Ceiling AP

Hardware Specifications

Model	RG-RAP73Pro
Wi-Fi Radio	
6 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11a) Wi-Fi 6 (IEEE 802.11ax) Wi-Fi 7 (IEEE 802.11be)
5 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11a/n) Wi-Fi 5 (IEEE 802.11ac) Wi-Fi 6 (IEEE 802.11ax) Wi-Fi 7 (IEEE 802.11be)
2.4 GHz Wi-Fi	Wi-Fi 4 (IEEE 802.11b/g/n) Wi-Fi 6 (IEEE 802.11ax) Wi-Fi 7 (IEEE 802.11be)
Operating band	IEEE 802.11b/g/n/ax/be, 2.400 GHz to 2.4835 GHz IEEE 802.11a/n/ac/ax/be, 5.150 GHz to 5.350 GHz, 5.470 GHz to 5.725 GHz, 5.725 GHz to 5.850 GHz IEEE 802.11a/ax/be, 5.925 GHz to 7.125 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.
Radio design	Tri-radio 8 spatial streams <ul style="list-style-type: none"> ● 2.4 GHz: 2 x 2, MU-MIMO ● 5 GHz: 3 x 3, MU-MIMO ● 6 GHz: 3 x 3, MU-MIMO
FEM	iFEM
6 GHz channel width	Auto/20/40/80/160/320 MHz
5 GHz channel width	Auto/20/40/80/160 MHz
2.4 GHz channel width	Auto/20/40 MHz
Maximum wireless data rate	13657 Mbps
6 GHz wireless data rate	8646 Mbps

Hardware Specifications

Model	RG-RAP73Pro
5 GHz wireless data rate	4323 Mbps
2.4 GHz wireless data rate	688 Mbps
Maximum transmit power	<p>Frequency bands and maximum Effective Isotropic Radiated Power (EIRP):</p> <p>Note: Country specific restrictions apply.</p> <p>European Union & United Kingdom</p> <p>2400–2483.5 MHz, EIRP ≤ 20 dBm</p> <p>5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>5945–6425 MHz, EIRP ≤ 23 dBm</p> <p>United States:</p> <p>2400–2483.5 MHz, max output power ≤ 30 dBm & EIRP ≤ 36 dBm</p> <p>5150–5250 MHz, max output power ≤ 30 dBm & EIRP ≤ 36 dBm</p> <p>5250–5350 MHz, max output power < 24 dBm & EIRP ≤ 30 dBm</p> <p>5470–5725 MHz, max output power < 24 dBm & EIRP ≤ 30 dBm</p> <p>5725–5850 MHz, max output power ≤ 30 dBm & EIRP ≤ 36 dBm</p> <p>5925–7125 MHz, EIRP ≤ 30 dBm</p> <p>Thailand:</p> <p>2400–2483.5 MHz, EIRP ≤ 20 dBm</p> <p>5150–5350 MHz, EIRP ≤ 23 dBm</p> <p>5470–5725 MHz, EIRP ≤ 30 dBm</p> <p>5725–5825 MHz, EIRP ≤ 30 dBm</p> <p>5945–6425 MHz, EIRP ≤ 23 dBm</p>
Maximum transmit power (6 GHz)	<p>Combined power: 22.7 dBm (single-stream power: 18 dBm)</p> <p>Note: The transmit power varies according to regulations in different countries and regions.</p>
Maximum transmit power (5 GHz)	<p>Combined power: 25.7 dBm (single-stream power: 21 dBm)</p> <p>Note: The transmit power varies according to regulations in different countries and regions.</p>
Maximum transmit power (2.4 GHz)	<p>Combined power: 25 dBm (single-stream power: 22 dBm)</p> <p>Note: The transmit power varies according to regulations in different countries and regions.</p>
Coverage range	<p>145 m² (1560.77 square ft.)</p> <p>Note: The data is obtained in an ideal environment without obstruction. The signal coverage radius depends on client performance and environmental interference.</p>
Modulation	<p>OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, and 64-QAM @ 48/54 Mbps</p> <p>DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps</p> <p>MIMO-OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-</p>

Hardware Specifications

Model	RG-RAP73Pro
	QAM, and 4096-QAM OFDMA
Receive sensitivity	11b: -91 dBm (1 Mbps), -88 dBm (5.5 Mbps), -85 dBm (11 Mbps) 11a/g: -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: 20 MHz: -83 dBm (MCS0), -57 dBm (MCS9) 11ac: 40 MHz: -79 dBm (MCS0), -57 dBm (MCS9) 11ac: 80 MHz: -76 dBm (MCS0), -51 dBm (MCS9) 11ac: 160 MHz: -76 dBm (MCS0), -50 dBm (MCS9) 11ax: 20 MHz: -85 dBm (MCS0), -58 dBm (MCS11) 11ax: 40 MHz: -82 dBm (MCS0), -54 dBm (MCS11) 11ax: 80 MHz: -79 dBm (MCS0), -52 dBm (MCS11) 11ax: 160 MHz: -76 dBm (MCS0), -49 dBm (MCS11) 11be: 20 MHz: -85 dBm (MCS0), -52 dBm (MCS13) 11be: 40 MHz: -82 dBm (MCS0), -49 dBm (MCS13) 11be: 80 MHz: -82 dBm (MCS0), -46 dBm (MCS13) 11be: 160 MHz: -79 dBm (MCS0), -44 dBm (MCS13) 11be: 320 MHz: -76 dBm (MCS0), -41 dBm (MCS13)
Antenna	
Antenna	2.4 GHz: 2 built-in omnidirectional antennas 5 GHz: 3 built-in omnidirectional antennas 6 GHz: 3 built-in omnidirectional antennas
Antenna horizontal orientation	No
Antenna vertical orientation	No
Antenna gain (6 GHz)	5.20 dBi
Antenna gain (5 GHz)	5.90 dBi
Antenna gain (2.4 GHz)	3.60 dBi
Dimensions and Weight	
Product dimensions (W x D x H)	220 mm x 220 mm x 45 mm (8.66 in. x 8.66 in. x 1.77 in.)(excluding the mounting bracket)
Color	White
Weight	≤ 1.1 kg (2.43 lbs.) (without packaging materials)
Shipping weight	≤ 1.44 kg (3.17 lbs.)

Hardware Specifications

Model	RG-RAP73Pro
Port Specifications	
Number of 10/100/1000/2500BASE-T ports	1
Number of 10GE SFP+ ports	1
Reset button	1
LEDs	1 x system status LED
Power Supply and Consumption	
Power supply	<ul style="list-style-type: none"> • DC power adapter • PoE+/PoE++ <p>Note: If both the DC power adapter and PoE+/PoE++ are available for power supply, the DC power adapter is preferred.</p>
Local power supply	Yes, one DC power connector (54 V, 0.55 A)
Dimensions of the DC connector	Outer diameter: 5.5 mm (0.22 in.) Inner diameter: 2.1 mm (0.08 in.) Length: 10 mm (0.39 in.)
PoE In standard	<ul style="list-style-type: none"> • IEEE 802.3at (PoE+) • IEEE 802.3bt (PoE++)
PoE budget	No
Maximum power consumption	30 W
Environment and Reliability	
Operating temperature	0°C to 40°C (32°F to 104°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)
Mounting options	Ceiling/Wall
IP rating	IP41
Surge protection	Ethernet port: ±2 kV for common mode
MTBF	400,000 hours
Certification and Regulatory Compliance	

Hardware Specifications

Model	RG-RAP73Pro
RoHS	Yes
Safety compliance	EN 62368-1
EMC	EN 55032 EN 55035 EN IEC 61000-3-2 EN 61000-3-3 EN 301489-1 EN 301489-3 EN 301489-17
RF	EN 300 328 EN 301 893 EN 300 440 Draft EN 303 687
Certification	CE, FCC, ISED, cTUVus
System Specifications	
Flash memory	256 MB
RAM	1024 MB DDR4

Software Specifications

Model	RG-RAP73Pro
Basic Configurations	
AP mode	Yes
Routing mode	Yes
Internet access mode	Static IP address Static IPv6 address Dynamic IP address Dynamic IPv6 address PPPoE
Interface	
IPTV transparent transmission	Yes
Ethernet Interface	
PPPoE clients	Yes
Ethernet Switching	
IEEE 802.1Q VLAN	Yes
WLAN	
Maximum number of associated wireless clients	128 (2.4 GHz) 256 (5 GHz) 256 (6 GHz) 600 (2.4 GHz, 5 GHz, and 6 GHz enabled)
Recommended number of associated wireless clients	<ul style="list-style-type: none"> ● Support for IEEE 802.11ax/be and 160MHz: <ul style="list-style-type: none"> 16 (2.4 GHz) 84 (5 GHz) 100 (6 GHz) 200 (2.4 GHz, 5 GHz, and 6 GHz enabled) ● Support for IEEE 802.11ax and 80MHz: <ul style="list-style-type: none"> 16 (2.4 GHz) 64 (5 GHz) 60 (6 GHz) 140 (2.4 GHz and 5 GHz enabled) <ul style="list-style-type: none"> ● Support for IEEE 802.11ac: <ul style="list-style-type: none"> 16 (2.4 GHz) 64 (5 GHz) 80 (2.4 GHz and 5 GHz enabled)
Maximum number of SSIDs	8

Software Specifications

Model	RG-RAP73Pro
Radio-based client limiting	Yes
Layer 2 isolation	Yes
OFDMA	Yes
WMM	Yes
DFS	Yes
MLO	Yes
4K-QAM	Yes
Different SSIDs for the same VLAN	Yes
Enabling/Disabling MLO	Yes
AP load balancing	Yes
Beamforming	Yes
802.11k/v roaming	Yes
Fast transition (802.11r)	Yes
Layer 2 roaming	Yes
Layer 3 roaming	Yes
AI roaming	Yes
PSK authentication	Yes
Static allowlist	Yes
Adjusting the transmit power for beacon and probe frames	Yes
Encryption mode (WPA-PSK, WPA2-PSK, WPA/WPA2-PSK)	Yes
OWE (Enhanced Open) WPA3-SAE WPA2-PSK/WPA3-SAE	Yes

Software Specifications

Model	RG-RAP73Pro
Number of blocklists and allowlists based on MAC addresses (single SSID)	512
Number of global blocklists/allowlists	512
Mesh management	Yes
AP Mesh	Yes
AP portal authentication	Yes
Maximum number of devices that can be managed	300
One-Click Network Optimization	Yes
Static blocklist	Yes
IP Service	
ARP binding	Yes
IPv4 ping	Yes
IPv6 ping	Yes
Traceroute	Yes
Static/Dynamic NAT	Yes
DHCP server	Yes
Authentication	
802.1X authentication	Yes
Network Management and Monitoring	
Wireless repeater mode	Yes
Web login information	Single-device login address: 10.44.77.254 Network-wide login address: 10.44.77.253 Default password: admin
Network-wide configuration and management	Yes

Software Specifications

Model	RG-RAP73Pro
Ruijie Reyee App management	Yes
eWeb management	Yes
Ruijie Cloud management	Yes
SNMP	Yes
Configuration synchronization among the app, eWeb, and Ruijie Cloud	Yes
Displaying device information on Ruijie Cloud	Yes

Package Contents

Model	RG-RAP73Pro
Package Contents	
Package Contents	1 x AP 1 x Mounting bracket 4 x Cross pan head screws (ST4.2 x 20 mm) 4 x Plastic expansion anchors (ϕ 9 x 25.4 mm) 1 x User Manual 1 x Warranty Card 1 x Key to security lock 1 x Alignment sticker
Accessories	
Power adapter	No

Ruijie



Ruijie Networks Co., Ltd.

For more information, visit www.ruijie.com or call 86-400-620-8818.