INNOVATION
Beyond Networks

RG-RAP73Pro

Wi-Fi 7 BE14000 Tri-Band Ceiling Access Point



Datasheet

01 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.

02 Product Pictures







03 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.

04 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.

05 Product Specifications

Hardware Specifications

Model		RG-RAP73Pro
Wi-Fi Standards		IEEE 802.11a/b/g/n/ac/ax/be
Operating Frequency Bands (country-specific restrictions apply)	**6 GHz**	5.925 GHz to 7.125 GHz
	5 GHz	5.150 GHz to 5.350 GHz, 5.470 GHz to 5.725 GHz, 5.725 GHz to 5.850 GHz
	2.4 GHz	2.400 GHz to 2.4835 GHz
Spatial Streams	**6 GHz**	3 spatial streams, 3x3 MU-MIMO
	5 GHz	3 spatial streams, 3x3 MU-MIMO
	2.4 GHz	2 spatial streams, 2x2 MU-MIMO
Antenna	**Built-in/External**	Built-in
	6 GHz Antenna Gain	5.2 dBi
	5 GHz Antenna Gain	5.9 dBi
	2.4 GHz Antenna Gain	3.6 dBi
Channel Width	**6 GHz**	Auto/20/40/80/160/320 MHz
	5 GHz	Auto/20/40/80/160 MHz
	2.4 GHz	Auto/20/40 MHz
Data Rate	**Max. Throughput**	13657 Mbps
	6 GHz	8646 Mbps
	5 GHz	4323 Mbps
	2.4 GHz	688 Mbps

05 Product Specifications

Hardware Specifications

Model		RG-RAP73Pro
Max. Transmit Power	6 GHz	≤ 63 mW (18 dBm)
	5 GHz	≤ 126 mW (21 dBm)
	2.4 GHz	≤ 160 mW (22 dBm)
	Standard Format	Frequency bands and the maximum Effective Isotropic Radiated Power (EIRP): Note: Country specific restrictions apply. European Union & United Kingdom 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP≤ 23 dBm 5470–5725 MHz, EIRP ≤ 30 dBm 5945–6425 MHz, EIRP ≤ 23 dBm United States: 2400–2483.5 MHz, max. output power ≤ 30 dBm & EIRP ≤ 36 dBm 5150–5250 MHz, max. output power ≤ 30 dBm & EIRP ≤ 36 dBm 5250–5350 MHz, max. output power < 24 dBm & EIRP ≤ 30 dBm 5470–5725 MHz, max. output power < 24 dBm & EIRP ≤ 30 dBm 5725–5850 MHz, max. output power ≤ 30 dBm & EIRP ≤ 36 dBm 5925–7125 MHz, EIRP ≤ 30 dBm Thailand: 2400–2483.5 MHz, EIRP ≤ 20 dBm 5150–5350 MHz, EIRP ≤ 23 dBm 5470–5725 MHz, EIRP ≤ 30 dBm 5725–5825 MHz, EIRP ≤ 30 dBm 5945–6425 MHz, EIRP ≤ 23 dBm
Wi-Fi Coverage	Max. Wi-Fi Coverage Radius	70 m (Varies according to the actual environment.)
Service Ports		1 x 10 Gbps SFP+ port
		1 x 10/100/1000/2500BASE-T port

05 Product Specifications

Hardware Specifications

Model		RG-RAP73Pro
Receiver 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)
Power Consumption		< 30 W
Buttons		1 x Reset button
LEDs		1 x system LED (blue)
Modulation		OFDM: BPSK @ 6/9 Mbps, QPSK @ 12/18 Mbps, 16-QAM @ 24 Mbps, and 64-QAM @ 48/54 Mbps DSSS: DBPSK @ 1 Mbps, DQPSK @ 2 Mbps, and CCK @ 5.5/11 Mbps MIMO-OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, and 4096-QAM OFDMA
Power Supply	**DC (Local Power)**	Yes (54 V/0.55 A)
	DC Connector Dimensions	Outer diameter: 5.5 mm Inner diameter: 2.1 mm Length: 10 mm
	IEEE 802.3at	Yes
	IEEE 802.3bt	Yes

05 Product Specifications

Hardware Specifications

Model		RG-RAP73Pro
Environmental	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% to 95% RH (non-condensing)
	Storage Humidity	5% to 95% RH (non-condensing)
Mounting	Ceiling-mount	Yes
	Wall-mount	Yes
Compliance Standards	Health	EN IEC 62311:2020
	Safety	EN IEC 62368-1:2020+A11:2020
	EMC	EN 55032: 2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021 EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1 EN 301 489-17 V3.2.4
	Radio	EN 300 328 V2.2.2.2.2 EN 301 893 V2.1.1 EN 300 440 V2.2.1 Draft EN 303 687 V1.0.0
Weatherproof	IP Rating	IP41
	Lightning/Surge Protection	±2 kV
Dimensions (W x D x H)	Dimensions (excluding mounting kits)	220 mm x 220 mm x 45 mm (8.66 in. x 8.66 in. x 1.77 in.)
Weight	Net Weight	≤ 1.1 kg (2.43 lbs.)
Mean Time Between Failures (MTBF)		> 400000 hours
Certification		CE, RoHS, FCC, ISED, cTUVus
Package Dimensions (W x D x H)		280 mm x 265 mm x 80 mm (11.02 in. x 10.43 in. x 3.15 in.)
Package Weight		≤ 1.44 kg (3.17 lbs.)

05 Product Specifications

Hardware Specifications

Model	RG-RAP73Pro
Flash	256 MB
Memory	1024 MB

Software Specifications

Model		RG-RAP73Pro	
Layer 2 Features	**Ethernet**	AP Mode	Support
		Router Mode	Support
	VLAN	Port-based VLAN	Support
		802.1Q VLAN	Support
Layer 3 Features	**IPv4**	NAT	Support
	IPv6	IPv6	Support
Internet Connection Type	**PPPoE**	PPPoE Dial-up	Support
	DHCP Client		Support
	Static IP Address		Support
Internet Connection Type	**DHCP IPv6**		Support
	Static IPv6		Support
	PPPoE IPv6		Support
Management Features	**SNMP**	SNMP v1	Support
		SNMP v2c	Support
		SNMP v3	Support

05 Product Specifications

Software Specifications

Model			RG-RAP73Pro
Management Features	Management via Web Interface		Support
	Management via Ruijie Reyee App		Support
	Management via Ruijie Cloud		Support
	Ruijie Cloud Monitoring Log	Syslog	Support
		Client Log	Support
		RF Log	Support
Management Features	Self-Organization Networking		Support
	Layer 3 Networking	Layer 3 Networking (Option43)	Support
	AP Mesh		Support
	Upgrade	Upgrade via Ruijie Cloud	Support
Management Features	Upgrade	Single-Device Upgrade via the Web Interface	Support
		One-Click Upgrade via the Web Interface	Support
		Single-Device Upgrade via Ruijie Reyee App	Support
		One-Click Upgrade via Ruijie Reyee App	Support
		Dual-Bin Backup	Support
	Maintenance and Diagnosis	One-Click Fault Collection	Support
		Backup and Import	Support
		Factory Reset	Support
		Active Alarm for DHCP Server Conflict	Support
		Packet Sniffing	Support
	Locating AP by the LED		Support

05 Product Specifications

Software Specifications

Model		RG-RAP73Pro	
Network-wide Management	Network 3.0 Functions	RLDP	Support
		DHCP Snooping	Support
	Wireless Management	Wireless Flow Control (WQoS)	Support
		Wireless Intelligent Optimization (WIO)	Support
		WIO2.0	Support
		IEEE 802.11k/v Roaming	Support
		Captive Portal	Support
		Client Association	Support
		AP Load Balancing Management	Support
	Network Management	Network Password	Support
		Network Scheduled Restart	Support
		Network Restart/Recovery	Support
Application Protocol Features	DNS	DNS Client	Support
	TFTP	TFTP Client	Support
	DHCP server	DHCP Server	Support
	DHCP Client	DHCP Client	Support
	PPPoE	PPPoE Client	Support
Application Protocol Features (IPv6)	DNSv6	DNSv6 Client	Support

05 Product Specifications

Software Specifications

Model		RG-RAP73Pro	
WLAN Basic Features	WLAN Service	Multiple SSIDs	Support
		Same SSID for Different VLANs	Support
		Wi-Fi Schedule Management	Support
		Hide SSID	Support
		5G Prior	Support
		Max. Number of Clients per Radio	Support
	Local Forwarding		Support
	802.11ac	802.11ac	Support
		MU-MIMO	Support
	802.11ax	802.11ax	Support
		Enable/Disable 802.11ax	Support
		1024-QAM	Support
		OFDMA	Support
		DL MU-MIMO	Support
		Spatial Reuse with BSS Coloring	Support
	802.11be	4K-QAM	Support
		320M	Support
		Multi-Link Operation (MLO)	Support
		Multiple Resource Unit (MRU)	Support
		1K Block Acknowledgment (BA)	Support

05 Product Specifications

Software Specifications

Model		RG-RAP73Pro	
WLAN Basic Features	**Roaming**	AI Roaming	Support
		Layer 2 Roaming	Support
		Layer 3 Roaming	Support
		IEEE 802.11k/v Roaming	Support
		IEEE 802.11r Roaming	Support
WLAN RF Features	**RF Management**	Power Settings	Support
		Roaming Sensitivity	Support
		Radio Switch	Support
		Radio-based STA Limit	Support
	RF Characteristics	RF Beamforming	Support
	User Experience Improvement	Disconnecting Clients with a Low RSSI	Support
		Transmit Power of Beacon and Probe Response Frames	Support
		RSSI Threshold for Client Access	Support
	WMM	Wi-Fi Multimedia (WMM)	Support
	AP Load Balancing	AP Load Balancing	Support
	Client Association	Manual Client Association	Support
		Intelligent Client Association	Support
	Remote Probe	Remote Probe (Wireless Sniffing)	Support

05 Product Specifications

Software Specifications

Model		RG-RAP73Pro	
Wireless Intelligent Optimization (WIO)		Network Optimization	Support
		Wireless Intelligent Optimization (WIO2.0)	Support
		Scheduled Optimization	Support
		Channel Adjustment	Support
		WIO Client	Support
WLAN Security	WLAN IDs	Layer 2 Client Isolation	Support
	WLAN Security	Link Authentication	Support
		Access Authentication	Support
WLAN Security		Static Blocklist and Allowlist	Support
		SSID-based Blocklist and Allowlist	Support
		PSK Authentication	Support
		WPA (TKIP), WPA2 (AES), and WPA-PSK	Support
		OWE (Enhanced Open) WPA3-SAE WPA2-PSK/WPA3-SAE	Support
		WPA-Enterprise WPA2-Enterprise WPA/WPA2-Enterprise	Support
Wireless Flow Control (WQoS)		Client-based Rate Limiting	Support
		Packet-based Rate Limiting	Support
		SSID-based Rate Limiting for Uplink Traffic	Support
		AP-based Rate Limiting	Support

05 Product Specifications

Software Specifications

Model		RG-RAP73Pro	
For Global Market	**DFS**	Dynamic Frequency Selection (DFS)	Support
Standalone Portal	**Marketing Authentication**	WiFiDog (SMS/One-click/Username & Password Authentication)	Support
		Portal Authentication Escape	Support
		Automatic Portal for iOS, Windows, and Android Operating Systems	Support
	Allowlist	Allowlisting Server Addresses	Support
		Allowlisting MAC Addresses to Access the Internet without Authentication	Support
		Allowlisting IP Addresses to Access the Internet without Authentication	Support
	Blocklist	Blocklisting MAC Addresses from Accessing the Internet	Support
	Flow Control	Bandwidth Limit	Support
Standalone Portal	**Client Management**	Manually Disconnecting Clients	Support
		Disconnecting Clients Through Ruijie Cloud	Support
802.1X	**AAA**		Support
	RADIUS		Support

05 Product Specifications

AP Capacity

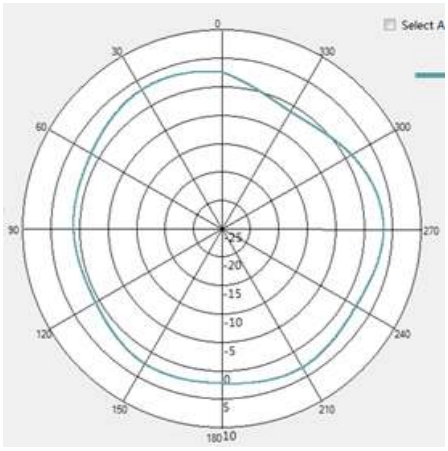
Model		RG-RAP73Pro	
WLAN	WLAN Service	Max. Number of SSIDs	8
		Max. Number of Clients	600
		Recommended Number of Clients	200
	Blocklist and Allowlist	Max. Blocklisted/Allowlisted Clients per AP	512
		Max. Blocklisted/Allowlisted Clients per SSID	512
	SON	Max. Number of AP Groups	8
		No. of APs on a SON	300
		Max. Number of Clients on an AP SON	1500

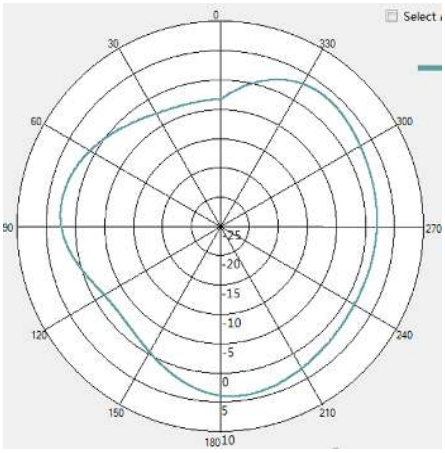
06 Certifications and Regulatory Compliance

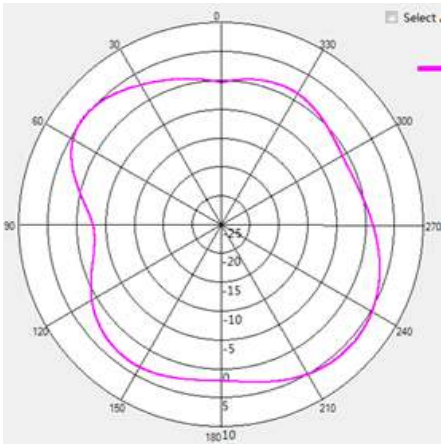
Model	RG-RAP73Pro
Regulatory compliance	EN IEC 62311:2020 EN IEC 62368-1:2020+A11:2020 EN 55032: 2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021 EN 301 489-1 V2.2.3 EN 301 489-3 V2.1.1 EN 301 489-17 V3.2.4 EN 300 328 V2.2.2.2.2 EN 301 893 V2.1.1 EN 300 440 V2.2.1 Draft EN 303 687 V1.0.0
Certifications	CE, RoHS, FCC, ISED, cTUVus

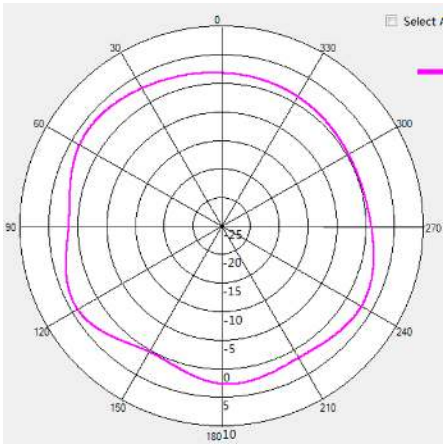
07 Antenna Pattern Plots

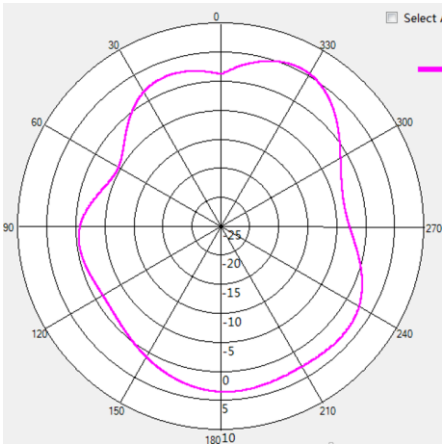
Horizontal Planes (Top View)

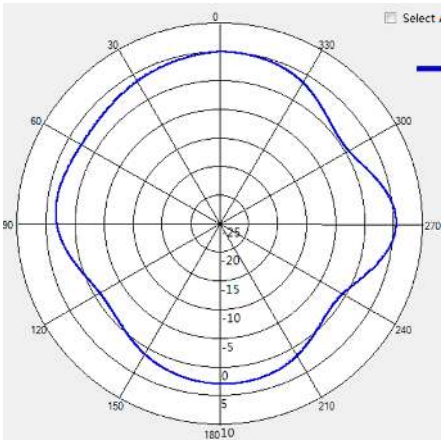


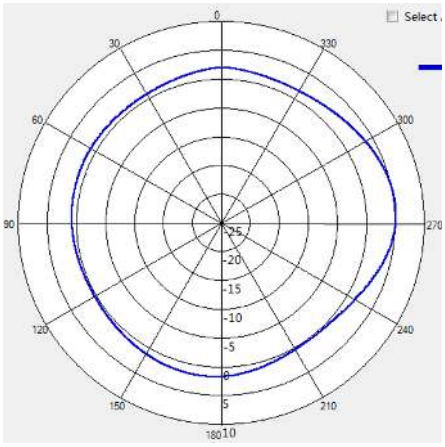


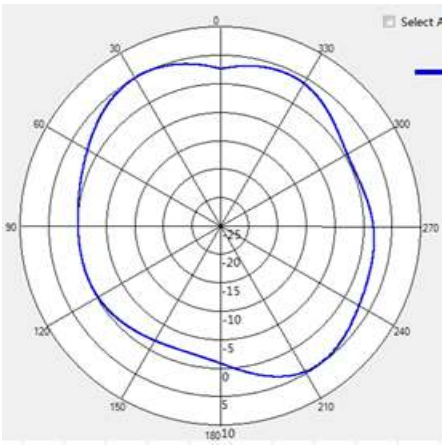






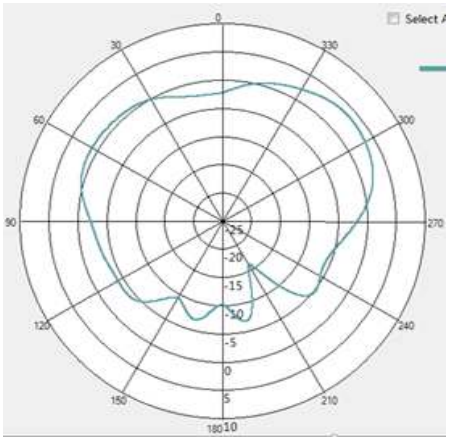
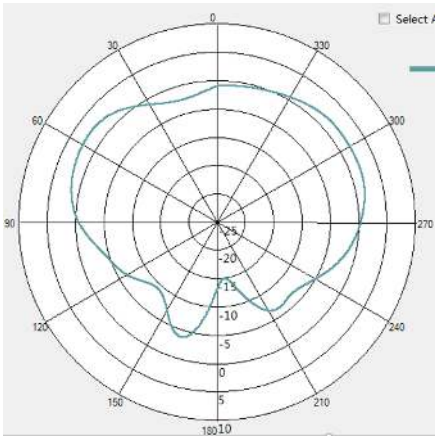
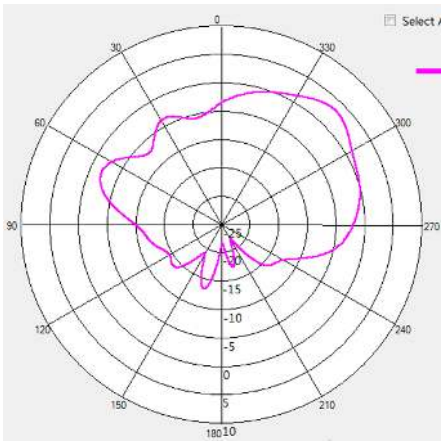
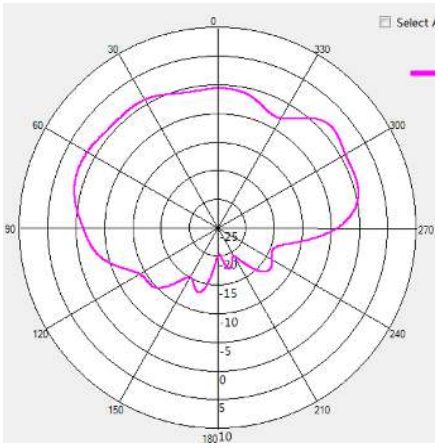
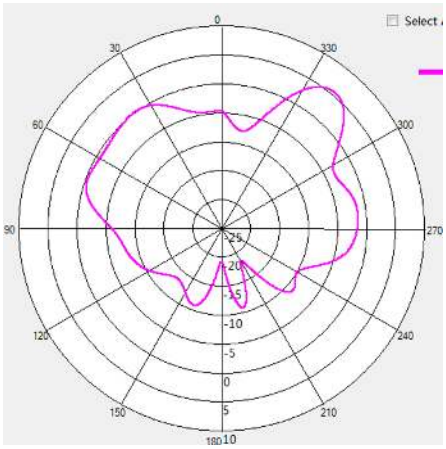
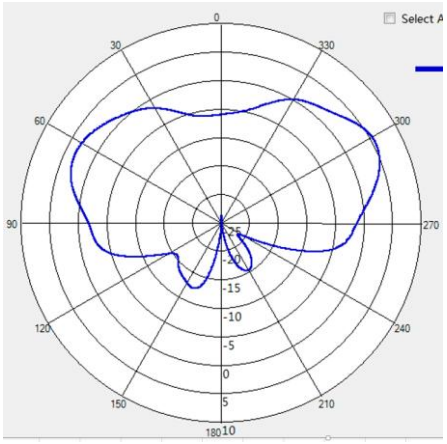
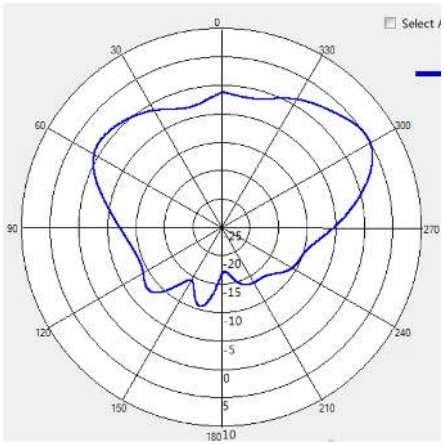
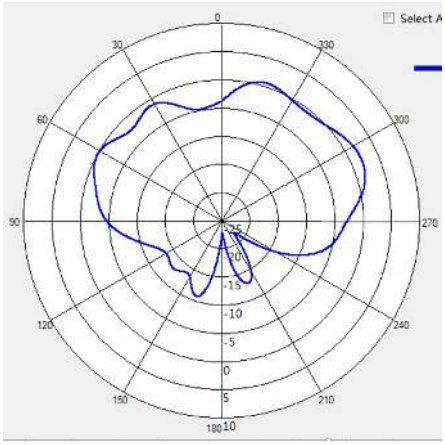






07 Antenna Pattern Plots

Vertical Planes (Front View)

08 Ordering Information

Model	Description
RG-RAP73Pro	Wi-Fi 7 BE14000 Tri-Band Ceiling Access Point; 2.4 GHz/5 GHz/6 GHz tri-band, high throughput with 8 spatial streams; 1 x 100/1000/2500BASE-T port; 1 x 1G/10GBASE-X SFP+ port; IEEE 802.11ax standard; support AP mode and router mode, support Layer 2 and Layer 3 roaming; unified networking and management via Ruijie Cloud. Maximum power consumption < 30 W; support IEEE 802.3at PoE and 54 V DC power supply

09 Package Contents

Item	Quantity
RG-RAP73Pro Access Point	1
Mounting bracket	1
Mounting template	1
Latch	1
Phillips pan head screws	4
Nuts	4
User Manual	1
Warranty Card	1

10 Warranty

For more information about warranty terms and period, contact your local sales agency.

- Warranty terms: https://www.ruijienetworks.com/support/servicepolicy
- Warranty period: https://www.ruijienetworks.com/support/servicepolicy/Service-Support-Summany/

Note: The warranty terms are subject to the terms of different countries and distributors

11 More Information

For more information about Ruijie Networks, visit the official website of Ruijie Networks or contact your local sales agency:

- Ruijie Networks official website: https://www.ruijienetworks.comm/
- Online support: https://www.ruijienetworks.com/support
- Hotline support: https://www.ruijienetworks.com/support/hotline
- Email support: service_rj@ruijienetworks.com
- *WLAN Country or Region Codes and Channel Compliance:* https://www.ruijienetworks.com/support/documents/slide_wlan-country-codes-overview



Ruijie Networks Co., Ltd.

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