INNOVATION
Beyond Networks

RG-AP6920-D

Wi-Fi 7 Dual-Radio Outdoor Access Point



Datasheet

01 Product Overview

The RG-AP6920-D is a dual-radio Wi-Fi 7 access point (AP) launched by Ruijie Networks for outdoor scenarios in various sectors covering higher education, government, general education, finance, and business.

In compliance with IEEE 802.11be, IEEE 802.11ax, IEEE 802.11ac Wave2, IEEE 802.11ac Wave1, and IEEE 802.11n standards, the RG-AP6920-D adopts a hardware-independent dual-radio design and delivers a combined peak data rate of 3.570 Gbps, eliminating the performance bottleneck.

The RG-AP6920-D is designed considering factors such as wireless network security, radio control, mobile access, QoS, seamless roaming, and Internet of Things (IoT) expansion. The RG-AP6920-D can be used together with Ruijie access controllers (ACs) and RG-WIS to implement wireless user data forwarding, security, and access control.

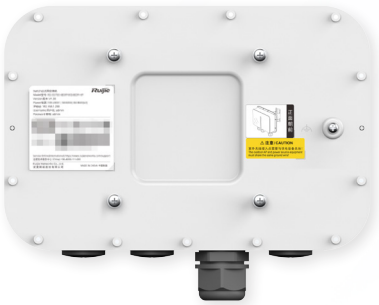
The RG-AP6920-D provides an IP68 rated enclosure that withstands dust and water damage in harsh environments and adverse weather. This ruggedized design greatly simplifies the installation and maintenance.

The RG-AP6920-D supports local power supply and Power over Ethernet (PoE), which can be selected based on power supply conditions. In addition, the RG-AP6920-D is equipped with built-in directional antennas, satisfying Wi-Fi coverage requirements in most outdoor environments.

02 Product Appearance









03 Product Highlights

Ultra-High Performance

Flexible Networking

High Security and Reliability

Ultra-High Performance

- Dual-band design (2.4 GHz + 5 GHz), four spatial streams, 4096-Quadrature Amplitude Modulation (QAM) high-speed access, up to 3.570 Gbps peak data rate, and built-in intelligent directional antenna, realizing high-speed wireless access experience
- RF power adjustment and intelligent channel allocation to solve the problems such as co-channel interference and adjacent channel interference, thereby improving network transmission efficiency and stability

Flexible Networking

- Local and cloud management modes, and intelligent wireless network optimization, reducing TCO and maximizing ROI
- Access through optical and Ethernet cables for flexible networking and high-speed backhaul over 2.5 Gbps wired links
- IEEE 802.11a/b/g/n/ac/ax/be support and roaming stickiness optimization, achieving seamless user roaming
- Rich IoT features: PoE output, Bluetooth 5.3, and wireless locating

High Security and Reliability

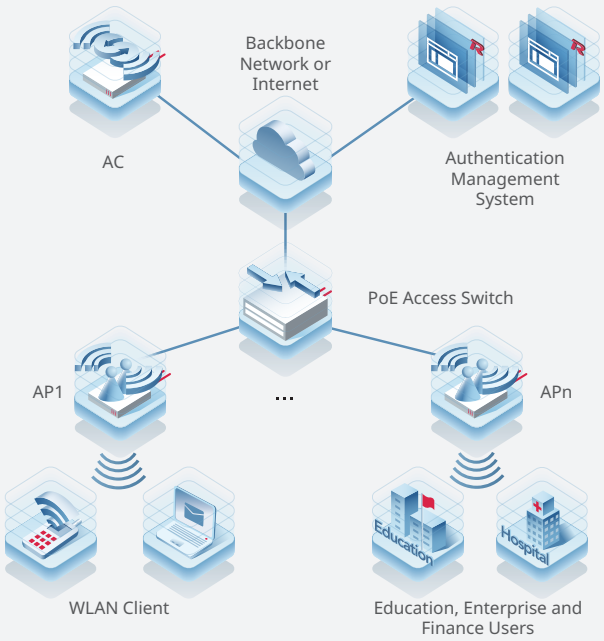
- IP68 Industrial-Grade Design, wider Temperature Range –40°C to +55°C, adapting to harsh outdoor environments
- Encryption and authentication technologies including Wi-Fi Protected Access 3 (WPA3), enhanced open security, 802.1X, and Private Pre-shared Key (PPSK), enhancing data security
- Dynamic Frequency Selection (DFS), optimizing the use of available RF spectrum to prevent radar channel interference
- Cyclic Delay/Shift Diversity (CDD/CSD), Maximum Ratio Combining (MRC), Space-Time Block Coding (STBC), and Low-Density Parity Check (LDPC), improving the signal quality, signal receiving, and reliability and performance of data transmission
- Transmit beam-forming (TxBF) expands the signal coverage and enhances the reliability of specific devices, thereby improving the data rate
- Intelligent identification and monitoring, multicast-to-unicast conversion, and other features, enhancing network security and reliability

04 Applicable Scenarios

Typical Scenarios

The RG-AP6920-D is ideal for areas with simple building structures, no special obstructions, and small capacity requirements. Such outdoor scenarios include industrial parks, scenic spots, and plazas. The RG-AP6920-D can be flexibly deployed in diverse environments.

The following figure shows the typical network topology of the RG-AP6920-D.



Rail Transportation

Subways
Multi-link communication technology enables seamless and stable switching during high-speed mobility and ensures nonstop vehicle-to-ground communication over wireless links. This technology achieves seamless wireless roaming without detection, and maintains stable service performance without suspension.



Smart City

Parks
With Wi-Fi deployed in parks, people can enjoy high-speed mobile internet access anytime, anywhere. They can flexibly and easily enjoy Internet services, including browsing the web, watching videos, and engaging in voice and video chats with friends.



Squares
People can access high-speed mobile Wi-Fi and instantly share photos and videos of activities on squares with their friends.



Higher Education

Sports Field
You can cheer and show support for sports events on the spots field, and share moments in real time on social media. High-speed mobile Wi-Fi allows you to leave real-time memories.



Note: For more applicable scenarios, contact Ruijie pre-sales engineers.

05 Product Features

Ruijie Simplified Optical Ethernet Solution

The RG-AP6920-D supports Ruijie Simplified Optical Ethernet Solution.

Ruijie Simplified Optical Ethernet Solution replaces traditional Ethernet cables with optical fibers. Characterized by a flat network architecture, simple implementation, neat cabling, and elastic network upgrade, this solution is superior to traditional Ethernet networking solutions.

Multi-Service Ports

In compliance with IEEE 802.3af/at standard, the RG-AP6920-D provides one 100/1000/2.5GBASE-T port with a maximum wired data rate of 2.5 Gbps to implement high-speed transmission and conversion between wireless networks and wired networks.

The RG-AP6920-D also offers one 2.5GE SFP port for high-speed data transmission, which caters for the link requirements at different customer sites.

High-Speed Wireless Access, High Energy Efficiency, and High Reliability

4096-QAM for High Data Rate
The RG-AP6920-D adopts a dual-radio design and complies with the next-generation IEEE 802.11be standard. When two radios are enabled, the RG-AP6920-D can provide a combined peak data rate of 3.570 Gbps, delivering high-speed access experience.

OFDMA for High-Density Client Access
The Orthogonal Frequency Division Multiple Access (OFDMA) feature in IEEE 802.11be enables the RG-AP6920-D to divide a Wireless Local Area Network (WLAN) channel into multiple sub-channels, with each client consuming one or more sub-channels. The RG-AP6920-D can implement scheduling for multiple clients to receive and send packets concurrently. This reduces contention for air interface resources and backoff, shortens network latency, and boosts network efficiency.

In a high-density deployment and access scenario, the average rate per client can be increased compared to IEEE 802.11ax.

Advanced Wi-Fi Technologies
The RG-AP6920-D supports the following radio transmission technologies:

- Dynamic frequency selection (DFS) optimizes the use of available radio spectrum to prevent radar channel interference.
- Cyclic delay/shift diversity (CDD/CSD) improves downlink radio frequency (RF) performance, and converts spatial diversity to frequency diversity to avoid intersymbol interference, thus decreasing the bit error rate (BER) and effectively reducing signal distortion.
- Maximum ratio combining (MRC) improves the signal quality at the receiver end and enhances reliability and performance of received signals.

The RG-AP6920-D supports the following radio channel coding technologies:

- Space-time block coding (STBC) increases the range and improves the signal reception, and enhances the reliability of data transmission.
- Low-density parity check (LDPC) corrects errors efficiently and improves the throughput.
- Transmit beam-forming (TxBF) expands the signal coverage and enhances the reliability of specific devices, thereby improving the data rate.

Intelligent Identification
The RG-AP6920-D is capable of identifying smart mobile terminals (such as iOS and Android terminals) and PCs. The RG-AP6920-D can be interconnected with WIS Cloud to implement visualized wireless network management based on wireless endpoint types and perform network optimization with one click.

Intelligent Local Forwarding
The RG-AP6920-D integrates the intelligent local forwarding technology of Ruijie Networks, eliminating the traffic bottleneck of ACs. The data forwarding mode of the RG-AP6920-D can be pre-configured through a Ruijie AC. The RG-AP6920-D determines whether data needs to be forwarded by the AC or be sent to a wired network for data exchange based on SSIDs or user VLANs.

The local forwarding technology enables the RG-AP6920-D to forward delay-sensitive data that requires real-time high-performance transmission over a wired network. This greatly reduces the traffic forwarding burden of the AC to better adapt to high-throughput transmission on 802.11be networks.

Abundant QoS Policies
The RG-AP6920-D provides abundant QoS policies. It supports WLAN/AP/STA-based bandwidth limiting as well as Wi-Fi Multimedia (WMM) that defines priorities for different service data. Therefore, the RG-AP6920-D can provide timely and quantitative transmission of audio and video services, and ensure smooth application of multimedia services.

The multicast-to-unicast conversion technology supported by the RG-AP6920-D addresses the problem of video freezing caused by packet loss or high latency in Video on Demand (VoD) and other multicast applications on wireless networks, improving the user experience in multicast video services.

Comprehensive Security Protection and Ease of Use

Comprehensive Wireless Security Protection
Working with Ruijie RG-INC network management system and RG-WS series ACs, the RG-AP6920-D can provide a wide range of wireless security protection features, including Wireless Intrusion Detection System (WIDS), radio interference positioning, rogue AP containment, ARP anti-spoofing, and DHCP snooping, to build a secure and reliable wireless network for users.

Multiple Easy-to-Use Authentication Modes
When used together with Ruijie authentication system or multi-service ACs, the RG-AP6920-D supports multiple efficient and convenient authentication modes including MAC address bypass (MAB) authentication, SMS-based authentication, and QR code-based guest authentication.

MAB authentication eliminates the need for a client to enter the username and password repeatedly after the first login.

When a guest accesses a wireless network through SMS-based authentication, an authentication page pops up. On the authentication page, a guest can register an account using the mobile number, and accesses the Internet using the username and password in the SMS received.

QR code-based authentication is easy for guests to access the Internet. After accessing a wireless network, guests can receive a QR code prompt. They can access the network after being authorized by the visited employees. Guest behaviors are associated with the visited employees to ensure high security.

Flexible Device Management

Flexible Fit/Fat/Cloud Mode Switching
The RG-AP6920-D supports flexible switching among Fat, Fit, and Cloud modes. In Fit mode, the RG-AP6920-D allows for quick provisioning and installation. Comprehensive remote management greatly improves the operation and maintenance (O&M) and management efficiency for wireless network.

Eweb-based Management
The RG-AP6920-D provides the Eweb for AC and AP management. O&M personnel can implement wireless configurations easily and manage a wireless network in an all-round manner. On the Eweb of ACs, O&M personnel can manage APs as well as clients connected to the APs and limit the rates and network access behaviors of clients. Through the Eweb, O&M personnel can plan, manage, and maintain wireless networks conveniently.

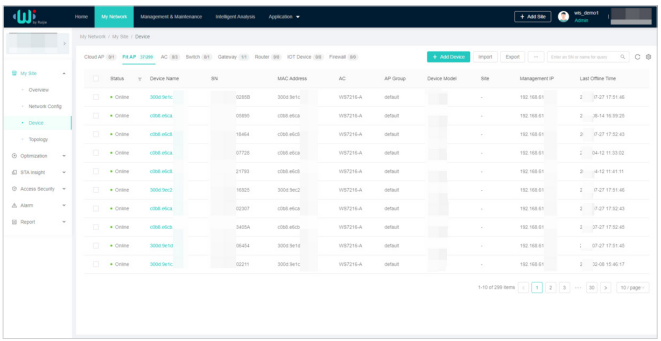
06 Solution Scalability Capabilities

Ruijie WIS Cloud Management Network Solution (WIS Cloud for short, https://wis.ruijienetworks.com/) provides full-lifecycle cloud management network services covering network procurement, planning, deployment, acceptance, and O&M. When the RG-AP6920-D is connected to WIS Cloud, it can meet various needs in multiple scenarios

including planning, deployment, acceptance, and operation through cloud management, cloud O&M, cloud authentication, and other value-added services provided by WIS Cloud.

Network-Wide Cloud Management

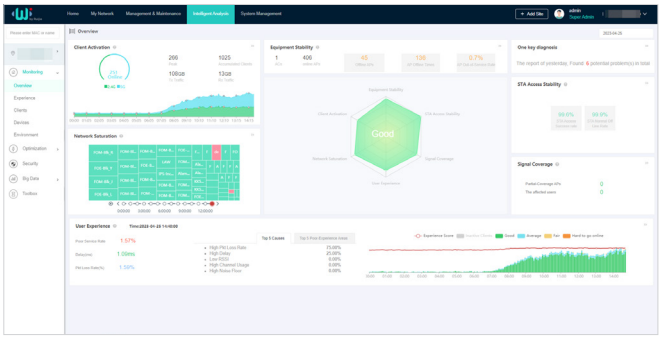
WIS Cloud supports integrated management and control of various types of devices including APs, ACs, switches, gateways, and routers. It supports remote O&M management operations such as adding or batch importing of multi-branch network devices, online status monitoring, configuration delivery, upgrade, restart, configuration backup, and restoration. It supports network-wide topology auto-discovery and topology status monitoring.



Wireless Network Visualization

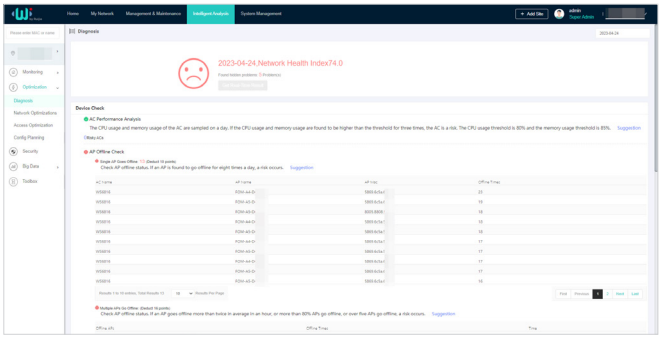
The overview function module of WIS Cloud provides a comprehensive view of the network running status from the perspective of overview, experience, users, devices, and environment. The network running information includes the following items:

- Network basic information: device stability, device health, user stability, network signal coverage, and network association.
- User usage: user activity (network dependency), and user online experience and analysis
- Network saturation: network capacity usage and channel usage



Intelligent Network Diagnosis

With WIS Cloud, wireless network diagnosis and health index assessment can be completed in just one click, providing test results for each item. The health index provided by WIS Cloud enables you to rapidly assess the state of your live network. WIS Cloud can locate faulty areas, APs, and STAs, and provides potential risks and corresponding optimization suggestions.



07 Specifications

Hardware Specifications

Hardware Specifications	RG-AP6920-D
802.11n	4 spatial streams • Radio 1 – 2.4 GHz: 2x2 MIMO, two spatial streams • Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams Channel: • Radio 1 – 2.4 GHz: 20 MHz and 40 MHz • Radio 2 – 5 GHz: 20 MHz and 40 MHz

Hardware Specifications	RG-AP6920-D
802.11n	Combined peak data rate: 600 Mbps • Radio 1 – 2.4 GHz: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) • Radio 2 – 5 GHz: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) Radio technologies: Orthogonal Frequency-Division Multiplexing (OFDM) Modulation types: BPSK, QPSK, 16-QAM and 64-QAM Packet aggregation: • Aggregate MAC Protocol Data Unit (A-MPDU) • Aggregate MAC Service Data Unit (A-MSDU) Dynamic Frequency Selection (DFS) Cyclic Delay/Shift Diversity (CDD/CSD) Maximum Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-Density Parity Check (LDPC) Transmit beam-forming (TxBF)
802.11ac	2 spatial streams • Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams Channel: • Radio 2 – 5 GHz: 20 MHz, 40 MHz, 80 MHz and 160 MHz Combined peak data rate: 1.733 Gbps • Radio 2 – 5 GHz: 6.5 Mbps to 1.733 Gbps (MCS0 to MCS9) Radio technologies: Orthogonal Frequency-Division Multiplexing (OFDM) Modulation types: BPSK, QPSK, 16-QAM, 64-QAM and 256-QAM Packet aggregation: • Aggregate MAC Protocol Data Unit (A-MPDU) • Aggregate MAC Service Data Unit (A-MSDU) Dynamic Frequency Selection (DFS) Cyclic Delay/Shift Diversity (CDD/CSD) Maximum Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-Density Parity Check (LDPC) Transmit beam-forming (TxBF)
802.11ax	4 spatial streams • Radio 1 – 2.4 GHz: 2x2 MIMO, two spatial streams • Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams Channel: • Radio 1 – 2.4 GHz: 20 MHz and 40 MHz • Radio 2 – 5 GHz: 20 MHz, 40 MHz, 80 MHz and 160 MHz Combined peak data rate: 2.976 Gbps • Radio 1 – 2.4 GHz: 7.3 Mbps to 0.574 Gbps (MCS0 to MCS11) • Radio 2 – 5 GHz: 7.3 Mbps to 2.402 Gbps (MCS0 to MCS11) Radio technologies: uplink/downlink Orthogonal Frequency-Division Multiple Access (OFDMA) Modulation types: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM and 1024-QAM Packet aggregation: • Aggregate MAC Protocol Data Unit (A-MPDU) • Aggregate MAC Service Data Unit (A-MSDU) Dynamic Frequency Selection (DFS) Cyclic Delay/Shift Diversity (CDD/CSD) Maximum Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-Density Parity Check (LDPC) Transmit beam-forming (TxBF) WPA3

Hardware Specifications	RG-AP6920-D
802.11be	4 spatial streams • Radio 1 – 2.4 GHz: 2x2 MIMO, two spatial streams • Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams Channel: • Radio 1 – 2.4 GHz: 20 MHz and 40 MHz • Radio 2 – 5 GHz: 20 MHz, 40 MHz, 80 MHz and 160 MHz Combined peak data rate: 3.570 Gbps • Radio 1 – 2.4 GHz: 7.3 Mbps to 0.688 Gbps (MCS0 to MCS13) • Radio 2 – 5 GHz: 7.3 Mbps to 2.882 Gbps (MCS0 to MCS13) Radio technologies: uplink/downlink Orthogonal Frequency-Division Multiple Access (OFDMA) Modulation types: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM and 4096-QAM Packet aggregation: • Aggregate MAC Protocol Data Unit (A-MPDU) • Aggregate MAC Service Data Unit (A-MSDU) Dynamic Frequency Selection (DFS) Cyclic Delay/Shift Diversity (CDD/CSD) Maximum Ratio Combining (MRC) Space-Time Block Coding (STBC) Low-Density Parity Check (LDPC) Transmit beam-forming (TxBF) WPA3
Antenna	Wi-Fi • 2.4 GHz: two built-in directional antennas, with peak antenna gain of 9 dBi. Horizontal lobe angle of 35° and vertical lobe angle of 65°. • 5 GHz: two built-in directional antennas, with peak antenna gain of 15 dBi. Horizontal lobe angle of 15° and vertical lobe angle of 30°. Bluetooth • One built-in antenna, with peak antenna gain of 4 dBi.
Port	1 x 100/1000/2.5GBASE-T port 1 x 2.5GE SFP port, compatibility with 1GE modules, supporting auto-negotiation 1 x RJ45 console port 1 x Bluetooth 5.3
Status LED	1 x system status LED • AP power-on status • Software initialization status and upgrade status • Uplink service interface status • Wireless user online status • CAPWAP tunnel timeout • Specific AP locating Three single-color signal strength LEDs • Whether bridging is enabled • Whether bridging is successful • Wireless signal strength after successful bridging
Button	1 x Reset button • Press the button for shorter than 2 seconds. Then the device restarts. • Press the button for longer than 5 seconds. Then the device restores to factory settings.
Dimensions (W x H x D)	Main unit: 253 mm x 176 mm x 56 mm (9.96 in. x 6.93 in. x 2.20 in.) Shipping: 406 mm x 321 mm x 116 mm (15.98 in. x 12.64 in. x 4.57 in.)
Weight	Main unit: 1.45 kg (3.20 lbs) Mounting plate assembly: 0.35 kg (0.77 lbs) Mounting bracket: 0.15 kg (0.33 lbs) Shipping: 2.84kg (6.26 lbs)
Mounting	Wall/Pole-mount

Hardware Specifications	RG-AP6920-D
Input power supply	The AP supports the following power supply modes: • 48 V DC/0.35 A power input over DC connector • PoE/PoE+ input, in compliance with IEEE 802.3af/at standard Note: If both DC power and PoE are available, DC power is preferred.
Maximum power consumption	Maximum power consumption: 14.95 W • DC power: 30 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2 • 802.3at (PoE+): 30 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2 • 802.3af (PoE): 15.4 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2, The maximum channel widths in the 2.4 GHz and 5 GHz frequency bands are reduced to 20 MHz and 40 MHz. The data rate of the RJ45 port is limited to 1 Gbps. • Idle mode: 7.8 W
Environment	Storage temperature: –40°C to +85°C (–40°F to +185°F) Storage humidity: 0% RH to 100% RH (non-condensing) Storage altitude: –500 m to +5,000 m (–1640.42 ft. to +16,404.20 ft.) Operating temperature: –40°C to +55°C (–40°F to 131°F) Operating humidity: 0% RH to 100% RH (non-condensing) Operating altitude: –500 m to +5,000 m (–1640.42 ft. to +16,404.20 ft.) Note: At an altitude in the range of 1,800–5,000 m (5,905.51–16,404.20 ft.), every time the altitude increases by 220 m (721.78 ft.), the maximum temperature decreases by 1°C (1.8°F).
Mean Time Between Failure (MTBF)	200,000 hours (22 years) at the operating temperature of 25°C (77°F)
System memory	512 MB, 256 MB flash
Transmit power	2.4 GHz • Maximum transmit power: 28 dBm (630.96 mW) • Minimum transmit power: 7 dBm (5.01 mW) 5 GHz • Maximum transmit power: 28 dBm (630.96 mW) • Minimum transmit power: 7 dBm (5.01 mW) Note: • Adjusting the transmit power by percentage (recommended) and in 1dBm increments. • The transmit power is limited by local regulatory requirements. For details, see *WLAN Country or Region Codes and Channel Compliance.*

The following table lists the radio frequency performance of Wi-Fi including different frequency bands, protocols, and data rates. It is country-specific, and Ruijie Networks reserves the right of interpretation.

Wi-Fi Radio Performance	RG-AP6920-D		
Frequency Band and Protocol	**Data Rate**	**Maximum Transmit Power per Transmit Chain**	**Maximum Receive Sensitivity per Receive Chain**
2.4 GHz, 802.11g	6 Mbps	25 dBm	–96 dBm
	24 Mbps	24 dBm	–84 dBm
	36 Mbps	24 dBm	–82 dBm
	54 Mbps	23 dBm	–78 dBm
2.4 GHz, 802.11n (HT20)	MCS0	25 dBm	–95 dBm
	MCS7	21 dBm	–75 dBm
2.4 GHz, 802.11n (HT40)	MCS0	25 dBm	–91 dBm
	MCS7	21 dBm	–73 dBm
2.4 GHz, 802.11ax (HE20)	MCS0	25 dBm	–96 dBm
	MCS11	16 dBm	–67 dBm

Wi-Fi Radio Performance	RG-AP6920-D		
Frequency Band and Protocol	**Data Rate**	**Maximum Transmit Power per Transmit Chain**	**Maximum Receive Sensitivity per Receive Chain**
2.4 GHz, 802.11ax (HE40)	MCS0	25 dBm	–93 dBm
	MCS11	16 dBm	–64 dBm
2.4 GHz, 802.11be (EHT40)	MCS0	25 dBm	–92 dBm
	MCS11	16 dBm	–63 dBm
5 GHz, 802.11a	6 Mbps	25 dBm	–96 dBm
	24 Mbps	24 dBm	–87 dBm
	36 Mbps	24 dBm	–82 dBm
	54 Mbps	23 dBm	–78 dBm
5 GHz, 802.11n (HT20)	MCS0	25 dBm	–96 dBm
	MCS7	21 dBm	–76 dBm
5 GHz, 802.11n (HT40)	MCS0	25 dBm	–92 dBm
	MCS7	21 dBm	–73 dBm
5 GHz, 802.11ac (VHT20)	MCS0	25 dBm	–97 dBm
	MCS7	21 dBm	–74 dBm
5 GHz, 802.11ac (VHT40)	MCS0	25 dBm	–94 dBm
	MCS9	18 dBm	–69 dBm
5 GHz, 802.11ac (VHT80)	MCS0	25 dBm	–92 dBm
	MCS9	19 dBm	–66 dBm
5 GHz, 802.11ax (HE20)	MCS0	25 dBm	–97 dBm
	MCS11	16 dBm	–68 dBm
5 GHz, 802.11ax (HE40)	MCS0	25 dBm	–94 dBm
	MCS11	16 dBm	–63 dBm
5 GHz, 802.11ax (HE80)	MCS0	25 dBm	–91 dBm
	MCS9	19 dBm	–67 dBm
	MCS11	16 dBm	–61 dBm
5 GHz, 802.11ax (HE160)	MCS0	25 dBm	–88 dBm
	MCS9	19 dBm	–64 dBm
	MCS11	16 dBm	–58 dBm
5 GHz, 802.11be (EHT80)	MCS0	25 dBm	–91 dBm
	MCS9	19 dBm	–67 dBm
	MCS11	16 dBm	–62 dBm
	MCS13	16 dBm	–56 dBm
5 GHz, 802.11be (EHT160)	MCS0	25 dBm	–88 dBm
	MCS9	19 dBm	–65 dBm
	MCS11	16 dBm	–58 dBm
	MCS13	16 dBm	–55 dBm

Note: Available frequency bands may vary with countries or regions. To use the above-mentioned frequency bands, ensure that they are supported in your country or region. For details, see *WLAN Country or Region Codes and Channel Compliance.*

The following table lists the power consumption and operating status of the RG-AP6920-D.

Power Supply Mode	PoE Input (802.3af-Compliant)	PoE+ Input (802.3at-Compliant)	DC Power Input
Output Power Consumption	15.4 W	30 W	30 W
Radio 1 (2.4 GHz)	Supported 2x2 MIMO, 20 MHz	Supported 2x2 MIMO, 40 MHz	Supported 2x2 MIMO, 40 MHz
Radio 2 (5 GHz)	Supported 2x2 MIMO, 40 MHz	Supported 2x2 MIMO, 160 MHz	Supported 2x2 MIMO, 160 MHz
LAN Port	Supported	Supported	Supported
Bluetooth Low Energy (BLE)	Supported	Supported	Supported

Software Specifications

Basic Function	RG-AP6920-D
Applicable software version	RGOS11.9(6)W3B19 or later
WLAN	
Maximum number of associated STAs	256 (up to 128 STAs per radio)
Practical maximum client count indication (per device)	64
Maximum number of BSSIDs	32 (up to 16 BSSIDs per radio)
Maximum number of WLAN IDs	16
STA management	SSID hiding Band steering (preferential access to the 5 GHz radio) Each SSID can be configured with the authentication mode, encryption mechanism, and VLAN attributes independently. Remote intelligent perception technology (RIPT) Intelligent load balancing based on the STA quantity or traffic
STA limiting	SSID-based STA limiting Radio-based STA limiting
Bandwidth limiting	STA/SSID/AP-based rate limiting
CAPWAP	IPv4/IPv6 CAPWAP Layer 2 and Layer 3 topology between an AP and an AC An AP can automatically discover the accessible AC. An AP can be automatically upgraded through the AC. An AP can automatically download the configuration file from the AC. CAPWAP through NAT MTU setting and fragmentation over CAPWAP tunnels Encryption over CAPWAP data tunnels Encryption over CAPWAP control tunnels
Data forwarding	Centralized and local forwarding
Wireless roaming	Layer 2 and Layer 3 roaming
Wireless locating	Mobile unit (MU) location
Application management	Application identification

Basic Function	RG-AP6920-D
Security and Authentication	
Authentication and encryption	Remote Authentication Dial-In User Service (RADIUS) EXEC authorization, specifying source IP addresses of RADIUS packets, supporting authentication of other vendors, and built-in authentication server PSK, Web, 802.1X, WPA, WPA2, and WPA3 authentication QR code-based guest authentication, SMS-based authentication, and MAB authentication Data encryption: WEP (64/128 bits), WPA-Personal, WPA-Enterprise, WPA2-Personal (PSK, TKIP, CCMP), WPA2-Enterprise, WPA3-Personal (SAE, WPA2/WPA3 transition mode), WPA3-Enterprise (CCMP, GCMP), WPA3-OWE
Data frame filtering	Allowlist, static blocklist, and dynamic blocklist
WIDS	Wireless Intrusion Detection System (WIDS) User isolation Rogue AP detection and containment
Dynamic Policy	IP standard ACL, MAC extended ACL, IP extended ACL, expert ACL, and IPv6 ACL Time range-based ACL ACL based on a Layer 2 interface ACL based on a Layer 3 interface Ingress ACL based on a wireless interface Dynamic ACL assignment based on 802.1X authentication (used with an AC)
CPP	CPU Protect Policy (CPP)
NFPP	Network Foundation Protection Policy (NFPP) ARP attack defense, ICMP attack defense, and DHCP attack defense
Routing and Switching	
MAC	Static MAC address, MAC address filtering, MAC address limiting MAC address table size: 1,024 Maximum number of static MAC addresses: 1,024 Maximum number of filtered MAC addresses: 1,024
Ethernet	Jumbo frame length: 1,518 Full-duplex and half-duplex modes of interfaces
VLAN	Interface-based VLAN assignment Maximum number of SVIs: 200 Maximum number of VLANs: 4,094 VLAN ID range: 1–4,094
ARP	ARP entry aging, gratuitous ARP learning, and proxy ARP Identification of IP address conflict among downlink users Maximum number of ARP entries: 1,024 ARP check
IPv4 services	Static IPv4 address and DHCP-assigned IPv4 address Maximum number of IPv4 addresses configured on each Layer 3 interface: 200 NAT, FTP ALG, and DNS ALG
IPv6 services	IPv6 addressing, Neighbor Discovery (ND), IPv6 ND proxy, ICMPv6, and IPv6 ping IPv6 DHCP client Maximum number of IPv6 addresses configured on each Layer 3 interface: 400
IP routing	IPv4/IPv6 static route Maximum number of static IPv4 routes: 1,024 Maximum number of static IPv6 routes: 1,000
Multicast	Multicast-to-unicast conversion
VPN	PPPoE client IPsec VPN

Basic Function	RG-AP6920-D
Network Management and Monitoring	
Network management	NTP server and NTP client SNTP client SNMP v1/v2c/v3 Fault detection and alarming Information statistics collection and logging
Network management platform	Web management (Eweb)
User access management	Console, Telnet, SSH, FTP client, FTP server, and TFTP client
Switchover among Fat, Fit, and cloud modes	When the AP works in Fit mode, it can be switched to Fat mode through an AC. When the AP works in Fat mode, it can be switched to Fit mode through the console port or Telnet. When the AP works in Cloud mode, it can be managed through WIS Cloud.

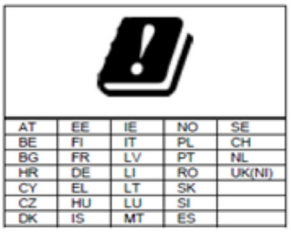
Regulatory Compliance

Regulatory Compliance	RG-AP6920-D
Regulatory Compliance	EN 55032, EN 55035, EN IEC 61000-3-2, EN 61000-3-3, EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 300 328, EN 301 893, EN 300 440, EN IEC 62311, FCC Part 15, IEC 62368-1, EN 62368-1, EN 18031-1, and EN 18031-2

* For more country-specific regulatory information and approvals, contact your local sales agency.

Note

- EU simplified DoC: Hereby, [Ruijie Networks Co., Ltd.] declares that the radio equipment type [RG-AP6920-D] is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.ruijie.com/.
- UK simplified DoC: Hereby, [Ruijie Networks Co., Ltd.] declares that the radio equipment type [RG-AP6920-D] is in compliance with UK Radio Equipment Regulation 2017. The full text of the UK declaration of conformity is available at the following internet address: https://www.ruijie.com/.

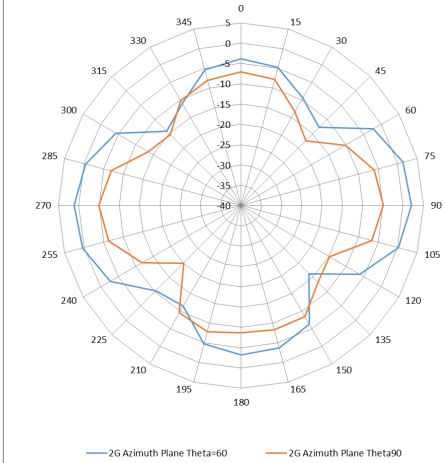


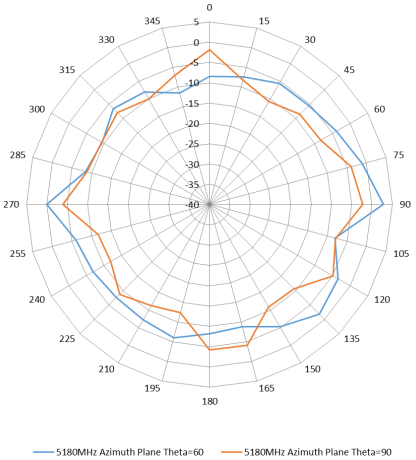


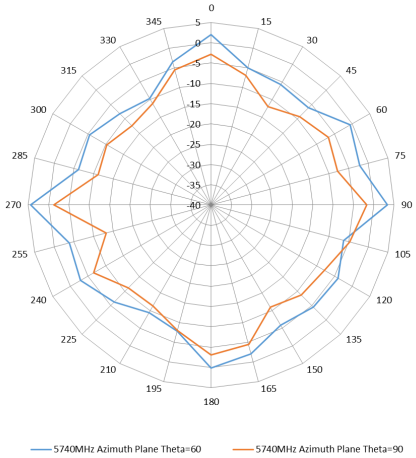
- The functions of Wireless Access Systems including Radio Local Area Networks(WAS/RLANs) within the band 5150-5350 MHz for this device are restricted to indoor use only within all European Union countries (BE/BG/CZ/DK/DE/EE/IE/EL/ES/FR/HR/IT/CY/LV/LT/LU/HU/MT/NL/ AT/ PL/PT/RO/SI/SK/FI/SE/TR/NO/CH/IS/LI/UK(NI)
- Ruijie wireless products provide only secure and reliable network protocols and communication ports by default. For details, see *Ruijie Default Protocols and Ports for Wireless Products*. Proper firewall and security policies can be implemented based on this document to ensure the normal operation of wireless services.

08 Antenna Pattern Plots

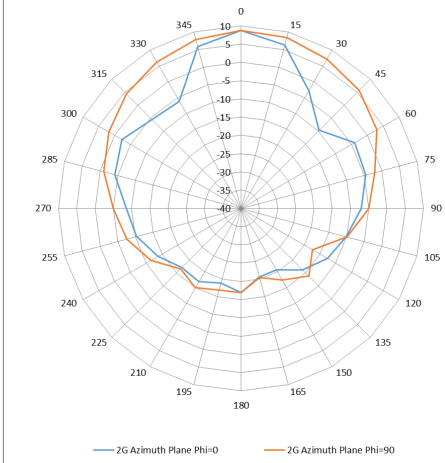
Horizontal Planes (Top View)

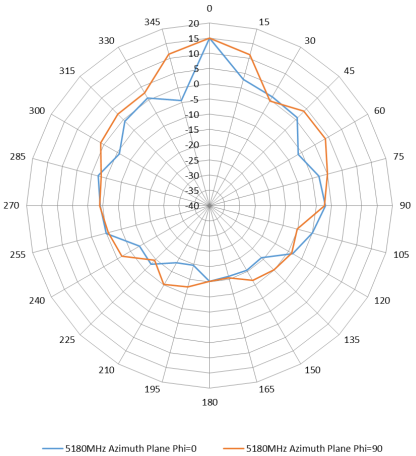


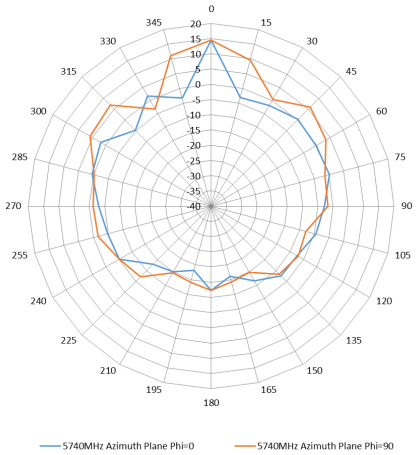




Vertical Planes (Front View)







09 Ordering Guide

Take the following ordering procedure:

- Order an RG-AP6920-D outdoor access point.
- If the uplink switch supports PoE and complies with IEEE 802.3af/at standard, connect the uplink port of the RG-AP6920-D to the PoE switch to power the RG-AP6920-D.

- If the uplink switch does not support PoE, purchase a DC power supply from a third-party vendor to provide 48 V/0.35 A power input over the DC connector on the RG-AP6920-D.
- To use the SFP port, select a proper optical transceiver as required.

10 Ordering Information

Model	Description
RG-AP6920-D	Used with the RG-WS6512 or RG-WS6008 access controller Wi-Fi 7 dual-radio outdoor access point Up to four spatial streams, peak data rate of 3.570 Gbps • Radio 1: 2.4 GHz: two spatial streams, 2x2 MIMO, peak data rate of 0.688 Gbps • Radio 2: 5 GHz: two spatial streams,2x2 MIMO, peak data rate of 2.882 Gbps The AP consumes one license of an AC. In compliance with IEEE 802.11a/b/g/n/ac/ax/be standard Fat/Fit/Cloud mode switching. IEEE 802.3af/at-compliant (PoE/PoE+) and DC power supply Note: The DC power supply needs to be purchased separately, and the output voltage/current must be 48 V/0.35 A.

11 Package Contents

Item	Quantity
RG-AP6920-D access point	1
Mounting plate assembly	1
Mounting bracket	1
M5 x 10 mm machine screw	4
M6 x 20 mm machine screw	2
M6 x 50 mm expansion anchor	4
Hose clamp	2
Cable gland for Ethernet cable	2
Cable gland for optical fiber	1
Dust cap	3
Grounding cable	1
Quick Start Guide	1
Warranty Card and Hazardous Substance Table	1
Ruijie wireless product management software (pre-installed on the AP)	1

12 Warranty

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

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

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

13 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.ruijie.com/
- Online support: https://www.ruijie.com/support
- Hotline support: https://www.ruijie.com/support/hotline
- Email support: EBGITSC@ruijie.com.cn
- *WLAN Country or Region Codes and Channel Compliance:* https://www.ruijie.com/support/documents/slide_wlan-country-codes-overview
- *Ruijie Default Protocols and Ports for Wireless Products:* https://www.ruijie.com/en-global/support/documents/slide_wlan-network-protocol-port/





Ruijie Networks Co., Ltd.

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