

RG-AP180-I

Wi-Fi 6 Dual-Radio

Advanced Wall Plate Access Point



Scan QR Code
For More Enquiry

Ruijie

| Product Pictures



| Product Overview

The RG-AP180-I is a Wi-Fi 6 wireless access point that delivers dual radios, high performance, and enterprise-grade encryption. Due to the hybrid cloud management mode and high-speed access design, it is suitable for flexible deployment in high-quality network scenarios, such as classroom, dormitory, and office scenarios in the education industry, office scenarios of small- and medium-scale enterprises, outpatient clinics and office scenarios in the medical industry, and hotel apartments.

| Product Highlights

Ultra-High Performance

Intelligent Networking

High Security

Ultra-High Performance

- Dual-band design (2.4 GHz + 5 GHz), four spatial streams, 1024-Quadrature Amplitude Modulation (QAM) high-speed access, and up to 2.976 Gbps peak data rate, realizing high-speed wireless access experience
- Orthogonal Frequency Division Multiple Access (OFDMA), Multi-User Multiple-Input Multiple-Output (MU-MIMO), and QoS transmission optimization technologies, improving the average user speed in high-density deployment and access scenarios
- 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

Intelligent Networking

- Local and cloud management modes, and intelligent wireless network optimization, reducing TCO and maximizing ROI
- Installation in Chinese-standard 86-mm, American-standard, and European-standard junction boxes, and wall mounting, which is suitable for a wall, panel, or other positions

- IEEE 802.11k/v/r support and roaming stickiness optimization, achieving seamless user roaming
- Rich IoT features: PoE output, Bluetooth 5.1, and wireless locating

High Security

- 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

Applicable Scenarios

Higher Education

Classroom and Lab

Deploying Wi-Fi in classrooms and labs enables students and teachers to access network resources with ease, thereby enhancing the quality of teaching and learning. Students can engage in online learning, access course materials, and collaborate with classmates, while teachers can access teaching resources and deliver multimedia lessons.



Office

Deploying Wi-Fi in the office can help teachers quickly search for and access online educational resources, improving lesson preparation efficiency.



Healthcare

Outpatient Service

The Wi-Fi network provides a mobile office environment for medical staff. Medical staff can use mobile devices to view patient information in real time, which significantly improves treatment efficiency. Patients can access relevant

medical information through smart devices online, resulting in improved satisfaction.



Remote Monitoring and Management of Medical Devices

With Wi-Fi deployment, remote monitoring and management of medical devices become possible. Wireless medical devices such as ECG monitors and blood pressure monitors can transmit patient data in real time, thereby improving information security. Additionally, these wireless medical devices can be easily maintained and upgraded, resulting in cost reductions.



Hotel Apartments

Chain Hotels

By deploying a Wi-Fi network, travelers can enjoy convenient, high-speed Internet access to ensure a fulfilling stay.



Product Features

Multi-scenario Adaptability

The RG-AP180-I, a dual-band wall plate wireless access point, is ideal for a wide range of applications, including higher education, government, general education, finance, business, and hotel sectors, meeting diverse service needs.

High-speed Access and Compatibility

The RG-AP180-I supports various wireless protocols, such as 802.11ax, 802.11ac Wave2, 802.11ac Wave1, and 802.11n. It features a hardware-independent dual-band design to deliver a data rate of up to 2.976 Gbps, effectively eliminating wireless performance bottlenecks. Additionally, it is compatible with an extensive array of devices, promoting seamless interconnectivity among employees and customers.

Security and Scalability

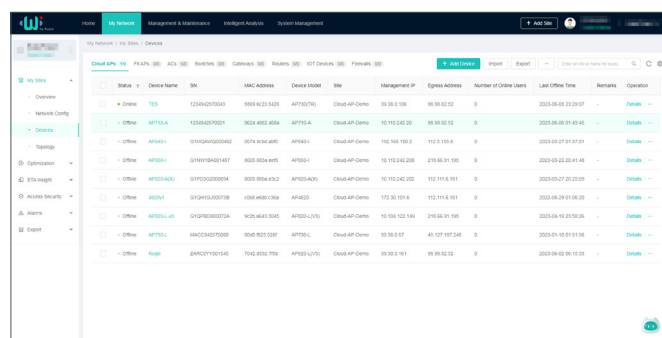
The RG-AP180-I stands out with its exceptional wireless network security, RF control, mobile access, QoS guarantee, and seamless roaming. With Ruijie's wireless access controller (AC), it enables wireless user data forwarding, security, and access control to cope with diverse service needs.

Flexible Deployment and Power Supply

The RG-AP180-I supports both local power supply and Power over Ethernet (PoE), providing you with the flexibility to choose the power supply mode. It can be installed in the Chinese-standard 86-mm, American-standard, or European-standard junction box, and also against a wall. This simplifies deployment. In addition, the RG-AP180-I is particularly suitable for classrooms, dormitories, and offices in the education industry, small- and medium-sized enterprise offices, outpatient clinics and office scenarios in the medical industry, hotel apartments, and other scenarios.

Solution Scalability Capabilities

Ruijie WIS Cloud Management Network Solution (WIS for short) provides full-lifecycle cloud management network services covering network procurement, planning, deployment, acceptance, and O&M. When the AP connects to WIS, 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.



| Device Name | SN | MAC Address | Device Model | Serial | Management IP | Ethernet Address | Number of Online Users | Last Offline Time | Remarks | Operation |
|---------------|--------------|----------------|---------------|---------------|---------------|------------------|------------------------|---------------------|---------|-----------|
| Cloud AP180-I | 19-07-01-001 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.100 | 192.168.1.100 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-002 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.101 | 192.168.1.101 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-003 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.102 | 192.168.1.102 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-004 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.103 | 192.168.1.103 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-005 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.104 | 192.168.1.104 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-006 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.105 | 192.168.1.105 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-007 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.106 | 192.168.1.106 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-008 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.107 | 192.168.1.107 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-009 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.108 | 192.168.1.108 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-010 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.109 | 192.168.1.109 | 0 | 2023-08-24 22:20:07 | - | Details |
| Cloud AP180-I | 19-07-01-011 | AC1A-0000-0000 | Cloud AP180-I | Cloud AP180-I | 192.168.1.110 | 192.168.1.110 | 0 | 2023-08-24 22:20:07 | - | Details |

Network-wide Cloud Management

WIS 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.

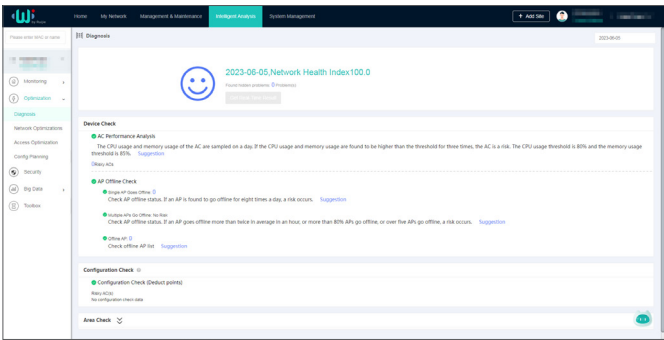
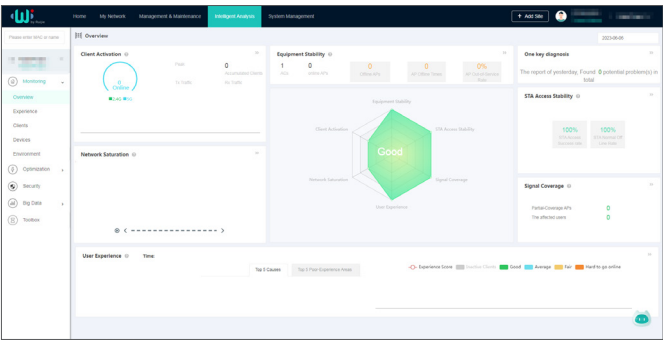
Wireless Network Visualization

The overview function module of WIS 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, 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 enables you to rapidly assess the state of your live network. WIS can locate faulty areas, APs, and STAs, and provides potential risks and corresponding optimization suggestions.



Product Specifications

Hardware Specifications

| Hardware Specifications | RG-AP180-I |
|-------------------------|--|
| 802.11n | <div>Four spatial streams</div> <ul style="list-style-type: none">• Radio 1 – 2.4 GHz: 2x2 MIMO, two spatial streams• Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams <div>Channels:</div> <ul style="list-style-type: none">• Radio 1 – 2.4 GHz: 20 MHz and 40 MHz• Radio 2 – 5 GHz: 20 MHz and 40 MHz <div>Combined peak data rate: 600 Mbps</div> <ul style="list-style-type: none">• 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) <div>Radio technologies: Orthogonal Frequency-Division Multiplexing (OFDM)</div> <div>Modulation types: BPSK, QPSK, 16-QAM, 64-QAM</div> <div>Packet aggregation:</div> <ul style="list-style-type: none">• Aggregate MAC Protocol Data Unit (A-MPDU)• Aggregate MAC Service Data Unit (A-MSDU) <div>Dynamic Frequency Selection (DFS)</div> <div>Cyclic Delay/Shift Diversity (CDD/CSD)</div> <div>Maximum Ratio Combining (MRC)</div> <div>Space-Time Block Coding (STBC)</div> <div>Low-Density Parity Check (LDPC)</div> <div>Transmit beam-forming (TxBF)</div> |

| Hardware Specifications | RG-AP180-I |
|-------------------------|---|
| 802.11ac | <p>Two spatial streams</p> <ul style="list-style-type: none"> Radio 2 – 5 GHz: 2x2 MIMO, two spatial streams <p>Channels:</p> <ul style="list-style-type: none"> Radio 2 – 5 GHz: 20 MHz, 40 MHz, 80 MHz, and 160 MHz <p>Combined peak data rate: 1.733 Gbps</p> <ul style="list-style-type: none"> Radio 2 – 5 GHz: 6.5 Mbps to 1.733 Gbps (MCS0 to MCS9) <p>Radio technologies: Orthogonal Frequency-Division Multiplexing (OFDM)</p> <p>Modulation types: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM</p> <p>Packet aggregation:</p> <ul style="list-style-type: none"> Aggregate MAC Protocol Data Unit (A-MPDU) Aggregate MAC Service Data Unit (A-MSDU) <p>Dynamic Frequency Selection (DFS)</p> <p>Cyclic Delay/Shift Diversity (CDD/CSD)</p> <p>Maximum Ratio Combining (MRC)</p> <p>Space-Time Block Coding (STBC)</p> <p>Low-Density Parity Check (LDPC)</p> <p>Transmit beam-forming (TxBF)</p> |
| 802.11ax | <p>Four spatial streams</p> <ul style="list-style-type: none"> Radio 1 – 2.4 GHz: 2x2 uplink/downlink MU-MIMO, two spatial streams Radio 2 – 5 GHz: 2x2 uplink/downlink MU-MIMO, two spatial streams <p>Channels:</p> <ul style="list-style-type: none"> Radio 1 – 2.4 GHz: 20 MHz and 40 MHz Radio 2 – 5 GHz: 20 MHz, 40 MHz, 80 MHz, and 160 MHz <p>Combined peak data rate: 2.976 Gbps:</p> <ul style="list-style-type: none"> Radio 1 – 2.4 GHz: 8.6 Mbps to 0.574 Gbps (MCS0 to MCS11) Radio 2 – 5 GHz: 8.6 Mbps to 2.402 Gbps (MCS0 to MCS11) <p>Radio technologies: uplink/downlink Orthogonal Frequency-Division Multiple Access (OFDMA)</p> <p>Modulation types: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM</p> <p>Packet aggregation:</p> <ul style="list-style-type: none"> Aggregate MAC Protocol Data Unit (A-MPDU) Aggregate MAC Service Data Unit (A-MSDU) <p>Dynamic Frequency Selection (DFS)</p> <p>Cyclic Delay/Shift Diversity (CDD/CSD)</p> <p>Maximum Ratio Combining (MRC)</p> <p>Space-Time Block Coding (STBC)</p> <p>Low-Density Parity Check (LDPC)</p> <p>Transmit beam-forming (TxBF)</p> <p>WPA3</p> |
| Antenna | <p>Wi-Fi</p> <ul style="list-style-type: none"> 2.4 GHz: two built-in omnidirectional antennas, with peak antenna gain of 5.2 dBi. 5 GHz: two built-in omnidirectional antennas, with peak antenna gain of 6 dBi. <p>Bluetooth</p> <ul style="list-style-type: none"> One onboard omnidirectional antenna, with peak antenna gain of 2.4 dBi |
| Port | <p>Uplink: 1 x 100/1000/2.5GBase-T port, compliant with IEEE 802.3af/at standard (PoE/PoE+).</p> <p>Downlink: 4 x 10/100/1000Base-T ports, LAN 1 supports 48 V/10 W power supply to an attached device.</p> <p>1 x micro USB console port</p> <p>1 x Bluetooth 5.1</p> |

| Hardware Specifications | RG-AP180-I |
|----------------------------------|---|
| Status LED | 1 x multi-color system status LED <ul style="list-style-type: none"> • AP power-on status • Software initialization status and upgrade status • Uplink service interface status • CAPWAP tunnel timeout • Specific AP locating |
| Button | 1 x Reset button <ul style="list-style-type: none"> • 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: 86 mm x 170 mm x 43 mm (3.39 in. x 6.69 in. x 1.69 in.) Shipping: 187 mm x 104 mm x 69 mm (7.37 in. x 4.10 in. x 2.72 in.) |
| Weight | Main unit: 0.3 kg (0.66 lbs) Mounting bracket: 0.1 kg (0.22 lbs) Shipping: 0.54 kg (1.19 lbs) |
| Mounting | Junction box-mount (86 mm/American-standard/European-standard junction box) Wall-mount (delivered with a mounting bracket) |
| Lock option | Kensington lock |
| Input power supply | The AP supports the following two power supply modes: <ul style="list-style-type: none"> • 48 V DC/0.6 A power input over DC connector: The DC connector accepts 2.1 mm/5.5 mm center-positive circular plug. A DC power supply needs to be purchased independently. • PoE input over the backplane interface: compliance with 802.3af/at standard (PoE/PoE+) Note: <ul style="list-style-type: none"> • When powered by 802.3at (PoE+), the AP operates with the optimal performance. • If both DC power and PoE are available, DC power is preferred. |
| Maximum power consumption | Maximum power consumption: 25 W <ul style="list-style-type: none"> • DC power: 25 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2, LAN 1 for PoE supply • 802.3at (PoE+): 25 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2, LAN 1 for PoE supply • 802.3af (PoE): 15 W, 2.4 GHz radio 2x2, 5 GHz radio 2x2, LAN 1 port that fail to provide power for external devices (PoE out disabled of LAN 1 port disabled) • Idle mode: 8 W |
| Environment | Storage temperature: -40°C to +70°C (-40°F to +158°F) Storage humidity: 5% RH to 95% RH (non-condensing) Storage altitude: 0 m to 3,000 m (0 ft. to 9,842.52 ft.) Operating temperature: 0°C to +40°C (32°F~104°F) Operating humidity: 5% RH to 95% RH (non-condensing) Operating altitude: 0 m to 3,000 m (0 ft. to 9,842.52 ft.) Note: At an altitude in the range of 1,800–3,000 m (5,905.51–9,842.52 ft.), every time the altitude increases by 166 m (544.62 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 DRAM, 128 MB flash |

| Hardware Specifications | RG-AP180-I |
|-------------------------|--|
| Transmit power | 2.4 GHz <ul style="list-style-type: none"> Maximum transmit power: 20 dBm (100 mW) 5 GHz <ul style="list-style-type: none"> Maximum transmit power: 20 dBm (100 mW) Note: <ul style="list-style-type: none"> Adjusting the transmit power by percentage (recommended) and in 1dBm increments. The transmit power is limited by local regulatory requirements. For details, see <i>WLAN Country or Region Codes and Channel Compliance</i>. |

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.

| Radio Frequency Performance | RG-AP180-I | | |
|-----------------------------|------------|---|---|
| Frequency Band and Protocol | Data Rate | Maximum Transmit Power per Transmit Chain | Maximum Receive Sensitivity per Receive Chain |
| 2.4 GHz 802.11b | 1 Mbps | 20 dBm | -96 dBm |
| | 2 Mbps | -10 dBm | -94 dBm |
| | 5.5 Mbps | -10 dBm | -93 dBm |
| | 11 Mbps | -10 dBm | -89 dBm |
| 2.4 GHz 802.11g | 6 Mbps | 19 dBm | -91 dBm |
| | 24 Mbps | 17 dBm | -85 dBm |
| | 36 Mbps | 17 dBm | -80 dBm |
| | 54 Mbps | 16 dBm | -74 dBm |
| 2.4 GHz 802.11n (HT20) | MCS0 | 19 dBm | -85 dBm |
| | MCS7 | 16 dBm | -67 dBm |
| 2.4 GHz 802.11n (HT40) | MCS0 | 19 dBm | -82 dBm |
| | MCS7 | 16 dBm | -64 dBm |
| 2.4 GHz 802.11ax (HE20) | MCS0 | 18 dBm | -85 dBm |
| | MCS11 | 12 dBm | -58 dBm |

| Radio Frequency Performance | RG-AP180-I | | |
|-----------------------------|------------|---|---|
| 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 | 17 dBm | -82 dBm |
| | MCS11 | 12 dBm | -54 dBm |
| 5 GHz 802.11a | 6 Mbps | 18 dBm | -89 dBm |
| | 24 Mbps | 17 dBm | -82 dBm |
| | 36 Mbps | 17 dBm | -78 dBm |
| | 54 Mbps | 15 dBm | -72 dBm |
| 5 GHz 802.11n (HT20) | MCS0 | 18 dBm | -85 dBm |
| | MCS7 | 14 dBm | -67 dBm |
| 5 GHz 802.11n (HT40) | MCS0 | 17 dBm | -82 dBm |
| | MCS7 | 14 dBm | -64 dBm |
| 5 GHz 802.11ac (VHT20) | MCS0 | 18 dBm | -85 dBm |
| | MCS9 | 13 dBm | -60 dBm |
| 5 GHz 802.11ac (VHT40) | MCS0 | 17 dBm | -82 dBm |
| | MCS9 | 13 dBm | -57 dBm |
| 5 GHz 802.11ac (VHT80) | MCS0 | 16 dBm | -82 dBm |
| | MCS9 | 13 dBm | -56 dBm |
| 5 GHz 802.11ax (HE20) | MCS0 | 18 dBm | -85 dBm |
| | MCS11 | 12 dBm | -58 dBm |
| 5 GHz 802.11ax (HE40) | MCS0 | 17 dBm | -82 dBm |
| | MCS11 | 12 dBm | -54 dBm |

| Radio Frequency Performance | RG-AP180-I | | |
|-----------------------------|------------|---|---|
| Frequency Band and Protocol | Data Rate | Maximum Transmit Power per Transmit Chain | Maximum Receive Sensitivity per Receive Chain |
| 5 GHz 802.11ax (HE80) | MCS0 | 16 dBm | -82 dBm |
| | MCS11 | 12 dBm | -52 dBm |
| 5 GHz 802.11ax (HE160) | MCS0 | 15 dBm | -79 dBm |
| | MCS11 | 12 dBm | -50 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](#).

Software Specifications

| Software Specifications | RG-AP180-I |
|--|---|
| Basic Functions | |
| Applicable software version | RGOS11.9(6)W3B3 or later |
| WLAN | |
| Maximum number of associated STAs | 256 (up to 128 STAs per radio) |
| Practical maximum client count indication (per device) | 128 |
| Maximum number of BSSIDs | 32 (up to 16 BSSIDs per radio) |
| Maximum number of WLAN IDs | 16 |
| STA management | SSID hiding Each SSID can be configured with the authentication mode, encryption mechanism, and VLAN attributes independently. Remote Intelligent Perception Technology (RIPT) Intelligent STA identification technology Intelligent load balancing based on the STA quantity or traffic Rate set settings |
| STA limiting | SSID-based STA limiting Radio-based STA limiting |

| Software Specifications | RG-AP180-I |
|-------------------------------|--|
| 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 channels Encryption over CAPWAP control channels |
| Data forwarding | Centralized and local forwarding |
| Wireless roaming | Layer 2 and Layer 3 roaming |
| Wireless locating | MU device locating |
| Security and Authentication | |
| Authentication and encryption | Remote Authentication Dial-In User Service (RADIUS) PSK, UPSK and web authentication QR code-based guest authentication, SMS authentication, and MAC address bypass (MAB) authentication Data encryption: WEP (64/128 bits), WPA (TKIP), WPA-PSK, WPA2 (AES), WPA3-Enterprise, WPA3-Individual |
| Data frame filtering | Allowlist, static blocklist, and dynamic blocklist |
| WIDS | Wireless Intrusion Detection System(WIDS) Wireless Intrusion Protection System(WIPS) User isolation Rogue AP detection and containment |
| Dynamic Policy | IP standard ACL, MAC extended ACL, IP extended ACL, and expert-level 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 the AC) CoA/DM |
| CPP | CPU Protect Policy (CPP) |
| NFPP | Network Foundation Protection Policy (NFPP) |
| Routing and Switching | |

| Software Specifications | RG-AP180-I |
|--|--|
| MAC | Static and filtered MAC addresses 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 IEEE802.1p and IEEE802.1Q |
| 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 and proxy ARP Maximum number of ARP entries: 1,024 ARP check |
| IPv4 services | Static and DHCP-assigned IPv4 addresses NAT, FTP ALG and DNS ALG |
| IPv6 services | IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 ping IPv6 DHCP client |
| 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 |
| Network Management and Monitoring | |
| Network management | NTP server and NTP client SNTP client SNMPv1/v2c/v3 Fault detection and alarm Information statistics and logging |
| Network management platform | Web management (Eweb) |
| User access management | Telnet and TFTP Management |
| 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 mode. When the AP works in cloud mode, it can be managed through Ruijie Cloud. |

Value-added Software

The following value-added software functions can be achieved with the WIS solution (used with RG-iData-WIS and wireless controller).

| Value-added Software | RG-AP180-I |
|----------------------------|---|
| Intelligent O&M | |
| Experience | <p>Network operation analysis, such as device stability and signal coverage</p> <p>Measuring users' network experience based on indicators such as the latency, packet loss, signal strength, and channel utilization, and visualizing results of the network experience</p> <p>Statistics on the number of online and offline failures of STAs associated with different APs, average signal strength, and other parameters</p> <p>VIP monitoring and alarm, and custom alarm thresholds</p> <p>STA global experience map and experience coverage evaluation based on the time range</p> <p>STA access protocol replay and fine-grained STA fault diagnosis</p> <p>Note: To support the preceding functions, ensure that the AP works in Fit mode.</p> |
| Network optimization | <p>Network performance optimization, including one-click network optimization and scenario-based optimization</p> <p>Client steering to cope with roaming stickiness, and experience indicator comparison</p> <p>Client steering to cope with remote association, and experience indicator comparison</p> <p>One-click diagnosis – analyzing problems and providing suggestions</p> |
| Big data | <p>Baseline analysis – recording the configuration, version, and other changes, and tracking network KPI changes</p> <p>Time capsule – analyzing the device version and configuration change history</p> |
| Regional analysis | <p>Batch generation of building floor information – uploading floor plans, and dragging and dropping AP positions</p> |
| One-click report | <p>One-click health report – generating a report on the overall operation of a network</p> |
| Security radar | <p>Unauthorized Wi-Fi signal location, presentation by category, and containment</p> |
| Cloud Management | |
| Management and maintenance | <p>Uniformly connecting, managing, and maintaining APs, ACs, and other devices, batch device configuration and upgrade, and other functions</p> <p>Deployment through Zero Touch Provisioning (ZTP) – creating configuration templates and automatically applying configured templates</p> <p>One-click discovery of the wired and wireless network topology and topology generation</p> |
| Cloud Authentication | |
| Authentication mode | <p>SMS authentication, fixed account authentication, one-click authentication, Facebook authentication, Instagram authentication, voucher authentication, and other authentication modes</p> <p>Authentication implemented in the cloud, without the need to deploy the local authentication server</p> |

| Value-added Software | RG-AP180-I |
|--------------------------------|--|
| Customized portal | Customized Portal authentication page for mobile phones and PCs |
| SMS gateway | Interconnection with SMS gateways of GUODULINK and Alibaba Cloud |
| Platform Capabilities | |
| Hierarchy and decentralization | Authorizing different applications for different users to meet service needs of different departments Granting operation permissions to administrators in different scenarios |
| System management | Account operation, authorization configuration, email configuration, configuration backup, exception alarms, and other system management functions |

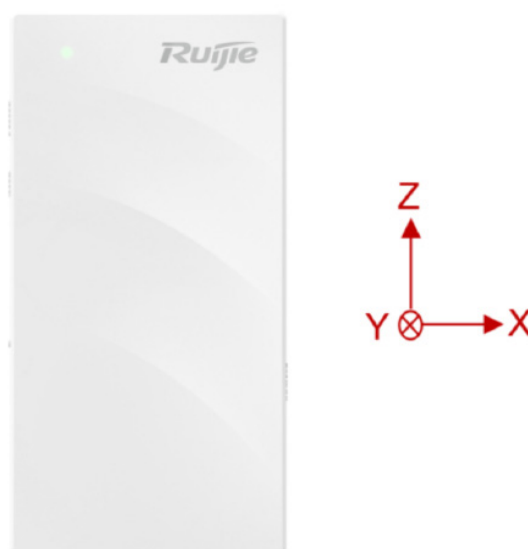
Note: For details, refer to the latest hybrid cloud management solution.

Regulatory Compliance

| Regulatory Compliance | RG-AP180-I |
|-----------------------|---|
| Regulatory compliance | EN 55032, EN 55035, EN 61000-3-3, EN IEC 61000-3-2, IEC 62368-1, EN 62368-1, EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 300 328, EN 301 893, EN 300 440, FCC Part 15, EN 50665, EN 62311, and EN IEC 62311 |

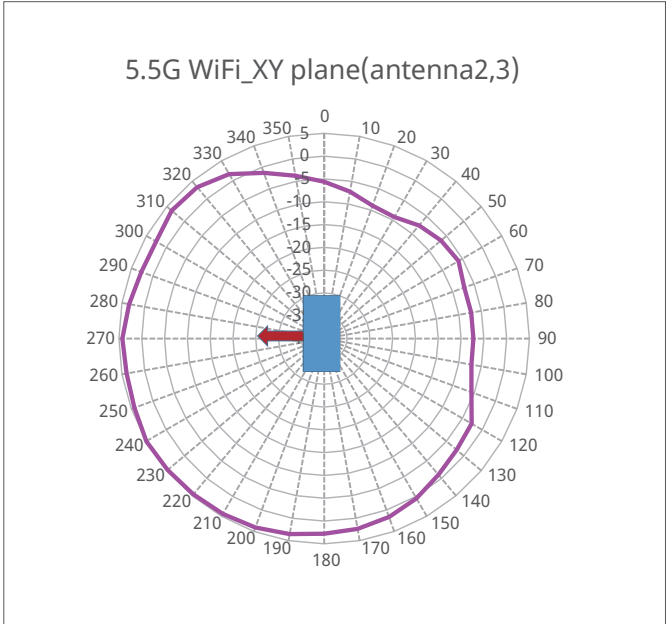
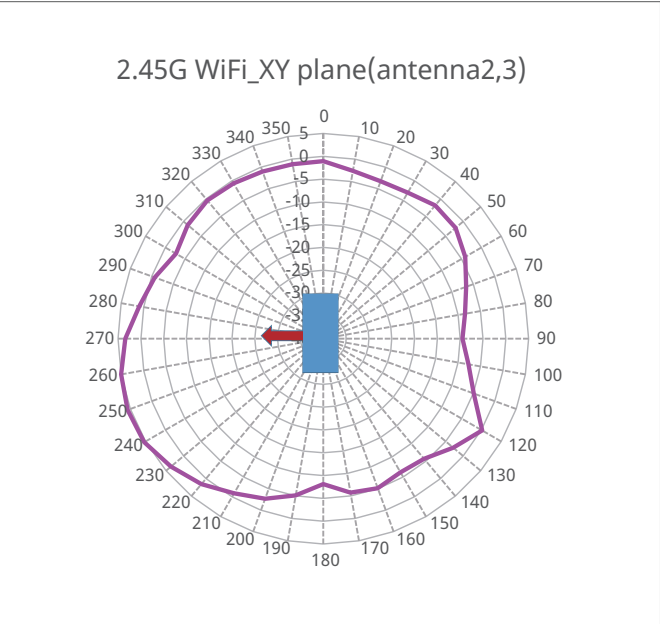
* For more country-specific regulatory information and approvals, contact your local sales agency.

Antenna Pattern Plots



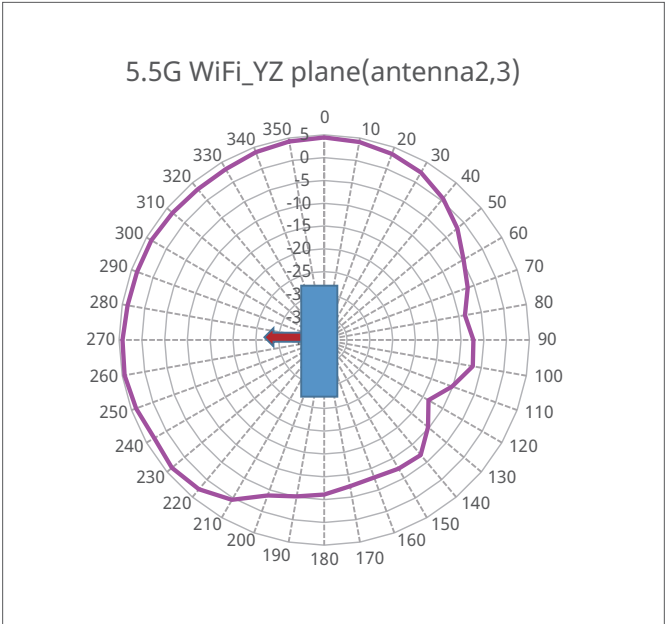
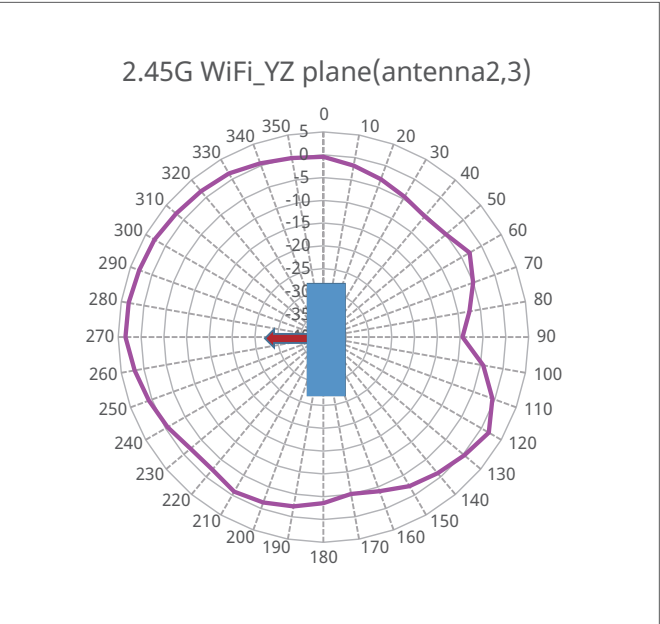
Horizontal Planes (Top View)

The following figures show the azimuth antenna pattern at 2.4 GHz and 5 GHz radios.

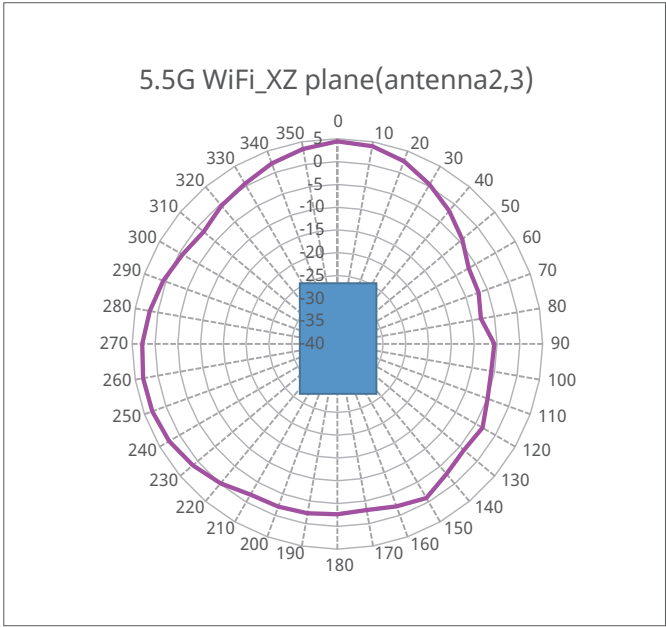
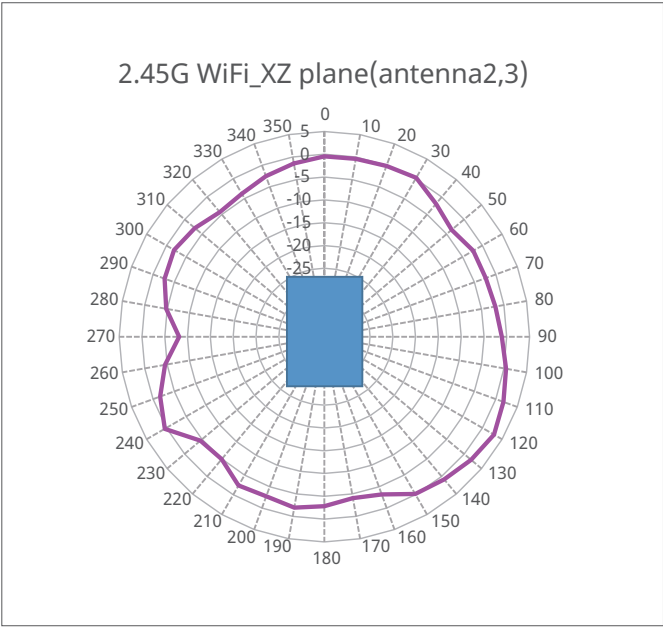


Vertical Planes (Side View, AP Facing Down)

The following figures shows the elevation antenna pattern at 2.4 GHz and 5 GHz radios.



Vertical Planes (Front View)



Note: Operating frequency bands are country-specific.

Ordering Information

| Model | Description |
|------------|--|
| RG-AP180-I | <p>Wi-Fi 6 dual-radio wall plate access point</p> <p>Four spatial streams, peak data rate of 2.976 Gbps</p> <p>802.11a/b/g/n/ac/ax, switching between Fat, Fit, and cloud modes, and 802.3af/at PoE and local DC power supply</p> <p>Note:</p> <ul style="list-style-type: none">• The power source equipment (PSE) needs to be purchased separately.• The DC power supply needs to be purchased separately, and the output voltage/current must be 48 V/0.6 A. |

Package Contents

| Item | Quantity |
|---|----------|
| Main unit | 1 |
| Mounting bracket | 1 |
| T8 Phillips screw | 1 |
| 4.2 mm x 20 mm Phillips pan head self-tapping screw | 2 |
| Warranty Card and Hazardous Substance Table | 1 |
| Quick Start Guide | 1 |

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-Summary/>

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

More Information

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

- Ruijie Networks official website: <https://www.ruijienetworks.com/>
- 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.