



# RG-AP810-L

Wi-Fi 6 Dual-Radio Indoor  
Access Point

# 01

## Product Overview

Ruijie RG-AP810-L is a cost-effective entry-level wireless access point (AP) with Wi-Fi 6 dual-radio design. It is easy and flexible for small- and medium-sized enterprises, and its features, functionality, and performance can be extended for large-sized enterprise network deployments.

Ruijie RG-AP810-L supports a maximum wireless throughput of 1.201 Gbps in 5 GHz radio mode (HE80) with 80 MHz bandwidth, and the actual aggregated data rate reaches 1.775 Gbps (HE80/HE40). It fully complies with Wi-Fi 6 features, and ensures minimal signal interference.

Facing uprising challenges of management efficiency and wireless security, all Ruijie enterprise APs support hybrid management. When the RG-AP810-L is deployed as the standalone AP (Fat mode) or managed AP (Fit or Cloud mode), it can automatically detect the operation mode, without the need for additional firmware upgrade. You can flexibly select a management mode of APs by function and capacity as needed.

- **Public cloud:** Ruijie Cloud is targeted for the SME segment with integrated captive portal, identity authentication (such as PPSK for employees, voucher, and account), and reporting features. Together with Ruijie Cloud App (free download), SME customers can provision and manage their networks at fingertips.
- **Hybrid cloud:** For enterprise office, campus network, and hospitality customers with single or multiple sites, a hybrid mode consisting of Ruijie RG-WS series wireless access controller (on-premises) and Ruijie Cloud (optional) is recommended for high-density AP deployment. The wireless access controller provides integrated wireless management and authentication, and is installed at the customer's site. Optionally, the cloud management platform allows for value-added functions such as centralized device configuration and monitoring, AI radio optimization, and reporting.

# 02

## Product Appearance



# 03

## Product Highlights

### High Speed and Intelligent Network Optimization for Better User Experience

- **HE80 support through the latest Wi-Fi 6 chip group, providing high throughput and data**

**rate of up to 1.775 Gbps (HE80/HE40)**

- **OFDMA and DL MU-MIMO, improving multi-user efficiency**

- AI-powered automated radio optimization
- IEEE 802.11k/v/r support, roaming stickiness optimization, and remote association improvement for better user experience

#### Secure and Reliable Network System

- Various WPA3 encryption and authentication modes including WPA3-Personal (SAE), WPA3-Personal mixed mode, WPA3-Enterprise (CCMP, 128bits), improving data security

## 04 Product Features

#### High Speed Wi-Fi 6 for Better Experience

The RG-AP810-L optimizes user experience by maximizing Wi-Fi utilization and substantially reducing airtime competition between clients. It provides Orthogonal Frequency-Division Multiple Access (OFDMA) and Multi-User Multiple-Input Multiple-Output (MU-MIMO). With up to 2 spatial streams (2SS) and 80 MHz channel bandwidth (HE80), the RG-AP810-L delivers the data rate of up to 1.201 Gbps at 5 GHz band, providing pioneering wireless capabilities for enterprises.

#### 1024-QAM High-speed Access

The RG-AP810-L adopts the dual-radio and dual-band design and complies with Wi-Fi standard IEEE 802.11ax. At 5 GHz band, its maximum rate can reach 1.201 Gbps. When dual radios are enabled, it can provide a wireless data rate of up to 1.775 Gbps to realize high-speed access experience.

#### OFDMA High-density User Access

OFDMA in IEEE 802.11ax enables the RG-AP810-L to divide a WLAN channel into multiple narrower sub-channels, with each user occupying one or more sub-channels. The RG-AP810-L can schedule services of multiple users, and receive and send packets concurrently. This reduces contention for air interface resources and backoff, shortens the network latency, and improves the network efficiency.

#### Seamless Switching

The RG-AP810-L supports Hotspot 2.0 of Wi-Fi Association (WFA) and automatic identity

#### Flexible Management and Worry-free Warranty

- Maximum ROI (lifetime-free cloud management)
- Hybrid management (cloud/controller/standalone)
- 3-year hardware warranty

#### Various IoT Features

- Bluetooth 5.1 and iBeacon support

recognition, providing clients with seamless cellular-to-Wi-Fi switching.

#### Diverse Wi-Fi Technologies

It supports RF transmission technologies:

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

It supports RF channel coding technologies:

- Space-time block coding (STBC) increases the range and improves signal receiving, and enhances 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 Optimization, Reliability Guarantee

#### Industry-leading Local Forwarding Technology

The RG-AP810-L integrates intelligent local forwarding technology to eliminate the traffic

bottleneck on its connected wireless access controller. The data forwarding mode of the RG-AP810-L can be flexibly pre-configured through Ruijie's wireless access controller. Then the RG-AP810-L determines whether data needs to be forwarded by the wireless access controller or be sent to a wired network for data exchange based on the SSID or user VLAN.

To optimize network performance, roaming, and security, wireless access points can forward all traffic to its connected wireless access controller, allowing for centralized management of traffic forwarding and isolation, data encryption, and unified policy enforcement.

With the local forwarding technology, the RG-AP810-L classifies the data that is sensitive to the delay and requires real-time high-performance transmission, and forwards it through a wired network. This greatly relieves the traffic burden of the wireless access controller and better adapts to heavy-traffic transmission on 802.11ax networks..

### Abundant QoS Policies

The RG-AP810-L in centralized forwarding mode together with a wireless access controller can identify and limit application traffic by analyzing payload characteristics and traffic characteristics of data streams.

The RG-AP810-L provides abundant QoS policies. It supports bandwidth limiting based on the WLAN, AP, and STA, and provides Wi-Fi Multimedia (WMM) that defines priorities for different service data. Therefore, it implements immediate and quantitative transmission of audio and video data, and guarantees smooth application of multimedia services.

The multicast-to-unicast technology supported by the RG-AP810-L solves the video freezing problem caused by packet loss or long latency in Video on Demand (VoD) and other multicast applications on a wireless network. It enhances the experience in the use of multicast video services on a wireless network.

## Intelligent Monitoring, Green Design, and Power Saving

### Intelligent Power Monitoring

The RG-AP810-L can monitor the PoE output power and disable or enable some functions according to

the available power to ensure its normal operation.

- When powered by 802.3at, the RG-AP810-L starts up normally. Two RF cards will work normally, and the optical and electrical ports can work simultaneously.
- When powered by 802.3af, the RG-AP810-L starts up normally. Two RF cards will work normally, and the optical or electrical port can work.

### Energy Saving and Lower Power Consumption

The RG-AP810-L incorporates the packet-based power control technology. With the high-performance power design, the RG-AP810-L is energy-efficient while providing high-speed wireless access service.

## Comprehensive Security Protection

### Secure User Access

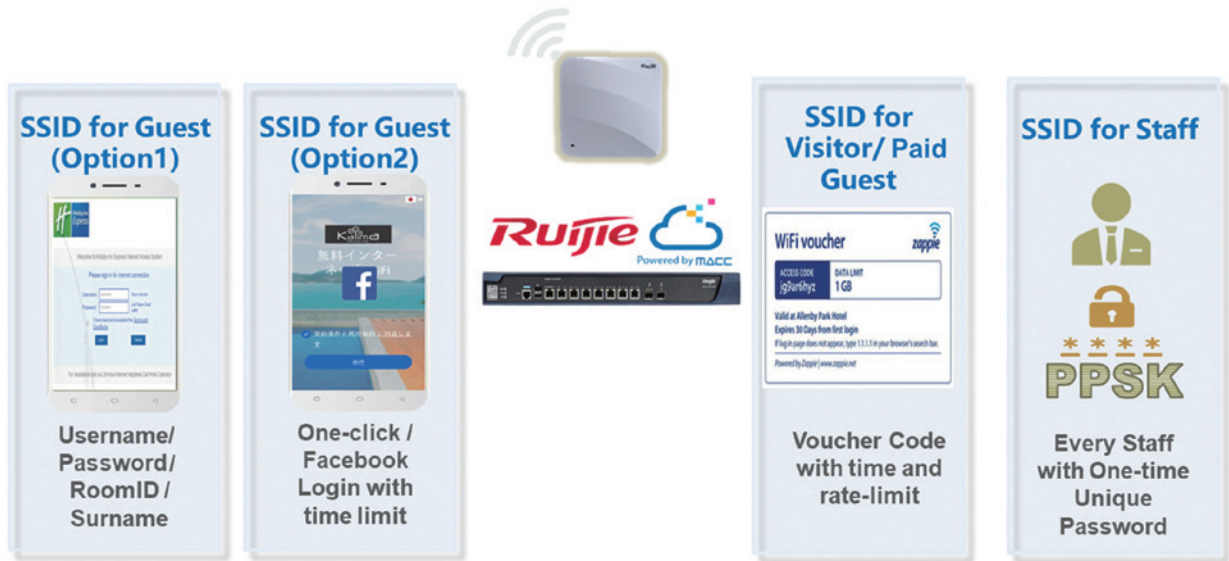
The RG-AP810-L supports various authentication and encryption technologies, including web, 802.1X, MSCHAPv2, WEP (64/128 bits), WPA-TKIP, WPA-PSK, WPA2-AES, WPA3, PPSK, UPSK, credentials/access codes, user accounts, and social authentication (required for Ruijie Cloud).

- The WPA2 device key is managed by eUPSK configured on an external server. When the device or device type changes, no additional configuration is required.
- It supports the following WPA3 types: WPA3-Personal (SAE), WPA3-Personal mixed mode, and WPA3-Enterprise (CCMP, 128 bits).

The RG-AP810-L supports Control And Provisioning of Wireless Access Points (CAPWAP) tunnels and Datagram Transport Layer Security (DTLS) v2/v3. It supports dynamic segmentation such as UPSK (AC required), dynamic VLAN, and Change of Authorization (CoA).

The RG-AP810-L does not require an authentication server or additional license, only an AC is needed to provide secure data for clients. In addition, there is no need to manually configure the SSID, VLAN, or ACL for each new client on a network.

In compliance with standard Network Access Control (NAC), it offers control policies by authentication, authorization, device compliance check, and network attack detection or prevention. All these features guarantee high network security for authenticated users.



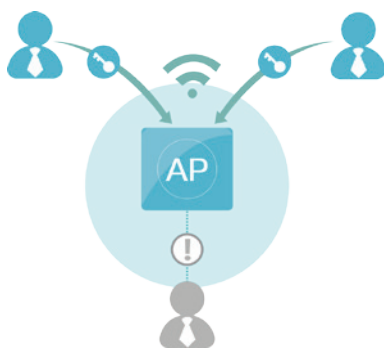
Various Enterprise Authentication Options for Guests and Employees

### Personal Pre-shared Key (PPSK)

The traditional Pre-shared Key (PSK) shared by all clients on a WLAN has a high probability of PSK leakage risks. Ruijie Personal PSK (PPSK) is an easy wireless authentication method with high security. Credentials can be created and revoked individually. Each PPSK can also be bound to a unique user or device.

PPSK brings the following benefits:

- High security by providing different passwords for each client and device for the same SSID
- Simple deployment with batch account creation
- Ease of use, offering the same experience as WPA or WPA2-PSK
- Out-of-box feature for the wireless access controller and Ruijie Cloud service
- No additional AAA server required



Simple and effective wireless security practice

### IPsec VPN

The RG-AP810-L supports a maximum of five IPsec VPN tunnels. IPsec VPN tunnels can be set up between the headquarters and branch offices to implement LAN interconnection.

### Comprehensive Wireless Security Protection

Through the RG-WS series wireless controller, the RG-AP810-L offers many security features, including Wireless Intrusion Detection System (WIDS), RF interference tracking, rogue AP containment, anti-ARP spoofing, and DHCP protection for all-around security protection.

### Hybrid Management

#### Flexible Switching Between Fat, Fit, and Cloud Modes

The RG-AP810-L supports flexible switchover among Fat, Fit, and Cloud deployment modes.

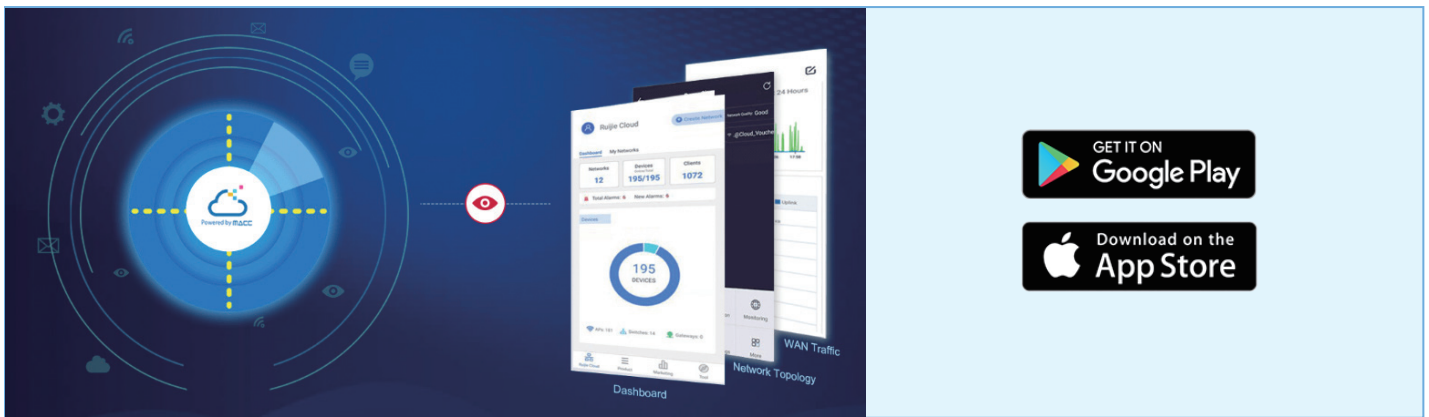
When the RG-AP810-L is deployed in Fat and Cloud mode, it can operate as a single device and be managed by the local access controller (AC). It can also be connected to the Ruijie public cloud for cloud-based management. When the RG-AP810-L is deployed in Fit mode, it can be used with the AC to achieve more functions. In Fit mode, the RG-AP810-L can be deployed through Zero Touch Provisioning (ZTP). In addition, complete remote management also greatly enhances the O&M management efficiency of a wireless network.

### Eweb and CLI Management Modes

The RG-AP810-L provides both Eweb and command-line interface (CLI) modes, which is suitable for different scenarios. In CLI mode, a network administrator can rapidly troubleshoot faults and batch import or modify the configuration. Through Eweb, a network administrator can accurately perform planning, operation, and maintenance, eliminating manual configuration errors.

### Mobile Monitoring and Optimization

You can use the free Ruijie Cloud App to achieve simple network management experience. This app features unified device lifecycle management, switches, and security gateways. The app also simplifies device provisioning, monitoring, configuration, and optimization. For details, visit official website at <https://www.ruijienetworks.com/products/smb/cloud-service/cloud-service/ruijie-cloud-solution/mobile-app>.



# 05 Specifications

## Hardware Specifications Dimensions and Weight

Dimensions and Weight	RG-AP810-L
Unit dimensions (W x D x H)	220 mm x 220 mm x 49 mm (8.7 in x 8.7 in x 2.0 in)
Shipping dimensions (W x D x H)	507 mm x 319 mm x 278 mm (20.0 in x 12.6 in x 11.0 in)
Unit weight	Device: 0.6 kg (1.33 lbs) Mounting bracket: 0.07 kg (0.15 lbs)
Shipping weight	1.04 kg (2.29 lbs)
Mounting	Wall/Ceiling-mount (A mounting bracket is delivered with the main unit)
Lock option	Kensington lock and securing latch

## Wi-Fi Radio

Wi-Fi Radio	RG-AP810-L
Radio design	Dual-radio Radio 1: 2.4 GHz, two spatial streams, 2x2 MU-MIMO Radio 2: 5 GHz, two spatial streams, 2x2 MU-MIMO
Operating frequencies	Radio 1, 802.11b/g/n/ax: <ul style="list-style-type: none"> <li>• 2.400 GHz to 2.4835 GHz, ISM</li> </ul> Radio 2, 802.11a/n/ac/ax: <ul style="list-style-type: none"> <li>• 5.150 GHz to 5.250 GHz, U-NII-1</li> <li>• 5.250 GHz to 5.350 GHz, U-NII-2A</li> <li>• 5.470 GHz to 5.725 GHz, U-NII-2C</li> <li>• 5.725 GHz to 5.850 GHz, U-NII-3/ISM</li> </ul> Note: Country-specific restrictions apply.
Data rates	Combined peak data rate: 1.775 Gbps 2.4 GHz radio, 574 Mbps <ul style="list-style-type: none"> <li>• Two spatial stream Single User (SU) MIMO for up to 574 Mbps wireless data rate to individual 2SS HE40 802.11ax client devices (max.)</li> <li>• Two spatial stream Single User (SU) MIMO for up to 287 Mbps wireless data rate to individual 2SS HE20 802.11ax client devices (typical)</li> </ul> 5 GHz radio, 1.201 Gbps <ul style="list-style-type: none"> <li>• Two spatial stream Single User (SU) MIMO for up to 1.201 Gbps wireless data rate to 2SS HE80 802.11ax client devices (typical)</li> </ul>
Data rate set	The following 802.11-compliant data rates in Mbps are supported: 2.4 GHz radio <ul style="list-style-type: none"> <li>• 802.11b: 1, 2, 5.5, 11</li> <li>• 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54</li> <li>• 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40)</li> <li>• 802.11ax: 8.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40)</li> </ul> 5 GHz radio <ul style="list-style-type: none"> <li>• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54</li> <li>• 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40)</li> <li>• 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 4, VHT20 to VHT80)</li> <li>• 802.11ax: 8.6 to 1,200 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE80)</li> </ul>
Packet aggregation	802.11n/ac/ax: A-MPDU and A-MSDU
Antenna type	Built-in omnidirectional antennas (two 2.4 GHz antennas and two 5 GHz antennas)
Max. antenna gain	2.8dBi in 2.4 GHz and 3.6 dBi in 5 GHz The downtilt angle for the maximum gain is roughly 30 degrees. With reference to the pattern of each antenna of the MIMO radios, the maximum gain of the effective per-antenna pattern is 2.3 dBi in 2.4 GHz and 2.7 dBi in 5 GHz.
Max. transmit power	2.4 GHz radio: 26 dBm (23 dBm per chain) 5 GHz radio: 26 dBm (23 dBm per chain) Note: The transmit power is limited by local regulatory requirements.
Power increment	Configurable based on requirement
Radio technologies	802.11b: Direct-Sequence Spread-Spectrum (DSSS) 802.11a/g/n/ac: Orthogonal Frequency-Division Multiplexing (OFDM) 802.11ax: Orthogonal Frequency Division Multiple Access (OFDMA)
Modulation types	802.11b: BPSK, QPSK, CCK 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM

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	RG-AP810-L		
Frequency Performance	RG-AP810-L	Max. Transmit Power per Transmit Chain	Max. Receive Sensitivity per Receive Chain
2.4 GHz, 802.11b	1 Mbps	23 dBm	-91 dBm
	2 Mbps	23 dBm	-91 dBm
	5.5 Mbps	23 dBm	-90 dBm
	11 Mbps	23 dBm	-87 dBm
2.4 GHz, 802.11g	6 Mbps	23 dBm	-89 dBm
	24 Mbps	22 dBm	-82 dBm
	36 Mbps	22 dBm	-78 dBm
	54 Mbps	20 dBm	-72 dBm
2.4 GHz, 802.11n (HT20)	MCS0	23 dBm	-85 dBm
	MCS7	19 dBm	-67 dBm
2.4 GHz, 802.11n (HT40)	MCS0	23 dBm	-82 dBm
	MCS7	19 dBm	-64 dBm
2.4 GHz, 802.11ax (HE20)	MCS0	23 dBm	-85 dBm
	MCS11	15 dBm	-58 dBm
2.4 GHz, 802.11ax (HE40)	MCS0	23 dBm	-82 dBm
	MCS11	15 dBm	-54 dBm
5 GHz, 802.11a	6 Mbps	23 dBm	-89 dBm
	24 Mbps	22 dBm	-82 dBm
	36 Mbps	22 dBm	-78 dBm
	54 Mbps	20 dBm	-72 dBm
5 GHz, 802.11n (HT20)	MCS0	23 dBm	-85 dBm
	MCS7	19 dBm	-67 dBm
5 GHz, 802.11n (HT40)	MCS0	23 dBm	-82 dBm
	MCS7	19 dBm	-64 dBm
5 GHz, 802.11ac (VHT20)	MCS0	23 dBm	-85 dBm
	MCS9	18 dBm	-60 dBm
5 GHz, 802.11ac (VHT40)	MCS0	23 dBm	-82 dBm
	MCS9	18 dBm	-57 dBm
5 GHz, 802.11ac (VHT80)	MCS0	23 dBm	-79 dBm
	MCS9	18 dBm	-53 dBm
5 GHz, 802.11ax (HE20)	MCS0	23 dBm	-85 dBm
	MCS11	16 dBm	-58 dBm
5 GHz, 802.11ax (HE40)	MCS0	23 dBm	-82 dBm
	MCS11	16 dBm	-54 dBm
5 GHz, 802.11ax (HE80)	MCS0	23 dBm	-79 dBm
	MCS11	16 dBm	-52 dBm



## Bluetooth Radio

Bluetooth Radio	RG-AP810-L
Bluetooth	Bluetooth 5.1
Antenna type	1 x onboard built-in omnidirectional antenna
Max. antenna gain	2.4 dBi, with a downtilt angle of roughly 30 degrees
Max. transmit power	17 dBm (GFSK) 14 dBm ( $\pi/4$ -DQPSK, 8-DPSK)
Receive sensitivity	-95.5 dBm (DH5) -95 dBm ( $\pi/4$ -DQPSK) -87.5 dBm (8-DPSK)

## Ports

Ports	RG-AP810-L
Fixed service port	Uplink: 1 x 10/100/1000Base-T RJ45 Ethernet port with auto-negotiation <ul style="list-style-type: none"> <li>• Compliance with IEEE 802.3af standard (PoE)</li> <li>• Auto MDI/MDIX crossover</li> <li>• PoE-PD: 54 V DC (nominal) 802.3af/at/bt (Class 3 or higher)</li> <li>• 802.3az EEE</li> </ul>
Fixed management Port	1 x RJ45 console port (serial console port)
Status LED	1 x multi-color system status LED
Button	1 x Reset button <ul style="list-style-type: none"> <li>• Press the button for shorter than 2 seconds. Then the device restarts.</li> <li>• Press the button for longer than 5 seconds. Then the device restores to factory settings.</li> </ul>

## Power Supply and Consumption

Power Supply and Consumption	RG-AP810-L
Input power supply	The AP supports the following two power supply modes: <ul style="list-style-type: none"> <li>• 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 adapter needs to be purchased separately.</li> <li>• PoE input over PoE-in port: The power source equipment (PSE) complies with IEEE 802.3af/at/bt standard (PoE/PoE+/PoE++).</li> </ul> Note: <ul style="list-style-type: none"> <li>• If both DC power and PoE are available, DC power is preferred.</li> </ul>
Power consumption	Max power consumption: 12.95 W <ul style="list-style-type: none"> <li>• DC powered: 12.95 W</li> <li>• PoE powered (802.3af): 12.95 W</li> <li>• PoE+ powered (802.3at): 12.95 W</li> <li>• PoE++ powered (802.3bt): 12.95 W</li> <li>• Idle mode: 6 W</li> </ul>

## Environment and Reliability

Environment and Reliability	RG-AP810-L
Temperature	Operating temperature: -10°C to +50°C (14°F to 122°F) Storage Temperature: -40°C to +70°C (-40°F to +158°F) Note: At an altitude between 3,000 m (9,843 ft) and 5,000 m (16,404 ft), every time the altitude increases by 220 m (722 ft), the maximum temperature decreases by 1°C (1.8°F).

Environment and Reliability	RG-AP810-L
Humidity	Operating humidity: 5% to 95% RH (non-condensing) Storage humidity: 5% to 95% RH (non-condensing)
Environment standard	Storage and shipment environment: NEBS GR-63-CORE_Issue3_2006 GB/T 2423.6-1995
Mean Time Between Failure (MTBF)	200,000 hours (22 years) at the operating temperature of 25°C (77°F)

## Regulatory Compliance

Regulatory Compliance	RG-AP810-L
Regulatory compliance	EN 55032 EN 55035 EN 61000-3-3 EN IEC 61000-3-2 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 IEC 62311 IEC 62368-1 EN 62368-1

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

## Software Specifications

Applicable Software Version	RG-AP810-L
Applicable software version	AP_RGOS 11.9(6)W1B4 or higher

## WLAN

WLAN	RG-AP810-L
Max. number of BSSIDs	32 (up to 16 BSSIDs per radio)
STA management	SSID hiding Band steering Each SSID can be configured with the authentication mode, encryption mechanism, and VLAN attributes independently. Remote intelligent perception technology (RIPT) Intelligent client identification technology 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
Wireless roaming	Layer 2 and Layer 3 roaming

## Security

Security and Authentication	RG-AP810-L
Authentication and encryption	Remote Authentication Dial-In User Service (RADIUS) PSK, PPSK, web, 802.1X, MSCHAPv2, PEAP, WPA, WPA2, and WPA3 authentication Data encryption: WEP (64/128-bit), WPA-TKIP, WPA-PSK, WPA2-AES, WPA3
Data frame filtering	Allowlist, static blocklist, and dynamic blocklist
WIDS	WIDS (Wireless Intrusion Detection System) User isolation Rogue AP detection and containment
ACL	Dynamic ACL assignment <ul style="list-style-type: none"> <li>• ACL assignment based on time spans</li> <li>• ACL assignment (complete entry) based on MAC addresses</li> <li>• Execution of pre-configured ACLs (entry index) based on MAC addresses</li> </ul>
CPP	Supported
NFPP	Supported

## Routing and Switching

Routing and Switching	RG-AP810-L
IP service	Static IPv4 address and DHCP-assigned IPv4 address DHCP Snooping, Option 82, DHCP Server, DHCP Client
Multicast	Multicast-to-unicast conversion
IPv6 basics	IPv6 addressing, Neighbor Discovery (ND), ICMPv6, IPv6 Ping IPv6 DHCP Client
IP routing	IPv4/IPv6 static routing
VPN	PPPoE Client IPsec VPN, up to five IPsec tunnels

## Management

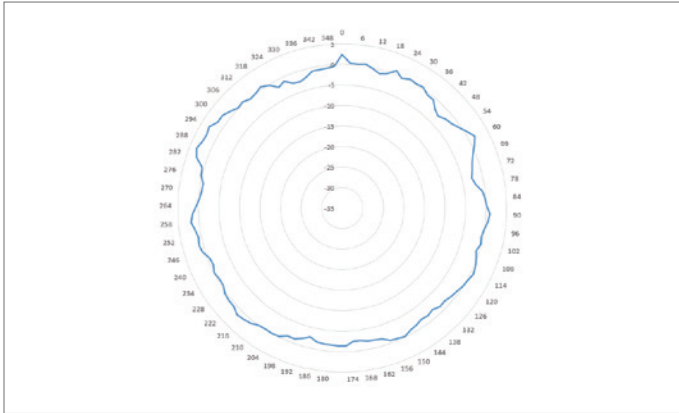
Management	RG-AP810-L
Network management	SNMP v1/v2c/v3 Syslog Debugging
Network management platform	Web-based management (Eweb) Ruijie Cloud
User access management	Console, SSH, and Telnet-based management FTP Client and TFTP Client
Fat/Fit/Cloud mode switchover	When the AP works in Fit mode, it can 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 Ruijie Cloud.

# 06

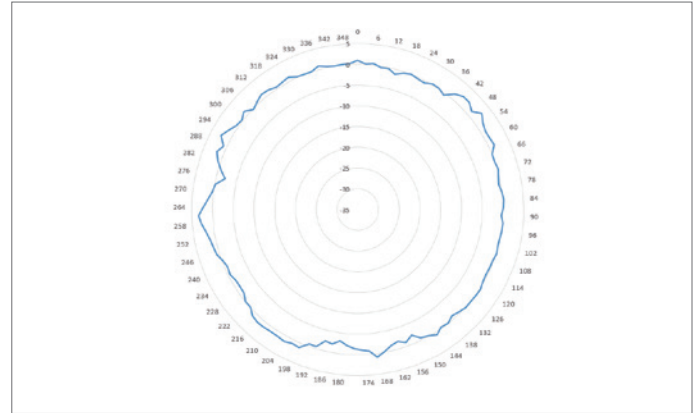
## Antenna Pattern Plots

### Horizontal Planes (Top View)

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



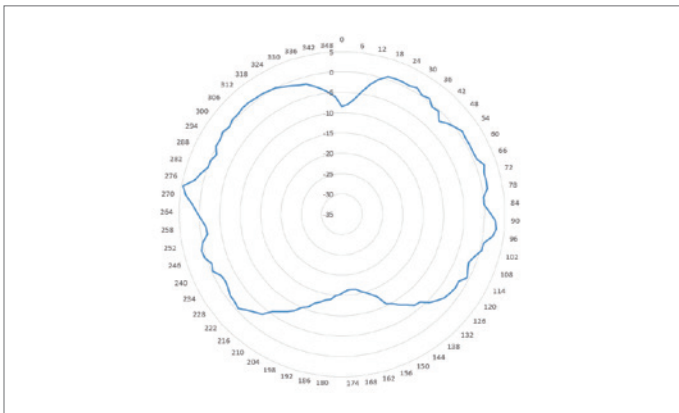
2.4 GHz



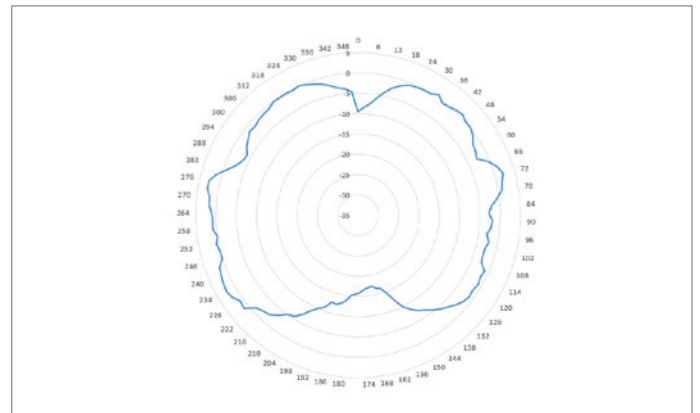
5 GHz

### Vertical Planes (Side View, AP Facing Down)

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



2.4 GHz



5 GHz

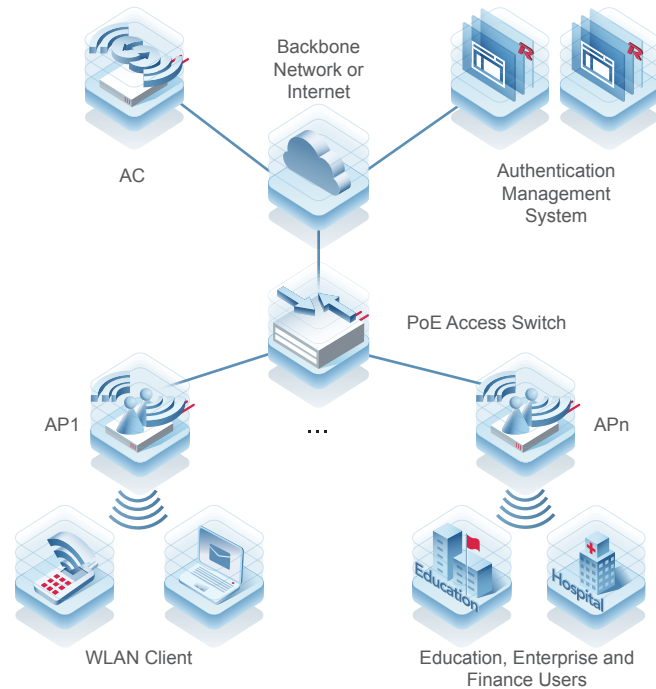
# 07

## Typical Applications

### Typical Scenario

The AP is applicable to densely populated areas with simple building structures, no special obstructions, and a large capacity demand. Such areas cover the scenarios of meeting rooms, libraries, classrooms, bars, and leisure centers. The AP can be flexibly deployed based on the environment.

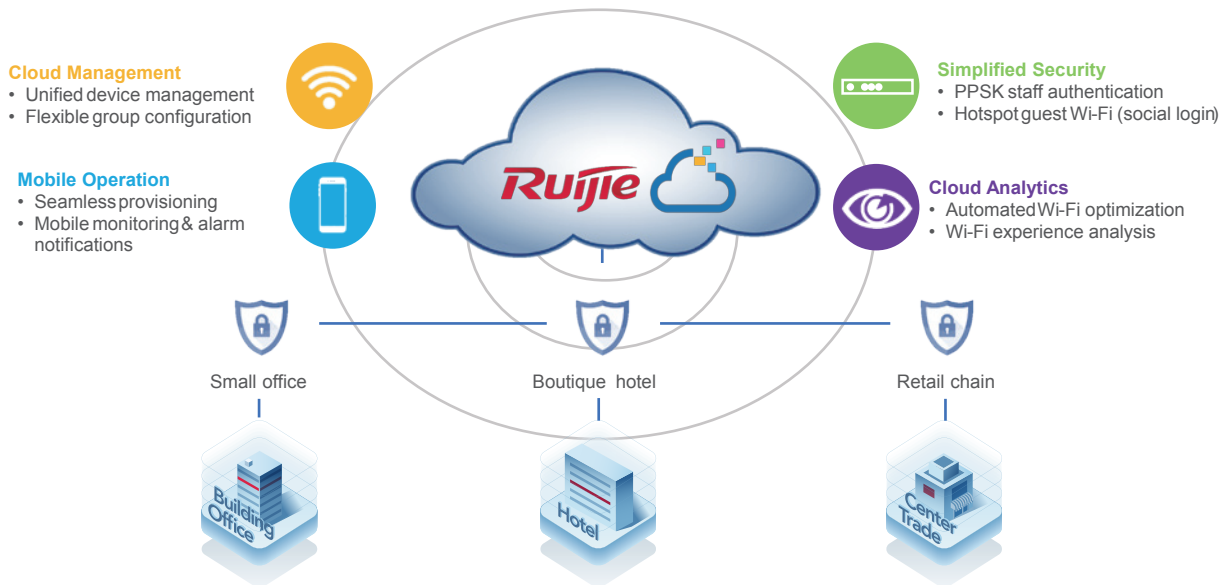
The following figure shows the typical network topology of the RG-AP810-L.



## Public Cloud Deployment

With Ruijie public cloud service, RG-AP810-L access point is best suited for SME scenarios including small offices, boutique hotel, and retail store etc. Ruijie Cloud is the only vendor offering enterprise cloud with lifetime free licenses. It significantly streamlines the IT operational efficiency, and reduces the wireless deployment complexity with cost-effective options for SMEs.

The Ruijie Cloud service provides network provisioning, monitoring, optimization, operation, and maintenance. Devices can be deployed or swapped with a simple plug-and-play manner. Automatic RF planning feature meets the needs of increasing user experiences demand.



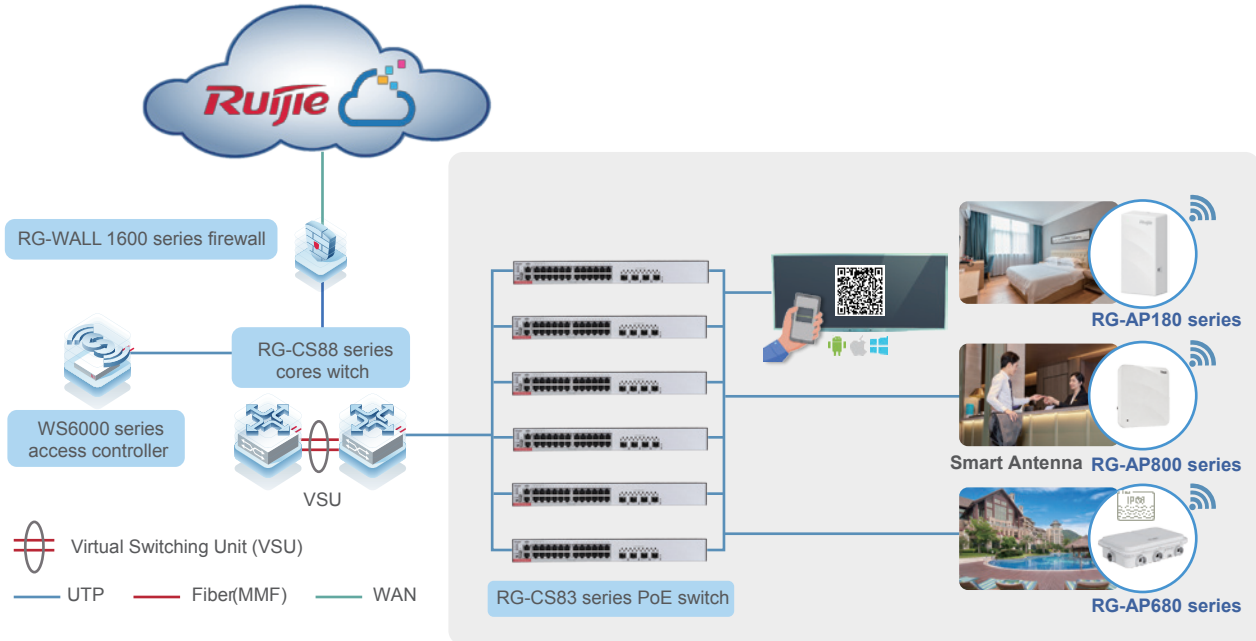
## Key Features:

- Unified device management
- Fast provisioning by Cloud and App
- Secure PPSK/UPSK authentication
- Captive portal & social media authentication

- App-based monitoring and alarm

### Hybrid Cloud Deployment

For enterprise office, campus network, and hospitality customers with single or multiple sites, a hybrid mode consisting of Ruijie RG-WS series wireless access controller (on-premises) and cloud-based management (optional) is recommended for high-density AP deployment. Wireless access controllers are installed at the customer's site with fully integrated wireless management and authentication features, supporting large-scale AP management with cluster-based controller architecture. Optionally, the cloud management platform allows for value-added features such as centralized device configuration and monitoring, and reporting.



### Key Features:

- Centralized device management and reporting by Ruijie Cloud
- Ultra-seamless roaming management
- High performance and security with all user authentication and traffic forwarding handled locally
- Flexible authentication options, including 802.1X, MSCHAPv2, and voucher authentication
- Unified management of all series of Ruijie APs

## 08 Ordering Information

Model	Description	Remarks
RG-AP810-L	Wi-Fi 6 (802.11ax) dual-radio indoor wireless access point Up to four spatial streams Data rate of up to 1.775 Gbps 1 x 10/100/1000Base-T uplink port, supporting PoE and DC power supply Bundled with Ruijie Cloud Service lifetime license (The PoE injector is sold separately, which could be purchased from Ruijie. The DC power adapter should be purchased from a third-party vendor separately if needed.)	Mandatory
RG-E-120(GE)	1-port PoE injector (1000BASE-T, IEEE 802.3af-compliant)	Optional

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## Package Contents

Item	Quantity
Main unit	1
Mounting bracket	1
Wall anchor	2
M4 x 20 mm screw	4
Warranty Card	1
Quick Start Guide	1

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## 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.

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## 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](mailto:service_rj@ruijienetworks.com)



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