RG-MAP852-SF-M

Wi-Fi 6 Dual-Radio Wall Plate Micro AP

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Product Pictures

RG-MAP852-SF-M Front View

RG-MAP852-SF-M Side View

RG-MAP852-SF-M Rear View

Product Overview

The RG-MAP852-SF-M Series APs are universal IEEE 802.11ax-compliant dual-radio wall plate micro access points (APs) for Ruijie O-Share Solution oriented to complex application environments, such as wireless dormitory networks, hotels, and dense office networks in higher education, general education, government, finance, and commerce industries.

RG-MAP852-SF-M supports the i-Share mode, provides one uplink 2.5G SFP port and four downlink 1G electrical ports, and uses hybrid cables for communication and power supply with up to 2.976 Gbps peak data rate in each room. RG-MAP852-SF-M meets high-performance access requirements in dormitories, offices, and other environments.

RG-MAP852-SF-M can be wall-mounted. It can directly connect to the optical i-Share+ master AP (common mode) and switch and be used and configured as a wall-mounted AP.

In addition, RG-MAP852-SF-M fully considers wireless network security, radio frequency (RF) control, mobile access, service quality guarantee, seamless roaming, and other factors to complete data forwarding and security and access control of wireless users.

Product Features

Simplified Optical Ethernet Solution Architecture

Fiber to Room and Exclusive Bandwidth

Ruijie O-Share Solution adopts the architecture of fiber to room and one fiber for each room. Each room has exclusive line and bandwidth resources without needing to consider the optical split ratio. The traditional passive optical network (PON) solution architecture utilizes 1:8 or 1:16 optical splitting, which can hardly meet high bandwidth application requirements. Ruijie O-Share Solution implements room-level high-speed optical networks and makes full use of Wi-Fi 6 to bring high-speed wireless network services.

Simplified Construction: Free Optical Fiber Deployment

Compared with traditional Ethernet cables, optical fibers feature long communication distance, small size, and long service life.

Based on the technical base of the i-Share+ solution, Ruijie O-Share Solution uses hybrid cables, which ensure at least 1.1 km lossless transmission. Even in modern high buildings, wired signals in the building's weak-current equipment room can reach each room through optical fibers. This solution architecture helps customers reduce relay devices in buildings, significantly reduces the network management difficulty, and ensures flat network management.

Compared with traditional copper cables, the hybrid cables used for Ruijie O-Share Solution feature small cross-sectional area and high flexibility, and have obvious advantages over Ethernet cables in terms of cable tray design, construction and cabling convenience, and cabling aesthetics, bringing great convenience in the early intelligent weak current design, mid-phase construction, and later management and maintenance.

Ethernet cables only have a 3 to 5 years lifespan on average. However, optical fibers have a lifespan of 10 years, which helps customers eliminate subsequent cable O&M.

Intelligent Management and Convenient O&M

The micro AP for Ruijie O-Share Solution inherits the management mode of the i-Share solution. In i-Share mode, micro APs do not need to deliver configurations, and power over Ethernet (PoE) switches do not need to be deployed. It is an optimal choice for future wireless network development towards high performance, high density, small scale, and microcell.

Flexible Expansion and Worry-free Service

Ruijie O-Share Solution fully considers room-level bandwidth expansion in future service upgrades. With one optical fiber deployed in each room, the optical split ratio does not need to be re-calculated. The optical fibers automatically adapt to the port bandwidth, and the deployed cables do not need to be adjusted. To ensure bandwidth upgrade in rooms, only the optical i-Share+ master AP and micro AP need to be replaced.

Intelligent Power Supply and Worry-free Security

In Ruijie O-Share Solution, the i-Share+ AP panel has 24 power supply ports, and the maximum output power of PoE power supply is 480 W. It can bear 24 i-Share+ APs (AF power supply) in 1100 m. This solves the department coordination, electricity use security, and charging fee allocation issues of local power supply and dramatically improves O&M convenience.

Multi-Level Distributed System Architecture

Performance Comes First: Multi-Level Distributed Architecture

With the continuous implementation of the Broadband China strategy, the requirements for bandwidth of wireless networks also keep increasing. Ruijie O-Share Solution adopts the multi-tier distributed architecture. The master AP (RG-MAP852-SF) adopts the distributed architecture. Different modules are used for data forwarding and service management, and 10G uplink interfaces are used to eliminate data transmission bottlenecks. The RF modules of micro APs deployed in rooms use independent CPUs for data processing and forwarding and an independent RF chip for multi-user air interface scheduling. The multi-tier distributed architecture design of optical i-Share+ master AP + micro AP brings high performance to the O-Share Solution.

High Performance and Reliability

Intelligent Local Forwarding

RG-MAP852-SF-M integrates Ruijie Networks intelligent local forwarding technology and breaks through the bottleneck in the traffic of AP controllers (ACs). The data forwarding mode of RG-MAP852-SF-M can be pre-configured through the Ruijie RG-WS series AC. Then, this AP determines whether data needs to be forwarded by the AC based on the SSID name or user VLAN, or be sent to a wired network for data exchange.

With the local forwarding technology, the AP classifies data that is sensitive to delay and requires highly real-time transmission, and forwards it through a wired network. In this way, the traffic pressure of the AC is greatly relieved, and the AP better adapts to heavy-traffic transmission on 802.11ax networks.

Roaming Access

Cooperated with the RG-WS series AC, RG-MAP852-SF-M ensures seamless rooming of wireless users between L2 and L3 networks. Wireless users will not feel data access interruption when they move between RG-MAP852-SF-Ms.

Abundant QoS Policies

RG-MAP852-SF-M supports abundant QoS policies, such as bandwidth limitation in WLAN, AP, and STA modes and bandwidth guarantee for key data applications first.

The multicast-to-unicast technology supported by RG-MAP852-SF-M solves the video lagging problem caused by packet loss or long delay in Video on Demand (VoD) and other multicast applications on wireless networks, and enhances the experience in the use of multicast video services on wireless networks.

Wireless IPv6 Access

RG-MAP852-SF-M supports IPv6 features, ensuring IPv6 forwarding on wireless networks. IPv4 and IPv6 users can automatically connect to ACs through tunnels to bear IPv6 applications on wireless networks.

Flexible and Complete Security Policies

User Data Encryption Security

RG-MAP852-SF-M supports a complete data security protection mechanism. The WEP, TKIP, and AES encryption technologies are supported to ensure data transmission security of the wireless network.

RF Security

With Ruijie Networks unified NMS RG-INC and RG-WS series AC, RG-MAP852-SF-M can enable the RF probe scanning mechanism, discover illegal access points or other RF interference sources in real time, and provide corresponding alarms to the NMS in real time, enabling the network administrators to monitor the potential threats and usage in each wireless environment anytime.

Multiple Easy-to-Use Authentication Modes

RG-MAP852-SF-M not only supports traditional web page authentication and 802.1x client authentication to monitor users' network access behavior but also provides convenient authentication methods for customers based on actual scenarios. It cooperates with the RG-WS series AC to ensure MAB authentication and SM-based or QR code-based visitor authentication.

Users need to enter their usernames and passwords only for the first time when accessing a network by using STAs via MAB authentication. They can directly access the network with no need to enter the usernames and passwords again in their future access.

When visitors access a wireless network via SM-based authentication, an authentication page pops up, on which visitors can register accounts by using their mobile numbers and access the Internet by using the usernames and passwords in their received SMs.

QR code-based authentication is another convenient way for visitors to access the Internet. After accessing a wireless network, visitors can receive a QR code prompt. They can access the network after being authorized by the visited employees. Visitor behaviors are directly linked with the visited employees, providing better security.

DHCP Snooping

DHCP snooping is supported to allow the DHCP responses from trusted ports only. This prevents setting up a DHCP server without permission of the administrator, disrupting the distribution and management of IP addresses, and affecting the normal network access of users. On the basis

of DHCP snooping, dynamic ARP monitoring and source IP address detection are performed to prevent ARP host spoofing and source IP address spoofing in the environment in which the DHCP server dynamically allocates IP addresses.

Anti-ARP Spoofing

Address Resolution Protocol (ARP) viruses or attacks are a type of common and influential network attack. RG-MAP852-SF-M supports ARP spoofing prevention in multiple modes. Regardless of whether clients automatically obtain addresses from the DHCP server or use static IP addresses, RG-MAP852-SF-M records clients' authentic IP+MAC addresses and compare addresses in ARP packets with recorded IP+MAC addresses when ports receive the ARP packets from hosts. RG-MAP852-SF-M forwards only ARP packets whose addresses match the recorded IP+MAC addresses and discards fake ARP packets. In this way, ARP spoofing is shielded outside the network, and network users are protected from ARP virus attacks.

Proactive Defending Against Various DoS Attacks

Computers may be infected with viruses due to network openness or attackers may launch attacks on network devices and servers for various purposes, resulting in network unavailability. The common ARP flood attacks can lead to the failure of the gateway to respond to requests. Internet Control Message Protocol (ICMP) flood attacks can paralyze network devices due to high CPU load. DHCP request flood attacks deplete addresses of the DHCP server, and users cannot obtain IP addresses for network access.

RG-MAP852-SF-M adopts the innovative Network Foundation Protection Policy (NFPP) technology to limit the rate of ARP packets, ICMP requests, DHCP requests, and other packets sent to networks. RG-MAP852-SF-M discards packets whose rate exceeds the threshold, identifies attack behaviors, and isolates users launching attacks. In this way, the basic networks are protected from network attacks, and therefore the network stability is guaranteed.

Management Information Security

Through the Secure Shell (SSH) and Simple Network Management Protocol version 3 (SNMPv3), RG-MAP852-SF-M can encrypt management information in the telnet and SNMP processes, to ensure information security of management devices and prevent hackers from attacking and controlling the devices. Based on source IP address control, Telnet access control provides more precise device management and control. This ensures that only the devices with IP addresses configured by administrators can log in to the AP, thereby enhancing the network management security.

Abundant Management Policies

Zero-Configuration Installation

When RG-MAP852-SF-M works in fit mode, pre-configuration is not required before installation. During on-site installation and subsequent maintenance, re-configuration is not required for product replacement. Configuration information can be automatically inherited from the AC to complete configuration, which dramatically reduces the implementation and maintenance workload and costs.

Comprehensive Remote Management

The working parameters of RG-MAP852-SF-M deployed in any position, such as the channel number, power class, SSID settings, security settings, and VLAN division can be centrally processed by the remote RG-WS series AC. This reduces local management resource consumption and centralizes the management permission, improving the security and management efficiency of the wireless network.

Web GUI Management

RG-MAP852-SF-M performs web GUI management through the AC. O&M personnel can complete wireless configuration easily and manage the wireless network in an all-round manner. On the AC Web GUI, O&M personnel can manage the AP as well as STAs connected to the AP, and restrict the rates and network access behaviors of the STAs. With the GUI, O&M personnel can plan, manage, and maintain wireless networks conveniently.

Product Specifications

Hardware Specifications

Hardware Specifications	RG-MAP852-SF-M
Dimensions and Weight	
Unit dimensions (W x H x D)	160 mm x 86 mm x 32.5 mm (6.30 in. x 3.39 in. x 1.28 in.)
Shipping dimensions (W x D x H)	180 mm x 123 mm x 67 mm (7.09 in. x 4.82 in. x 2,64 in.)
Unit weight	Main unit: 0.30 kg (0.66 lbs.) Mounting bracket: 0.05 kg (0.11 lbs.)
Shipping weight	0.5 kg (1.1 lbs)
Installation	Ceiling mounting, wall mounting, or 86-mm junction box
Color	White
Lock option	Securing latch
Wi-Fi Specifications	
Radio design	Dual-radio Four spatial streams per device Radio 1: 2.4 GHz, 2 spatial streams: 2x2, MU-MIMO Radio 2: 5 GHz, 2 spatial streams: 2x2, MU-MIMO
Operating frequencies	Radio 1, 802.11b/g/n/ax: • 2.400 GHz to 2.4835 GHz, channels 1 to 13 Radio 2, 802.11a/n/ac/ax: • 5.150 GHz to 5.250 GHz, U-NII-1, channels 36, 40, 44, and 48 • 5.250 GHz to 5.350 GHz, U-NII-2A, channels 52, 56, 60, and 64 • 5.470 GHz to 5.725 GHz, U-NII-2C, channels 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, and 140 • 5.725 GHz to 5.850 GHz (HE80), U-NII-3/ISM, channels 149, 153, 157, 161, and 165 Note: Country-specific restrictions apply.
Date rates	Combined peak data rate: 2.976 Gbps Radio 1: 2.4 GHz, 574 Mbps • Two spatial stream Single User (SU) MIMO for up to 574 Mbps wireless data rate to individual 2SS HE40 802.11ax client devices (max.) • Two spatial stream Single User (SU) MIMO for up to 287 Mbps wireless data rate to individual 2SS HE20 802.11ax client devices (typical) Radio 2: 5 GHz, 2.402 Gbps • Two spatial stream Single User (SU) MIMO for up to 2.402 Gbps wireless data rate to individual 2SS HE160 802.11ax client devices (max.) • Two spatial stream Single User (SU) MIMO for up to 1.201 Gbps wireless data rate to individual 2SS HE80 802.11ax client devices (typical)

Hardware Specifications	RG-MAP852-SF-M
Data rate set	The following 802.11-compliant data rates in Mbps are supported: 2.4 GHz radio ● 802.11b: 1, 2, 5.5, 11 ● 802.11g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, 54 ● 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40) ● 802.11ax: 8.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40) 5 GHz radio ● 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 ● 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40) ● 802.11ac: 6.5 to 1,732 (MCS0 to MCS9, NSS = 1 to 2, VHT20 to VHT160) 802.11ax: 8.6 to 2,402 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE160)
Packet aggregation	802.11n/ac/ax: A-MPDU and A-MSDU
Antenna type	Built-in omnidirectional antenna ● 2 x 2.4 GHz antennas ● 2 x 5 GHz antennas
Antenna gain	2.4 GHz: 3 dBi 5 GHz: 3 dBi
Max. transmit power	2.4 GHz radio: 21 dBm (18 dBm per chain) 5 GHz radio: 21 dBm (18 dBm per chain) Note: The transmit power is limited by local regulatory requirements.
Power increment	Configurable in increments of 1 dBm or in percentage (recommended)
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, 256-QAM 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM

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

Wi-Fi Radio Frequency Performance	RG-MAP852-SF-M		
Frequency Band and Protocol	Data Rate	Max. Transmit Power per Transmit Chain	Max. Receive Sensitivity per Receive Chain
2.4GHz 802.11b	1 Mbps	18 dBm	–91 dBm
	2 Mbps	17 dBm	–91 dBm
	5.5 Mbps	16 dBm	–90 dBm
	11 Mbps	15 dBm	–87 dBm
2.4GHz 802.11g	6 Mbps	18 dBm	–89 dBm
	24 Mbps	16 dBm	–82 dBm
	36 Mbps	16 dBm	–78 dBm
	54 Mbps	15 dBm	–72 dBm
2.4GHz 802.11n (HT20)	MCS0	18 dBm	–85 dBm
	MCS7	15 dBm	–67 dBm
2.4GHz 802.11n (HT40)	MCS0	18 dBm	–82 dBm
	MCS7	15 dBm	–64 dBm
2.4GHz 802.11ax (HE20)	MCS0	18 dBm	–85 dBm
	MCS11	12 dBm	–58 dBm
2.4GHz 802.11ax (HE40)	MCS0	18 dBm	–82 dBm
	MCS11	12 dBm	–54 dBm
5GHz 802.11a	6 Mbps	18 dBm	–89 dBm
	24 Mbps	16 dBm	–82 dBm
	36 Mbps	16 dBm	–78 dBm
	54 Mbps	15 dBm	–72 dBm

Wi-Fi Radio Frequency Performance	RG-MAP852-SF-M		
Frequency Band and Protocol	Data Rate	Max. Transmit Power per Transmit Chain	Max. Receive Sensitivity per Receive Chain
5GHz 802.11n (HT20)	MCS0	18 dBm	–85 dBm
	MCS7	15 dBm	–67 dBm
5GHz 802.11n (HT40)	MCS0	18 dBm	–82 dBm
	MCS7	15 dBm	–64 dBm
5GHz 802.11ac (VHT20)	MCS0	18 dBm	–85 dBm
	MCS9	15 dBm	–60 dBm
5GHz 802.11ac (VHT40)	MCS0	18 dBm	–82 dBm
	MCS9	15 dBm	–57 dBm
5GHz 802.11ac (VHT80)	MCS0	18 dBm	–79 dBm
	MCS9	15 dBm	–53 dBm
5GHz 802.11ax (HE20)	MCS0	18 dBm	–85 dBm
	MCS11	12 dBm	–58 dBm
5GHz 802.11ax (HE40)	MCS0	18 dBm	–82 dBm
	MCS11	12 dBm	–54 dBm
5GHz 802.11ax (HE80)	MCS0	18 dBm	–79 dBm
	MCS11	12 dBm	–52 dBm
5GHz 802.11ax (HE160)	MCS0	16 dBm	–75 dBm
	MCS11	9 dBm	–48 dBm

Hardware Specifications	RG-MAP852-SF-M
Bluetooth Radio	
Bluetooth	Bluetooth 5.1
Antenna type	Omnidirectional anntenna
Max. antenna gain	2 dBi, with a downtilt angle of roughly 30 degrees
Max. transmit power	10 dBm
Receive sensitivity	–98 dBm
Port Specifications	
Fixed service port	1 × 2.5G SFP port 4 × 10/100/1000Base-T Ethernet ports with auto-negotiation • Intelligent MDI/MDIX recognition for automatic MDI/MDIX crossover and automatic identification of connected network cable types
Fixed management port	1 x Micro USB console port
Status LED	1 x system status LED
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.
Power Supply and Consumption	
Input power supply	(1) 48 V DC/0.5 A power input (2) IEEE 802.3af-compliant PoE power input using hybrid cables
Max. power consumption	Up to 11 W in standalone mode
Environment and Reliability	
Temperature	Operating temperature: –10°C to +40°C (14°F to 104°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 167 m (548 ft.), the maximum temperature decreases by 1°C (1.8°F).
Humidity	Operating humidity: 5% RH to 95% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)
Environment standard	Storage and operating environment: NEBS GR-63-CORE_Issue3_2006 GB/T 2423.6-1995

Hardware Specifications	RG-MAP852-SF-M
Mean Time Between Failure (MTBF)	200,000 hours (22 years) at the operating temperature of 25°C (77°F)

Software Specifications

Software Specifications	RG-MAP852-SF-M
Basic Functions	
Applicable software version	RGOS11.9(6)W1B9 or later
WLAN	
Max. number of associated STAs	1,024 (up to 512 STAs per radio)
Max. number of BSSIDs	16 (up to 8 BSSIDs per radio)
WLAN service	Maximum number of WLAN IDs: 8 Maximum number of users per WLAN: 1,024
STA management	SSID hiding Band steering Intelligent load balancing based on client count, traffic, or radio frequency Enabling or disabling the radio as scheduled Intelligent STA identification technology Rate set settings Remote Intelligent Perception Technology (RIPT) Parameter adjustment for enhanced user experience: client RSSI threshold, client idle timeout, client average rate threshold, transmit power of beacon frames and probe responses
STA limiting	SSID-based STA limiting Radio-based STA limiting
Bandwidth limiting	WLAN QoS rate limiting, fair scheduling, and Wi-Fi Multimedia (WMM)
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
Data forwarding	Centralized and local forwarding

Software Specifications	RG-MAP852-SF-M
Wireless roaming	Layer 2 and Layer 3 roaming
Wireless locating	MU and TAG device locating
Security and Authentication	
Authentication and encryption	Remote Authentication Dial-In User Service (RADIUS) PSK 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-Personal
Data frame filtering	Allowlist, static blocklist, and dynamic blocklist
WIDS	Wireless Intrusion Detection System(WIDS) User isolation Rogue AP detection and containment
ACL	IP standard ACL, MAC extended ACL, IP extended ACL, and expert-level ACL 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 the AC)
CPP	CPU Protect Policy (CPP)
NFPP	Network Foundation Protection Policy (NFPP)
Routing and Switching	
MAC	Static and filtered MAC addresses MAC address table size: 2048 Max. number of static MAC addresses: 2,048 Max. number of filtered MAC addresses: 2,048
Ethernet	Jumbo frame length: 1,518 bytes Full-duplex and half-duplex modes of interfaces IEEE802.1p and IEEE802.1Q Optical module information display, alarms about faults, and diagnosis parameter measurement (QSFP+/SFP+/SFP)

Software Specifications	RG-MAP852-SF-M
VLAN	Interface-based VLAN assignment, VLAN group Max. number of SVIs: 100 Max. number of VLANs: 4,094 VLAN ID range: 1 to 4,094
ARP	ARP entry aging, gratuitous ARP learning, and proxy ARP Max. number of ARP entries: 1024 ARP check
IPv4 services	IPv4 ping and IPv4 traceroute DNS client DHCP Server, DHCP client, and DHCP Relay DHCPv4 Snooping IPv4 Source Guard
IPv6 services	Static and dynamic IPv6 addresses Neighbor Discovery (ND) IPv6 ping and IPv6 traceroute IPv6 transparent transmission ICMPv6 IPv6 DHCP client
IP routing	IPv4/IPv6 static routing Max. number of static IPv4 routes: 1,024 Max. number of static IPv6 routes: 1,000 Static black hole routing
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)

Software Specifications	RG-MAP852-SF-M
User access management	Telnet 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 mode. When the AP works in cloud mode, it can be managed through Ruijie Cloud.

Regulatory Compliance

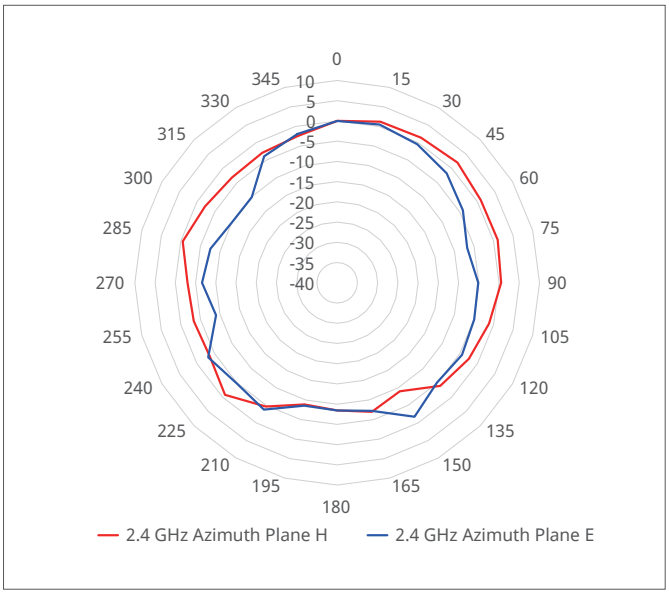
Regulatory Compliance	RG-MAP852-SF-M
Regulatory compliance	EN 55032, EN 55035, EN 61000-3-3, EN IEC 61000-3-2, EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 300 328, EN 301 893, EN 300 440, FCC Part 15, EN IEC 62311, IEC 62368-1, and EN 62368-1

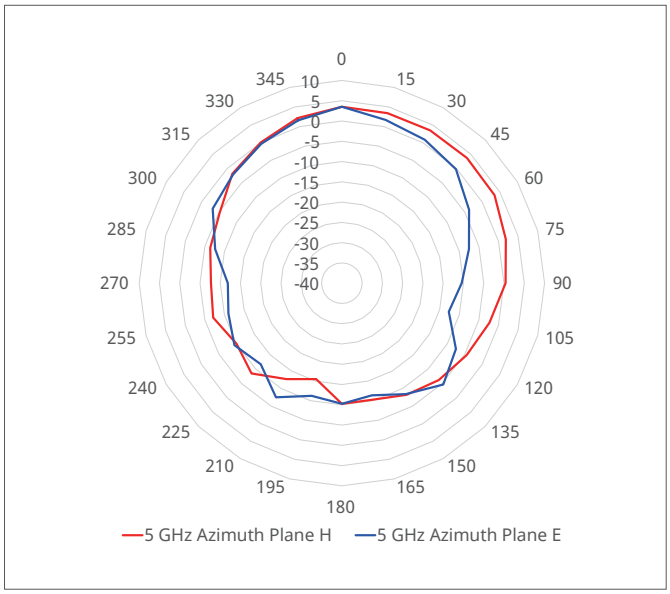
* For more country-specific regulatory information and approvals, contact your local sales agency.

Antenna Pattern Plots

Horizontal Planes (Top View)

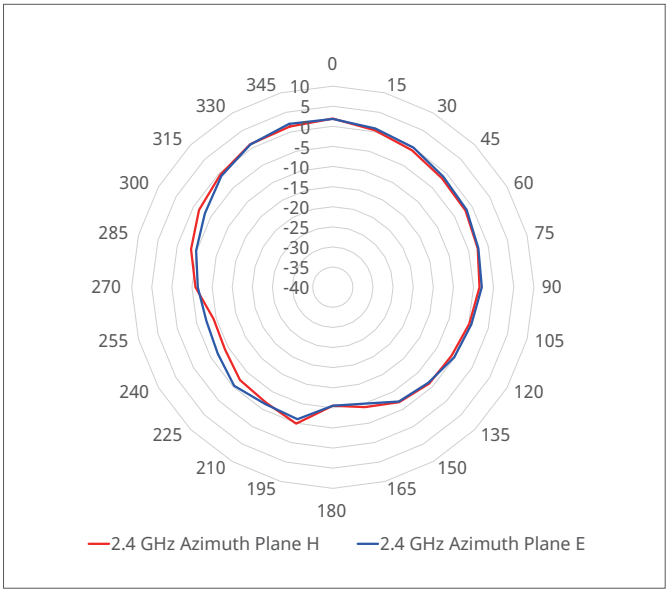
The following figures show the azimuth antenna pattern at 2.4 GHz and 5 GHz radios.

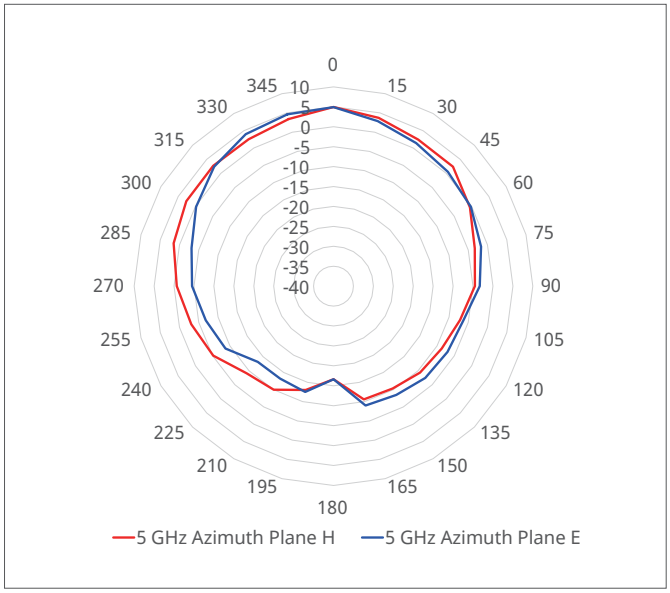




Vertical Planes (Side View, AP Facing Down)

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



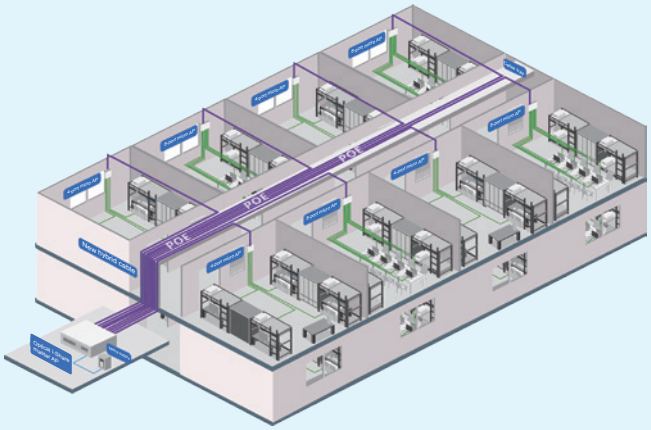


Note: Operating frequency bands are country-specific.

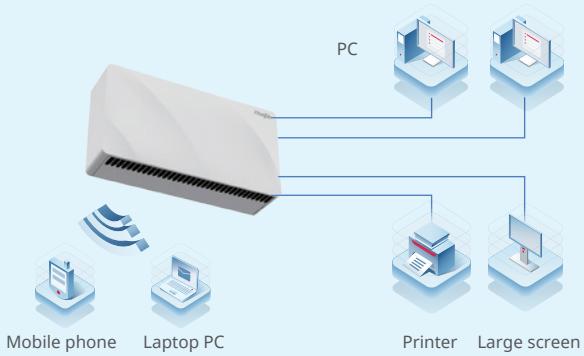
Typical Applications

Dormitory and Office Scenarios

Scenario of dormitories with 4 people each



Scenario of offices with less than 4 people each



Multiple ports, integrated wired and wireless coverage

Application features:

O-Share Solution implements long-distance optical communication and high bandwidth deployment through hybrid cables. It also effectively solves the problem of AP power supply. RG-MAP852-SF-M provides four wired ports to meet expansion requirements in dormitory and office environments.

Ordering Information

Model	Description
RG-AM5528-SF	Optical i-Share+ master AP for Ruijie O-Share Solution 24 × downlink 1G/2.5G SFP ports and 24 × PoE/PoE+ power supply ports. Four power supply ports support PoE/PoE/PoE++ power supply. 4 × uplink 10G SFP+ ports, low noise, and power supply included In i-Share mode, each master AP occupies eight wireless controller licenses.
RG-MAP852-SF-S	Wi-Fi 6 dual-radio wall plate micro AP for Ruijie O-Share Solution 1 × SFP port 1 ×10/100/1000Base-T Ethernet port with auto-negotiation 2.4 GHz and 5 GHz frequency bands A wireless data rate of up to 1.775 Gbps per device BOB structure, one 1G optical module of the master AP

Model	Description
RG-MAP852-SF-M	Wi-Fi 6 dual-radio wall plate micro AP for Ruijie O-Share Solution 1 × 2.5G SFP port 4 ×10/100/1000Base-T Ethernet ports with auto-negotiation 2.4 GHz and 5 GHz frequency bands, A wireless data rate of up to 2.976 Gbps per device Support for Bluetooth, Wall-mounted, ceiling-mounted, and junction box-mounted installation. One 2.5G optical module for the micro AP and one 2.5G optical module for the master AP are delivered with this AP.
RG-HybridP	The hybrid pigtails for Ruijie O-Share Solution incorporates optical fibers and copper wires. One end is the LC interface and DC connector.
RG-HybridBox	The hybrid box for Ruijie O-Share Solution supports input of 24 hybrid pigtails and output of 24 hybrid cables, which is used to connect the hybrid pigtails to the hybrid cables.
RG-OEHC-SM-1B6A2-2x0.5-I-305	Indoor single-core 2 × 0.5 mm² hybrid cable, single roll, with a length of 305 m
RG-OEHC-SM-1B6A2-2x1.0-I-305	Indoor single-core 2 × 1.0 mm² hybrid cable, single roll, with a length of 305 m

Package Contents

Item	Quantity
Main unit	1
Mounting bracket	1
Key to the securing latch	1
M4 x 20 mm Phillips pan head screws	2
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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/service_41

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

Ruijie Networks Co., Ltd.

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