RG-AP630

Outdoor 802.11ac Wireless Access Point Datasheet

Ruijie RG-AP630 is a top-class 802.11ac outdoor wireless access point for the next-generation high-speed wireless network, offering access rates of up to 1.75Gbps. The RG-AP630 AP takes all the important factors into account including wireless security, RF control, mobile access, QoS, seamless roaming, etc. Teaming up with Ruijie RG-WS Wireless Controller Series, the AP offers Wi-Fi user data forwarding, advanced security and access control.

HIGHLIGHTS

- 802.11ac Superior Wireless Performance
- Built-in X-Sense Smart Antenna & Lightning Arrester
- Outstanding Environmental Adaptability (IP67, -40-65℃)
- Unique PoE OUT Design

The rugged enclosure of RG-AP630 (IP67 rated) is designed to withstand extreme outdoor conditions and simplify device installation and maintenance. In addition to the built-in antenna, the RG-AP630 AP supports automatic switching between the external and internal antennas to adapt to various application scenarios such as large campus, enterprises, hospitals, commercial towers, etc. Moreover, the RG-AP630 AP supports a PoE OUT interface of 802.3at standard, which is one of the features facilitating streamlined integration with other monitoring devices, providing high-quality, real-time transmission of surveillance data. Multi-hop and point-to-multipoint wireless bridge features further enhance the application flexibility. The outdoor RG-AP630 thereby offers unparalleled productivity in a wide variety of outdoor networking solutions.

PRODUCT FEATURES

High Performance & Reliability

802.11ac Superior Wireless Performance

The RG - A P630 AP supports 802.1n @2.4GHz and 802.11ac@5GHz protocols and offers maximum access rates of up to 1.75Gbps. The superior wireless performance greatly optimizes users' wireless experience, increases the number of concurrent users as well as signal coverage.

High-performance Built-in X-Sense Smart Antenna

Ruijie's built-in patented X-Sense Smart Antenna achieves real-time antenna beam switching, offering the best wireless experience according to the location of access devices. The built-in X-Sense Smart Antenna can provide up to 90 degree coverage and basic gain of 10dBi which can meet the coverage requirements of most outdoor scenarios, protecting users' investment with aesthetic design and ease of installation.

External Antenna with Lightning Protection

RG-AP630 supports external antenna via software configuration. By selecting the suitable external antenna model (e.g. antenna with higher gain or larger beam angle), the RG-AP630 can support more coverage scenarios. The RG-AP630 adopts the high-reliability N-type waterproof connectors with built-in surge protection circuit, which requires no additional installation of lightning protection device to reduce customers' investment and simplify deployment.

The Industry's Most Flexible Gigabit Uplink

RG-AP630 offers a 10/100/1000Base-T Ethernet uplink port so that the wired ports are no longer the bottleneck of wireless access rates. RG-AP630 also delivers a Gigabit SFP combo port to adapt to the existing wired network of customers' sites, providing more flexible and convenient networking.

Unique PoE OUT Design

The RG-AP630 AP supports unique PoE OUT design, transferring power directly to the video surveillance equipment at deployment location. The surveillance video data is transmitted back to the control room in real-time via wired or wireless network. This feature not only reduces the difficulty of surveillance device installation, but also lowers the cabling cost.

Flexible Mount-Kit

With the adjustable mount-kit, the RG-AP630 AP can be adjusted -60°~60° horizontally and -60°~90° vertically to simplify the optimization of wireless network coverage.

Flexible WDS Mode

Supporting the WDS (Wireless Distribution System), the RG-AP630 AP offers AP coverage or wireless network bridge. The RG-AP630 AP supports WDS bridge of 5 hops or fewer. Wireless bridging can be achieved even at remote distance. The outdoor AP also supports point-to-multipoint bridging which enhances deployment flexibility. The features enable large-scale wireless coverage and remote high-speed wireless connection, which enhance the flexibility of outdoor wireless deployment.

Industry-Leading Local Forwarding Technology

Employing an industry-leading local forwarding technology, the RG-AP630 AP eliminates the traffic bottleneck of wireless access controllers. Deploying with the Ruijie RG-WS Wireless Controller Series, users can flexibly pre-configure the data-forwarding mode of RG-AP630. The RG-AP630 AP also controls if the data will be forwarded via the wireless controller. The local forwarding technology can forward large-scale, delay-sensitive, and real-time transmission data to greatly alleviate the traffic pressure on the wireless LAN controllers and fulfill the high traffic transmission requirements of the 802.11ac network.

Seamless Roaming Experience

The RG-AP630 AP teams up with the RG-WS Wireless ACs in perfect harmony, allowing wireless users to roam seamlessly on Layer 2 and Layer 3 networks without data interruption.

Abundant QoS Policies

The RG-AP630 AP supports a wide range of QoS policies. For example, it provides bandwidth limitations in WLAN/AP/STA modes that define different priorities for different service data.

Outstanding Environmental Adaptability

The RG-AP630 AP does not only offer a simple and stylish design, but also an IP67-rated enclosure with waterproof, dustproof, moisture-proof and flame retardant design to deliver the best performance even in long-term outdoor condition and allow the device to operate in harsh environments such as wind erosion, rain and high humidity. In addition, the outstanding environmental adaptability greatly lengthens the lifetime of the equipment and effectively reduces the maintenance cost.

Wide Operating Temperature Range

The components and enclosure of RG-AP630 can withstand a wide temperature range. The AP can operate within a wide temperature range from -40 to 65 ℃ without affecting its stability and lifetime.

Flexible & Comprehensive Security Policies

User Data Encryption

The RG-AP630 AP offers protected Wi-Fi access with the support of cutting-edge encryption technologies such as WEP, TKIP and AES to guarantee the data transmission security of the wireless network.

Virtual Wireless Packet Technology

With the virtual AP technology, the Ruijie RG-AP630 can offer 14 ESSIDs within the network and support 14 802.1Q VLANs. The network administrators can separately encrypt and isolate subnets or VLANs that have the same SSID. A separate authentication mode and encryption mechanism for each SSID can be configured flexibly.

Standard CAPWAP Encryption

The Ruijie RG-WS Wireless Controller Series manages the RG-AP630 AP with the adoption of the international CAPWAP standard (Control and Provisioning of Wireless Access Points) to ensure the security of the data transmission process.

RF Security

Deploying with Ruijie's integrated network management system RG-SNC and RG-WS Series Wireless Controllers, the Ruijie RG-AP630 enables the RF probe scanning mechanism to detect unauthorized access points or other RF interference sources. Once detected, the Ruijie RG-AP630 will send real-time alert notifications to the network management system. The network administrators can monitor potential threats and usage status in the wireless environments with ease.

User Access Control

The RG-AP630 AP supports multiple authentication methods such as Web, 802.1x, MAC address and local authentication for customers' choice. The AP also supports Ruijie's advanced Security Management Platform (SMP) BYOD Solution which complies with a standard access control system. The system has a set of control policies in terms of user access, authorization, host compliance check, network behavior monitoring, network attack defense, etc. All these control features ensure that users are authenticated before accessing the network services securely.

Comprehensive Wireless Protection

Together with Ruijie's RG-SNC network management system and RG-WS Wireless ACs, the RG-AP630 AP provides a powerful range of wireless security features such as Wireless Intrusion Detection System (WIDS), RF Interference Location, Rogue AP Countermeasures, Anti-ARP Spoofing and DHCP protection. The AP offers a truly secure and reliable wireless network.

Wireless IPv6 Access

The RG-AP630 AP supports all IPv6 features and implements IPv6 forwarding on a wireless network. Both IPv4 and IPv6 users can connect to the ACs over tunnels, enabling IPv6 applications to be borne on the wireless network.

Flexible Authentication Modes

The RG-AP630 AP supports convenient Protected Extensible Authentication Protocol (PEAP), SMS Authentication, and QR Code Authentication.

The PEAP Authentication allows users to perform password authentication for once only. That means users are only required to enter credentials during their first network visit.

If the SMS authentication is adopted, users first sign in with their mobile phone numbers and then receive an SMS with login username and password for network access.

QR code authentication is another wireless security highlight. After accessing a wireless network, users will obtain a QR code on their end devices and simply ask any authorized staff's to scan it for network access.

Flexible Device Management Mode

Flexible Switching Between the FAT & FIT Modes

The RG-AP630 AP supports flexible switching over the FAT and FIT modes according to the networking requirements of different industries. When there are few APs, users can adopt the FAT mode for easy independent network establishment. For large-scale networks, The AP can operate in FIT mode which allows centralized management of all the APs and other aspects such as security, traffic management, QoS and IP management when deployed with the RG-WS Wireless Controller Series. Smooth transition from one to another, the RG-AP630 AP fully protects user investment.

Simple Deployment With Zero Configuration

Under the FIT mode, no configuration is required for the RG-AP630 AP before deployment. Also, no manual configuration is necessary for on-site installation, maintenance or replacement. Auto-configuration can be completed via the wireless controller. This user-friendly feature can greatly reduce workload and investment costs.

Comprehensive Remote Management

Wireless controller can remotely and centrally manage all operations of the RG-AP630 AP such as channel, power ranking, SSID configuration, security configuration, VLAN division, and CPE data and configuration, etc. The feature enhances security and simplifies the wireless network management.

PoE Port For Easy Deployment & Maintenance

In addition to local power supply, the RG-AP630 AP also supports the 802.3af PoE standard. With End-span PSE (PoE switch) or Mid-span PSE (PoE power adapter) device, a single cable can provide both data connection and electrical power to the AP. The network administrator can remotely perform the configuration. It also solves the problem of unstable power source, simplifying the installation process and maximizing the cost savings.

TECHNICAL SPECIFICATIONS

Model	RG-AP630(IODA)	RG-AP630(IDA)	RG-AP630(CD)
Hardware Specifications			
Dimensions (L×W×H) (mm)	276 × 246 × 90		
Maximum Throughput	1.75Gbps		
Operating Bands	802.11b/g/n: 2.4GHz-2.483GHz – World wide 802.11a/n/ac: 5.150GHz to 5.350GHz: China, Malaysia, Japan, USA, United Kingdom, EU, Russia, CIS. 802.11a/n/ac: 5.65GHz to 5.725GHz: China, Malaysia, Japan, USA, United Kingdom, EU, Russia, CIS. 802.11a/n/ac: 5.725GHz to 5.850GHz: China, Malaysia, Japan, USA, United Kingdom.		
Antenna	2.4G: built-in 8x8x8 hardware smart antenna system (basic gain 10dBi) 5G: built-in 9x9x9 hardware smart antenna system (basic gain 10dBi)		
Antenna type	Omniderectional	Directional	Directional
External Antenna Connector	6 N-K type RF connector (2.4GHzx3, 5GHzx3)		No external connectors
Transmit Power (Maximum)	2.4G: 27dBm; 5G: 27dBm (adjustable according to different countries and regional regulations)		
Fixed Ports	1 console port (RJ-45 connector), 1 ETH1/PoE IN port (RJ-45 connector), 1 ETH2/PoE OUT port (RJ-45 connector), 1 fiber port (SFP port, combo with ETH1)		
FAT/FIT Switching	Support		
Status Indicators	Support power status and WDS signal strength indicators		
PoE Power Supply	Compatible with 802.3af/at and support PSE feature		
PoE Output	Maximum 24W PoE output power (RG-E-140-PoE required for PoE Out)		
Power Consumption	<25W		

Model		RG-AP630(IODA)	RG-AP630(IDA)	RG-AP630(CD)
Operating Temperature		-40~65℃		
Operating Humidity		0~100%RH (Non-condensing)		
Protection Rating		IP67		
Weight		<2.5kg		
Safety Standard		GB4943, EN60601-1-2 (medical), UL / CSA 60950-1, EN / IEC 60950-1, EN / IEC 60950-22		
EMC		GB9254-2008, EN301 489, EN55022, FCC Part15, RSS-210		
Software Specifications				
WLAN	Maximum stations per AP	256		
	SSID hiding	Yes		
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID	Yes		
	WDS (bridge mode)	Yes		
	Remote Intelligent Perception Technology (RIPT)	Yes		
	X-speed	Yes		
	Intelligent identification of smart device	Yes		
	Intelligent load balancing based on the number of users or traffic	Yes		
	STA limit	SSID-based Radio-based		
	Bandwidth limit	STA/SSID/AP-based rate limit		
Security	PSK, Web, and 802.1x authentication	Yes		
	Data encryption	WPA (TKIP), WPA2 (AES), WPA-PSK, and WEP (64 or 128 bits)		
	QR code authentication	Yes		
	SMS authentication	Yes		
	PEAP authentication	Yes		
	Data frame filtering	Whitelist, static blacklist, and dynamic blacklist		
	User isolation	Yes		
	Rogue AP detection and countermeasure	Yes		
	Dynamic ACL assignment	Yes		
	RADIUS	Yes		
	CPU Protection Policy (CPP)	Yes		
	Network Foundation Protection Policy (NFPP)	Yes		
	WIDS (Wireless Intrusion Detection System)	Yes		
	Remote probe	Yes		
Routing	IPv4 address	Static and dynamic IP address		
	IPv6 transparent transmission	Yes		
	Multicast	Multicast to unicast conversion		

Model		RG-AP630(IODA) RG-AP630(IDA) RG-AP630(CD)
Management & Maintenance	Network management	SNMP v1/v2C/v3, Telnet, SSH, TFTP, and FTP and Web management
	Visualized wireless heat map analysis	Yes
	Real-time spectrum analysis	Yes
	Fault detection and alarm	Yes
	Statistics and logs	Yes
	FAT/FIT switching	The AP working in FIT mode can switch to the FAT mode through the RG-WS wireless AC The AP working in FAT mode can switch to the FIT mode through a local console port or Telnet

ORDERING INFORMATION

Model	Description
RG-AP630(IDA)	Outdoor Wireless Access Point, IP67 rating, built-in directional smart antenna and lightning arrester, support internal/external antenna switching, support PoE Out for IP Camera connection, support concurrent 802.11a/b/g/n/ac, FAT/FIT mode, PoE+ (Installation Mount-Kit included, but PoE adaptor sold separately)
RG-AP630(IODA)	Outdoor Wireless Access Point, IP67 rating, built-in omnidirectional smart antenna and lightning arrester, support internal/external antenna switching, support PoE Out for IP Camera connection, support concurrent 802.11a/b/g/n/ac, FAT/FIT mode, PoE+ (Installation Mount-Kit included, but PoE adaptor sold separately)
RG-E-140-PoE	1-port PoE adapter (1000Base-T, 802.3at/af compatible), 60W PoE Power Output

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