RG-WS6512-L

High-Performance Wireless Access Controller

01

Product Overview

The RG-WS6512-L high-performance wireless access controller (AC), developed by Ruijie Networks, is targeted for next-generation high-speed wireless networks. It can be deployed on a Layer 2 or Layer 3 network without any architecture or hardware device changes, delivering seamless and secure control over wireless networks.

The RG-WS6512-L can manage up to 128 wireless access points (APs) by default. With licenses for capacity expansion, it can manage a maximum of 1,152 generic APs or 2,304 wall-mounted APs.

Through powerful centralized and visualized management and control over wireless networks, the RG-WS6512-L can significantly simplify construction and deployment of wireless networks.

The RG-WS6512-L, adopting enhanced security and clustering technologies, offers identity-based networking services. Multiple ACs in a cluster can share a user database, allowing clients to seamlessly roam in different areas of a network. The cluster design guarantees the security and session integrity during roaming and smooth interaction of data and voice over Wi-Fi applications.

02

Product Appearance
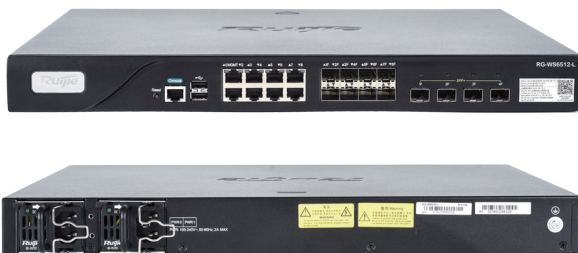
03

Product Highlights

High-speed Forwarding with Full IPv6 Support

- **Centralized/Distributed, integrated, and intelligent local forwarding, eliminating the traffic bottleneck of the wireless access controller**
- **Full IPv6 support**

Intelligent Management

- **Adaptive Portal authentication page for clients, fair client access, and intelligent load balancing through spectrum navigation**

- **Intelligent RF management, flexibly controlling AP configuration and optimizing RF coverage and performance**
- **Advanced wireless access controller cluster technology for fast roaming and voice support**

Secure and Reliable Network Systems

- **Advanced AC virtualization technology for high reliability and capacity and performance scaling**
- **Virtual AP technology, managing APs in groups**

- for secure and convenient authentication and encryption
- Dynamic network isolation for identity-based access control
- Authentication and encryption technologies including WPA3, 802.1x, PSK, WEP, TKIP, and AES for enhanced data security

- Deep Packet Inspection (DPI) based on packet characteristics, identifying over 2500 applications
- Uniform policy enforcement for WLAN, LAN, and WAN traffic, including content auditing, Flow Pre-Manager (FlowPM), and Ruijie Network Foundation Protection (RNFP)

04
Product Features

Smart Wireless Experience

Intelligent Client Identification

The built-in Portal server of the RG-WS6512-L can intelligently identify clients based on characteristics of the clients, and adaptively respond with a portal authentication page of the matching size and layout. Intelligent client identification eliminates the need to drag and resize a window, delivering users with a better intelligent wireless experience. This technology supports mainstream intelligent client operating systems including Apple iOS, Android, and Windows.

Fair Client Access

The RG-WS6512-L, together with Ruijie Networks' APs, provides the same access time for clients in compliance with IEEE 802.11g, 802.11n, 802.11ac, 802.11ax, and other standards. This resolves issues such as the long latency, slow speed, and low performance of APs caused by outdated NIC in clients or long distance between clients and APs. This also effectively improves the performance of low-speed clients, and ensures consistent and good wireless experience at the same location regardless of the client type.

Client Access Optimization

It can be used with Ruijie Cloud to monitor network-wide client behaviors and operating status, and obtain information such as the client signal strength and channel utilization through APs. With Wi-Fi client identification and access planning, it solves problems such as roaming stickiness and remote association, and achieves load balancing and improved network-wide wireless performance.

Intelligent Load Balancing

In a high-density environment, the RG-WS6512-L can intelligently distribute clients connected to APs in

real time based on the number of clients and traffic on each associated AP. This balances the traffic load, increases the average client bandwidth and QoS, and improves the availability of network connections. In addition to client-based and traffic-based intelligent load balancing, the RG-WS6512-L also supports load balancing based on the frequency band. Most Wi-Fi devices use the 2.4 GHz band by default, but can achieve increased throughput in the 5 GHz band (IEEE 802.11a/n/ac/ax-compliant). Load balancing based on the frequency band enables dual-radio-capable clients to preferentially use the 5 GHz frequency band. This increases bandwidth utilization by 30% to 40% without additional cost and guarantees a high-speed wireless experience for clients.

High Performance and Reliability

High Performance for Large- and Medium-sized Networks

The RG-WS6512-L runs the RGOS system and can manage up to 32,768 clients and 2,304 APs simultaneously. It has a high-performance 16-core CPU with 40 Gbps throughput. It can be used for large- and medium-sized networks, such as government, general education, healthcare, and enterprise scenarios, to set up a secure, efficient, and easy-to-manage wireless network.

Centralized/Distributed, Integrated, and Intelligent Forwarding

The RG-WS6512-L can be deployed on a Layer 2 or Layer 3 network without changing the original network architecture. It constitutes an overall switching architecture with APs to facilitate control and processing of traffic on all APs. The intelligent local forwarding technology eliminates the traffic

bottleneck of an AC.

With local forwarding technology, the RG-WS6512-L can flexibly configure data forwarding modes for connected APs. That is, the RG-WS6512-L can determine whether data needs to be forwarded through itself, or directly enters the wired network for local forwarding based on the network SSID and VLAN planning.

The local forwarding technology enables the RG-WS6512-L to forward data that is sensitive to the delay and requires real-time high-performance transmission through a wired network. Facing high throughput of 802.11ac- and 802.11ax-compliant clients, this technology can greatly reduce the traffic forwarding pressure of the RG-WS6512-L to better adapt to future wireless networks such as high definition (HD) Video on Demand (VoD) and Voice over Wireless Local Area Network (VoWLAN) transmission.

Flexible Traffic Management

The RG-WS6512-L supports FlowPM to limit the number of flow sessions. For example, it can limit and manage flow sessions based on users, user groups, or ACLs. It limits uplink traffic from intranet IP addresses to protect device memory resources and performance. This prevents a waste of device resources and bandwidth, and avoids resources from being exhausted due to intranet traffic attacks, thereby ensuring highly efficient and stable system operation.

Reliable Base Platform Protection

In the case of network attacks or a high load, RNFP protects critical resources in control and management planes of the RG-WS6512-L, preventing device breakdown and improving device availability.

Reliable Power Solution

The RG-WS6512-L supports power modules in 1+1 redundancy mode. When the RG-WS6512-L works normally, the two power modules operate in current-sharing mode. When one power module fails, the other power module can ensure normal device operation. The RG-WS6512-L supports hot swapping of power modules and AC power supply.

Intelligent RF Management

The RG-WS6512-L enables an AP to perform on-demand RF scanning on a wireless network. The RG-WS6512-L can scan wireless frequency bands and channels, identify unauthorized APs and wireless networks, and notifies network administrators of

alarms, providing all-round protection in a security-sensitive environment.

Moreover, the RG-WS6512-L can control the RF scanning function of APs in real time, and measure the signal strength and interference. It can dynamically regulate the traffic load, transmit power, RF coverage area, and channel allocation using software tools to maximize the AP coverage and capacity.

The RG-WS6512-L can also intelligently steer clients to connect to APs with the best performance, solving problems such as roaming stickiness and remote association.

Network-wide Seamless Roaming

The RG-WS6512-L supports the best-in-class AC cluster technology. Multiple RG-WS6512-L controllers in a cluster can synchronize online connection information and roaming records of all clients in real time. When a client roams, the client can roam freely on the entire network based on shared client information and authorization information in the cluster. Furthermore, the client can roam seamlessly and securely, and keep the IP address and authentication status unchanged, so as to achieve fast roaming and voice support.

Abundant QoS Policies

The RG-WS6512-L supports abundant QoS policies such as bandwidth limiting in multiple modes and preferential bandwidth guarantee for key data applications.

The RG-WS6512-L 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-WS6512-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.

Wireless IPv6 Access

The RG-WS6512-L fully supports IPv6 features, ensuring IPv6 forwarding on wireless networks. IPv4 and IPv6 clients can automatically connect to the RG-WS6512-L through tunnels to provide IPv6 services on wireless networks.

Advanced AC Virtualization

The RG-WS6512-L supports the cutting-edge AC virtualization technology. The technology can virtualize up to four ACs into one logical AC, realizing high reliability and capacity expansion without additional hardware devices.

- Simplified topology: All member ACs of the logical AC use the same IP address. Regardless of whether the logical AC connects to an AP or an authentication server, there is no need to assign an IP address to each member AC.

- Simplified configuration: Multiple member ACs can be managed as one AC. Any configuration of the master AC can be automatically synchronized to all member ACs.

- High reliability: N+M hot standby is supported. The breakdown of any AC will not affect the overall system.

- Smooth capacity expansion: The AP and client capacity can be expanded by adding a physical AC.

- License sharing: A license installed on any member AC of the logical AC can be shared by other member ACs.

Advanced Application Recognition and Policy Control

To simplify network management and protect wired and wireless network access, the RG-WS6512-L supports advanced application identification and policy control technologies. The RG-WS6512-L can be configured with different user objects, network objects, and VLANs for flexible policy control. In this case, there is no need to configure separate network policies for SSIDs, VLANs, and other objects.

Wired and wireless traffic is transmitted to the RG-WS6512-L through the centralized/distributed, integrated, and intelligent forwarding technology, and then is managed by using application identification and control policies.

The RG-WS6512-L supports application recognition and application-level QoS mapping technology for wireless clients. The RG-WS6512-L in centralized forwarding mode applies Deep Packet Inspection (DPI) to packet characteristics to support over 2,500 applications. It can identify applications, collects statistics on applications, and employs QoS mapping, helping you understand the application usage on the network. Then QoS can be performed for application traffic.

For mainstream web BBS sites and search engines, the RG-WS6512-L can audit and filter user posts and search contents, and allow or block data flows based on policies.

Flexible and Comprehensive Security Policies

Local Authentication

The RG-WS6512-L, with a built-in local user database and a built-in Portal server, authenticates wireless clients locally through web authentication. Local authentication eliminates the need to deploy an authentication server such as the external Portal server or RADIUS server. Moreover, this authentication mode simplifies the entire network architecture and greatly reduces the network construction cost, meeting requirements for secure access to small- and medium-sized wireless networks.

Client Data Encryption and Security

The RG-WS6512-L supports a full range of data security protection mechanisms, including Wired Equivalent Privacy (WEP), Temporal Key Integrity Protocol (TKIP), and Advanced Encryption Standard (AES), to ensure data transmission security on wireless networks.

Standard Communication Protocols

The RG-WS6512-L communicates with APs over Control and Provisioning of Wireless Access Points (CAPWAP) tunnels and employs Datagram Transport Layer Security Version 1.0 (DTLS 1.0) for encrypted communication. This achieves isolation from a wired network and ensures confidentiality of real-time communication between the RG-WS6512-L and APs. Additionally, the RG-WS6512-L can use CAPWAP to control third-party APs in the future, facilitating network expansion as well as protecting existing investment.

Virtual AP Technology

With the virtual AP technology, the RG-WS6512-L can allocate multiple SSIDs on a network. Network administrators can separately isolate and encrypt subnets or VLANs using the same SSID, and can configure the separate authentication method and encryption mechanism for each SSID.

Dynamic Network Isolation

Dynamic network isolation allows traffic to be isolated based on identity and associated access permissions, enforcing the minimum access to

applications and data.

RF Security

The RG-WS6512-L can be flexibly configured with the RF probe scanning mechanism to discover unauthorized APs or other RF interference sources in real time. It pushes corresponding alarms to the network management system (NMS) in real time, so a network administrator can monitor potential network threats and usage in each wireless environment at any time.

Virus and Attack Prevention

The RG-WS6512-L has various built-in security mechanisms to effectively protect a network against virus and network traffic attacks, reject unauthorized network access, and allow access from authorized clients. The security mechanisms include binding of IP addresses, MAC addresses, WLANs, and other elements, hardware ACL, and data stream-based rate limiting, so the RG-WS6512-L is suitable for campus, hospital, and enterprise networks where access control of guests is strengthened and access of unauthorized clients is restricted.

The RG-WS6512-L employs Wireless Intrusion Detection System (WIDS) to detect malicious user attacks and intrusions in the early time, helping network administrators to proactively identify potential risks on a network and provide proactive defense and early warning against wireless attackers in the first instance.

Secure Client Access

The RG-WS6512-L supports web authentication. Clients can complete the authentication process by using a browser.

It supports 802.1X authentication on clients to guarantee network security. Moreover, it ensures host security because the 802.1X authentication client is embedded on a host for access control. Unlike web authentication, 802.1X authentication is applicable to security-sensitive areas. Furthermore, IP addresses, MAC addresses, WLANs, and other elements can be bound after authentication. This ensures that only authorized clients can access the network.

Multiple Easy-to-Use Authentication Modes

The RG-WS6512-L supports conventional web authentication and 802.1X authentication for monitoring network access behaviors. It also provides convenient authentication modes for

customers based on actual scenarios, such as MAC authentication bypass (MAB), and SMS-based and QR code-based guest authentication.

When connecting to a network through MAB authentication, a wireless client only needs to enter the username and password upon first login. The username and password are no longer required when the wireless client is restarted and connected to the network.

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

QR code-based authentication is another convenient way for guests to access the Internet. After connecting to a wireless network, a guest will receive a QR code prompt. The guest can access the Internet after being authorized by the visited employee. Guest behaviors are associated with the visited employee to ensure high security.

Anti-ARP Spoofing

The ARP inspection function can effectively prevent increasing ARP gateway and ARP host spoofing attacks on a network, so as to ensure normal network access. Automatic IP-MAC binding can greatly save the labor cost and simplify management in dynamic or static IP allocation mode. An attacker may maliciously use scanning tools to flood ARP packets, which occupy network bandwidth and result in network congestion. To address this issue, the RG-WS6512-L uses ARP rate limiting to control the rate of sending ARP packets.

Rogue AP Containment

Rogue AP containment can effectively detect unauthorized APs on a wireless network. The RG-WS6512-L can instruct an AP to send a probe packet to surrounding APs and wait for a response. It can detect the unauthorized AP that does not send a response packet, thereby ensuring network-wide security.

DHCP Security

DHCP snooping enables the RG-WS6512-L to allow only DHCP Reply messages from trusted interfaces, preventing a private DHCP server without the permission of an administrator. This is because the

private DHCP server seriously affects IP address allocation and management, resulting in network access failures. With DHCP snooping configured, the RG-WS6512-L can dynamically check source IP addresses of ARP packets to prevent ARP spoofing attacks and source IP address spoofing attacks in the environment in which the DHCP server dynamically allocates IP addresses.

Management Information Security

Through the Secure Shell (SSH) and Simple Network Management Protocol version 3 (SNMPv3), the RG-WS6512-L encrypts management information in Telnet and SNMP processes, ensuring information security of management devices and preventing hackers from attacking and controlling devices. Telnet access control based on the source IP address means fine-grained device management and control. With this function, only the devices with IP addresses configured by administrators can connect to the RG-WS6512-L, enhancing network management security.

Rich Management Policies

Multiple Management Modes and Unified Management Platform

The RG-WS6512-L supports the CLI and other management modes to implement centralized, effective, and low-cost planning, deployment, monitoring, and management of network-wide APs. The RG-Cloud, a unified management platform for wired and wireless networks developed by Ruijie Networks, manages APs uniformly. The RG-WS6512-L together with Ruijie Cloud implements various wireless network management functions, including topology generation, AP working status monitoring,

online client status monitoring, network-wide RF planning, client locating, security alarm, link load and device utilization monitoring, roaming record, and report output. The RG-WS6512-L allows an administrator to monitor and manage the running status of the entire network in a data center.

Hierarchical AC Management

The RG-WS6512-L supports hierarchical AC management. A central AC uniformly manages hundreds of branch ACs, substantially simplifying wireless device management in the scenario with the headquarters and many branches. Hierarchical AC management has the following features:

- Unified management: The central AC uniformly upgrades the software of branch ACs and APs, and monitors the running status of each branch AP.

- High reliability: When a branch AC fails, branch APs can be taken over by the central AC, realizing fast failover and improving the reliability of the branch wireless network.

- License sharing: The branch AC can share the license installed on the central AC as required. A license can be installed on the central AC, and shared by all branch ACs on a network.

Eweb Management

The RG-WS6512-L provides the Eweb, on which O&M personnel can complete wireless configuration easily, and manage the wireless network uniformly. On the Eweb, O&M personnel can manage APs and connected clients, limit the client rates, and restrict network access behaviors of the connected clients. With the Eweb, O&M personnel can plan, manage, and maintain wireless networks conveniently.

05
Specifications

Hardware Specifications

Dimensions and Weight

Dimensions and Weight	RG-WS6512-L
Unit dimensions (W x D x H)	440 mm x 340 mm x 43.6 mm (17.32 in. x 13.39 in. x 1.72 in.)
Rack height	1 RU
Weight	Main unit: 5.9 kg (13.01 lbs) Power module: 0.4 kg (0.88 lbs) A power module is delivered with the main unit.

Port specifications

Port specifications	RG-WS6512-L
Fixed service port	8 x GE combo ports , when the combo port is used as an electrical port, • Port 1 can be used as an out-of-band management port (MGMT). • It supports 10/100/1000Base-T auto-negotiation. • It supports Auto MDI/MDIX crossover. 4 x 10GE SFP + ports
Fixed management port	1 x RJ45 console port 2 x USB ports
Status LED	1 x system status LED 20 x service port LEDs
Button	1 x Reset button • Press the button for shorter than 3 seconds. Then the device restarts. • Press the button for longer than 3 seconds. Then the device restores to factory settings.

Power Supply and Consumption

Power Supply and Consumption	RG-WS6512-L
Maximum power consumption	70 W
Input power supply	2 x RG-PA70I 70 W AC power modules A power module is delivered with the main unit. You can buy one more optionally.
Input voltage	100 V AC to 240 V AC, 50 Hz to 60 Hz
Input current	10 A (steady state)
Output voltage	12 V/5.83 A

Environment and Reliability

Environment and Reliability	RG-WS6512-L
Temperature	Main unit operating temperature: 0°C to 45°C (32°F to 113°F) Power module operating temperature: –10°C to +50°C (+14°F to +122°F) Main unit 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 (721.78 ft.), the maximum temperature decreases by 1°C (1.8°F).
Altitude	0 m to 5,000 m (0 ft to 16,404 ft)
Humidity	Operating humidity: 10% to 90% RH (non-condensing) Storage humidity: 5% to 95% RH (non-condensing)
Fan	Three built-in fans (on the left side) Right-to-left airflow Fan speed adjustment Fan fault alarm
Acoustic noise	< 78 dB
Mean Time Between Failure (MTBF)	200,000 hours (22 years) at the operating temperature of 25°C (77°F)

Software Specifications

Performance and Capacity

Performance and Capacity	RG-WS6512-L
WLAN	
Default number of manageable APs	128 Note: The default number of APs that can be managed by the RG-WS6512-L is subject to the AP model. See the Ordering Information for details.
Maximum number of configurable APs	4,096
Maximum number of manageable APs	2,304 Note: The maximum number of APs that can be managed by the RG-WS6512-L is subject to the AP model. See the Ordering Information for details.
Maximum number of manageable STAs	32,768 Note: The maximum number of STAs that can be managed by the RG-WS6512-L is subject to the network environment. Contact technical support team for details.
WLAN service	Maximum number of WLAN IDs: 4,094 Maximum number of associated STAs per WLAN: 32,768
Intra-AC roaming handoff time	< 50 ms
Maximum number of virtualized ACs	4
Routing and Switching	
802.11 forwarding capacity	40 Gbps (subject to the wireless network environment)
Number of MAC address entries	131,072
Number of VLANs	4,096
Number of ARP entries	81,920
DHCP address pools	Number of IPv4 address pools: 2,000 Number of IPv4 addresses: 81,920 Number of IPv6 address pools: 256 Number of IPv6 addresses: 2,048
Number of routing entries	IPv4 routing entries: 8,192 IPv6 routing entries: 10,000
Number of multicast entries	Static routing entries: 2,048 Multicast group routing entries: 4,096
Security and Authentication	
Maximum number of STAs supported by the built-in Portal server	7,500
Number of ACL entries	131,072

Applicable Software Version

Applicable Software Version	RG-WS6512-L
Applicable software version	RGOS11.9(6)W3B3 or later

WLAN

WLAN	RG-WS6512-L
IEEE 802.11 protocols	802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11w, 802.11k, 802.11v, 802.11r, 802.11i, 802.11e, 802.11n, 802.11ac, and 802.11ax
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
Roaming	Intra-AC Layer 2 or Layer 3 roaming Inter-AC Layer 2 or Layer 3 roaming Intra-AC Layer 2 or Layer 3 roaming in local forwarding mode Inter-AC Layer 2 or Layer 3 roaming in local forwarding mode
Forwarding mode	Centralized forwarding Local forwarding Service-based flexible forwarding
Wireless QoS	AP/WLAN/STA-based rate limiting (WLAN/STA-based rate limit range: 8-261,120 in the unit of 8 Kbps. For example, if you set the value to 8, the rate limit is 8 x 8 Kbps = 64 Kbps.) Static and intelligent rate limiting based on STA quantity Fair scheduling
User isolation	AC-based user isolation AP-based user isolation WLAN-based user isolation
Reliability	AC virtualization AC failover Multi-AC hot standby (1+1 A/A and A/S hot standby, and N+1 hot standby) Multi-AC cluster (N-to-N) Remote intelligent perception technology (RIPT) Non-stop service during upgrade
STA management	Access control based on the number of STAs associated with the AP Access control based on the number of STAs associated with the SSID Balanced access control based on the number of STAs associated with the AP Balanced access control based on the AP traffic Band steering Configuration of the RSSI threshold in dB (Range: 0-100) Configuration of the STA idle timeout period in seconds (range: 60-86,400)
WLAN optimization	Adjustment of the transmit power for beacon packets or probe responses
RF management	Country or region code setting Manual setting of the transmit power Automatic setting of the transmit power Manual setting of the operating channel Automatic setting of the operating channel Automatic adjustment of the data rate Coverage hole compensation AP load balancing based on traffic and STA quantity Band selection Radio Frequency Interference (RFI) detection and mitigation

Security

Security	RG-WS6512-L
IPv4 security authentication	Web authentication 802.1X authentication MAB authentication SMS authentication QR code-based authentication
IPv6 security authentication	Web authentication
IEEE 802.11 security and encryption	Multi-SSID mode SSID hiding IEEE 802.11i-compliant PSK authentication WPA and WPA2 WPA3: WPA3-Personal (SAE), WPA3-Enterprise (CCMP, 128-bit), and WPA3-Enterprise (GCMP, 192-bit) WEP (WEP/WEP128) TKIP CCMP Anti-ARP spoofing
CPP	Supported
NFPP	Supported
WIDS	Supported
AP virtualization	Supported

Protocol

Protocol	RG-WS6512-L
IPv4 protocols	Ping and traceroute DHCP server, DHCP client, DHCP relay, and DHCP snooping DNS client NTP Telnet TFTP server and TFTP client FTP server and FTP client
IPv6 protocols	DNSv6 client DHCPv6 relay and DHCPv6 server TFTPv6 client FTPv6 server and FTPv6 client IPv6 CAPWAP ICMPv6 IPv6 ping Manual tunnels, automatic tunnels, and ISATAP tunnels Manually configured IP addresses and automatically created local addresses IPv6 traceroute Neighbor Discovery (ND)
IPv4 routing	Static routing, RIP, and OSPF
IPv6 routing	Static routing, RIPng, and OSPFv3

Management

Management	RG-WS6512-L
Network management	SNMP v1/v2c/v3 RMON Syslog Remote probe

Management	RG-WS6512-L
Network management platform	Eweb Ruijie Cloud RIIL Wi-Fi heat map
User access management	Console port login, Telnet login, SSH login, and FTP upload

Regulatory Compliance

Regulatory Compliance	RG-WS6512-L
Safety regulation	IEC 62368-1, EN 62368-1
EMC regulation	EN 55032, EN 55035, EN 61000-3-3, EN IEC 61000-3-2, and ETSI EN 300 386

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

06
Ordering Guide

Take the following ordering procedure:

- Order an RG-WS6512-L.

- Select the optical module based on port requirements.

- The RG-WS6512-L supports up to 128 APs by default. To increase the number of supported APs, purchase the corresponding license.

- The RG-WS6512-L is configured with one power module during factory delivery. If more power modules are required, purchase the RG-PA70I power module separately.

07
Ordering Information

Main Unit and Accessories

Model	Description
RG-WS6512-L	The next-generation wireless controller provides 8 x combo ports and 4 x SFP+ 10GE ports. It supports 128 APs by default, and up to 1,152 licenses are available. The maximum number of APs that can be managed by the AC is subject to the AP model: • A generic AP occupies one license. The RG-WS6512-L can manage up to 1,152 generic APs. • A wall plate AP occupies half of the license. The RG-WS6512-L can manage up to 2,304 wall plate APs. • An i-Share micro AP occupies no license. The RG-WS6512-L can manage up to 2,304 i-Share micro APs. • The number of licenses occupied by an i-Share master AP is subject to the model. See the ordering information in the datasheet of corresponding i-Share master AP for details. A power module is delivered with the main unit, which supports power redundancy.
RG-PA70I	AC power module (redundancy mode, 70 W, 10 A power cable)

Optical Modules

Model	Description
Mini-GBIC-SX	1000BASE-SX mini-GBIC module
Mini-GBIC-LX	1000BASE-LX mini-GBIC module
XG-SFP-SR-MM850	10GE SFP+ SR module
XG-SFP-LR-SM1310	10GE SFP+ LR module

Licenses

Model	Description
RG-LIC-WS-16	The number of capacity expansion licenses for the RG-WS series wireless controller can be expanded to 16. Each license supports one generic AP or two wall plate APs. For the number of licenses occupied by an i-Share master AP, see the ordering information.
RG-LIC-WS-32	The number of capacity expansion licenses for the RG-WS series wireless controller can be expanded to 32. Each license supports one generic AP or two wall plate APs. For the number of licenses occupied by an i-Share master AP, see the ordering information.
RG-LIC-WS-128	The number of capacity expansion licenses for the RG-WS series wireless controller can be expanded to 128. Each license supports one generic AP or two wall plate APs. For the number of licenses occupied by an i-Share master AP, see the ordering information.
RG-LIC-WS-512	The number of capacity expansion licenses for the RG-WS series wireless controller can be expanded to 512. Each license supports one generic AP or two wall plate APs. For the number of licenses occupied by an i-Share master AP, see the ordering information.
RG-LIC-WS-1024	The number of capacity expansion licenses for the RG-WS series wireless controller can be expanded to 1,024. Each license supports one generic AP or two wall plate APs. For the number of licenses occupied by an i-Share master AP, see the ordering information.

08
Package Contents

Item	Quantity
RG-WS6512-L access controller	1
Switch-mode power supply	1
Mounting bracket	2
User manual	1
Warranty card and hazardous substance table	1
M4 x 8 mm Philips screw	6
Yellow and green ground cable	1
Console cable	1
Power cord	1

09
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.

10
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
Website: https://www.ruijienetworks.com