



# Ruijie RG-WLAN Series Access Points

## AP\_RGOS 11.9(6)W3B1

### Official Release Notes

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# Preface

## Intended Audience

This document is intended for:

- Network engineers
- Technical support and servicing engineers
- Network administrators

## Technical Support

- Ruijie Networks website: <https://www.ruijienetworks.com/>
- Online support center: <https://ruijienetworks.com/support>
- Case portal: <https://caseportal.ruijienetworks.com>
- Community: <https://community.ruijienetworks.com>
- Email support: [service\\_rj@ruijienetworks.com](mailto:service_rj@ruijienetworks.com)
- Live chat: <https://www.ruijienetworks.com/rita>

## Conventions

### 1. Conventions

Convention	Description
<b>Boldface</b>	The keywords of a command line are in <b>boldface</b> .
<i>Italic</i>	Command arguments are in <i>italics</i> .
[ ]	Items in square brackets are optional.
[ x   y ]	Optional items are grouped in braces and separated by vertical bars. One item is selected or no item is selected.
{ x   y }	Optional items are grouped in brackets and separated by vertical bars. One item is selected.
[ x   y   ... ] *	Optional items are grouped in braces and separated by vertical bars. Several items or no item can be selected.
{ x   y   ... } *	Optional items are grouped in brackets and separated by vertical bars. A minimum of one item or a maximum of all items can be selected.
&<1-n>	The parameter before the & sign can be repeated for consecutive 1-n times.
//	A line starting with double slashes is comments.

## 2. Signs

The signs used in this document are described as follows:

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### **Warning**

An alert that calls attention to important rules and information that if not understood or followed can result in data loss or equipment damage.

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### **Caution**

An alert that calls attention to essential information that if not understood or followed can result in function failure or performance degradation.

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### **Note**

An alert that contains additional or supplementary information that if not understood or followed will not lead to serious consequences.

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### **Specification**

An alert that contains a description of product or version support.

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## 3. Notes

This manual introduces the version information, revision history, features, resolved issues, known issues, supported platforms, software upgrading, and related documentation.

# Contents

Preface .....	I
1 Version Information .....	1
1.1 Revision History .....	1
2 Feature Description .....	3
2.1 New Features.....	3
2.2 Changed Features .....	4
3 Resolved Issues .....	5
4 Open Issues .....	9
5 Compatibility Description.....	10
5.1 Hardware Support.....	10
6 Upgrade Instructions .....	16
6.1 Upgrade Files.....	16
6.1.1 RG-AP180 Series .....	16
6.1.2 RG-AP810 Series .....	17
6.1.3 RG-AP820 Series .....	17
6.1.4 RG-AP840 Series .....	20
6.1.5 RG-AP850 Series .....	20
6.1.6 RG-AP880 Series .....	21
6.1.7 RG-AP680 Series .....	22
6.1.8 i-Share+ Series .....	23
6.1.9 All-Optical i-Share+ Series.....	24
6.2 Upgrade Requirements.....	25

6.3 Precautions .....	25
6.4 Upgrade Procedure .....	25
7 Related Documentation.....	26

# 1 Version Information

<b>Version Number</b>	AP_RGOS11.9(6)W3B1
<b>Version Type</b>	Official version
<b>Applicable Products</b>	<p>Global:</p> <p>RG-AP180 Series</p> <p>RG-AP810 Series</p> <p>RG-AP820 Series</p> <p>RG-AP840 Series</p> <p>RG-AP850 Series</p> <p>RG-AP860 Series</p> <p>RG-AP880 Series</p> <p>RG-AP680 Series</p> <p>i-Share+ Series</p> <p>All-Optical i-Share+ Series</p> <p>AC Version: AC_RGOS11.9(6)W3B1 or later</p> <p>Note: The APs can connect to ACs with software version earlier than AC_RGOS11.9(6)W3B1, but the new features in this release are unavailable.</p>
<b>Applicable Clients</b>	Global
<b>Release Type</b>	Official release
<b>Release Date</b>	2024.04.09
<b>Based Version Number</b>	AP_RGOS11.9(6)W2B1
<b>Description</b>	Fix new bugs.

## 1.1 Revision History

Release Date	Version Number	Status
August 18, 2023	AP_RGOS11.9(6)W3B1	Available
September 7, 2023	AP_RGOS11.9(6)W3B1	Available
October 23, 2023	AP_RGOS11.9(6)W3B1	Available

Release Date	Version Number	Status
November 15, 2023	AP_RGOS11.9(6)W3B1	Available



## 2 Feature Description

### 2.1 New Features

Feature	Source of Demand	Description
Hotspot2.0	Market	Hotspot 2.0 R2 protocol To use this feature, the AP needs to interwork with the AC that delivers the configuration.
SSID isolation	Market	SSID isolation (VLAN isolation) New commands: <b>data-plane user-isolation vlan</b> <i>vid</i> <b>data-plane user-isolation trusted-mac</b> <i>H.H.H</i> <b>vlan</b> <i>vid</i> <b>data-plane user-isolation trusted-ip</b> <i>ipv4-address</i> <b>vlan</b> <i>vid</i> <b>show data-plane user-isolation</b> <b>show data-plane user-isolation state</b>
Metrics collection	Internal	Metrics collection New commands: <b>metrics monitor enable</b> <b>clear metrics all</b> <b>clear metrics group</b> <i>group-name</i> [ <i>metric-name</i> ] <b>show metrics define summary</b> <b>show metrics define summary group</b> <i>group-name</i> <b>show metrics detail</b> <b>show metrics summary</b> <b>show metrics summary group</b> <i>group-name</i>
Flash optimization	Internal	Metrics collection consumes a portion of flash storage. Flash optimization can be performed.

Feature	Source of Demand	Description
Import of international product features	Internal	L-Series product features are imported (for international use), including the small-bin function, customization of default country codes (setmac), device positioning LED (fat and cloud modes), international sharing containment, and import/export of AP configuration lists.
Zero touch provisioning	Market	Deployment through the registration center is supported. The registration center can determine the Cloud to which the AP is connected and deliver the Cloud URL to the AP accordingly.

## 2.2 Changed Features

Feature	Source of Demand	Description
AC flooding optimization	External	The egress node obtaining function is moved from the virtual thread to the broadcast virtual thread.
Bonjour quality enhancement	Internal	This feature is used to address the issue of excessive VSP message volume between the AP and the AC, and the problem of issuing too many ACE entries in anti-preemption mode.
Metrics collection	Internal	The key metrics and parameters of devices are collected periodically.
RPCAP	Internal	All APs support Remote Packet Capture (RPCAP). APs instead of packet capture NICs are used for packet obtaining.
Packet tracking	Internal	Online/offline packets of VIP clients can be tracked, including auth, assoc, and DHCP packets.
Country code compliance	Internal	The country code compliance table is updated and the description of the power control function required by country code regulations is added.

### 3 Resolved Issues

Bug ID	Description	First Release
938839	Network delay occurs occasionally when the clients of the RG-MAP852 V1.xx access the Internet.	AP_RGOS11.9(6)W1B1, Release(09192519)
913329	After the port description is configured, run the <b>show lldp nei detail</b> command. The displayed port name is changed to the port description and the original port information is overwritten.	AP_RGOS 11.9(6)W2B1, Release(09192519)
910433	Some clients connected to the RG-MAP852 V4.xx AP fail to obtain IP addresses.	AP_RGOS 11.9(6)W2B7, Release(10150120)
951683	After successful login to the web system, users fail to access the homepage and receive a server busy error message.	AP_RGOS 11.9(6)W2B7, Release(10150120)
927531	The RG-AP850-I(V2) V1.xx AP crashes due to single-bit rewriting.	AP_RGOS 11.9(6)W2B1, Release(10150120)
927529	The RG-AP850-I(V2) V1.xx AP triggers an AMSDU processing error, leading to a crash during print debugging.	AP_RGOS 11.9(6)W2B1, Release(10150120)
957923	In hierarchical scenarios, the AP is disconnected from the AC abnormally. After the connection is restored, the AP is disconnected again with <b>upper notify</b> displayed in double tunnels.	11.9(6)B1P6S4, Release(09212412)
936799	Multiple RG-AM5528 V1.xx APs go offline periodically.	AP_RGOS 11.9(6)W2B1, Release(10150120)
B927544	The interval for time_before/time_after comparison does not exceed half of the overflow time.	AP_RGOS 11.9(6)W2B1, Release(10150120)
998124	The MAP is connected to the switch in normal mode. Since the mode detection mechanism is invalid, it fails to automatically switch to normal mode and cannot go online on the AC.	AP_RGOS 11.9(6)W3B1, Release(10172606)
984773	Wireless users occasionally obtain IPv6 addresses across VLANs.	AM_RGOS 11.9(6)B1P3, Release(08130810) AP_RGOS 11.1(9)B1P23, Release(07151618)

Bug ID	Description	First Release
976190	After the AP version is upgraded, continuous packet loss occurs on clients connected to the AP, causing communication or network access failures (AP models involved: RG-AP840-I(V2) V1.xx, RG-AP840-L V1.xx, RG-AP880-AR V1.xx, RG-AP850-AR(V3) V1.xx, and RG-AP880-A V1.XX).	AP_RGOS 11.9(6)W2B7, Release(10172320)
1031048	When an MAB authentication error occurs on a wireless client in a VAC, the PoE switch learns the MAC address of the client from the uplink port of the AP, causing a failure for the PoE switch to learn the correct client MAC address.	AP_RGOS 11.9(6)W3B7, Release(10182700)
1051963	In scenarios where 802.1X or PSK authentication is enabled, clients may fail to access the Internet for a short period of time when repeatedly associating with the AP.	AP_RGOS 11.9(6)W2B1, Release(09230205)
1066857	Some clients connected to the RG-AP820-L(V3) AP may fail to be authenticated when they roam out and roam back to the same AP.	AP_RGOS 11.9(6)B9, Release(09152904)
984602	The memory usage during the DNS SNP process is high, causing AP crash and restart due to memory exhaustion.	AP_RGOS 11.9(6)B1T6, Release(08152421)
1064906	The new version of PPSK allows multiple WLANs to be enabled with PPSK, which must be bound to WLAN IDs. However, Ruijie Cloud does not support WLAN ID binding. When a client goes online, the binding cannot be found in the user entries. The client is considered to be using an old key and is disconnected, resulting in a PPSK authentication failure when the cloud AP connects to Ruijie Cloud.	AP_RGOS 11.9(0)B0, Release(10212418)
1064563	The AP enters the quiet mode on the DFS channel. Before the radio automatically goes up, the driver executes the clearing of the DATA_BLOCK_QUIET flag bit. As a result, the AP does not respond to authentication, association, re-association packets, causing a failure for clients to associate with the AP.	AP_RGOS 11.9(6)W3B1, Release(10220907)
1068218	The WLAN BS module error causes low 5 GHz signal strength on the AP.	AP_RGOS 11.9(6)W3B1, Release(10172605)

Bug ID	Description	First Release
1074977	The data plane module allows mDNS and SSDP packets to pass through by default, and there is no command to disable this function. Now, the AP is configured to block mDNS and SSDP packets by default, and the CLOSE command is used to block mDNS and SSDP packets.	AP_RGOS 11.9(6)W3B1, Release(10172605)
1082716	Before the RG-AP4820 goes online, the AP name is configured in offline state. When the AP goes online, it fails to obtain the AP index through the AP name during the process of updating the feeder cable detection enabling status. As a result, the feeder cable detection enabling status is not updated and delivered to the AP. Therefore, the AP does not receive the notification of enabling the feeder cable detection and does not report the feeder cable status. Then the two sides display inconsistent information.	AP_RGOS 11.9(6)W2B1, Release(10142114)
1080861	When the server sends ping response packets that carry the content-length field in batches, the device receives the packets in batches. However, after the packets are received, the device does not clear the remaining content length, resulting in file descriptor overload. Redirection fails when the number of file descriptors exceeds 1,024.	11.1(9)B1P30, Release(08190210)
1082478	The RG-AM55xx i-Share master AP system has a command execution vulnerability. When the httpd service is disabled, the Eweb function on the AM master AP will be disabled.	AM_RGOS 11.9(6)W3B1, Release(10191306)
986892	When 802.1X and PSK authentication are enabled on the AP, EAP key negotiation is performed when clients go online. By default, EAP packets are sent with a higher priority. Before sending EAP packets, the AP initiates ADDBA negotiation, which also utilizes high-priority transmission, occupying the packet sending queue. This may lead to a packet sending queue scheduling exception in the driver, and then the entire queue is suspended for 60 seconds without packet transmission. In this case, clients may repeatedly associate with the AP, causing clients to be disconnected due to traffic interruption.	AP_RGOS 11.9(6)W2B7, Release(10172320)

Bug ID	Description	First Release
1111631	When a client roams between APs, it may not initiate an HTTP request proactively, causing a failure to trigger MAB authentication. As a result, the client fails to access the Internet.	AP_RGOS 11.9(6)W1B4, Release(10221821)
1139657	Interference from the optical port affects the Wi-Fi signal of the device, resulting in high latency or packet loss.	AP_RGOS 11.9(6)W3B1T14, Release(10242821)
948174	The blocklist and allowlist configured in Fat mode on the AP do not take effect. As a result, clients can access the AP freely.	AP_ RGOS 11.9(6)W3S1, Release(10160419)
1140590	The AP840-L AP is reset by the hardware dog during operation, causing a device restart.	AP_RGOS 11.9(2)B2P2, Release(07150918)

# 4 Open Issues

N/A

# 5 Compatibility Description

## 5.1 Hardware Support

The following table lists the models and version numbers of hardware supported by the current release.

Model	Hardware Version Number	Description
RG-AP180	V1.xx/V2.xx/V3.xx/V4.xx	Wireless access point, one 1GE WAN port, four 1GE LAN ports, built-in antennas, 2.4 GHz and 5 GHz dual-radio, 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP180-I	V1.xx	Wireless access point, one 2.5GE PoE-in port, four 1GE LAN ports, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP180P-L	V1.xx	Wireless access point, one 2.5GE PoE-in port, four 1GE LAN ports, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP180	V5.xx	Wireless access point, one 1GE WAN port, four 1GE LAN ports, built-in antennas, 2.4 GHz and 5 GHz dual-radio, 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP810-L	V1.xx	Wireless access point, one 1GE WAN port, built-in antennas, 2.4 GHz and 5 GHz dual-radio, 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting 802.3af-compliant PoE and DC power supply, and RJ45 console port.
RG-AP810-I	V1.xx	Wireless access point, one 1GE PoE-in port, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-SAP815-SP	V1.00	Wireless access point, one 1GE PoE-in port, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.



Model	Hardware Version Number	Description
RG-AP820-L(V2)	V1.xx/V2.xx	Wireless access point, one 1GE WAN port, built-in antennas, 2.4 GHz and 5 GHz dual-radio, 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting 802.3af-compliant PoE and DC power supply, and RJ45 console port.
RG-AP820-L(V3)	V1.xx	Wireless access point, one 1GE uplink port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting 802.3af-compliant PoE and DC power supply, and RJ45 console port.
RG-SAP825-SP	V1.00/V2.00	Wireless access point, one 1GE uplink port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting 802.3af-compliant PoE and DC power supply, and RJ45 console port.
RG-AP820-L(V2)	V4.xx	Wireless access point, one 10/100/1000Base-T auto-negotiation Ethernet port, supporting 802.3af-compliant PoE, one console port, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP820-I	V1.xx	Wireless access point, one 1GE PoE-in port, one 1GE/2.5GE optical port, radio 1: 2x2, radio 2: 2x2, built-in antennas, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP820(AR)	V1.xx/V2.xx	Wireless access point, three 1GE uplink ports, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz or 5 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax. The third radio (AI Radio) supports security, data collection, and network optimization.
RG-AP820(AR)	V3.xx	Wireless access point, two 1GE WAN ports, one 1GE LAN port, built-in antennas, supporting tri-radio in 2.4 GHz + 5 GHz + 5 GHz modes with 2x2 + 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.

Model	Hardware Version Number	Description
RG-AP820-AR(V3)	V1.xx	Wireless access point, one 1GE electrical port, one 5GE electrical port, one 5GE optical port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax. The third radio (AI Radio) supports security, data collection, and network optimization.
RG-AP840-I	V1.xx	Wireless access point, two 1GE uplink ports, one 1GE IoT port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP840-I(V2)	V1.xx	Wireless access point, two 1GE uplink ports, one 1GE IoT port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP840-L	V1.xx	Wireless access point, two 1GE uplink ports, one 1GE IoT port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-SAP845-SP	V1.00	Wireless access point, two 1GE uplink ports, one 1GE IoT port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP850-I(V2)	V1.xx	Wireless access point, two 1GE uplink ports, one 1GE IoT port, built-in antennas, supporting tri-radio in 2.4 GHz + 5 GHz + 5 GHz modes with 4x4 + 4x4 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP880(TR)	V1.xx	Wireless access point, two 5GE uplink ports, one 1GE IoT port, built-in antennas, supporting tri-radio in 2.4 GHz + 5 GHz + 5 GHz modes with 2x2 + 4x4 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP880-I	V1.xx	Wireless access point, one 10GE optical port, one 10GE PoE-in port, one 1GE PoE-in port, one 1GE PoE-out port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 4x4 + 8x8 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, built-in IoT module, supporting external IoT module. Radio 2 can switch between omni-directional and directional modes.

Model	Hardware Version Number	Description
RG-AP880-AR	V1.xx	Wireless access point, one 10GE optical port, one 10GE PoE-in port, one 1GE PoE-in port, one 1GE PoE-out port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 4x4 + 8x8 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, built-in IoT module, supporting external IoT module. Radio 2 can switch between omni-directional and directional modes.
RG-AP850-AR(V3)	V1.xx	Wireless access point, one 1GE electrical port, one 5GE electrical port, one 5GE optical port, built-in antennas, 2.4GHz, 5GHz and 5GHz tri-radio, 2x2 + 2x2 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax. The fourth radio (AI Radio) supports security, data collection, and network optimization.
RG-AP680-AR	V1.xx	Wireless access point, one 1GE electrical port, one 5GE electrical port, two 10GE optical ports, built-in omnidirectional antennas, supporting tri-radio in 2.4 GHz + 5 GHz + 5 GHz modes with 4x4 + 4x4 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax. The fourth radio (AI Radio) supports security, data collection, and network optimization.
RG-AP680(CD)	V1.xx	Wireless access point, one 1GE uplink port, one 1GE optical port, built-in directional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting Bluetooth serial port.
RG-AP680(CD)	V4.xx	Wireless access point, one 1GE uplink port, one 1GE optical port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting Bluetooth serial port.
RG-AP680-L	V1.00	High-performance wireless access point, one 1GE uplink port, one 1GE optical port, built-in antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax, supporting Bluetooth serial port.

Model	Hardware Version Number	Description
RG-AP680-CD(V3)	V1.xx	Wireless access point, one 1GE electrical port, one 2.5GE optical port, built-in directional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP680-O(V3)	V1.xx	Wireless access point, one 1GE electrical port, one 2.5GE optical port, built-in omnidirectional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-SAP685-SP	V1.xx	Wireless access point, one 1GE electrical port, one 2.5GE optical port, built-in omnidirectional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP680P-L	V1.xx	Wireless access point, one 1GE electrical port, one 5GE optical port, one 10GE optical port, built-in omnidirectional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 4x4 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AP680-IO	V1.xx	Wireless access point, one 1GE electrical port, one 5GE optical port, one 10GE optical port, built-in omnidirectional antennas, supporting dual-radio in 2.4 GHz + 5 GHz modes with 4x4 + 4x4 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-AM5528	V1.xx	Dedicated master AP for i-Share+ solution, supporting up to 24 micro APs, supporting DC power supply, two 1GE and two 10GE uplink ports.
RG-AM5532	V1.xx	Dedicated master AP for i-Share+ solution, supporting up to 24 micro APs, providing four 1GE, four 10GE, and two 1GE and two 10GE uplink ports, supporting PoE/PoE+.
RG-MAP852	V1.xx/V2.xx/V3.xx/V4.xx	i-Share+ micro AP, built-in antennas, supporting dual-radio in 2.4 GHz+5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.

Model	Hardware Version Number	Description
RG-MAP852(V3)	V1.xx	i-Share+ micro AP, one 1GE WAN port, four 1GE LAN ports, built-in antennas, supporting dual-radio in 2.4 GHz+5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-MAP852-SF-S	V1.xx	All-optical i-Share+ micro AP, one 1GE optical port, built-in antennas, supporting dual-radio in 2.4 GHz+5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-MAP852-SF-M	V1.xx	All-optical i-Share+ micro AP, one 2.5GE optical port, built-in antennas, supporting dual-radio in 2.4 GHz+5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.
RG-MAP852-SF-U	V1.xx	All-optical i-Share+ micro AP, one 2.5GE optical port, eight 1GE LAN ports, built-in antennas, supporting dual-radio in 2.4 GHz+5 GHz modes with 2x2 + 2x2 spatial streams, compliant with IEEE 802.11a/b/g/n/ac/ax.

# 6 Upgrade Instructions

## 6.1 Upgrade Files

### 6.1.1 RG-AP180 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-02_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	24,137,898 bytes
<b>Applicable Product</b>	RG-AP180 V1.xx
<b>MD5</b>	d113fb666f21e9d50058a8f8f3b2502d
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-09_11160204_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	24,135,982 bytes
<b>Applicable Product</b>	RG-AP180 V2.xx RG-AP180 V3.xx RG-AP180 V4.xx
<b>MD5</b>	8ff324603f0c3214c9cb7faed3d904b6
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160204)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-17_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	31,379,177 bytes
<b>Applicable Product</b>	RG-AP180-I V1.xx RG-AP180P-L V1.xx
<b>MD5</b>	0f648d30e231c076d3b13c5300422113
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-15_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	26,706,103 bytes
<b>Applicable Product</b>	RG-AP180 V5.xx RG-AP180(V3) V1.xx
<b>MD5</b>	efb0d87ec7c1389d83fabe907bf9420d
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

### 6.1.2 RG-AP810 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-11_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	33,504,694 bytes
<b>Applicable Product</b>	RG-AP810-L V1.xx RG-AP810-I V1.xx RG-SAP815-SP V1.00
<b>MD5</b>	18bea1630ed57c879f29f2eaf21175c3
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

### 6.1.3 RG-AP820 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-05_11160201_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	26,009,144 bytes
<b>Applicable Product</b>	RG-AP820-L(V2) V1.xx RG-AP820-L(V2) V2.xx
<b>MD5</b>	02d0de974f07b5afed0722f86fb2b891
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160201)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-03_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	31,208,459 bytes
<b>Applicable Product</b>	RG-AP820-L(V3) V1.xx RG-SAP825-SP V1.00 RG-SAP825-SP V2.00
<b>MD5</b>	f7d9c64a8ad21a30fb7cb23df171a773
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-225_11160204_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	27,110,324 bytes
<b>Applicable Product</b>	RG-AP820-L(V2) V4.xx
<b>MD5</b>	f29740ac72afa29bb96f02d97dd70fab
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160204)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-05_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	33,555,100 bytes
<b>Applicable Product</b>	RG-AP820-I V1.xx
<b>MD5</b>	eec123763170b7c412f91fc995243d33
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)



<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-12_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	29,085,040 bytes
<b>Applicable Product</b>	RG-AP820(AR) V1.xx RG-AP820(AR) V2.xx
<b>MD5</b>	16253be9354f4268a9762367ae298bf3
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-38_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	30,075,615 bytes
<b>Applicable Product</b>	RG-AP820(AR) V3.xx
<b>MD5</b>	b4fafe8009e44f758e60801475cc5eb9
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-41_11160205_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	31,775,253 bytes
<b>Applicable Product</b>	RG-AP820-AR(V3) V1.xx
<b>MD5</b>	68a8542c54c08ffb7928efaaa9987e7e
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160205)

### 6.1.4 RG-AP840 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-01_11160123_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	28,642,393 bytes
<b>Applicable Product</b>	RG-AP840-I V1.xx
<b>MD5</b>	09453193e80e8f486dd37299e212a591
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160123)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-11_11160201_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	27,550,344 bytes
<b>Applicable Product</b>	RG-AP840-I(V2) V1.xx RG-AP840-L V1.xx RG-SAP845-SP V1.00
<b>MD5</b>	dde21a79454b364f76b389836f05c8dd
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160201)

### 6.1.5 RG-AP850 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-04_11160200_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	27,872,074 bytes
<b>Applicable Product</b>	RG-AP850-I(V2) V1.xx
<b>MD5</b>	e2f0c4e5bdf9026a8366542b828f72d2
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160200)

### 6.1.6 RG-AP880 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-02_11160201_install.bin
<b>Description</b>	Upgrade package (common version)
<b>Size</b>	28,699,444 bytes
<b>Applicable Product</b>	RG-AP880(TR) V1.xx
<b>MD5</b>	6e9997ff5c607917a7b8f137c3b3da1a
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160201)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X8-01_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	32,428,546 bytes
<b>Applicable Product</b>	RG-AP880-I V1.xx
<b>MD5</b>	236c9c26b0e32d73c9368c7a92599486
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-06_11160202_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	30,185,788 bytes
<b>Applicable Product</b>	RG-AP880-AR V1.xx RG-AP850-AR(V3) V1.xx
<b>MD5</b>	a01dcde15ace83c7dbfcee152a6160ec
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160202)

### 6.1.7 RG-AP680 Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-09_11160205_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	32,688,863 bytes
<b>Applicable Product</b>	RG-AP680-AR V1.xx
<b>MD5</b>	8e05d3a45d6b10d3fe178f2a04c8d1e7
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160205)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-06_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	26,497,613 bytes
<b>Applicable Product</b>	RG-AP680(CD) V1.xx
<b>MD5</b>	97cb0334d2eb4f92ce0a5e0ff13297cc
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-30_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	27,492,002 bytes
<b>Applicable Product</b>	RG-AP680(CD) V4.xx RG-AP680-L V1.00
<b>MD5</b>	c2fc56d155726fbed0dd4b1873f5d20a
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-37_11160204_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	27,493,560 bytes
<b>Applicable Product</b>	RG-AP680-CD(V3) V1.xx RG-AP680-O(V3) V1.xx RG-SAP685-SP V1.xx
<b>MD5</b>	45711eeac5037cfd3d6f3a8ddd51bffa
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160204)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X4-12_11160205_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	29,864,993 bytes
<b>Applicable Product</b>	RG-AP680P-L V1.xx RG-AP680-IO V1.xx
<b>MD5</b>	01831df36cfa8233a4fac22b5533449b
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160205)

### 6.1.8 i-Share+ Series

<b>File Name</b>	AM_RGOS11.9(6)W3B1_G1B5-01_11160200_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	47,775,595 bytes
<b>Applicable Product</b>	RG-AM5528 V1.xx RG-AM5532 V1.xx
<b>MD5</b>	a7159933e5739bcaccfa9d2bfe7bd8d4
<b>Software Version</b>	AM_RGOS11.9(6)W3B1, Release(11160200)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-03_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	18,238,372 bytes
<b>Applicable Product</b>	RG-MAP852 V1.xx RG-MAP852 V2.xx RG-MAP852 V3.xx
<b>MD5</b>	a3ba0720ab170fa1af00509d94fd648a
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-31_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	20,810,029 bytes
<b>Applicable Product</b>	RG-MAP852 V4.xx RG-MAP852(V3) V1.xx
<b>MD5</b>	0604b7e173a3de3855baceeeeb6d69f4
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

### 6.1.9 All-Optical i-Share+ Series

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S1X2-07_11160204_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	32,629,300 bytes
<b>Applicable Product</b>	RG-MAP852-SF-S V1.xx
<b>MD5</b>	bc341134a5ddef7e6fdf674201a44ee6
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160204)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-35_11160203_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	26,733,896 bytes
<b>Applicable Product</b>	RG-MAP852-SF-M V1.xx
<b>MD5</b>	0e987620a0afbf604942405f60155931
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160203)

<b>File Name</b>	AP_RGOS11.9(6)W3B1_S2X2-34_11160204_install.bin
<b>Description</b>	Upgrade package (official version)
<b>Size</b>	26,823,286 bytes
<b>Applicable Product</b>	RG-MAP852-SF-U V1.xx
<b>MD5</b>	5ee1a8d09abd3a77f1cd709e67853a58
<b>Software Version</b>	AP_RGOS11.9(6)W3B1, Release(11160204)

## 6.2 Upgrade Requirements

N/A

## 6.3 Precautions

- You can upgrade the software version onsite only after the upgrade is verified in the lab environment.
- Before an onsite upgrade, back up databases of customers.
- If a prompt message appears during the upgrade, indicating that restart is not allowed, do not power off the device, reset the system, or remove or insert any module.
- During the upgrade and downgrade, pay attention to the prompt messages. If failures occur, please save the log and contact us for technical support.
- After the upgrade and downgrade, run the **show version detail** command to check the current device version. If it is the target version, the upgrade succeeds.

## 6.4 Upgrade Procedure



### Note

For details about the upgrade and downgrade methods, see [Ruijie RG-WLAN Series Access Points and Access Controllers Upgrade Guide \(V1.0\)](#).

# 7 Related Documentation

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## Note

The related documents are subject to change or update without prior notification. For details, please visit the official website of Ruijie Networks: <http://www.ruijienetworks.com/>.

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