Ruijie Reyee RG-EW Series Router

POC Guide

Document Version: V1.0
Date: January 30, 2023

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Preface

Intended Audience

This document is intended for:

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

Technical Support

- Official website of Ruijie Reyee: https://www.ruijienetworks.com/products/reyee
- Technical Support Website: https://www.ruijienetworks.com/support
- Case Portal: https://caseportal.ruijienetworks.com
- Community: https://community.ruijienetworks.com
- Technical Support Email: service_rj@ruijienetworks.com

Conventions

1. Signs

This document also uses signs to indicate some important points during the operation. The meanings of these signs are as follows.

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.

Caution

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

Note

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

Specification

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

2. Note

This manual is used to guide users to understand the product, install the product, and complete the configuration.

Contents

1 Product Introduction

Powerful Mesh Wi-Fi for Full Area Coverage

- Support Reyee Mesh, zero-configuration networking for multiple devices.
- Support next generation chip, delivering stable connection and better performance.
- Support Seamless Roaming, dead-zone killer, signal-amplifier offering strong signals.
- Support Ruijie Cloud Management, operation and maintenance remotely by mobile APP.
- Support scenario-oriented features with Parental Control, Xpress Acceleration Mode, etc.

2 Lists of Test Devices and Software

2.1 Test Device List

Device Type	Device Name	Quantity	Remarks
Mesh Wi-Fi			

2.2 Test Software List

Software Name	Quantity	Unit	Remarks
WiFi Moho	1	PCS	RSSI test
Speedtest	1	PCS	Speed test

3 Function Test Guide

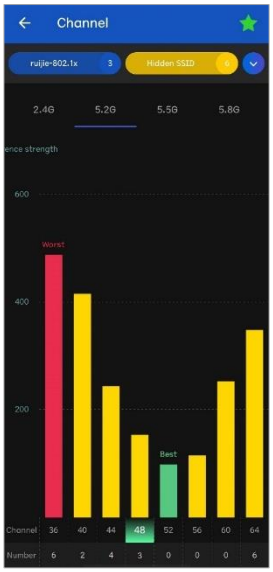
3.1 Reyee mesh

Test Item	Reyee Mesh
Test Purpose	Zero-Configuration Networking for Pairing Multiple Reyee device
Test Procedure and Expected Results	(1) The WAN port of the primary router is connected to the Internet and completes initialization. Clients such as mobile phones or PCs can find the SSID of the primary router and access the Internet. (2) Move the secondary router next to the primary router. You are advised to place the secondary router within 2 m (6.56 ft) away from the primary router without any obstacle. Power up and turn on the secondary router. (3) Press the Mesh button on the primary router. The Mesh LED of the primary router starts blinking. After 1 to 3 seconds, the LED on the secondary router starts fast blinking. When the LEDs on the primary and secondary routers are solid on, a Reyee mesh connection is successfully set up. (4) Disconnect the secondary router and move it to the position to be tested for Wi-Fi coverage. Power up the router, and wait for 3 minutes until the LED is solid on. (5) Log in to the Eweb of the primary router. You can check the mesh connection status on the homepage. 
Test Records	
Test Conclusion	

3.2 Extreme Performance tests

Test Item	Extreme performance tests of household products
Test Purpose	Test the extreme performance of a household device.
Test Procedure and Expected Results	The WAN port of the primary router is connected to the Internet and completes initialization. Clients such as mobile phones or PCs can find the SSID of the primary router and access the Internet.

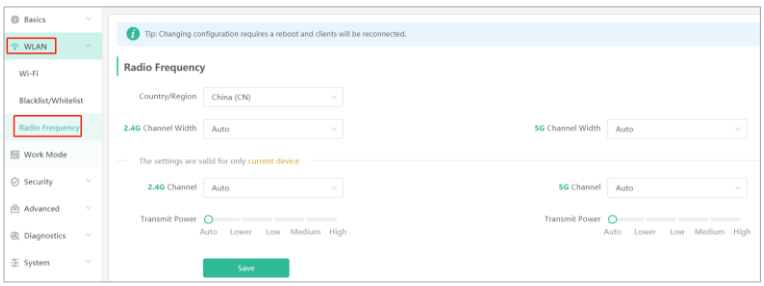
(1) Install WiFi Moho or another app with the Wi-Fi scanning function on your mobile phone, check the interference analysis result, and find the optimal channel.



(2) Log in to the Eweb of the router to configure a specified channel.

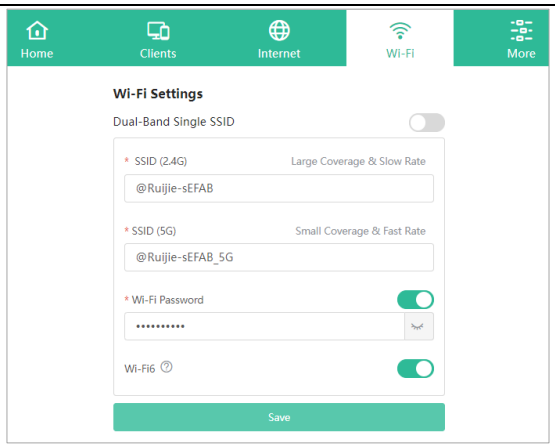
Choose **More** > **WLAN** > **Radio Frequency**.

If the interference is severe, choose a lower channel bandwidth to prevent network freezing. The router supports channel bandwidths of 20 MHz and 40 MHz. You are advised to select 20 MHz at 2.4 GHz and keep the default bandwidth at 5 GHz. You are advised to select 80 MHz at 5 GHz when testing the network speed. Click **Save** to make the configuration take effect immediately.

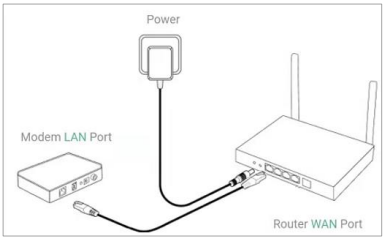


(3) Choose **WLAN** > **Wi-Fi**.

Disable **Dual-Band Single SSID**. Configure SSIDs for 2.4 GHz and 5 GHz respectively. Connect to the SSID of 5 GHz when testing speeds.

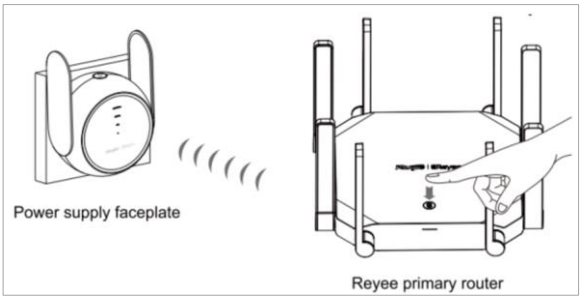
	 (4) If the device has an external antenna, keep the antenna upright, and keep the client facing the testing device. (5) When the client connects to the SSID, ensure that the client is within 2 m (6.56 ft) away from the testing device. (6) Select the optimal testing server when testing the speed by **Speedtest**. (7) Test for three consecutive times, record the values and calculate the average.
Test Records	● First test o Download: Mbps o Upload: Mbps o ping: ms ● Second test o Download: Mbps o Upload: Mbps o ping: ms
Test Conclusion	

3.3 Signal Coverage Tests

Test Item	Signal Coverage Tests
Test Purpose	Test the signal coverage of the router.
Test Procedure and Expected Results	

	(1) The WAN port of the primary router is connected to the Internet and completes initialization. Clients such as mobile phones or PCs can find the SSID of the primary router and access the Internet. (2) Connect the client to the SSID and move it to the specified testing position. (3) Enable WiFi Moho and record the signal strength of the position. (4) Enable **Speedtest** to test the speed and record the values. (5) Record signal strength of different positions and speed testing results.
Test Records	● First test o Distance: m o RSSi: dBm o Upload: Mbps o Download: Mbps ● Second test o Distance: m o RSSi: dBm o Upload: Mbps o Download: Mbps
Test Conclusion	

3.4 Repeater

Test Item	Repeater Tests
Test Purpose	Verify the **Reyee Mesh** function and the **Other Router** repeater function of the repeater.
Test Procedure and Expected Results	**Connecting the Device to a Reyee Router (Reyee Mesh)**  (1) Connect the mesh repeater to a power source, and wait for 1-2 minutes until the status of the center green LED changes from blinking to solid on. The mesh repeater is started.

(2) Press the Reyee mesh button on the primary Reyee router or connect the network cable to the primary Reyee router for automatic networking. When the three bars of the LED are on, Reyee mesh is successfully set up. Then the default Wi-Fi disappears, and the Wi-Fi name and password are synchronized with the primary router. When the signal LED is solid white, the network connection is successful. Clients can connect to the amplified Wi-Fi of the primary router to access the Internet.

(3) If the center dot LED is solid red, the network connection fails. Check whether the primary router can access the Internet. If the center dot is solid orange, the connection with the primary router fails. Move the mesh repeater to a position closer to the primary router, remove obstacles, and press the Reyee mesh button on the primary router again.

(4) Place the repeater in a position requiring signal coverage.

Note

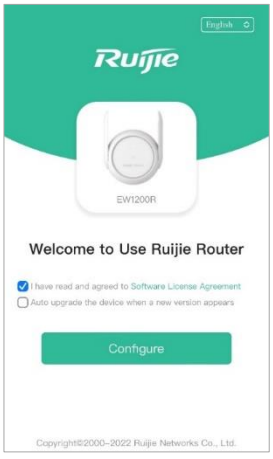
The distance between the repeater and the primary router is less than two walls for a faster network speed.

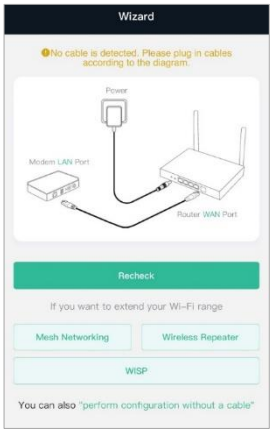
Connect the Device to a Modem or the Other Router

(1) Connect the mesh repeater to a power source, and wait for 1-2 minutes until the status of the center green LED changes from blinking to solid on. The mesh repeater is started.

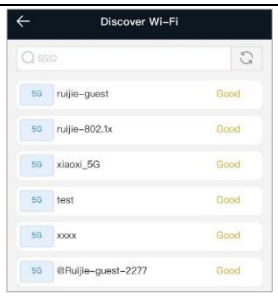
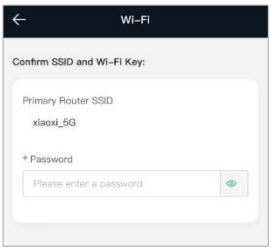
(2) Search for the wireless network with the Wi-Fi name **@Ruijie-sXXXX** by using a mobile phone or laptop. The mobile phone or laptop can log in to the web management page through a browser.

(3) Select Wireless Repeater

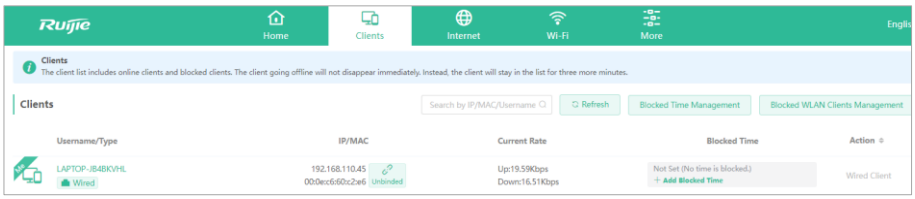
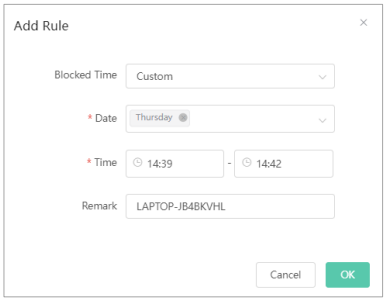


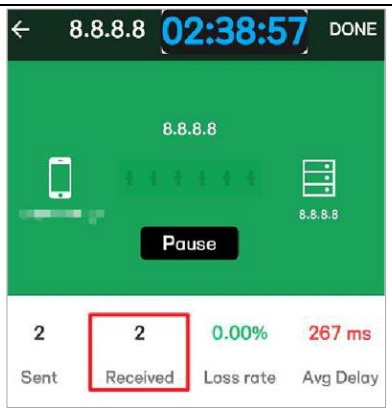


Wireless repeater mode: Click **Wireless Repeater**, select the Wi-Fi of the primary router, and enter the Wi-Fi password of the primary router to connect to the Wi-Fi

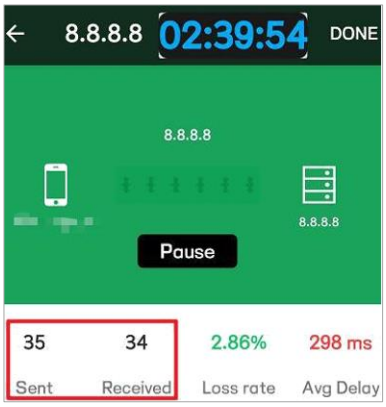
	  In wireless repeater mode, the device extends Wi-Fi signals and disables its DHCP function. When clients connect to the wireless network, the primary router assigns addresses to them. When the device in wireless repeater mode extends the network of the primary router, the WAN interface is unchanged. If you connect the network cable to the WAN interface, the device automatically switches to the wired repeater mode.
Test Records	
Test Conclusion	

3.5 Parental Control: Online Time Control

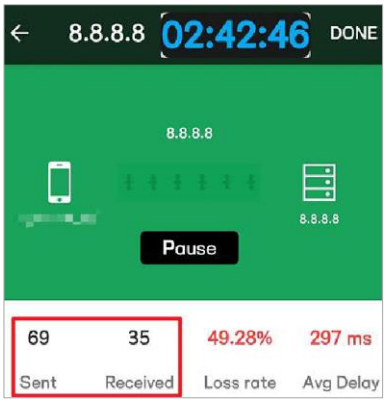
Test Item	Online time control
Test Purpose	Blocking users from accessing the Internet for a period of time
Test Procedure and Expected Results	(1) Connect the client to the SSID. On the **Client** page, click **+Add Blocked Time** to set block time.  (2) Add the Rule  (3) When the blocking time is not reached, client access the Internet normally



(4) When the time reaches the specified block time, it will block completely within 40sec, client can access Wi-Fi but cannot access the internet.

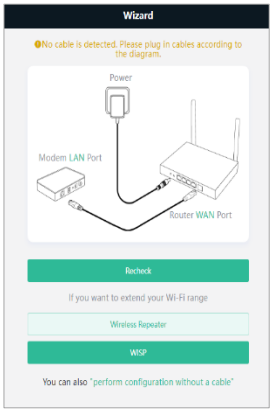
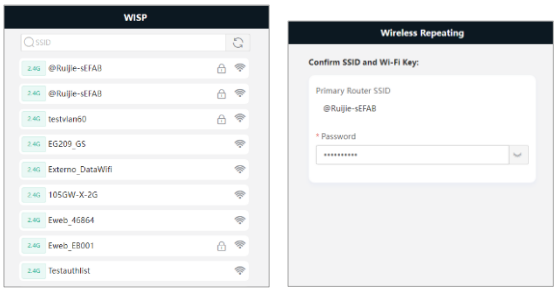
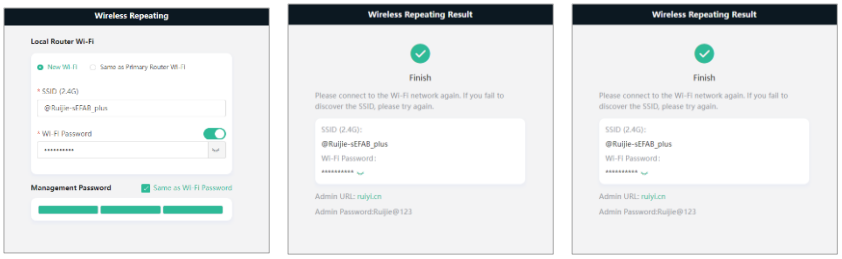


(5) When the non-blocking time is reached, customer access to the Internet will be fully restored within 40sec.



Test Records	
Test Conclusion	

3.6 WISP

Test Item	WISP
Test Purpose	Verify the **WSIP** function.
Test Procedure and Expected Results	Note: Only the EW1200G-PRO, EW300-PRO, EW1200R, and EW300R support the **WSIP** function. (1) Log in to the Eweb of the router and click **WISP**.  (2) On the displayed network setup page, click **Next** to automatically obtain an IP address.  (3) Select the SSID of the primary router and enter the Wi-Fi password to connect to the primary router.  (4) Set the SSID and password and save the settings. Then settings of the Wi-Fi network are reset. 

	(5) In wireless ISP mode, the device still supports routing and DHCP functions, IP addresses of clients connected to the primary router are assigned by the primary router and the IP addresses of clients connected to the secondary router are assigned by the secondary router.
Test Records	
Test Conclusion	