

## **User Guide**

Wi-Fi 6 Range Extender



Document Version: V1.1

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## **Preface**

Thank you for choosing Tenda! Please read this guide carefully before you start.

### **Applicable model**

This guide applies to the Wi-Fi 6 Range Extender A23V1.0 & A27V1.0 & A33V1.0. The "Wi-Fi extender" and "device" mentioned in this guide refer to Tenda Dual-band Wi-Fi 6 Range Extender. The contained images and UI screenshots are subject to the actual products. Unless otherwise specified, A33 is taken as an example in this guide.

#### **Conventions**

The typographical elements that may be found in this document are defined as follows.

Tenda Dual-band Wi-Fi 6 Range Extender includes mobile web browser systems and PC web browser systems. Unless otherwise specified, the PC web browser system is taken as an example in this guide. Some functions of the mobile web browser system are not supported. The actual page prevails.

Item	Presentation	Example
Cascading menus	>	System > Live Users
Parameter and value	Bold	Set <b>User Name</b> to <b>Tom</b> .
Variable	Italic	Format: XX:XX:XX:XX:XX
UI control	Bold	On the <b>Policy</b> page, click the <b>OK</b> button.
Message	u n	The "Success" message appears.

The symbols that may be found in this document are defined as follows.

Symbol	Meaning	
<b>U</b> NOTE	This format is used to highlight information of importance or special interest. Ignoring this type of note may result in ineffective configurations, loss of data or damage to device.	
<b>₽</b> TIP	This format is used to supplement or explain the description of relevant operations.	

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#### For more documents

If you want to get more documents about the device, visit <u>www.tendacn.com</u> and search for the corresponding product model.

The related documents are listed as below.

Document	Description	
Datasheet	It introduces the basic information about the device, including product overview, selling points, and specifications.	
Quick Installation Guide	It introduces how to set up the device quickly for internet access, the descriptions of LED indicators, ports, and buttons, FAQs, statement information, and so on.	
User Guide	It introduces how to set up more functions of the device for more requirements, including all functions on the web UI of the device.	

### **Technical support**

Contact us if you need more help. We will be glad to assist you as soon as possible.

Email address: <a href="mailto:support@tenda.cn">support@tenda.cn</a>

Website: <a href="www.tendacn.com">www.tendacn.com</a>

## **Revision history**

Tenda is constantly searching for ways to improve its products and documentation. The following table indicates any changes that might have been made since this guide was released.

Version	Description	Date
	Available in A23. Added the relevant description of A23. The specific description are as follows:	
V1.1	1. Description of the status of the LED indicator;	2023-01-31
VI.I	<ol><li>Description of resetting the Wi-Fi extender through reset button;</li></ol>	2023-01-31
	3. Optimized sentence expression.	
V1.0	Original publication. Available in A33 and A27.	2022-01-12

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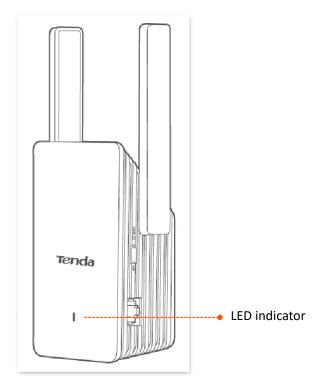
## Get to know your device

### 1.1 Overview

Tenda Wi-Fi 6 dual-band Wi-Fi extender offers dual-band antennas to expand the wireless network, efficiently delivering superspeed and seamless connectivity to every corner of your home. It supports dual-band integration technology, and the two frequency bands use the same Wi-Fi name and password, selecting the Wi-Fi with the best network quality for users. It can give full play to the highest performance of the Wi-Fi 6 dual-band Wi-Fi extender, which is suitable for home Wi-Fi coverage.

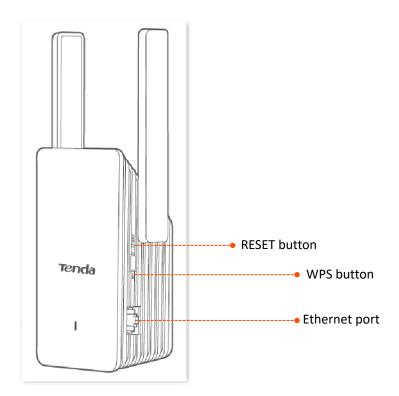
## 1.2 Appearance

#### 1.2.1 LED indicator



Status	Description
Solid blue (A27&A33)/Solid green (A23)	The Wi-Fi extender has connected to your existing router and is at a proper position or is too close to the router.
Solid yellow	The Wi-Fi extender has connected to your existing router and is in a fair position. You are recommended to move it towards the router.
Solid red	The Wi-Fi extender has connected to your existing router, but is too far away from the router. You are recommended to move it towards the router.
Blinking red slowly	The Wi-Fi extender has been enabled but failed to extend the network of the upstream device. Refer to Re-extend to extend the extender again.
Blinking red quickly (A27&A33)/ Blinking green quickly (A23)	The Wi-Fi extender is connecting to your existing router through WPS.

## 1.2.2 Port & buttons



Button/Port	Description	
WPS	Use the <b>WPS</b> button to extend the Wi-Fi network. Refer to the quick installation guide of the corresponding model extender for details (visit <a href="www.tendacn.com">www.tendacn.com</a> to download).	
RESET	See Reset the Wi-Fi extender through reset button.	

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Button/Port	Description	
	Ethernet port.	
	In Repeater mode, it is used to connect to devices, such as computers.	
	In <b>AP</b> mode, it is used to connect to a router to provide wireless network for Wi-Fi-enabled devices.	

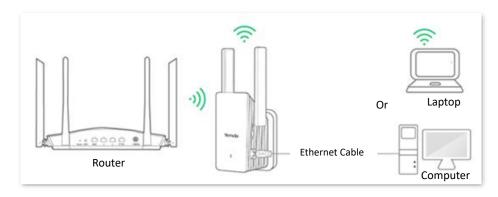
# 2 Login

## 2.1 Log in to the web UI

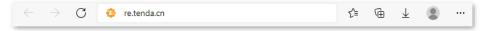
If it is the first time you use a Wi-Fi extender or you have reset it, visit <a href="www.tendacn.com">www.tendacn.com</a> and search for a quick installation guide of the corresponding product models. After a quick setup, you can refer to the following pages to log in to the web UI.

### **2.1.1** Log in with a computer/laptop (applicable only to extender mode)

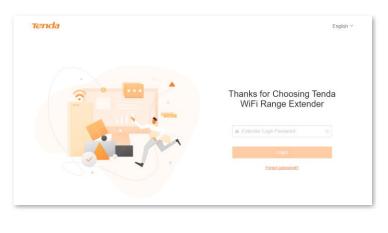
**Step 1** Use an Ethernet cable to connect your computer to the Ethernet port of the Wi-Fi extender.



Step 2 Start a web browser on the computer/laptop connected to the Wi-Fi extender, and enter re.tenda.cn in the address bar (not the search box) to access the web UI of the Wi-Fi extender.



Step 3 Enter your login password, then click Login.



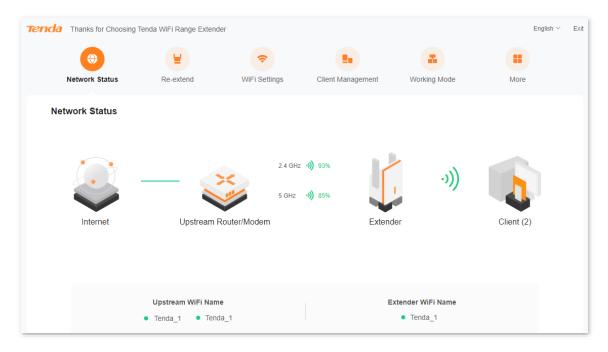
---End



If the above page does not appear, try the following solutions:

- Ensure that your Wi-Fi extender is powered on properly.
- Ensure that the Ethernet port of the extender is connected to the computer correctly and securely, or the laptop has been connected to the Wi-Fi of the extender.
- Ensure that your computer/laptop has been set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.
- Reset the Wi-Fi extender to factory settings, then log in to the web UI again.

After logging in to the web UI, you will see the following page:



## 2.1.2 Log in with a smartphone/tablet

This section uses an Android phone for illustration. You can also perform the following steps for configuration on a tablet.

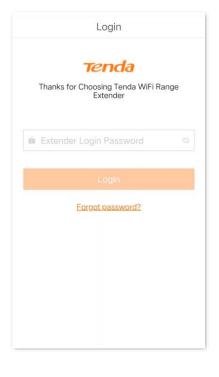
**Step 1** Connect your smartphone to the Wi-Fi network (**Tenda\_EXT** for example) of the Wi-Fi extender.



Step 2 Start a web browser on the smartphone connected to the Wi-Fi extender, and enter re.tenda.cn in the address bar (not the search box) to access the web UI of the Wi-Fi extender.



**Step 3** Enter your login password, then tap **Login**.



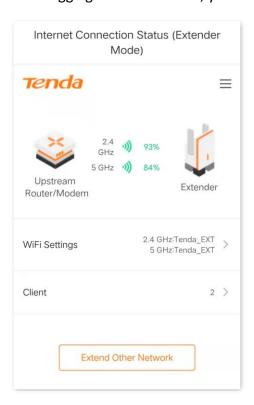
---End



If the above page does not appear, try the following solutions:

- Ensure that your smartphone has connected to the Wi-Fi network of the Wi-Fi extender.
- Ensure that the Cellular Data (if any) function of your smartphone is disabled.
- Reset the Wi-Fi extender to factory settings, then log in to the web UI again. In the factory state, the default Wi-Fi name of the extender is **Tenda\_EXT**, and no Wi-Fi password is required.

After logging in to the web UI, you will see the following page:



## 2.2 Log out of the web UI

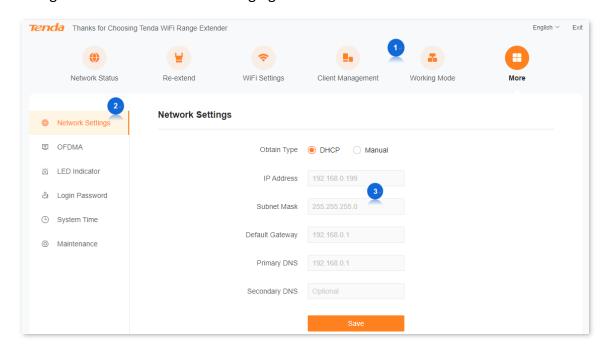
The Wi-Fi extender logs out when you:

- Click the **Exit** button on the upper-right corner of the web UI.
- Close the web browser.
- Perform no operation within 5 minutes.

# 3 Web UI

## 3.1 Web UI layout

The web UI of the Wi-Fi extender is composed of two parts, including navigation bars and configuration area. See the following figure:





Functions or parameters in grey on the web UI are not supported by the Wi-Fi extender or cannot be modified with the current configuration.

No.	Name	Description
<b>1</b>	Navigation bar	Used to display the function menu of the Wi-Fi extender. When you select a function in the navigation bar, the configuration of the function appears in the configuration area.
3	Configuration area	Used to view and modify the configuration.

## 3.2 Common buttons

The following table describes the common buttons available on the web UI.

Common Buttons	Description	
Save	Used to save the configuration on the current page and enable the configuration to take effect.	
Cancel	Used to go back to the original configuration without saving the configuration on the current page.	

# 4

## **Network status**

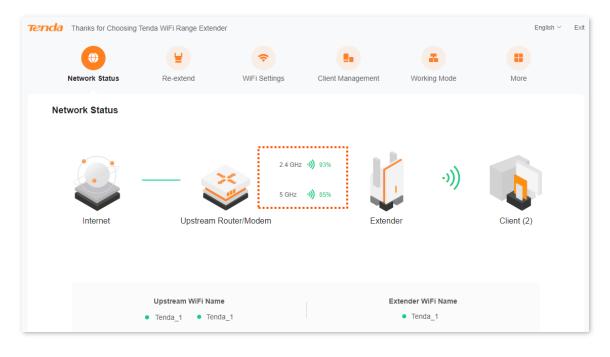
In this module, you can:

- View whether the network is extended successfully
- View network status of the Wi-Fi extender
- View the number of Wi-Fi-enabled devices in the network
- View the Wi-Fi name of the Wi-Fi extender

# 4.1 View whether the network is extended successfully

To access the configuration page, log in to the web UI, and navigate to **Network Status**.

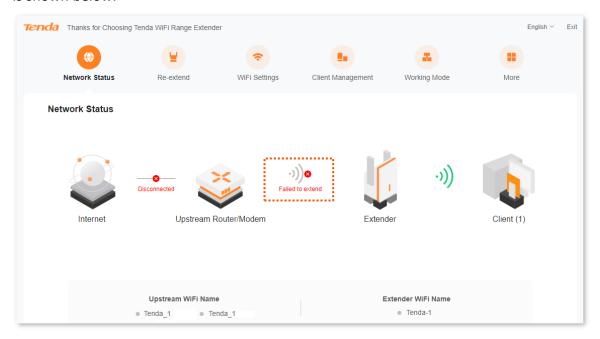
In the **extender mode**, if you see the upstream Wi-Fi signal strength (displayed in percentage) between the **Upstream Router/Modem** and the **Extender**, which is shown below:



#### It indicates:

The Wi-Fi extender has extended the Wi-Fi network of the upstream device. You can connect your network devices to the Wi-Fi network or Ethernet port (with an Ethernet cable) of the Wi-Fi extender to access the internet.

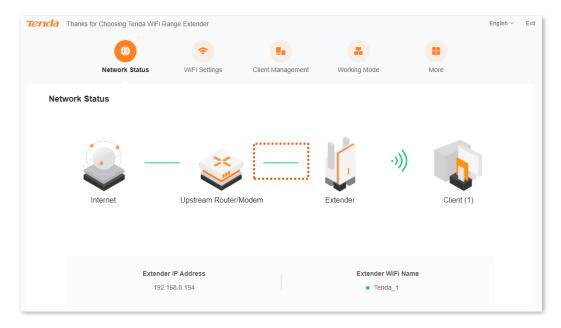
However, if you see **Failed to extend** between **Upstream Router/Modem** and the **Extender**, which is shown below:



#### It indicates:

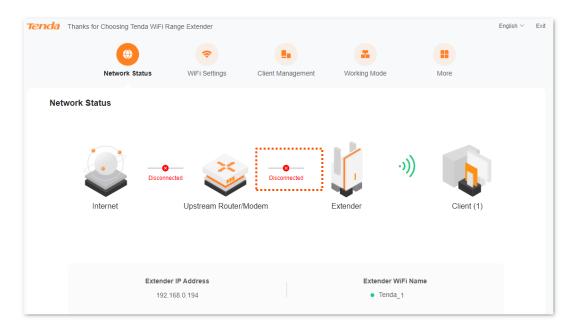
The Wi-Fi extender failed to extend the Wi-Fi network of the upstream device. You are recommended to access the **Re-extend** page to re-extend the Wi-Fi network. Refer to <u>Re-extend</u> for details.

In the AP mode, if you see the normal connection between the Upstream Router/Modem and the Extender, which is shown below:



#### It indicates:

The Wi-Fi extender has been connected to the upstream device with an Ethernet cable. You can connect your network devices to the Wi-Fi network of the Wi-Fi extender to access the internet. However, if you see **Disconnected** between **Upstream Router/Modem** and the **Extender**, which is shown below:

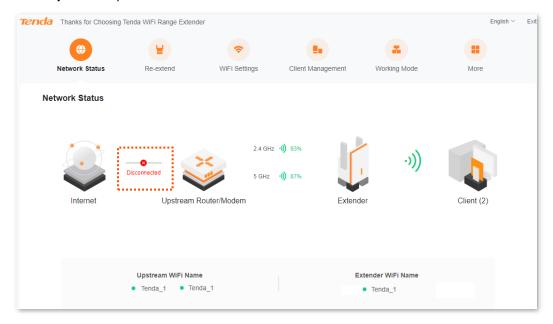


#### It indicates:

The Wi-Fi extender is not properly connected to the upstream device. You are recommended to check the Ethernet cable between the Wi-Fi extender and the upstream device to ensure that the Ethernet cable is connected to the LAN port of the upstream device and the Ethernet port of the Wi-Fi extender properly.

## 4.2 View network status of the Wi-Fi extender

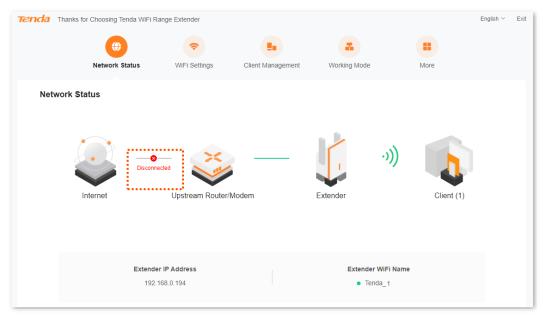
To access the configuration page, <u>log in to the web UI</u>, and navigate to **Network Status**. In the **extender mode**, if you see **Disconnected** between **Internet** and the **Upstream Router/Modem**, which is shown below:



#### It indicates:

The upstream device is disconnected from the internet, and the Wi-Fi extender fails to access the internet. You are recommended to check the network status of the upstream device.

In the AP Mode, if you see Disconnected between Internet and the Upstream Router/Modem, which is shown below:



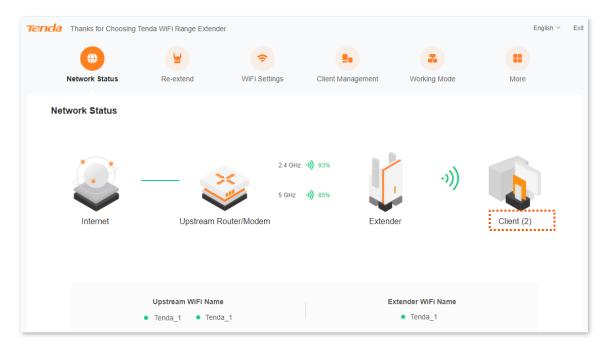
#### It indicates:

The upstream device is disconnected from the internet, and the Wi-Fi extender fails to access the internet. You are recommended to check the network status of the upstream device.

# 4.3 View the number of Wi-Fi-enabled devices in the network

To access the configuration page, log in to the web UI, and navigate to **Network Status**.

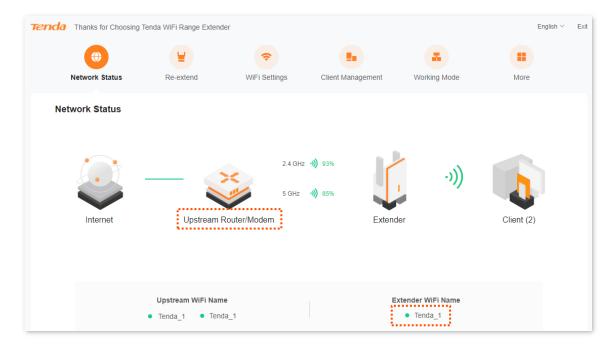
On this page, you can view the number of existing Wi-Fi-enabled devices connected to the Wi-Fi network of the Wi-Fi extender. Click , then you can access the <u>Client Management</u> page to perform more configurations.



## 4.4 View the Wi-Fi name of the Wi-Fi extender

To access the configuration page, log in to the web UI, and navigate to Network Status.

On this page, you can view the Wi-Fi name of the Wi-Fi extender and the upstream device (extender mode), or the IP address of the extender (AP mode). Refer to <u>WiFi Settings</u> for more details.



# 5 Re-extend

The A23 is taken as an example here.

To access the configuration page, log in to the web UI, and then navigate to **Re-extend**.

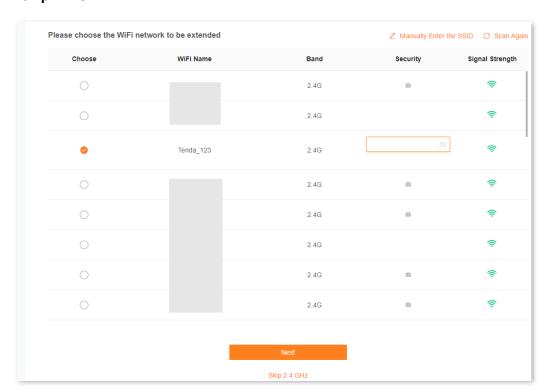
You can configure this function only in the Extender Mode.

You can try re-extending the Wi-Fi network under the following circumstance:

- When the Wi-Fi extender fails to extend the Wi-Fi network of the upstream device
- When you have successfully extended a Wi-Fi network but want to extend another one
- When you only successfully extended the Wi-Fi network in a single frequency band and want to extend the Wi-Fi network in the other frequency band

#### Procedure:

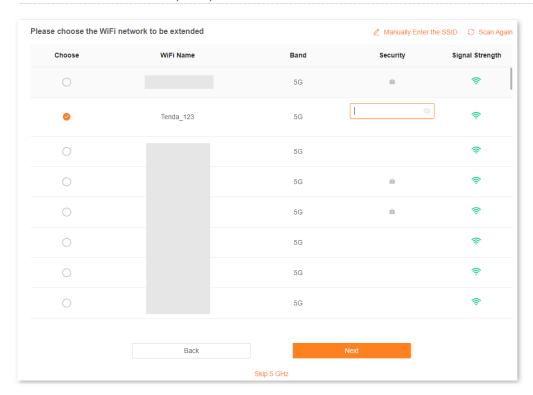
- **Step 1** Plug the Wi-Fi extender into a power outlet near the router in the same room.
- Step 2 Re-extend your Wi-Fi network.
  - 1. Log in to the web UI.
  - 2. Navigate to **Re-extend**.
  - 3. If you want to re-extend 2.4 GHz Wi-Fi, select the Wi-Fi name of 2.4 GHz Wi-Fi to be extended, which is **Tenda\_123** in this example, and click Next. Otherwise, you can click **Skip 2.4 GHz**.



4. If you want to re-extend 5 GHz Wi-Fi, select the Wi-Fi name of 5 GHz Wi-Fi to be extended, which is Tenda\_123 in this example, and click Next. Otherwise, you can click Skip 5 GHz.

### **NOTE**

- You must choose a Wi-Fi at least in one frequency band.
- Click Scan Again to refresh the Wi-Fi list on the current page.
- If you want to re-extend a hidden Wi-Fi, you can click **Manually Enter the SSID** to manually enter the Wi-Fi name, security and password of the network to be extended.

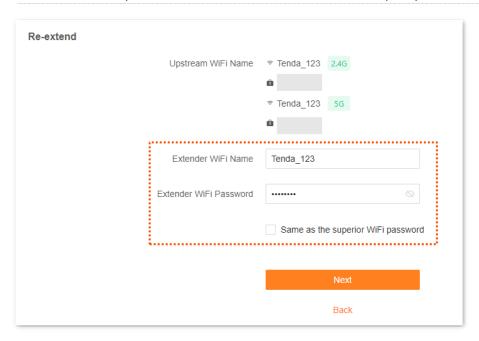


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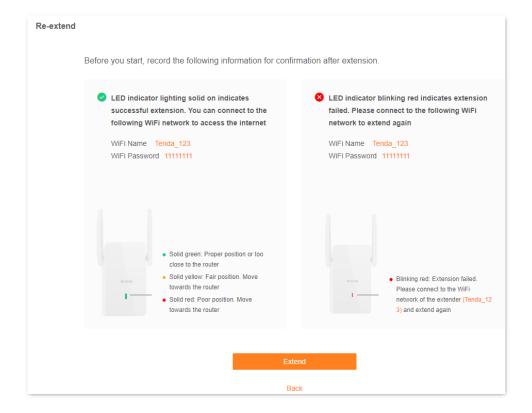
5. Modify the extender's Wi-Fi name and Wi-Fi password as required, then click Next.



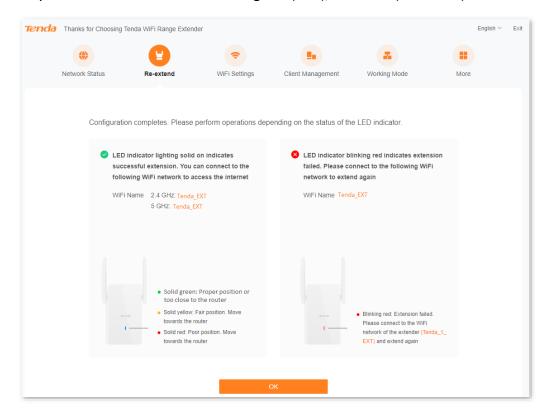
By default, the **Unify 2.4 GHz & 5 GHz** function is enabled for the Wi-Fi network of the Wi-Fi extender, and only one Wi-Fi name is displayed. When the client connects to the Wi-Fi of the Wi-Fi extender, it will automatically connect to the Wi-Fi with the best network quality.



**6.** Read the extension message, and then click **Extend**.

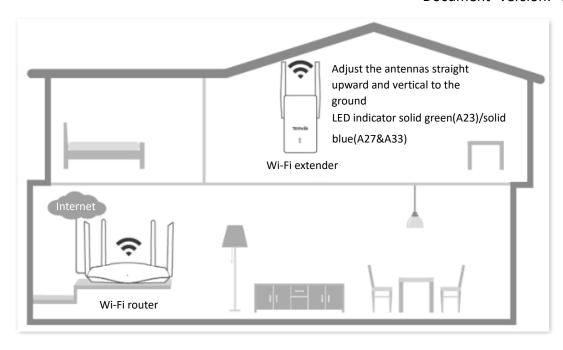


The Wi-Fi extender has successfully extended the Wi-Fi network of the upstream device if you see the LED indicator is solid green(A23)/solid blue(A27&A33).



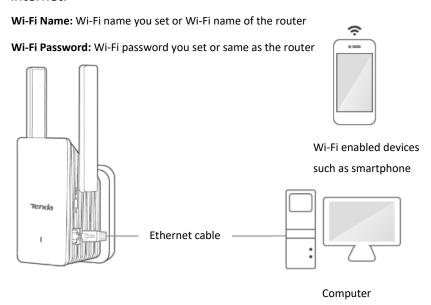
#### Step 3 Relocate the Wi-Fi extender.

- 1. For better performance, you can relocate the Wi-Fi extender as suggested below:
  - Place the Wi-Fi extender within the range of your existing Wi-Fi network.
  - Place it in a spacious position without obstacles.
  - Keep it away from electronics with strong interference, such as microwave ovens,
     Bluetooth devices, and refrigerators.
- 2. Check the color of the LED indicator to ensure the Wi-Fi extender is in a proper position.
  - Solid green(A23)/Solid blue(A27&A33): Proper location.
  - Solid yellow: Fair position. Move towards the router.
  - Solid red: Too far away from the router. Move towards the router.



#### ---End

Connect your Wi-Fi enabled devices to the extended network of the Wi-Fi extender to access the internet.

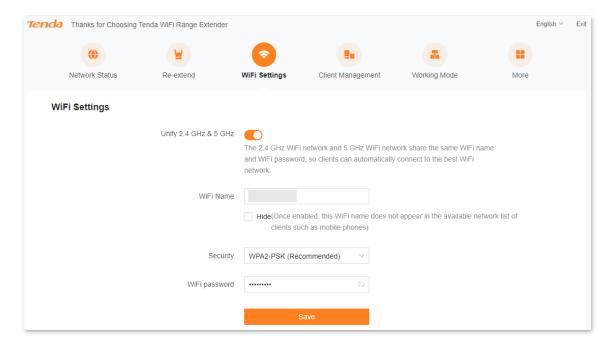


# 6 Wi-Fi settings

## 6.1 Overview

To access the configuration page, log in to the web UI, and navigate to WiFi Settings.

On this page, you can set basic Wi-Fi parameters, including enabling/disabling Unify 2.4 GHz & 5 GHz function, changing the Wi-Fi extender's Wi-Fi name and password and hiding the Wi-Fi network.



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#### **Parameter description**

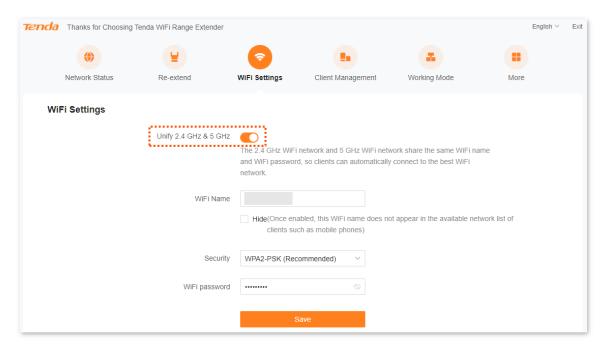
Parameter	Description
	Used to enable or disable the <b>Unify 2.4 GHz &amp; 5 GHz</b> function.
Unify 2.4 GHz & 5 GHz	With this function enabled, the 2.4 GHz and 5 GHz networks of the Wi-Fi extender are unified under one Wi-Fi name and password. You can see only one Wi-Fi network, and your network devices will automatically connect to the Wi-Fi with stronger signal strength when connecting to the Wi-Fi network of the Wi-Fi extender.
2.4 GHz WiFi	These two parameters appear only when the <b>Unify 2.4 GHz &amp; 5 GHz</b> function is disabled.
F CU- WiF:	If your smartphone and other Wi-Fi-enabled devices are far away from the Wi-Fi extender or separated from the Wi-Fi extender by walls, you are recommended to connect your Wi-Fi-enabled devices to the 2.4 GHz Wi-Fi.
5 GHz WiFi	If your smartphone and other Wi-Fi-enabled devices are close to the Wi-Fi extender, you are recommended to connect your Wi-Fi-enabled devices to the 5 GHz Wi-Fi.
WiFi name	Specifies the wireless network name of the Wi-Fi extender.
Hide	With this function enabled, no Wi-Fi-enabled device can find the corresponding Wi-Fi name, and you need to manually enter the Wi-Fi name on the Wi-Fi-enabled device to access the wireless network.
	By default, this function is disabled.
	You can refer to the following description to select a proper security mode.
	<b>Not encrypted:</b> The Wi-Fi extender does not encrypt its wireless network. This option is not recommended because it affects network security.
	WPA2-PSK (Recommended): The wireless network is encrypted with WPA2-PSK which adopts a pre-shared key for authentication. Therefore, wireless networks encrypted with WPA2-PSK are safer than those encrypted with WAP-PSK.
Security	WPA3-SAE/WPA2-PSK: The wireless network is encrypted with both WPA2-PSK/AES and WPA3-SAE/AES, improving its security. With Simultaneous Authentication of Equals (SAE) and Protected Management Frames (PMF), WPA3-SAE can defend dictionary attacks and prevent information leakage without requiring users to set complex passwords.
	<b>V</b> TIP
	WPA3-SAE is the upgraded version of WPA2-PSK. If your Wi-Fi-enabled devices do
	not support the WPA3-SAE or you have a poor Wi-Fi experience, you are recommended to switch the security mode back to WPA2-PSK (Recommended).
WiFi Password	Specifies the password used for wireless network connection. $\ensuremath{\mathbb{Q}_{TIP}}$
vviri rasswoiu	You are recommended to use the combination of digits, letters and special characters for higher security.

## 6.2 Unify 2.4 GHz and 5 GHz

The Wi-Fi extender supports both 2.4 GHz Wi-Fi and 5 GHz Wi-Fi. If you want to unify the wireless network in the two frequency bands, you can operate as follows:

#### **Procedure:**

- **Step 1** Log in to the web UI.
- Step 2 Navigate to WiFi Settings.
- Step 3 Enable the Unify 2.4 GHz & 5 GHz function.
- **Step 4** Set **WiFi Name**, **Security** and **WiFi password** for the wireless network as required.
- Step 5 Click Save.



---End

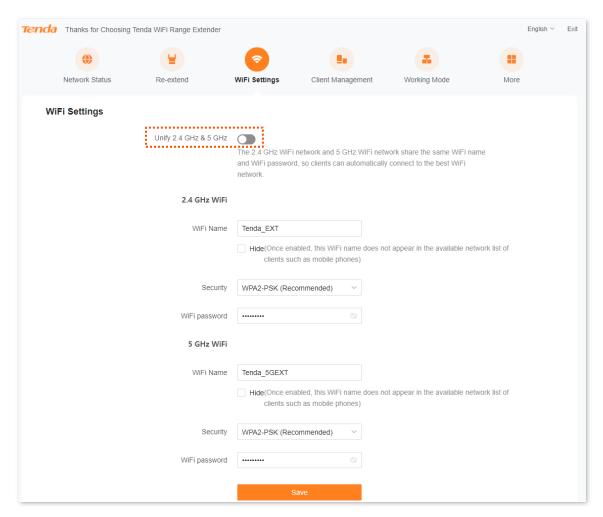
After the configuration completes, 2.4 GHz Wi-Fi and 5 GHz Wi-Fi are unified, and you can see only one Wi-Fi name. When you connect a network device to the Wi-Fi network of the Wi-Fi extender, the network device will automatically connect to the Wi-Fi with stronger signal strength.

## 6.3 Separate 2.4 GHz and 5 GHz

The Wi-Fi extender supports both 2.4 GHz Wi-Fi and 5 GHz Wi-Fi. If you want to separate the wireless network into two frequency bands, you can operate as follows:

#### **Procedure:**

- **Step 1** Log in to the web UI.
- Step 2 Navigate to WiFi Settings.
- Step 3 Disable the Unify 2.4 GHz & 5 GHz function.
- **Step 4** Set **WiFi Name**, **Security** and **WiFi password** for 2.4 GHz Wi-Fi and 5 GHz Wi-Fi, respectively.
- Step 5 Click Save.



---End

After the configuration completes, 2.4 GHz Wi-Fi and 5 GHz Wi-Fi are separated, and you can see two different Wi-Fi names. You can use your network devices to connect any of the two networks.

Document Version: V1.1

## 6.4 Modify Wi-Fi name and password

The Wi-Fi extender supports both 2.4 GHz Wi-Fi and 5 GHz Wi-Fi.

Suppose that you want to severally modify the Wi-Fi names and passwords of 2.4 GHz Wi-Fi and 5 GHz Wi-Fi as follows:

#### 2.4 GHz Wi-Fi

Wi-Fi name: Alice\_2.4 GHz Wi-Fi password: UmXmL9UK

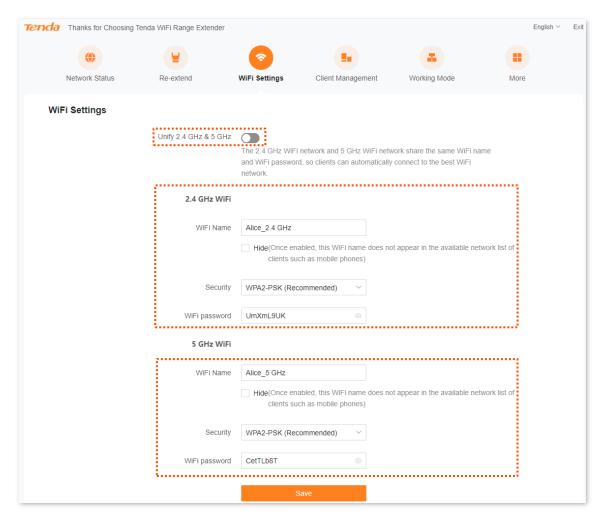
#### 5 GHz Wi-Fi

Wi-Fi name: Alice\_5 GHz
Wi-Fi password: CetTLb8T

#### **Procedure:**

- **Step 1** Log in to the web UI.
- **Step 2** Navigate to **WiFi Settings**.
- Step 3 Disable the Unify 2.4 GHz & 5 GHz function.
- **Step 4** Modify the wireless network parameters of 2.4 GHz Wi-Fi.
  - 1. Modify the Wi-Fi name under 2.4 GHz Wi-Fi, which is Alice\_2.4 GHz in this example.
  - Select a security mode under 2.4 GHz Wi-Fi. WPA2-PSK (Recommended) is recommended.
  - 3. Modify the Wi-Fi password under 2.4 GHz Wi-Fi, which is **UmXmL9UK** in this example.
- **Step 5** Modify the wireless network parameters of 5 GHz Wi-Fi.
  - 1. Modify the Wi-Fi name under 5 GHz Wi-Fi, which is **Alice\_5 GHz** in this example.
  - 2. Select a security mode under 5 GHz Wi-Fi. WPA2-PSK (Recommended) is recommended.
  - 3. Modify the Wi-Fi password under 5 GHz Wi-Fi, which is **CetTLb8T** in this example.

#### Step 6 Click Save.



#### ---End

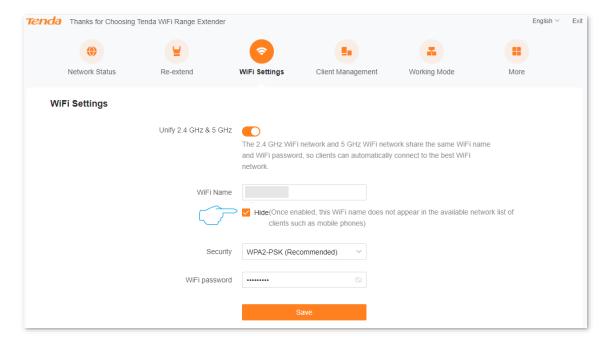
After the configuration completes, you need to connect your smartphone and other network devices to the new Wi-Fi for internet access.

## 6.5 Hide the Wi-Fi extender's Wi-Fi networks

The Wi-Fi extender supports hiding its Wi-Fi network, so that Wi-Fi-enabled devices cannot find it, thus improving the security of its Wi-Fi network.

#### **Procedure:**

- **Step 1** Log in to the web UI.
- Step 2 Navigate to WiFi Settings.
- **Step 3** Tick **Hide** under the input box after Wi-Fi Name.
- Step 4 Click Save.



---End

After the configuration completes, your smartphone and other Wi-Fi-enabled devices will be disconnected from the Wi-Fi network of the Wi-Fi extender and cannot find its Wi-Fi name anymore.

### 6.6 Connect to the hidden Wi-Fi network

To connect to the hidden Wi-Fi network of the Wi-Fi extender, you need to manually enter its Wi-Fi name and password on your Wi-Fi-enabled devices.

Suppose that you have enabled **Unify 2.4 GHz & 5 GHz** function of the Wi-Fi extender, and set relevant parameters as follows:

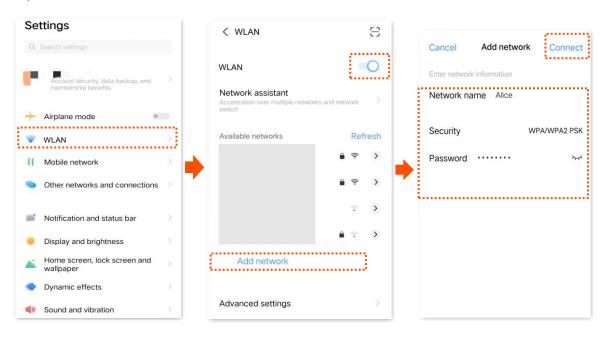
- Wi-Fi name: Alice
- Security: WPA2-PSK (Recommended)
- Wi-Fi password: UmXmL9UK



If you forgot the above parameters, <u>log in to the web UI of the Wi-Fi extender</u> and view relevant parameters on the **WiFi Settings** page.

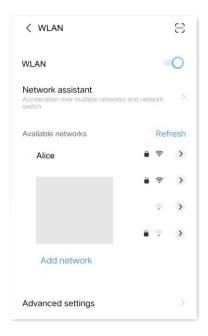
**Procedure:** (An Android phone is used for illustration).

- **Step 1** Tap **Settings** on the homepage of your smartphone to enter the setting page.
- Step 2 Tap WLAN to enter the WLAN page, then enable WLAN.
- **Step 3** Scroll down to the bottom of the WLAN page, and tap **Add network**.
- **Step 4** Enter the network name, which is **Alice**.
- Step 5 Set the security mode as **WPA/WPA2 PSK**. If your smartphone does not support **WPA /WPA2 PSK**, select another mode containing WPA2-PSK.
- **Step 6** Enter the password, which is **UmXmL9UK** in this example.
- Step 7 Tap Connect.



---End

Wait until your smartphone connects to the Wi-Fi network of the Wi-Fi extender, then you can access the internet.



## 7

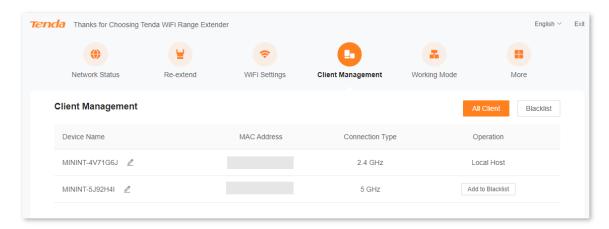
## Client management

## 7.1 Overview

To access the configuration page, log in to the web UI, and navigate to Client Management.

On this page, you can view the wireless clients currently connected to the Wi-Fi network of the Wi-Fi extender, view the blacklist, and add a wireless client to the blacklist or remove a wireless client from the blacklist.

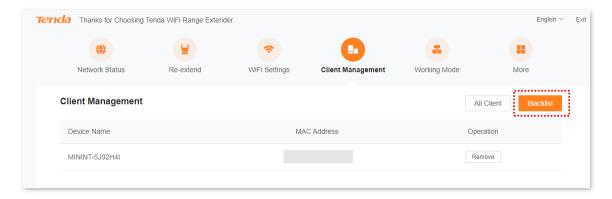
After entering the **Client Management** page, you are led to **All Client** module by default, which is shown below:



#### **Parameter description**

Parameter	Description
Device Name	Specifies the name of the wireless client. You can customize the name of the client by clicking $\ensuremath{\mathbb{Z}}$ .
MAC Address	Specifies the MAC address of the wireless client.
Connection Type	Specifies how the wireless client is connected to the Wi-Fi extender.
Operation	Click Add to Blacklist, then the corresponding wireless client is added to the blacklist.

After entering the **Client Management** page, click **Blacklist**, then you can view all blacklisted devices.

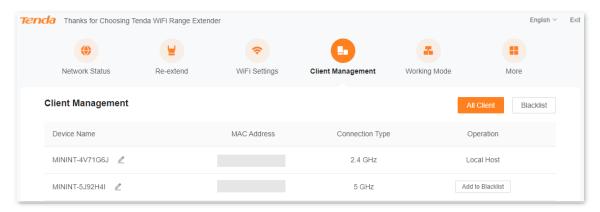


### **Parameter description**

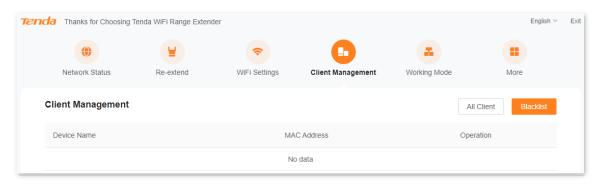
Parameter	Description
Device Name	Specifies the name of the wireless client.
MAC Address	Specifies the MAC address of the wireless client.
Operation	Click <b>Remove</b> , then the corresponding wireless client is removed from the blacklist.

# 7.2 View all online wireless clients/blacklist

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **Client Management**. You will enter **All Client** module, where you can view all wireless clients currently connected to the Wi-Fi network of the Wi-Fi extender.



**Step 3** Click **Blacklist**, then you can view all blacklisted devices.



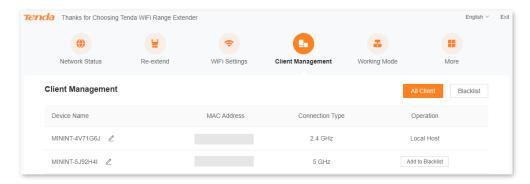
---End

# 7.3 Add a wireless client to the blacklist

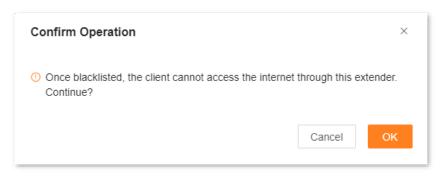
Clients added to the blacklist cannot connect to the wireless network of the Wi-Fi extender for internet access.

#### **Procedure:**

- **Step 1** Log in to the web UI.
- **Step 2** Navigate to **Client Management**.
- Step 3 Find the client you want to blacklist, then click Add to Blacklist.

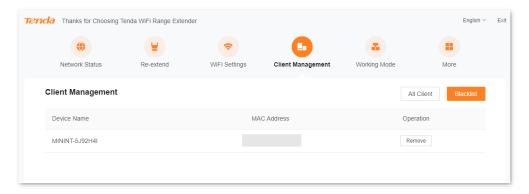


**Step 4** Confirm the prompt message and click **OK**.



---End

After the configuration completes, you can view the blacklisted devices by clicking **Blacklist** on the **Client Management** page.

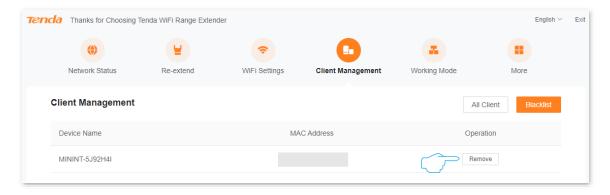


# 7.4 Remove a wireless client from the blacklist

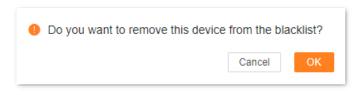
You can also remove a wireless client from the blacklist on the **Blacklist** page. The clients removed from the blacklist can be reconnected to the Wi-Fi of the extender.

#### **Procedure:**

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **Client Management**, then click **Blacklist**.
- **Step 3** Find the client you want to remove from the blacklist, then click **Remove**.



**Step 4** Confirm the prompt message and click **OK**.



---End

After the configuration completes, the client you removed from the blacklist can connect to the Wi-Fi extender for internet access.

# Operating mode

To access the configuration page, log in to the web UI, and navigate to Working Mode.

On this page, you can view and switch the working mode of the Wi-Fi extender. By default, the operating mode is extender mode.

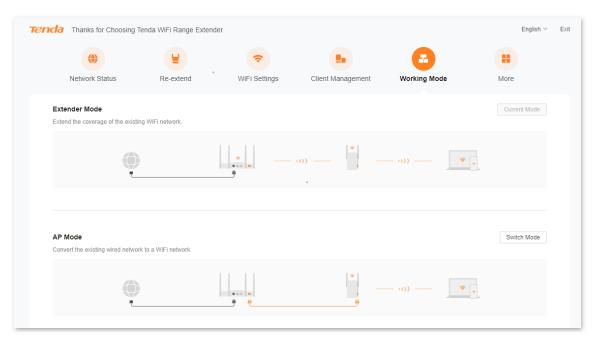
# 8.1 Switch the Wi-Fi extender from extender mode to AP mode

In AP mode, the Wi-Fi extender is connected to the upstream device using an Ethernet cable to extend the network coverage.

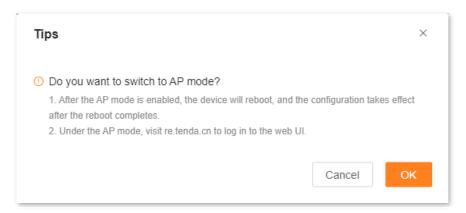
Suppose that the Wi-Fi extender is working in the extender mode. You have a gateway which has connected to the internet but does not support Wi-Fi in your house or cannot cover the area you want. To expand the network coverage in your house, you can switch the Wi-Fi extender from extender mode to AP mode.

#### Procedure:

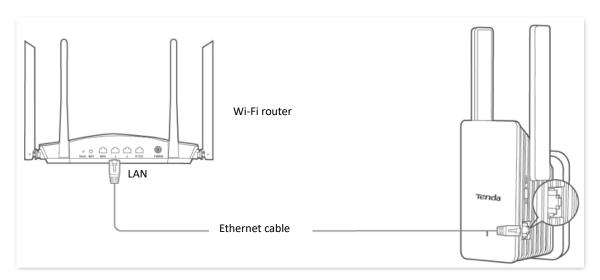
- Step 1 Log in to the web UI.
- Step 2 Navigate to Working Mode.
- Step 3 Find AP Mode, then click Switch Mode.



**Step 4** Confirm the prompt message and click **OK**. The system will reboot to effectuate the configuration.

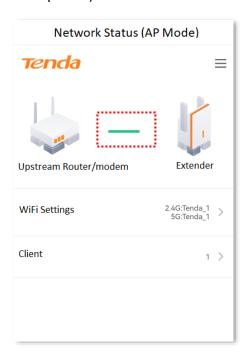


Step 5 Use an Ethernet cable to connect the Ethernet port of the Wi-Fi extender to the LAN port of the upstream device.



---End

You can log in to the web UI of the Wi-Fi extender again through wireless device (such as a smartphone) to check whether the Wi-Fi extender has connected to the upstream device:



If the configuration succeeds, the smartphone and other wireless clients connected to the Wi-Fi network of the Wi-Fi extender can access the internet. If you did not set a password, to ensure network security, you are recommended to set a password on the WiFi Settings page.



If you fail to access the internet, try the following solutions:

- Ensure that the upstream device is connected to internet properly.
- If you use a Wi-Fi-enabled device to connect to the Wi-Fi network of the Wi-Fi extender, ensure that you have been connected to the right network.

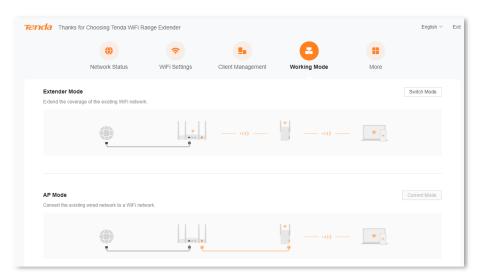
# 8.2 Switch the Wi-Fi extender from AP mode to extender mode

In the extender mode, you can extend the coverage of the existing Wi-Fi network.

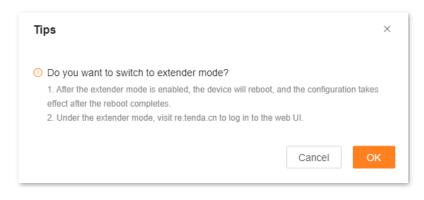
Suppose that the Wi-Fi extender is working in AP Mode. You have a Wi-Fi router which has connected to the internet in your house. To expand the network coverage in your house, you can switch the Wi-Fi extender from AP mode to extender mode.

#### Procedure:

- **Step 1** Remove the Ethernet cable (if any) connecting the Wi-Fi extender with the upstream device.
- Step 2 Log in to the web UI.
- **Step 3** Navigate to **Working Mode**.
- **Step 4** Find **Extender Mode**, then click **Switch Mode**.

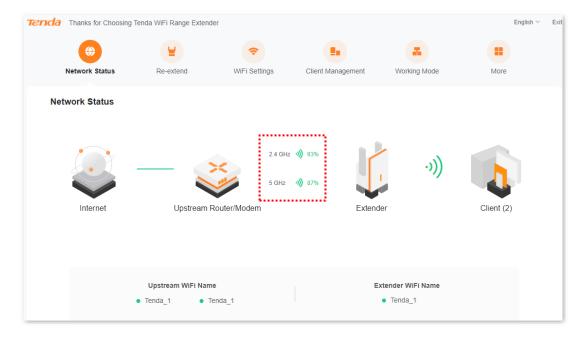


**Step 5** After confirming the prompt message, click **OK**. The system will reboot to take effect the configuration.



---End

After switching to the extender mode, you can <u>log in to the web UI of the Wi-Fi extender</u> again, and check whether the network has extended successfully on the **Network Status** page. If the Wi-Fi network of the upstream device is not extended successfully, access the **Re-extend** page to re-extend the network. Refer to <u>Re-extend</u> for details.



If the configuration succeeds, the computer connected to the Ethernet port of the Wi-Fi extender, smartphone and other wireless clients connected to the Wi-Fi network of the Wi-Fi extender can access the internet. If you did not set a password, to ensure network security, you are recommended to set a password on the <u>WiFi Settings</u> page.



If you fail to access the internet, try the following solutions:

- Ensure that the upstream device is connected to internet properly.
- If you use a Wi-Fi-enabled device to connect to the Wi-Fi network of the Wi-Fi extender, ensure that you have been connected to the correct network.
- If you use an Ethernet cable to connect the computer to the Wi-Fi extender, ensure that the computer is connected to the Wi-Fi extender securely and that your computer/laptop has been set to **Obtain an IP address automatically** and **Obtain DNS server address automatically**.

# 9 More settings

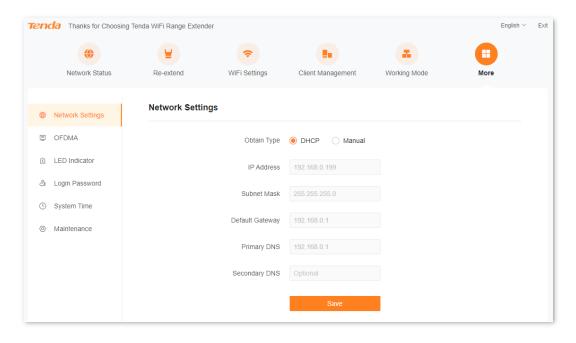
#### On the More page, you can:

- View/modify the extender IP address
- Configure OFDMA function
- Enable/disable LED indicator
- Set/modify login password
- View/set system time
- Configure DST
- Perform maintenance operations on the Wi-Fi extender, including reboot, reset, system log export and firmware upgrade

# 9.1 Network settings

To access the configuration page, log in to the web UI, and navigate to More > Network Settings.

On this page, you can set the way for the Wi-Fi extender to obtain the IP address, and view IP address, subnet mask and other information of the Wi-Fi extender.



### **Parameter description**

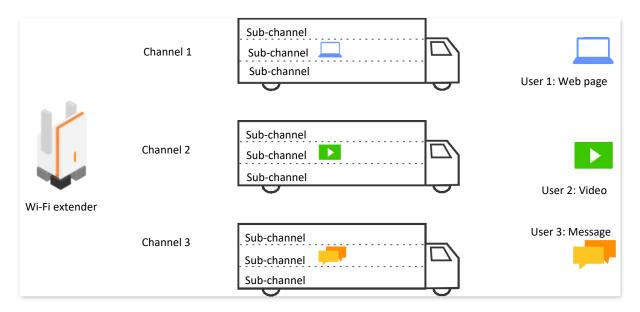
Parameter	Description
Obtain Type	Specifies the way for the Wi-Fi extender to obtain the IP address.
	<b>DHCP</b> : The Wi-Fi extender obtains its IP address, subnet mask, default gateway and DNS from DHCP server.
	<b>Manual:</b> IP address, subnet mask, default gateway and DNS of the Wi-Fi extender are set manually.
	<b>Q</b> <sub>TIP</sub>
	If you set <b>Obtain Type</b> as <b>DHCP</b> , the login IP address of the Wi-Fi extender will change. To log in to the web UI again, connect your Wi-Fi-enabled device to the Wi-Fi or use a network cable to connect your computer to the Ethernet port of the Wi-Fi extender, then enter <b>re.tenda.cn</b> in the address bar to access the web UI of the Wi-Fi extender.
IP Address	Specifies the IP address, as well as the management IP address of the Wi-Fi extender. LAN users can access this IP address to log in to the web UI of the Wi-Fi extender.
	To enable the Wi-Fi extender to access the internet, you need to set the IP address in the same network segment as the LAN IP address of the egress router.
Subnet Mask	Specifies the subnet mask of the Wi-Fi extender.
	Specifies the default gateway of the Wi-Fi extender.
Default Gateway	$Q_{TIP}$
Jenuari Garema,	To enable the Wi-Fi extender to access the internet, the default gateway is generally set as the LAN IP address of the egress router.
Primary DNS	Specify the primary/secondary IP address of the DNS server.
	If the egress router has the DNS proxy function, the <b>primary DNS</b> address can be the LAN IP address of the egress router; otherwise, enter the correct IP address of the DNS
Secondary DNS	server.
	If the DNS server only has one IP address, fill in the <b>Primary DNS</b> .

### 9.2 OFDMA

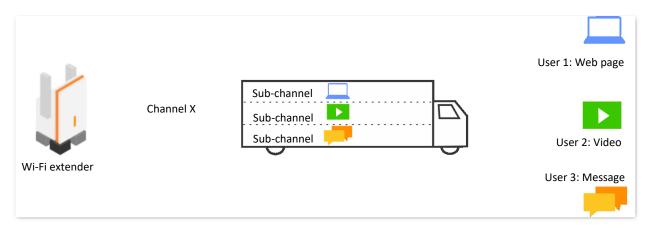
Before 802.11ax, Orthogonal Frequency Division Multiplexing (OFDM), a modulation mode is used for data transmission. OFDM divides the whole channel into several sub-channels (sub-carriers), and transmits data through these sub-channels, differentiating different data. At some point, data sent by users will occupy the whole channel. If several users need to use OFDM to send data, they can only wait in line, wasting channel resources.

802.11ax introduced more efficient data transmission mode, Orthogonal Frequency Division Multiple Access (OFDMA), a multi-address access technology. It uses OFDM to divide the whole channel into several sub-channels (sub-carriers), with user data borne on resource blocks rather than in the whole channel, thereby allowing parallel user data transmission at the same time. Users don't have to wait in line, thus decreasing time delay and improving users' internet experience.

#### OFDM data transmission mode:

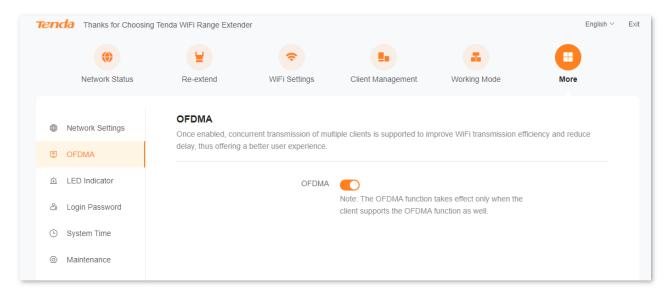


#### OFDMA data transmission mode:



To access the configuration page, log in to the web UI, and navigate to More > OFDMA.

This function is disabled by default. When it is enabled, the page is shown below.

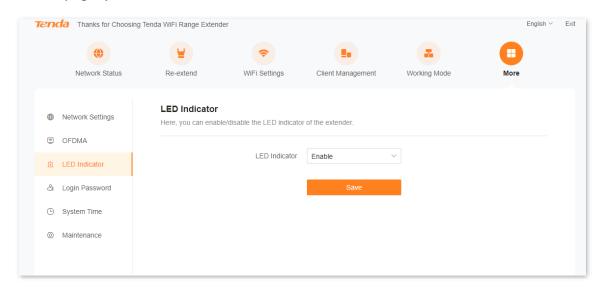


## 9.3 LED indicator

### 9.3.1 Overview

To access the configuration page, log in to the web UI, and navigate to More > LED Indicator.

On this page, you can enable/disable the LED indicator of the Wi-Fi extender.



#### **Parameter description**

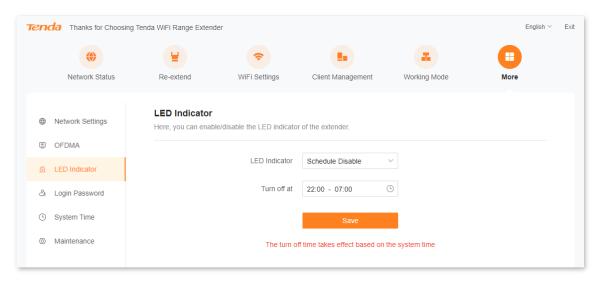
Parameter	Description
Enable	The LED indicator normally shows the status of the Wi-Fi extender.
Disable	The LED indicator of the Wi-Fi extender turns off.
Schedule Disable	The LED indicator of the Wi-Fi extender turns off at the time configured but works normally at other times.

### 9.3.2 Turn off the LED indicator as scheduled

Suppose that the LED indicator needs to light out as you want between 22:00 every day and 7:00 the second day.

#### **Procedure:**

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More** > **LED Indicator**.
- **Step 3** Select **Schedule Disable** in the drop-down list of LED Indicator.
- Step 4 Set the period for turning off the LED indicator, which is 22:00-7:00 in this example.
- Step 5 Click Save.



#### ---End

After the configuration completes, the LED indicator of the Wi-Fi extender will turn off from 22:00 to 07:00 every day.

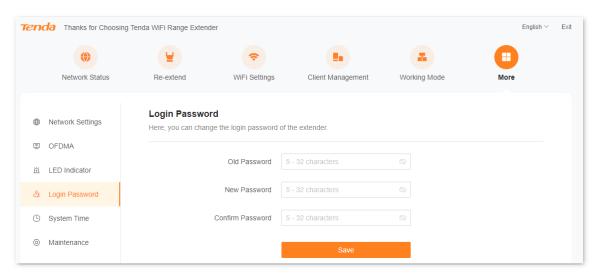
# 9.4 Login password

To access the configuration page, log in to the web UI, and navigate to More > Login password.

You are required to set a login password the first time of using the Wi-Fi extender. If you did not set it, you can set a new password on this page. You can also modify the login password of the Wi-Fi extender on this page.

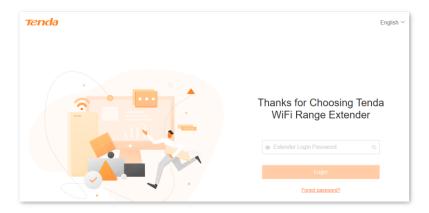
#### Procedure:

- **Step 1** Log in to the web UI.
- **Step 2** Navigate to **More** > **Login password**.
- **Step 3** In the **Old Password** text box, enter the current login password of the Wi-Fi extender.
- **Step 4** In the **New Password** text box, set a new login password.
- **Step 5** In the **Confirm Password** text box, repeat the new login password.
- **Step 6** Click **Save**.



---End

You will be led to the login page. Enter the new login password, and click **Login**. Then, you can log in to the web UI of the Wi-Fi extender.



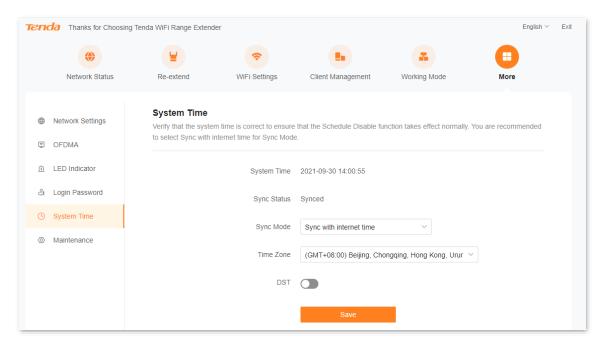
# 9.5 System time

### 9.5.1 Overview

To access the configuration page, log in to the web UI, and navigate to More > System Time.

On this page, you can set the system time of the Wi-Fi extender.

To ensure time-based functions of the Wi-Fi extender can work normally, you need to ensure the accuracy of the system time of the Wi-Fi extender. The Wi-Fi extender supports two sync modes: <a href="mailto:sync.with.internet.time">sync.with.internet.time</a> (default) and <a href="mailto:sync.with.internet.time">sync.with.internet.time</a> (default)



#### **Parameter description**

Parameter	Description
System Time	Specifies the current system time of the Wi-Fi extender.
Sync Status	Specifies the sync status of the system time of the Wi-Fi extender.
	Specifies the sync mode of the system time of the Wi-Fi extender.
Sync Mode	<b>Sync with internet time</b> : System time is synced with the time server on the internet.
·	<b>Sync with local time</b> : System time is synced with the time of the client currently managing the Wi-Fi extender.
Time Zone	Specifies the standard time zone at the current locality of the Wi-Fi extender, and is specific to <b>Sync with internet time</b> .
Local Time	Specifies the time of the client managing the Wi-Fi extender, and is specific to <b>Sync with local time</b> .

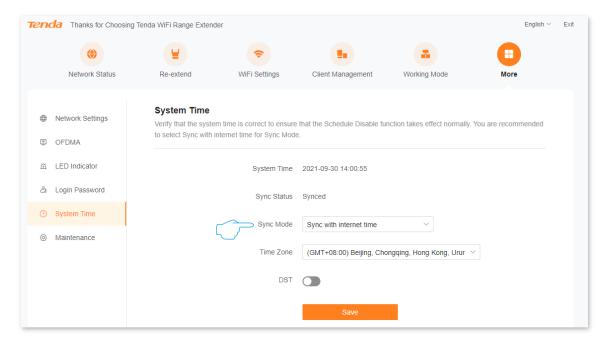
Parameter	Description
DCT	It is a time system implemented for resource conservation. The uniform time used when the system is implemented is <b>Daylight Saving Time</b> .
וצט	If the Wi-Fi extender is used in a country or area where DST is implemented, please enable DST.

## 9.5.2 Sync system time with internet time

The system time is synced automatically with the time server on the internet. The Wi-Fi extender can automatically sync its system time once it is connected to the internet, eliminating the need to reconfigure the function.

#### Procedure:

- **Step 1** Log in to the web UI.
- **Step 2** Navigate to **More** > **System time**.
- **Step 3** Select **Sync with internet time** in the drop-down list of **Sync Mode**.
- Step 4 Click Save.



---End

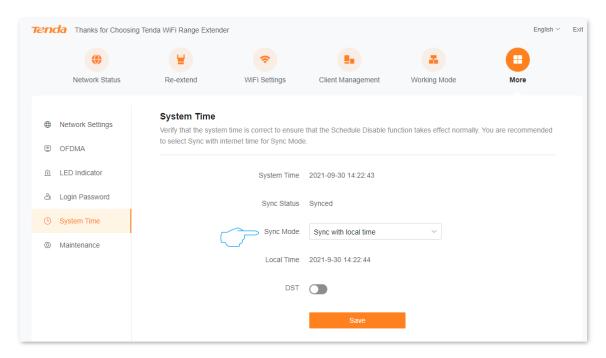
After the configuration completes, you can check whether **System Time** on the page is synced correctly.

## 9.5.3 Sync system time with local time

The system time is synced with the time of the client managing the Wi-Fi extender.

#### **Procedure:**

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More** > **System time**.
- **Step 3** Select **Sync with local time** in the drop-down list of **Sync Mode**.
- Step 4 Click Save.



---End

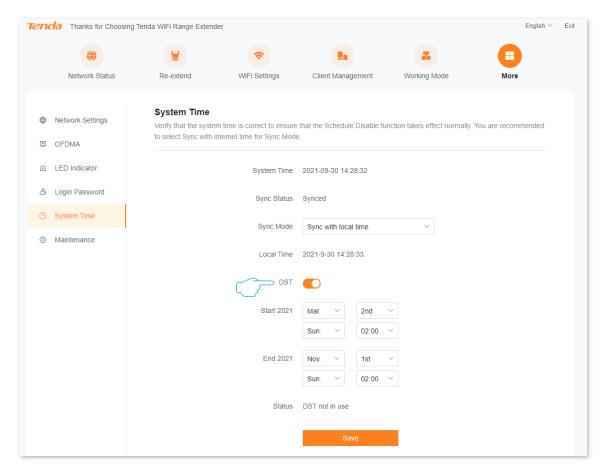
After the configuration completes, you can check whether **System Time** on the page is synced correctly.

### 9.5.4 Enable DST

If the Wi-Fi extender is used in a country or area where DST is implemented, please enable DST.

#### **Procedure:**

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More** > **System time**.
- **Step 3** Enable the **DST** function.
- Step 4 Set the start time and end time of DST.
- Step 5 Click Save.



---End

After the configuration completes, the system time will adopt DST during the specified period, and you can check whether **System Time** on the page is synced correctly.

# 9.6 System management

### 9.6.1 Reboot the Wi-Fi extender

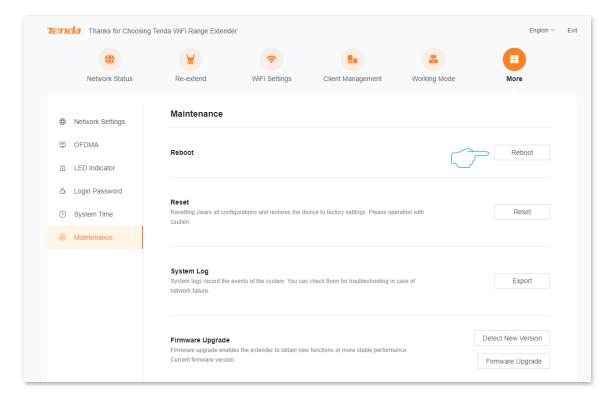
If a setting fails to take effect or the Wi-Fi extender fails to work properly, you can try rebooting the Wi-Fi extender.



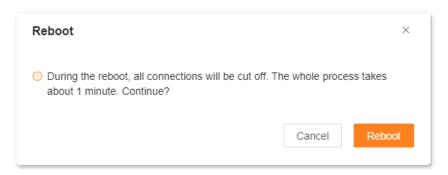
During the reboot, all connections will be cut off. Please reboot the Wi-Fi extender when the network is idle.

#### **Procedure:**

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More > Maintenance**, then find **Reboot** module.
- Step 3 Click Reboot.



**Step 4** Confirm the prompt message and click **Reboot**. The system will reboot to effectuate the configuration.



---End

### 9.6.2 Reset the Wi-Fi extender

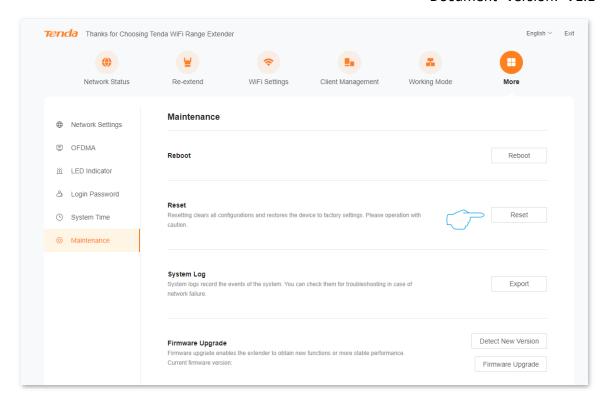
You are recommended to reset the Wi-Fi extender to factory settings if you forget your login password, or you cannot locate the problem interrupting your Wi-Fi extender's Wi-Fi network service.



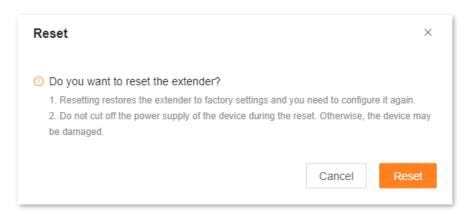
- After resetting, the Wi-Fi extender will be reset to the factory settings, and you need to reconfigure the Wi-Fi extender. You are not recommended to reset the Wi-Fi extender, unless necessary.
- To avoid damage to the Wi-Fi extender, ensure that your Wi-Fi extender is powered on properly during resetting.
- After resetting, the default extender IP address is 192.168.0.254.

### Reset the Wi-Fi extender through Web UI

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More > Maintenance**, then find **Reset** module.
- Step 3 Click Reset.



**Step 4** After confirming the prompt message, click **Reset**. The system will be reset to effectuate the configuration.



---End

## Reset the Wi-Fi extender through reset button

A27&A33: When the Wi-Fi extender completes startup, press the RESET button using a
needle-like item (such as a pin) for about 1-3 seconds until the LED indicator blinks blue, the
Wi-Fi extender is reset. When the LED indicator of the Wi-Fi extender blinks red slowly, the
Wi-Fi extender has successfully restored the factory settings and started up.

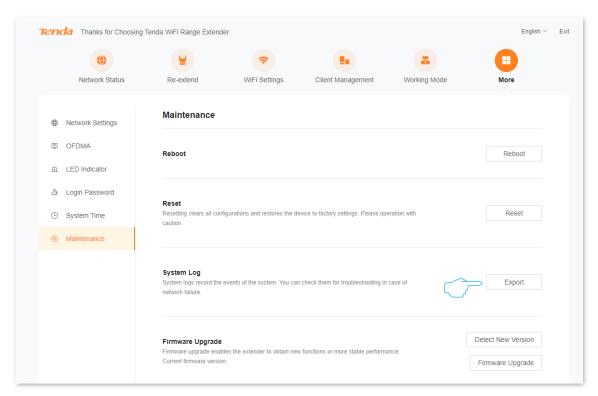
• **A23:** When the Wi-Fi extender completes startup, press the **RESET** button using a needle-like item (such as a pin) for about 1 to 3 seconds until the LED indicator blinks yellow fast, the Wi-Fi extender is reset. When the LED indicator of the Wi-Fi extender blinks red slowly, the Wi-Fi extender has successfully restored the factory settings and started up.

### 9.6.3 Export system logs

To access the configuration page, <u>log in to the web UI</u>, and navigate to **More > Maintenance.**System logs of the Wi-Fi extender recorded all events that happened after the system starts up. In the event of a network failure, you can troubleshoot the problem using the information in the system logs of the Wi-Fi extender.

#### Procedure:

- Step 1 Log in to the web UI.
- **Step 2** Navigate to **More > Maintenance**, then find **System Log** module.
- **Step 3** Click **Export**, then you can export the system logs of your Wi-Fi extender to your computer.



---End

A file named syslog.tar will be downloaded to your computer through your browser.



- The Wi-Fi extender will only record the events after the latest startup.
- The Wi-Fi extender will reboot after such operations as repowering after power-off, firmware upgrade, mode switching and resetting.

## 9.6.4 Upgrade firmware system

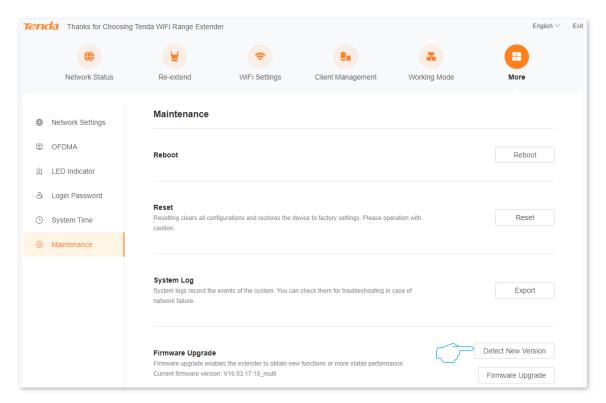
The Wi-Fi extender gets new or more stable performance through firmware upgrade. The extender supports two firmware upgrade ways, **Local Upgrade** and **Online Upgrade**.

### **Online Upgrade**



During the upgrade, do not power off the extender or disconnect it from the internet; otherwise, the upgrade may fail or the extender may be damaged.

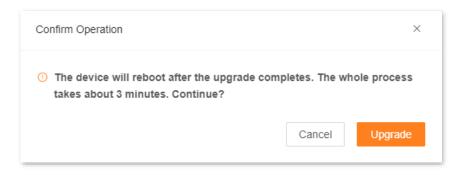
- **Step 1** Log in to the web UI.
- **Step 2** Navigate to **More > Maintenance**, then find **Firmware Upgrade** module.
- Step 3 Click Detect New Version.



Step 4 Wait for a while, when the system detects the new firmware version, click Online Upgrade.



**Step 5** Confirm the prompt message and click **Upgrade**.



#### ---End

The upgrade progress prompt will appear on the page. After the upgrade is completed, log in to the web UI of the extender again, and check the **Current firmware version** in the **Firmware Upgrade** module, confirming that it is the same as the firmware version you just upgraded.



To better experience the stability and value-added functions of the higher firmware version, after the upgrade is completed, please reset the extender to its factory settings.

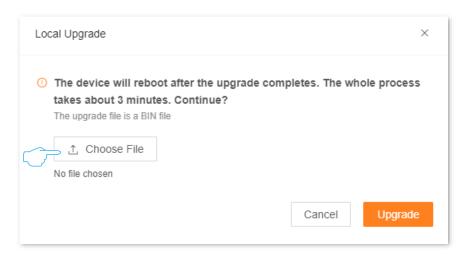
### **Local Upgrade**



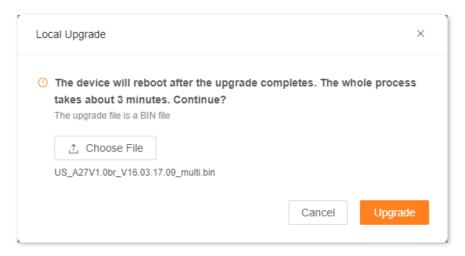
- To avoid damage to the extender, please use the correct upgrade file to upgrade. Generally, the file suffix of the firmware upgrade file is .bin.
- During the upgrade, do not power off the extender or disconnect it from the internet; otherwise, the upgrade may fail or the extender may be damaged.
- **Step 1** Visit Tenda's official website <a href="www.tendacn.com">www.tendacn.com</a> to download the latest upgrade file of the corresponding model extender, save it to your local computer and unzip it.
- Step 2 Log in to the web UI.
- **Step 3** Navigate to **More > Maintenance**, then find **Firmware Upgrade** module.
- **Step 4** Click **Firmware Upgrade**.



Step 5 Click Choose File, and select the upgrade file in the corresponding directory (the file suffix is .bin).



#### Step 6 Click Upgrade.



#### ---End

The upgrade progress prompt will appear on the page. After the upgrade is complete, log in to the web UI of the extender again, and check the **Current firmware version** in the **Firmware Upgrade** module to confirm that it is the same as the firmware version you just upgraded.



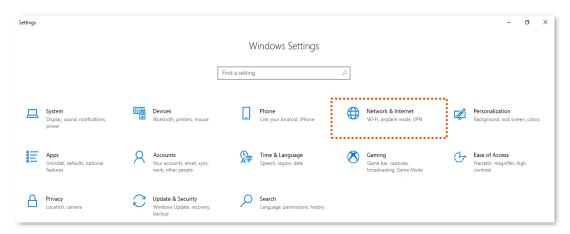
To better experience the stability and value-added functions of the higher firmware version, after the upgrade is completed, please reset the extender to its factory settings.

# **Appendix**

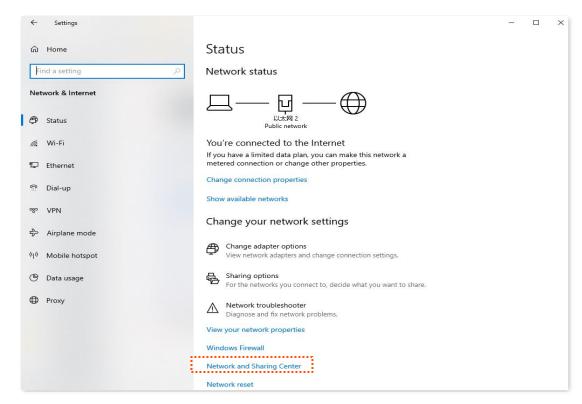
# A.1 Set the computer IPv4 address

Here takes Windows 10 as an example for setting instructions.

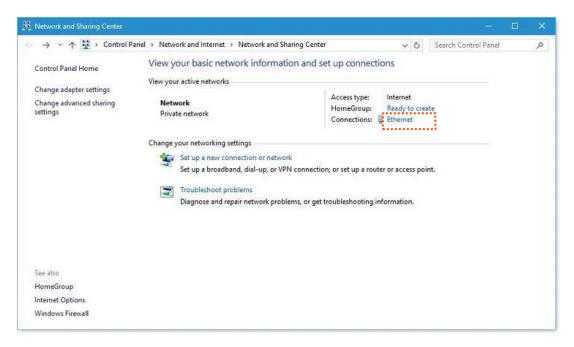
Step 1 On the computer desktop, click Start , Settings , and choose Network & Internet.



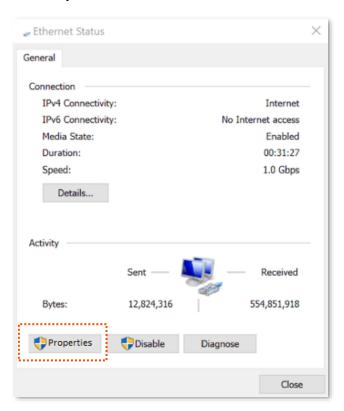
### **Step 2** Click **Network and Sharing Center**.



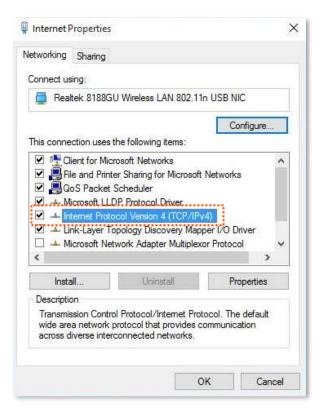
#### **Step 3** Click **Ethernet**.



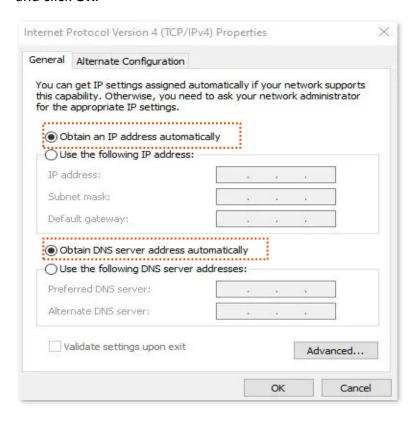
### **Step 4** Click **Properties**.



**Step 5** Locate and double-click **Internet Protocol Version 4 (TCP/IPv4)**.



Step 6 Select Obtain an IP address automatically and Obtain DNS server address automatically, and click OK.



**Step 7** When the page automatically returns to the **Internet Properties**, click **OK** again.

---End

# **A.2** Default parameter values

The following table lists the default parameter values of the Wi-Fi extender.

Parameter	Default Value
Login address	re.tenda.cn
Login password	None
IP address	192.168.0.254
Subnet mask	255.255.25.0
DHCP server status	Enabled
SSID	Tenda_EXT
Wi-Fi password	None
Unify 2.4 GHz & 5 GHz	Enabled

# **A.3** Acronyms and Abbreviations

Acronym and Abbreviation	Full Spelling
AES	Advanced Encryption Standard
АР	Access Point
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
DST	Daylight Saving Time
GMT	Greenwich Mean Time
IP	Internet Protocol
IPv4	Internet Protocol version 4
MAC	Media Access Control
OFDM	Orthogonal Frequency Division Multiplexing
OFDMA	Orthogonal Frequency Division Multiple Access
PMF	Management Frame Protection
SAE	Simultaneous Authentication of Equals
ТСР	Transmission Control Protocol
WPA	Wi-Fi Protected Access
WPA-PSK	WPA-Preshared Key
WPS	Wi-Fi Protected Setup