

**Tenda**

# User Guide

Wi-Fi 4G LTE Router

4G09/4G06C/4G06/4G03



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# Preface

Thank you for choosing Tenda!

This user guide walks you through all functions of the Wi-Fi 4G LTE products (4G09 used for illustration). All the screenshots herein, unless otherwise specified, are taken from 4G09.

This user guide is applicable to the following routers.

Product model	Description
4G09	AC1200 Dual-band Wi-Fi 4G+ LTE Router
4G06C	N300 Wi-Fi 4G LTE Router
4G06	N300 Wi-Fi 4G VoLTE Router
4G03	N300 Wi-Fi 4G LTE Router





Web UI of different models may differ. The Web UI actually displayed shall prevail.

## Conventions

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

Item	Presentation	Example
Cascading Menus	>	Click <b>Status</b> > <b>Device Status</b>
Parameter and value	Bold	Set <b>User Name</b> to <b>Tom</b> .
UI control	Bold	On the <b>Policy</b> page, click the <b>OK</b> button.
Variable	Italic	Format: <i>XX:XX:XX:XX:XX:XX</i>
Message	“ ”	The “Success” message appears.

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

Symbol	Meaning
	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.
	This format is used to highlight a procedure that will save time or resources.

## For more documents

If you want to get more documents of the device, visit [www.tendacn.com](http://www.tendacn.com) and search for the corresponding product model.

The related documents are listed as below.

Document	Description
Data Sheet	It introduces the basic information of the device, including product overview, selling points, and specifications.
Quick Installation Guide User Manual	They introduce how to set up the device quickly for internet access, the descriptions of LED indicators, ports, and buttons, FAQ, 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

If you need more help, contact us by any of the following means. We will be glad to assist you as soon as possible.



**Hotline**

Global: (86) 755-27657180

(China Time Zone)

United States: 1-800-570-5892

(Toll Free: 7 x 24 hours)

Canada: 1-888-998-8966

(Toll Free: Mon - Fri 9 am - 6 pm PST)

Hong Kong: 00852-81931998



**Email**

[support@tenda.com.cn](mailto:support@tenda.com.cn)



**Website**

<https://www.tendacn.com/>



## 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 first published.

Version	Date	Description
V1.1	2022-08-31	Added description about 4G06C and IPsec in: <a href="#">Get to know your device</a> <a href="#">VPN</a>
V1.0	2022-07-23	Original publication

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# 1 Get to know your device

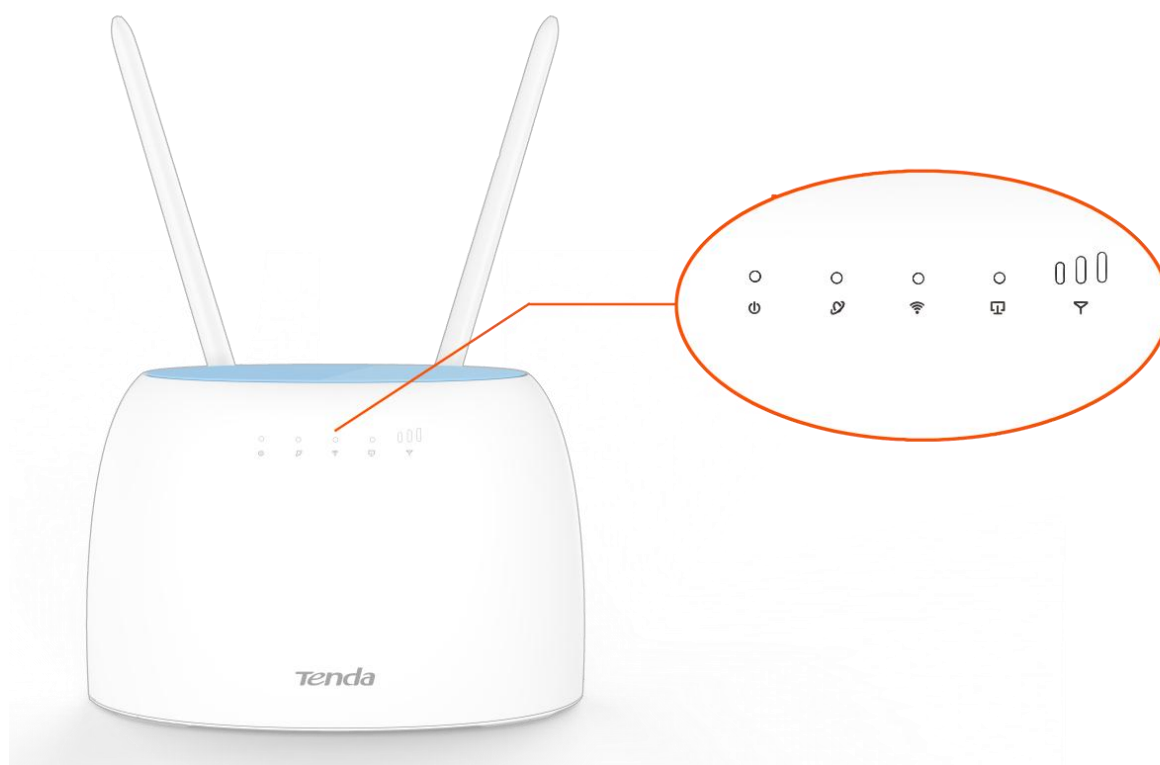
## 1.1 Introduction






The Wi-Fi 4G router series, powered by built-in 4G module, provides fast 4G LTE internet access. It realizes instant internet access with just a SIM card and achieves simultaneous communication with multiple devices. Different models feature varied performance and functions.

Model	4G03	4G06C	4G06	4G09
Feature				
4G LTE category	CAT4	CAT4	CAT4	CAT6
Wi-Fi network	2.4 GHz	2.4 GHz	2.4 GHz	2.4 GHz & 5GHz
Wireless rate	2.4 GHz: 300 Mbps	2.4 GHz: 300 Mbps	2.4 GHz: 300 Mbps	2.4 GHz: 300 Mbps 5 GHz: 867 Mbps
4G antennas	Internal	Two 5 dBi external antennas	Two 5 dBi external antennas	Two 5 dBi external antennas
Ethernet port	2*FE	2*FE	2*FE	2*GE
App management	√	√	√	√
Telephone port	-	-	√	-

## 1.2 LED indicators

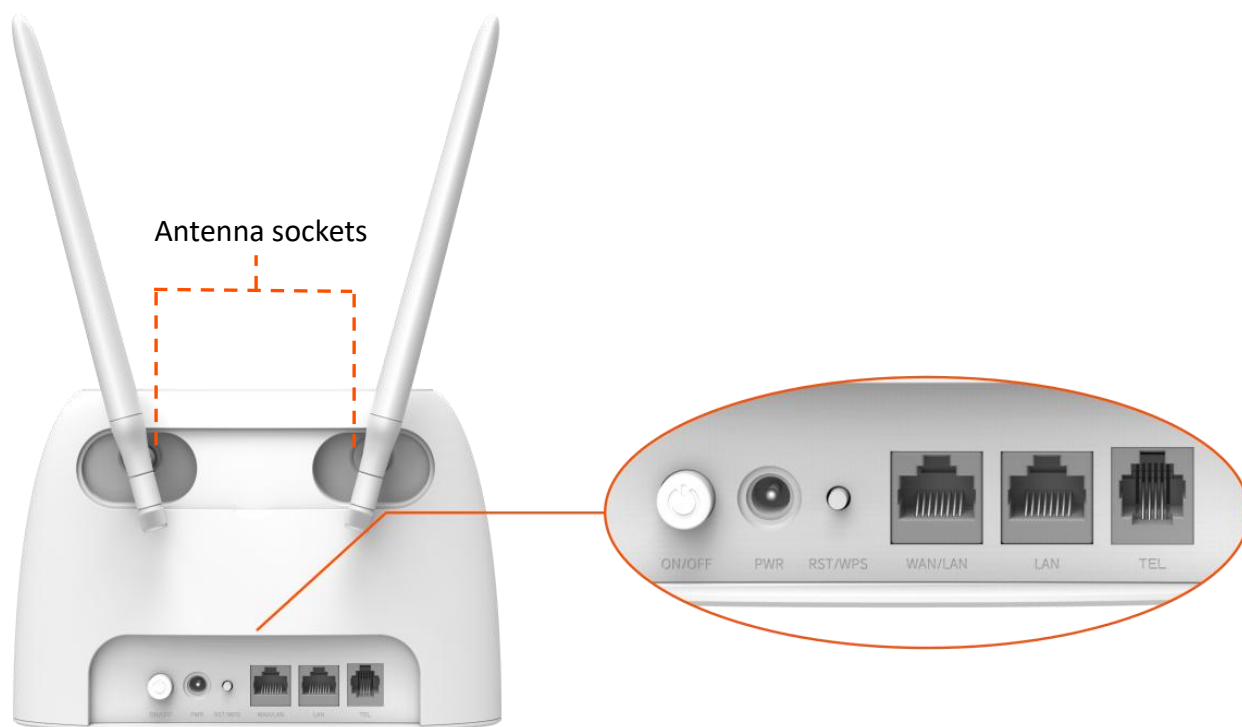
The Wi-Fi 4G router series share the same LED indicators. 4G09 is used for illustration here.





LED indicator	Status	Description
 (Power indicator)	Solid on	The router is powered on properly.
	Off	The router is powered off or not powered on properly.
 (Internet indicator)	Solid on	The router is connected to the internet.
	Off	The router fails to connect to the internet.
 (Wi-Fi indicator)	Solid on	The Wi-Fi network of the router is enabled.
	Blinking	The router is performing WPS negotiation.
	Off	The Wi-Fi network is disabled.
 (LAN indicator)	Solid on	At least one device is connected to a LAN port of the router.
	Off	No device is connected to any port of the router.
 (Signal strength indicator)	3 bars	Excellent signal.
	2 bars	Good signal.
	1 bar	Fair signal.
	Off	No 4G/3G signal.

## 1.3 Ports and buttons

Only 4G06 is equipped with a telephone port, while 4G09, 4G06C and 4G03 are not. 4G06 is used for illustration here.

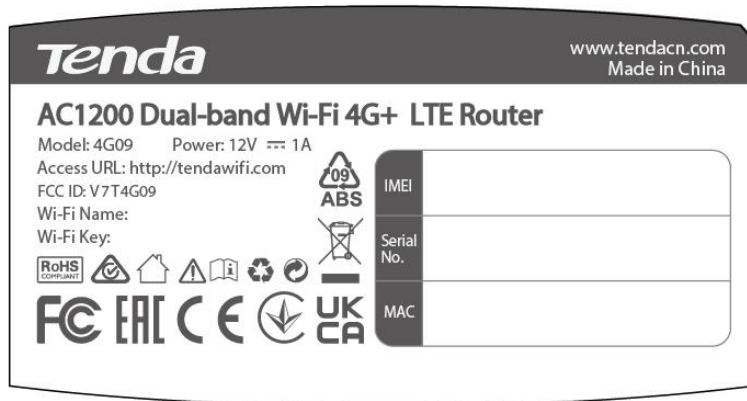


Port/Button	Description
ON/OFF	Power on/off button. It is used to power on or power off the router.
PWR	Power jack. It is used to connect to the included power adapter.
RST/WPS	It serves as both reset and WPS button. <ul style="list-style-type: none"> <li>Reset: When the router is working properly, hold down the button for about 8 seconds and release it when all indicators light off and then light up. The router is restored to factory settings.</li> <li>WPS: Press the button and release it, the  (Wi-Fi) LED indicator blinks. The router gets ready for WPS negotiation. Configure WPS-enabled wireless devices within 2 minutes to start WPS negotiation with the router.</li> </ul>

Port/Button	Description
WAN/LAN	<p>It is a fast Ethernet port, which can serve as a WAN port or a LAN port. By default, it is a LAN port.</p> <ul style="list-style-type: none"> <li>• When the router is under 3G/4G router mode, it serves as a LAN port.</li> <li>• When the router is under wireless router mode, it serves as a WAN port.</li> <li>• When the wireless repeating function is enabled, do not connect any device to this port.</li> <li>• When the AP mode is enabled, it serves as a LAN port.</li> </ul>
LAN	<p>It is a LAN port used to connect wired devices, such as a computer.</p> <p>When the IPTV function is enabled under the wireless router mode, it serves as the IPTV port to be connected to the set-top box.</p>
TEL	<p>Telephone port.</p> <p>It is used to connect to a landline telephone using the included telephone cable for voice service.</p> <p> TIP</p> <ul style="list-style-type: none"> <li>• Voice service is only available under the 3G/4G router mode with a SIM card inserted. Ensure that the mobile data is enabled and the router can access the internet before using the voice service.</li> <li>• Internet access is unavailable when you are making phone calls through 3G network.</li> </ul>
Antenna sockets	They are used to connect to the detachable antennas.

## 1.4 Label

The bottom label shows the Model, Power, Access URL, FCC ID, Wi-Fi Name, Wi-Fi Key, IMEI, Serial No. and MAC address of the router. See the following figure.



**Model:** It specifies the model of the router.

**Power:** It specifies the power supply for the router.

**Access URL:** It is the URL used to log in to the web UI of the router.

**FCC ID:** It specifies the Federal Communications Commission Identification number of the router.

**Wi-Fi Name:** It specifies the default Wi-Fi name of the router.

**Wi-Fi Key:** It specifies the default Wi-Fi password of the router.

**IMEI:** It is the unique mobile device identification code of the router.

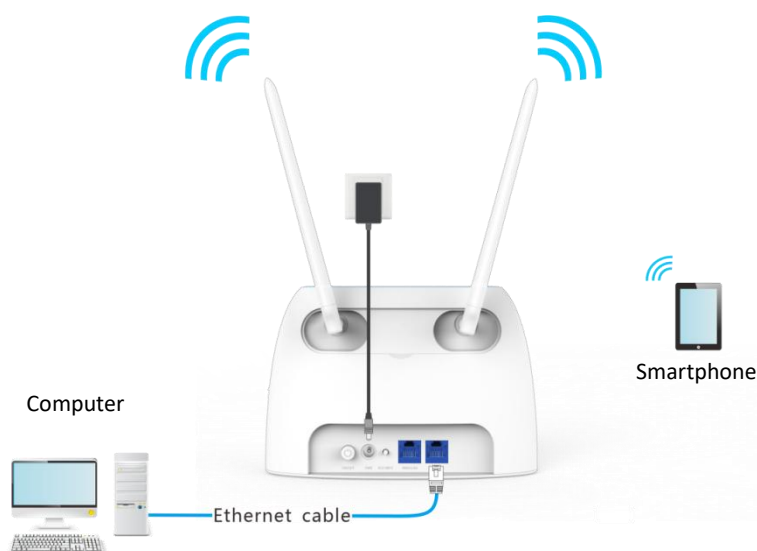
**Serial No.:** It is required if you need technical assistance to repair your router.

**MAC:** It specifies the MAC address of the router.

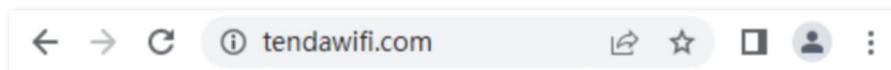
# 2 Web UI

## 2.1 Log in to the web UI

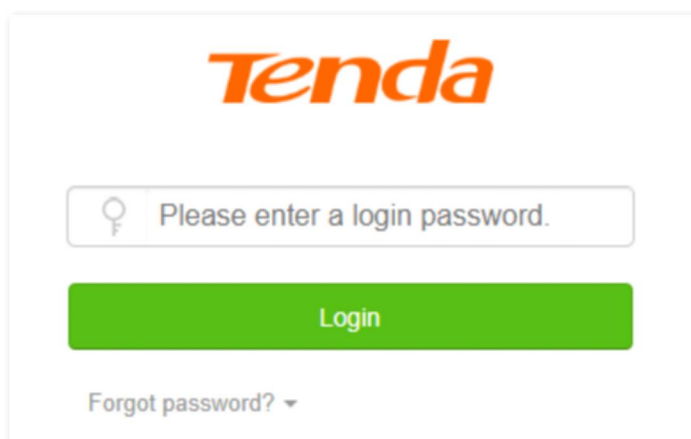
**Step 1** Connect your smartphone to the Wi-Fi network, or connect your computer to a LAN port of the router (By default, the WAN/LAN and LAN port are both LAN ports).



**Step 2** Start a web browser on the device connected to the router, and visit **tendawifi.com**.



**Step 3** Enter the login password, and click **Login**.



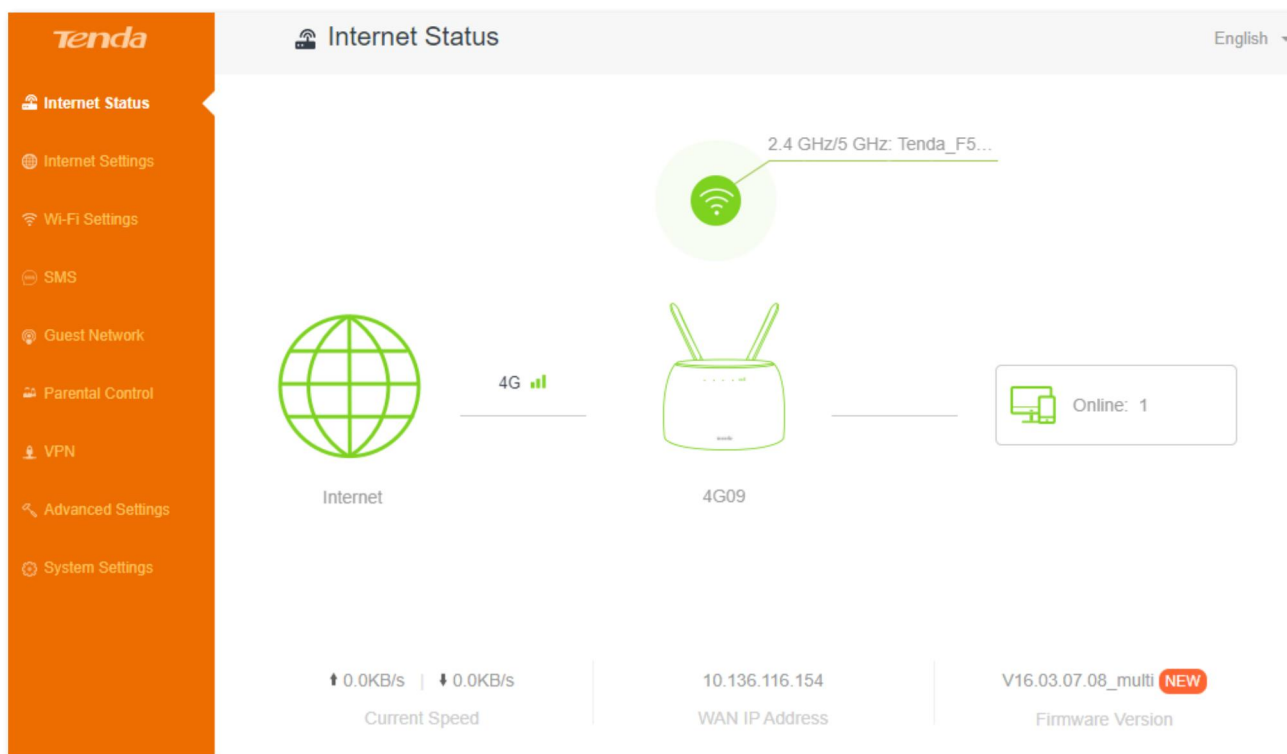
---End

**TIP**

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

- Ensure that the router is powered on properly.
- Ensure that the computer is connected to a LAN port of the router, and [Configure the computer to obtain an IP address automatically](#).
- [Restore the router to factory settings](#) and try again.

The following page appears.

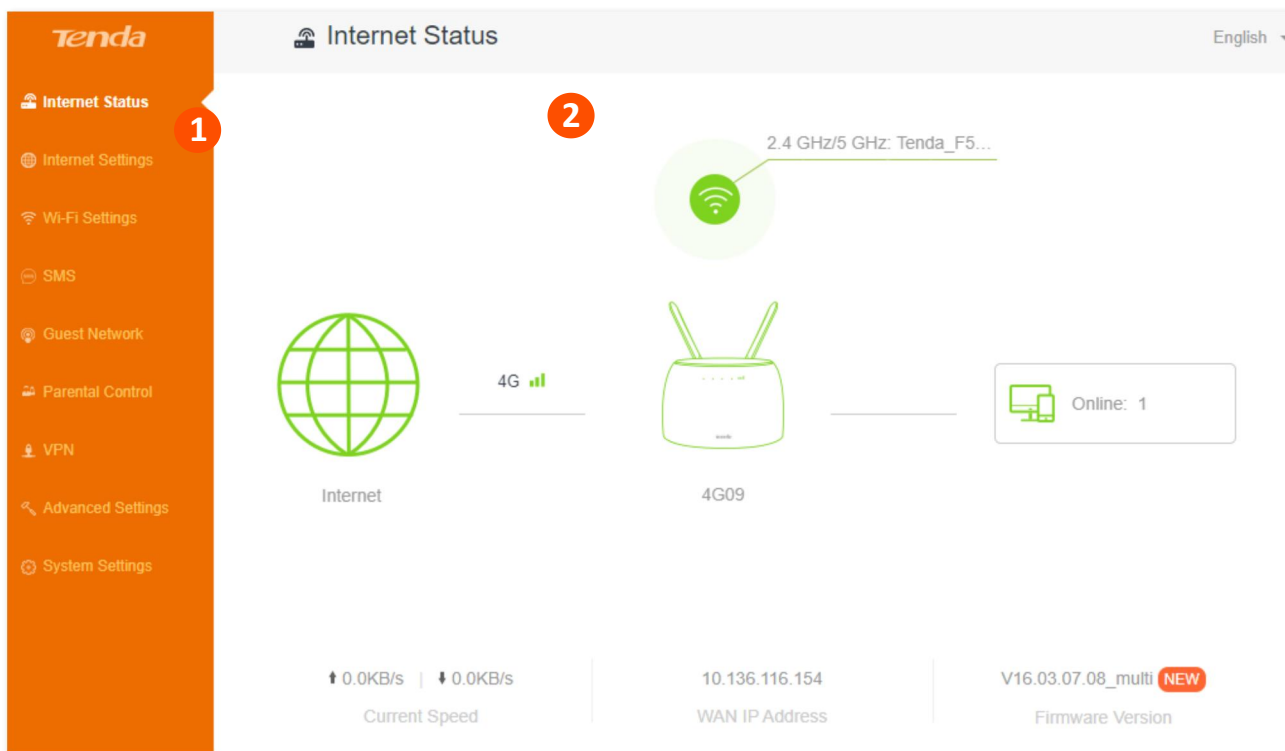


## 2.2 Log out of the web UI

If you log in to the web UI of the router and perform no operation within 5 minutes, the router logs you out automatically. You can also log out by clicking **Exit** at the top right corner of the web UI.

## 2.3 Web UI layout

The web UI of the router consists of two sections, including the navigation bar and the configuration area. See the following figure.



SN	Name	Description
1	Navigation bar	It is used to display the function menu of the router. Users can select functions in the navigation bar and the configuration page appears in the configuration area.
2	Configuration area	It is used to modify or view your configurations.



# 3 Internet status

Log in to the web UI of the router and choose **Internet Status** to enter the page. On this page, you can:

- [View the internet status](#)
- [View wireless information](#)
- [View system information](#)
- [View online devices information](#)

## 3.1 Internet status



The router supports both 3G/4G router mode and wireless router mode, and functions may differ under different modes. Refer to [Operating mode](#) to set the operating mode of the router.

### 3.1.1 Under 3G/4G router mode

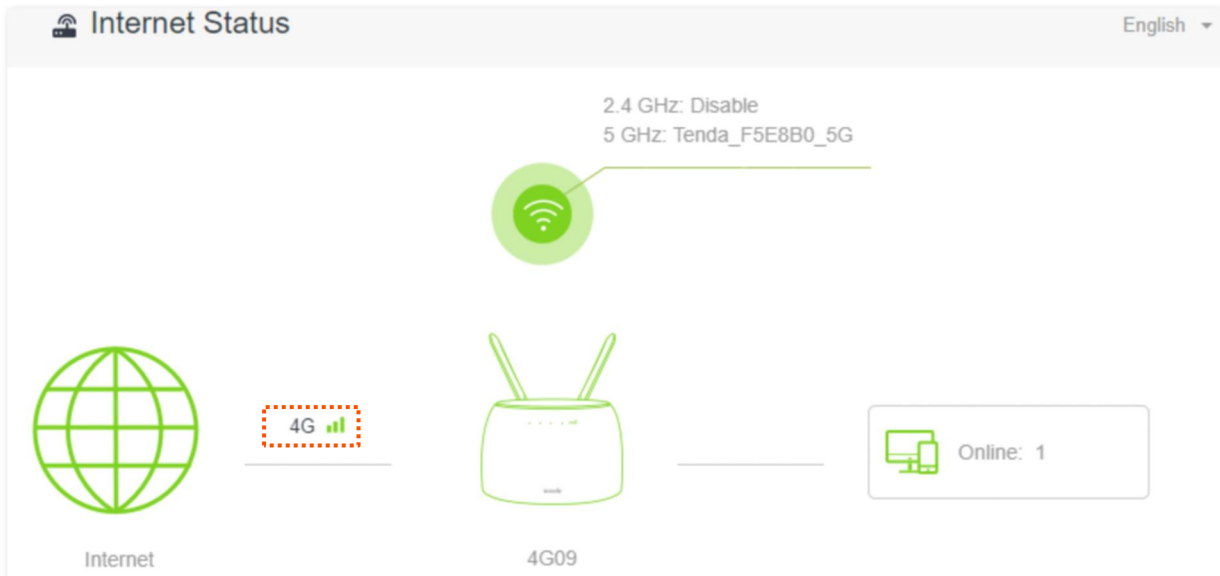
To view the internet status:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

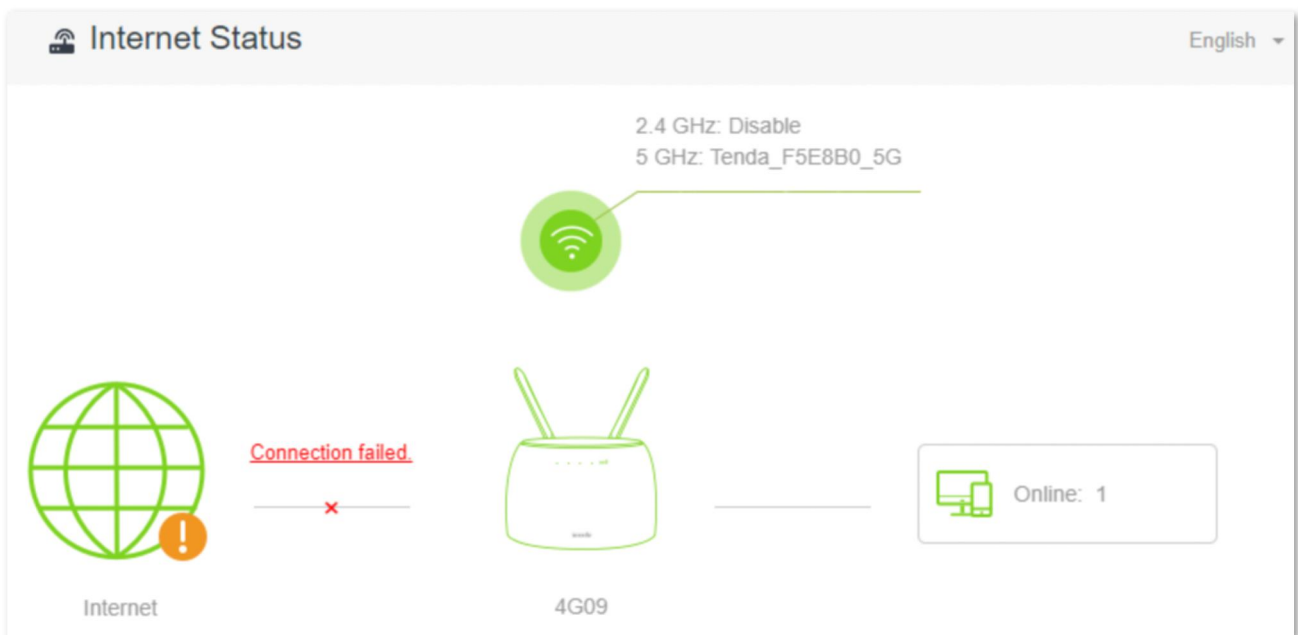
**Step 2** Choose **Internet Status**.

---End

When the connection between the Internet and the router is shown as below, the router is connected to the internet successfully.



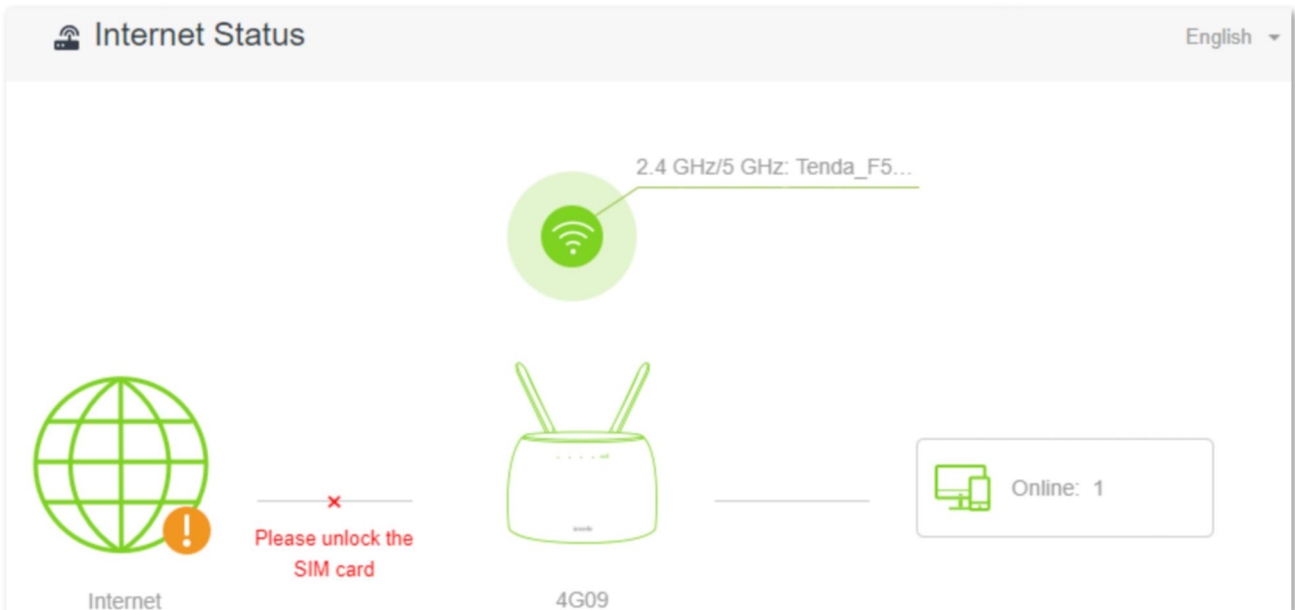
When a red cross and “[Connection failed.](#)” are shown between the Internet and the Router, it indicates that the internet connection is abnormal.



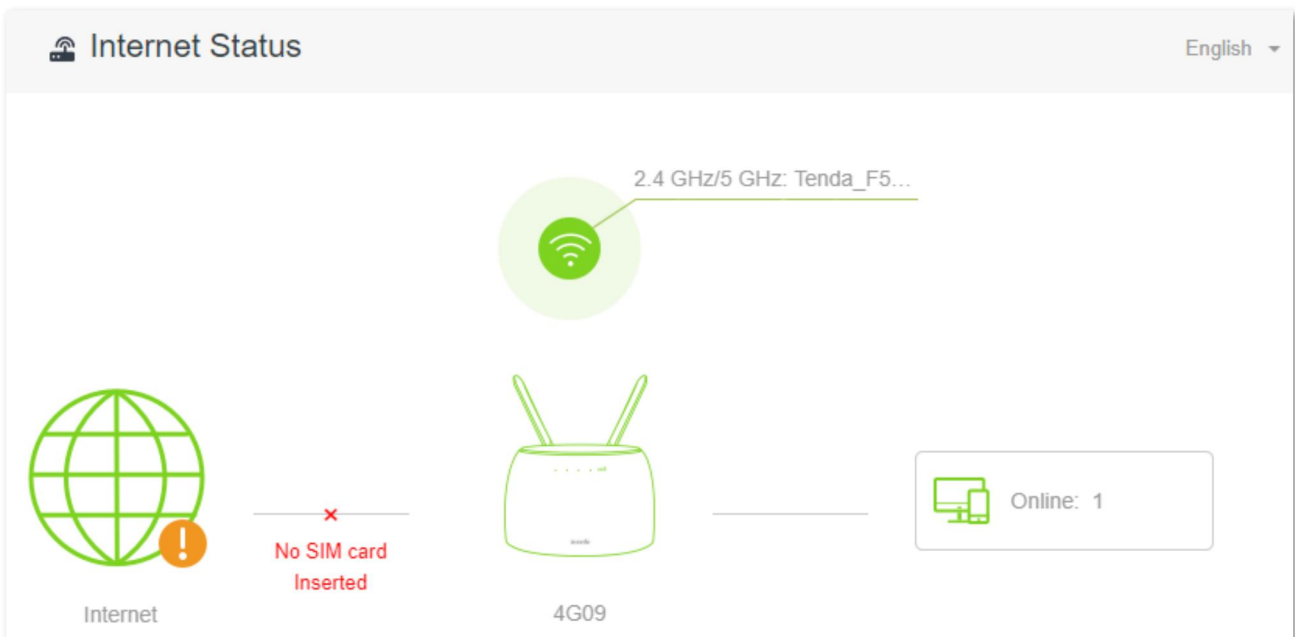
Try the following solutions:

- Navigate to **Internet Settings**, and ensure that the **Mobile Data** and **Data Roaming** functions are enabled, and the mobile data option is set to **4G Preferred**.
- Navigate to **Internet Settings**, and ensure that the dial-up settings parameters are identified by the router automatically. If not, check whether the SIM card is inserted properly, or refer to [Create an APN profile manually to access the internet](#) to configure the router.
- If the SIM card is identified successfully but no internet access is available, your SIM card may have run out of money. Contact your ISP for more help.

When a red cross and “**Please unlock the SIM card**” are shown between the Internet and the Router, it indicates that the SIM card is locked. Refer to [Unlock the SIM card in the web UI](#).



When a red cross and “**No SIM card inserted**” are shown between the Internet and the Router, ensure the SIM card is inserted properly.



### 3.1.2 Under wireless router mode

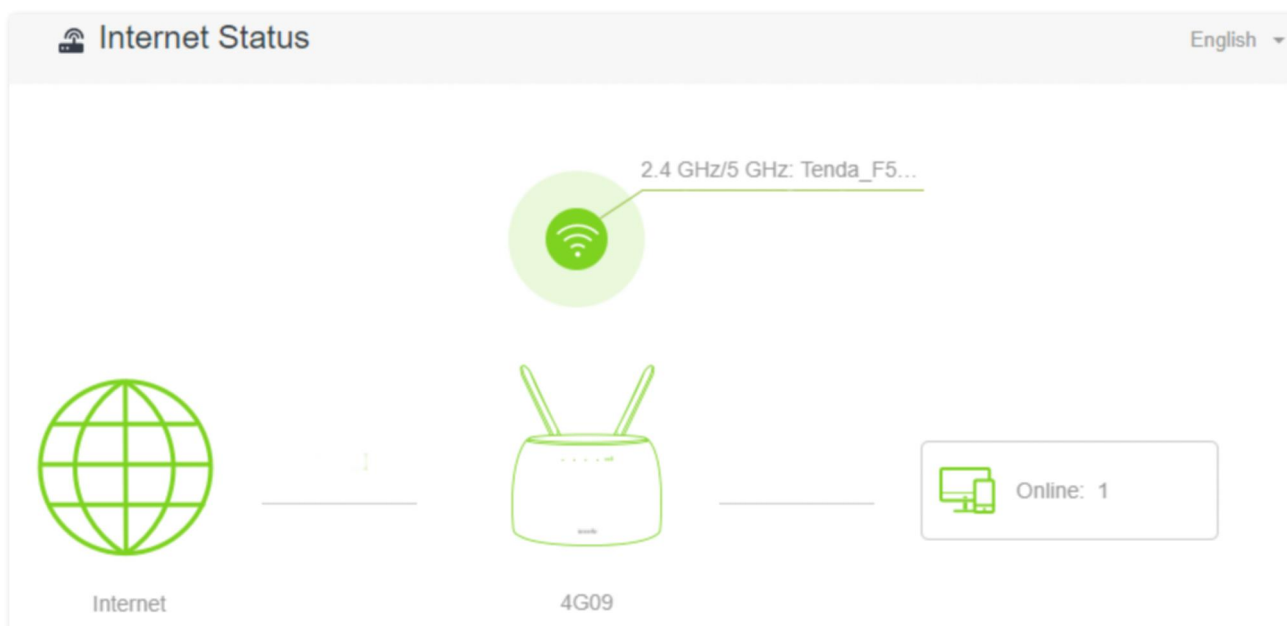
To view the internet status:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Internet Status**.

---End

When the link between the **Internet** and **4G09** is clear as shown below, the router is connected to the internet successfully and you can access the internet via the router.



When a red cross and "[Connection failed.](#)" are shown between the **Internet** and the router, it indicates that the internet connection is abnormal. Please click [Connection failed.](#) to navigate to the **Internet Settings** page and refer to the following scenarios and solutions.



When “Please ensure that the cable between the Internet port of the router and the modem is properly connected” is shown on the page, ensure that the Ethernet cable between the WAN/LAN port of the router and the modem is connected properly. If the problem persists, contact the technical support for help.

The screenshot shows the 'Internet Settings' page. At the top left is the title 'Internet Settings' and a close button 'X'. Below the title, there are four input fields: 'Connection Type:' with a dropdown menu set to 'PPPoE', 'ISP User Name:' with a greyed-out field, 'ISP Password:' with a field containing seven dots, and 'DNS Settings:' with a dropdown menu set to 'Automatic'. Below these fields is a 'Connection Status:' label followed by the red text: 'Please ensure that the cable between the Internet port of the router and the modem is properly connected.' At the bottom center is a green 'Connect' button.

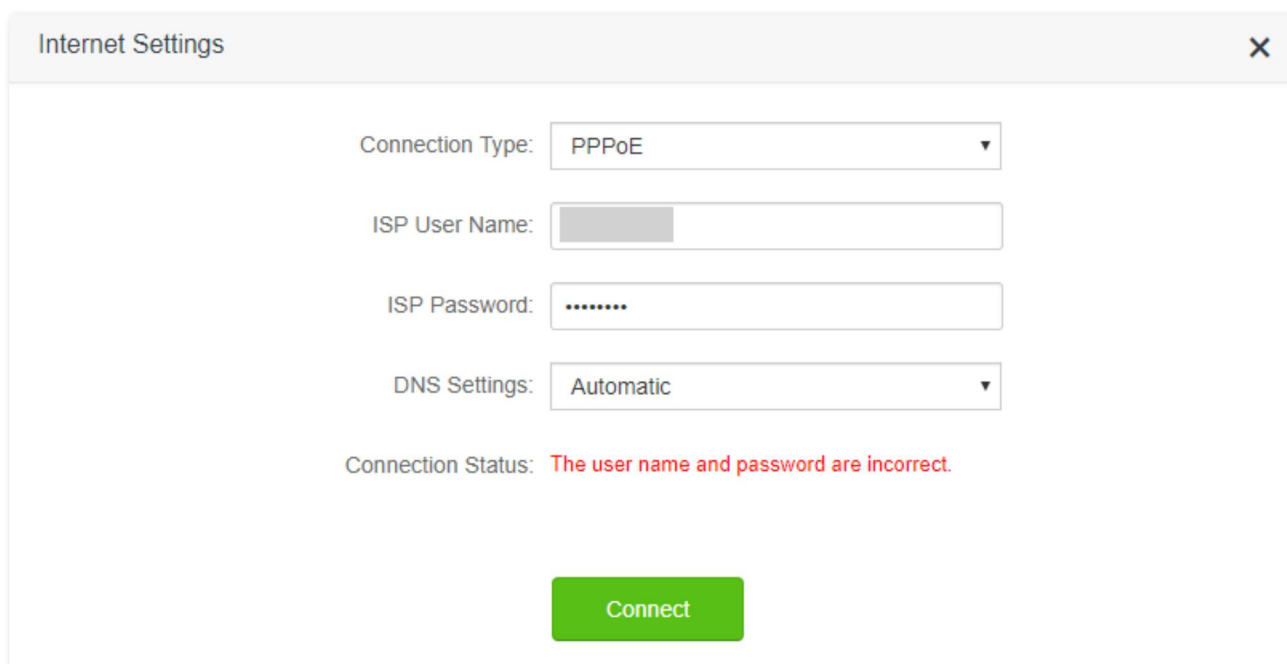
When “The user name and password are incorrect.” is shown on the page, it indicates that the user name and password you entered are incorrect. Please re-enter the user name and password.



Please consider the following tips when entering the user name and password:

- Pay attention to case sensitivity, such as “Z” and “z”.
- Pay attention to similar letters and numbers, such as “l” and “1”.
- Ensure the completeness of account parameters.

If the problem persists, contact your ISP for help.

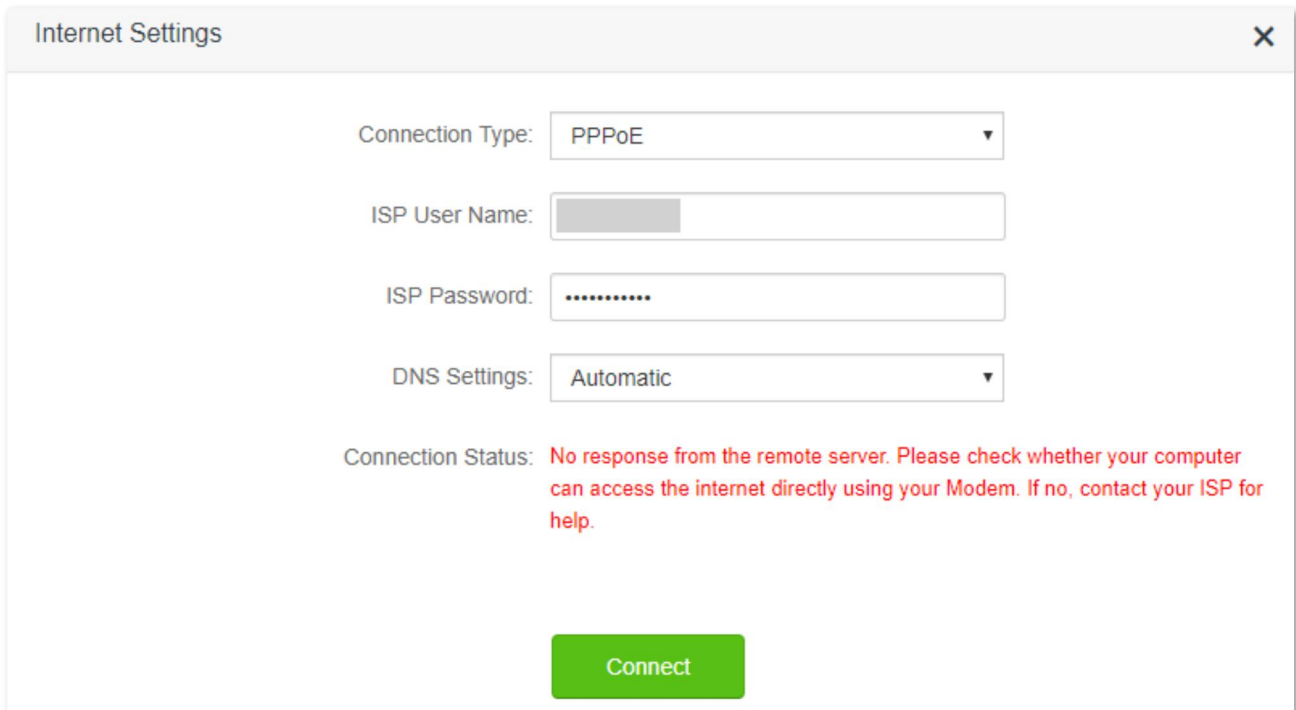
A screenshot of a web-based "Internet Settings" dialog box. The title bar says "Internet Settings" with a close button (X) on the right. The form contains the following fields:

- Connection Type: A dropdown menu with "PPPoE" selected.
- ISP User Name: A text input field with a greyed-out area.
- ISP Password: A text input field with masked characters (dots).
- DNS Settings: A dropdown menu with "Automatic" selected.
- Connection Status: A red error message that reads "The user name and password are incorrect."
- At the bottom center is a green "Connect" button.

When “No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.” is shown on the page as below, try the following methods:

- Ensure that the Ethernet cable is connected properly.
- Ensure that you choose the proper connection type. Contact your ISP for any doubt about the connection type.
- Power off the router for several minutes, then power it on and try again.

If the problem persists, contact your ISP for help.



Internet Settings

Connection Type: PPPoE

ISP User Name: [Redacted]

ISP Password: [Redacted]

DNS Settings: Automatic

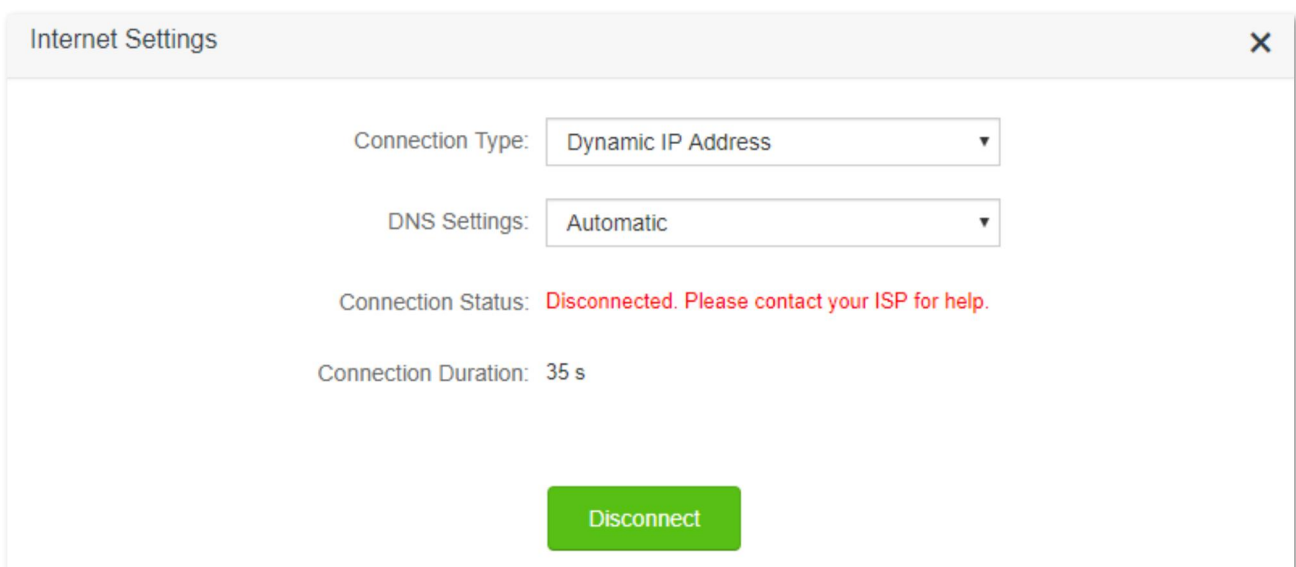
Connection Status: **No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.**

Connect

When “**Disconnected. Please contact your ISP for help.**” is shown on the page as below, try the following methods:

- Modify the MAC address of WAN port by referring to [Change the MAC address of the WAN port.](#)
- Use another device to configure the router.
- Ensure that your internet service does not expire.

If the problem persists, contact Tenda technical support.



Internet Settings

Connection Type: Dynamic IP Address

DNS Settings: Automatic

Connection Status: **Disconnected. Please contact your ISP for help.**

Connection Duration: 35 s

Disconnect

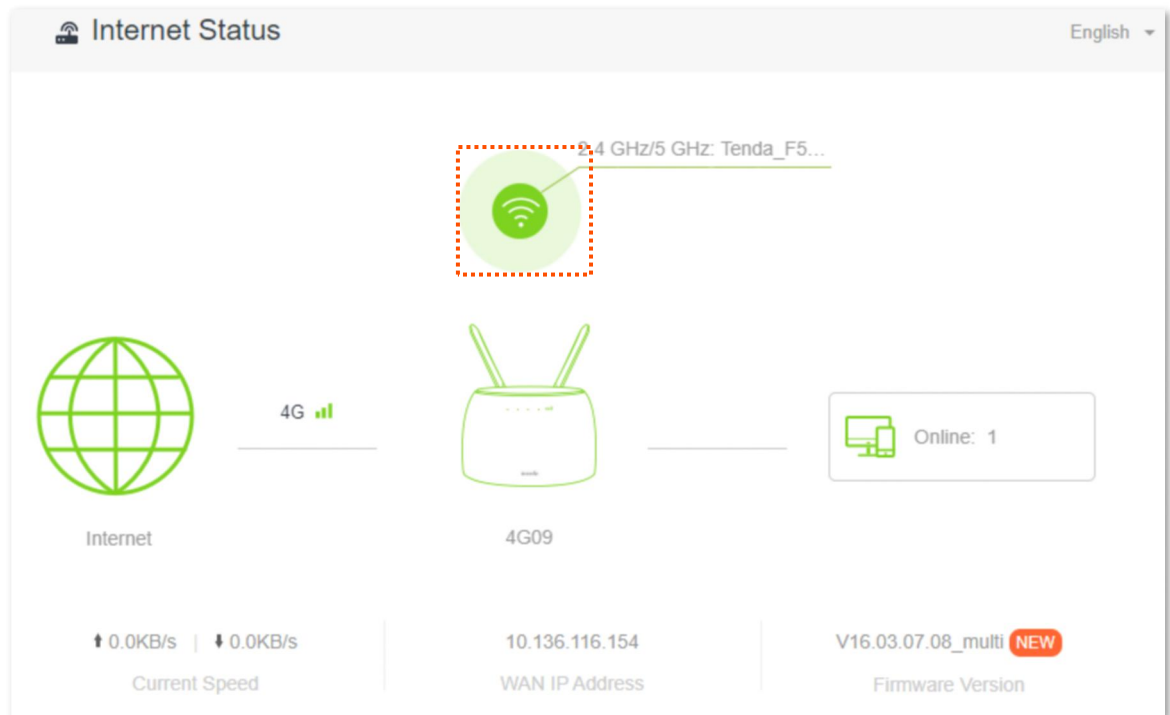
## 3.2 Wireless information

To view or configure the wireless information:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Internet Status**.

**Step 3** Click .



**---End**

You can change wireless parameters as required.



Wi-Fi Settings ✕

Unify 2.4 GHz & 5 GHz

Enable Wi-Fi network


Wi-Fi Name:   Hide

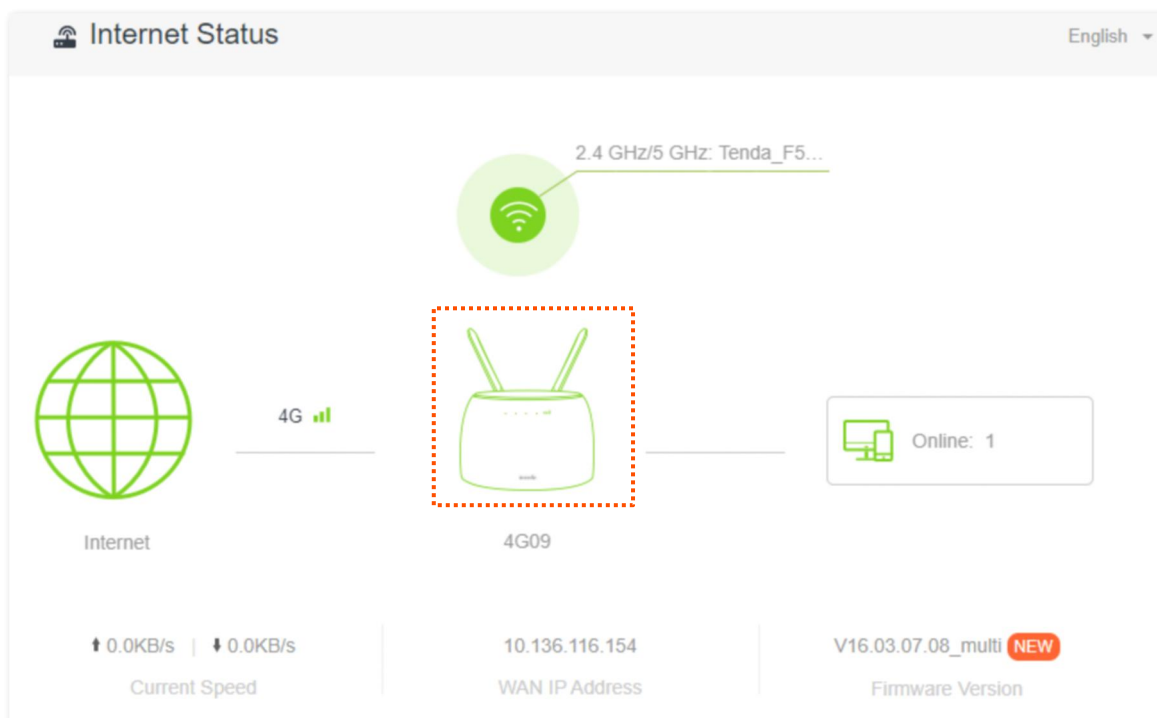
Encryption Mode:  ▼

Wi-Fi Password:

### 3.3 System information

To view the system information:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Internet Status**.
- Step 3** Click .



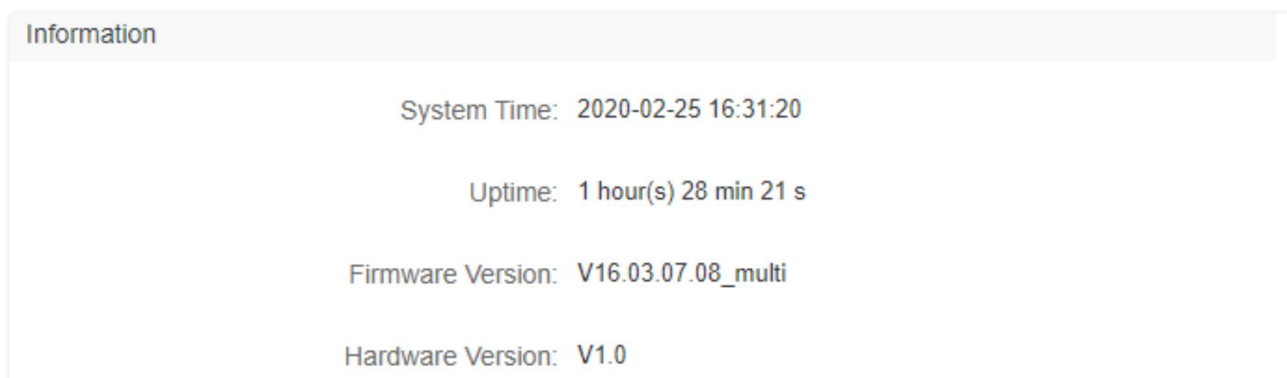
---End



For detailed description of parameters on this page, refer to [System status](#).

### 3.3.1 Basic information

In this part, you can view the basic information of the router, such as system time, uptime and firmware version and hardware version.



### 3.3.2 Connection status

#### 3G/4G router mode

Under the 3G/4G router mode, you can view the information of the SIM card and 3G/4G network in this part.

## 3G/4G

SIM Card Status: Ready

Connection Status: Connected

Signal Strength: Excellent

ISP: 

Mobile Network: 4G

Statistics: 0.438MB

Upload Speed: 0.0KB/s

Download Speed: 0.0KB/s

IP Address: 10.136.116.154

Subnet Mask: 255.255.255.252

Default Gateway: 10.136.116.153

Primary DNS: 120.80.80.80

Secondary DNS: 221.5.88.88

MAC Address: 

## Wireless router mode

Under the wireless router mode, you can view the information of the WAN port, including connection type, connection status and connection duration.

WAN Status

Connection Type: Dynamic IP Address

Connection Status: Connected

Connection Duration: 2 hour(s) 29 min 38 s

IP Address: 172.16.20.80

Subnet Mask: 255.255.255.0

Default Gateway: 172.16.20.20

Primary DNS: 8.8.8.8

Secondary DNS: 3.3.3.3

MAC Address:

### 3.3.3 LAN status

In this part, you can view the LAN information, such as LAN IPv4 address, subnet mask and MAC address.

LAN Status

IP Address: 192.168.0.1

Subnet Mask: 255.255.255.0

MAC Address:

### 3.3.4 Wi-Fi status

In this part, you can view the information of 2.4 GHz and 5 GHz Wi-Fi network, including the connection status, visibility, hotspot name and encryption mode, etc.

Wi-Fi Status

2.4 GHz Wi-Fi Network: Visible

2.4 GHz Wi-Fi Name: Tenda\_F5E8B0

Encryption Mode: None

Channel: 9

Bandwidth: 20

MAC Address: [REDACTED]

5 GHz Wi-Fi Network: Visible

5 GHz Wi-Fi Name: Tenda\_F5E8B0

Encryption Mode: None

Channel: 161

Bandwidth: 80

MAC Address: [REDACTED]

### 3.3.5 IPv6 status

This part is only displayed when the IPv6 function is enabled. You can view the information of IPv6 connection, including connection type, IPv6 WAN address and IPv6 LAN address.

IPv6 Status	
Connection Type:	DHCPv6
IPv6 WAN Address:	2408:805f:e206:23a3:78ed:cbff:fe25:1627/64 fe80::78ed:cbff:fe25:1627/64 fe80::522b:73ff:fe5:e8b9/64
Default IPv6 Gateway:	fe80::50b3:fff7:3ee5:8840
Primary IPv6 DNS:	2408:805d:8::
Secondary IPv6 DNS:	2408:805c:4008::
IPv6 LAN Address:	fec0::522b:73ff:fe5:e8b0/64 fe80::522b:73ff:fe5:e8b0/64

## 3.4 Online device information

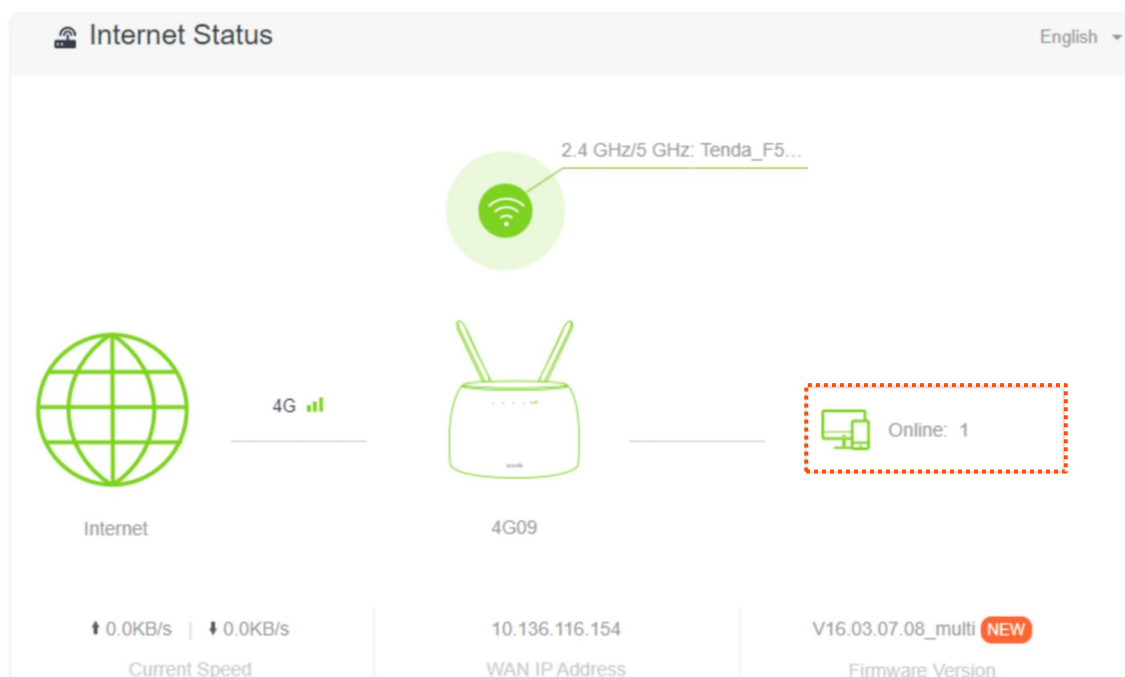
On this page, you can view the information of devices connected to the router, including the upload speed, download speed and access type. You can also view and add devices to the blacklist.

To access the page:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Internet Status**.

**Step 3** Click  Online: .







---End

### 3.4.1 Add devices to the blacklist


Adding devices to the blacklist to block the internet access:


**Step 1** Choose **Online Devices**, and target the device to be added.

Online Devices (2)   Blacklist		Upload Speed	Download Speed	Access Type	Blacklist
Device Name					
 DESKTOP-5LII2L5 192.168.0.136		0.0KB/s	0.0KB/s	Wired	Local Host
 huazhondiyibi 192.168.0.174		0.0KB/s	0.0KB/s	5G	<input type="button" value="Add"/>

**Step 2** Click **Add**.

---End

On the **Internet Status** page, click  Online: , and then click **Blacklist**, you can view the information of devices that are added to the blacklist.


Online Devices (1)   Blacklist		
Device Name	MAC Address	Remove from Blacklist
Unknown		<input type="button" value="Remove"/>

### 3.4.2 Remove devices from the blacklist

To remove devices from the blacklist as required:

**Step 1** Choose **Blacklist**, and target the device to be removed from the blacklist.

**Step 2** Click **Remove**.

Online Devices (1)   Blacklist		
Device Name	MAC Address	Remove from Blacklist
Unknown		<input type="button" value="Remove"/>

---End



# 4 Internet settings

By configuring the internet settings, you can achieve the shared internet access (IPv4) for multiple users within the LAN. The router supports accessing the internet under both 3G/4G router mode and wireless router mode, and the configuring procedures differ.

## 4.1 Access the internet with a SIM card

If you are configuring the router for the first time or after restoring it to factory settings, refer to the quick installation guide to configure the internet access. After then, you can change the internet settings by following the instructions here.

To access the configuration page, log in to the web UI of the router, and navigate to **Internet Settings**.

Internet Settings English ▾

**Internet Settings**

Connection Status: Connected

Mobile Data:

Data Roaming:   
Enable this function may incur roaming charges.

Mobile Data Options:

**Dial-up Settings**

Profile Name:

PDP Type:

APN:

User Name:



Password:

Authentication Type:

**Failover Settings**

Failover:

**Parameter description**

Parameter	Description
Connection Status	It specifies the internet connection status of the SIM card.
Mobile Data	It is used to enable or disable the mobile data traffic. When it is disabled, you cannot access the internet through the router.
Data Roaming	It is used to enable or disable data roaming for the SIM card inserted in the router. Data roaming means the data usage produced when you are outside the coverage of your ISP. You can disable data roaming to avoid roaming data usage and charges.
Mobile Data Options	It specifies the mobile network type for internet access.
Profile Name	
PDP Type	Generally, all these parameters are predefined in the SIM card. The router will identify these parameters automatically, which cannot be changed, and use them for dial-up.
APN	
User Name	If the router fails to identify these parameters of your SIM card, you must enter them manually by clicking <b>Create a Profile</b> and dial up for internet access.
Password	 <b>TIP</b> If the router cannot identify these parameters, contact your ISP for them.
Authentication Type	
	It is used to create an APN dial-up profile when the router fails to identify these parameters automatically.

### 4.1.1 Change mobile network preference

When you are already able to access the internet with a SIM card, you can also change the preference towards mobile data, data roaming and preferred network type.

Assume that you are using the router outside the coverage of the ISP of your SIM card and want to use 4G network only.

**Configuring procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Internet Settings**.
- Step 3** Set **Mobile Data** to **Enable**.
- Step 4** Set **Data Roaming** to **Enable**.
- Step 5** Set **Mobile Data Option** to **4G Only**.
- Step 6** Click **Connect**.

## Internet Settings

English ▾

### Internet Settings

Mobile Data:

Data Roaming:   
Enable this function may incur roaming charges.

Mobile Data Options:

### Dial-up Settings

Profile Name:

PDP Type:

APN:

User Name:

Password:

Authentication Type:

### Failover Settings

Failover:

---End

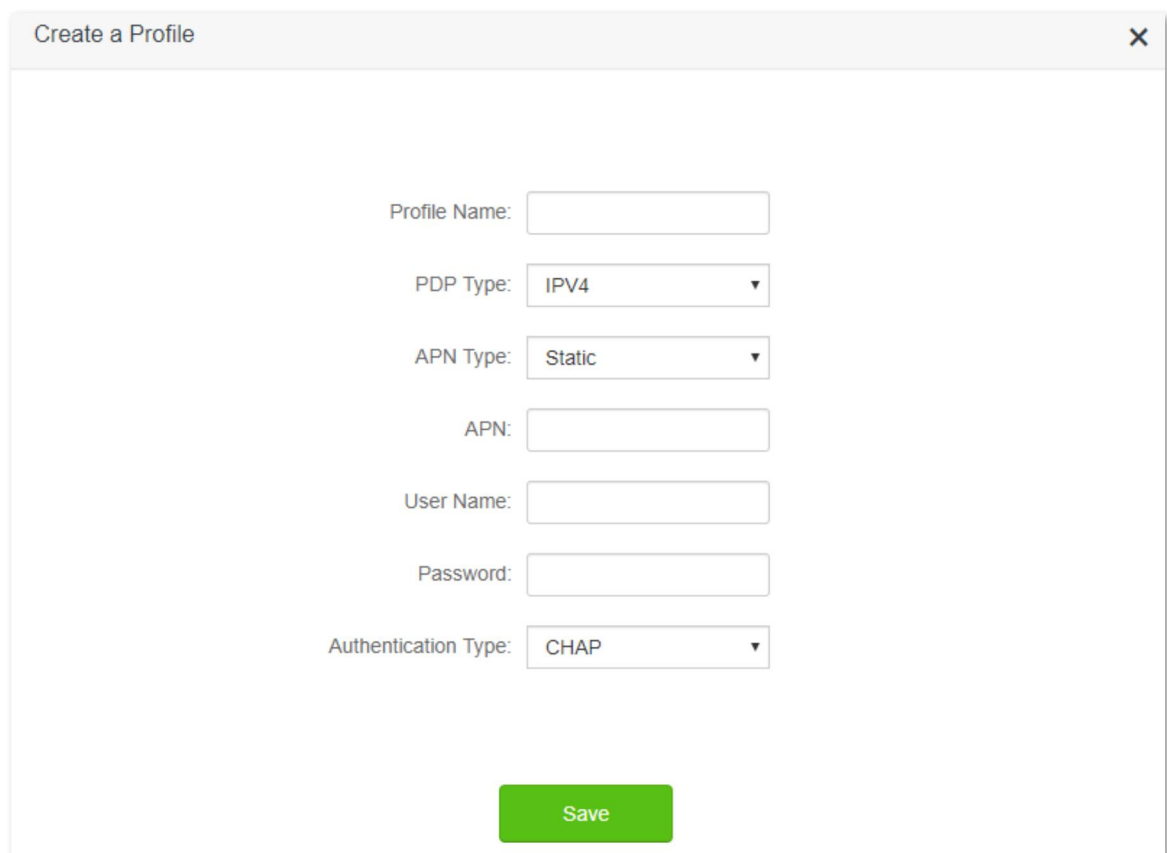
After the configuration, refresh the configuration page. When **Connected** is shown after **Internet Status**, you can use the 4G network only to access the internet outside the coverage of your ISP.

## 4.1.2 Create an APN profile manually to access the internet

If the router cannot identify APN parameters automatically and access the internet, you can add a new APN profile manually for dial-up. Contact your ISP for these parameters.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Internet Settings**.
- Step 3** Click **Create a Profile**.
- Step 4** Enter required parameters inquired from your ISP.
- Step 5** Click **Save**.



The screenshot shows a web form titled "Create a Profile" with a close button (X) in the top right corner. The form contains the following fields:

- Profile Name:
- PDP Type:
- APN Type:
- APN:
- User Name:
- Password:
- Authentication Type:

A green "Save" button is located at the bottom center of the form.

---End

Wait a moment. The router will use the parameters you entered to dial up for internet access. When **Connected** is shown after **Internet Status**, you can access the internet with the APN profile you create.

## 4.2 Access the internet through the WAN port

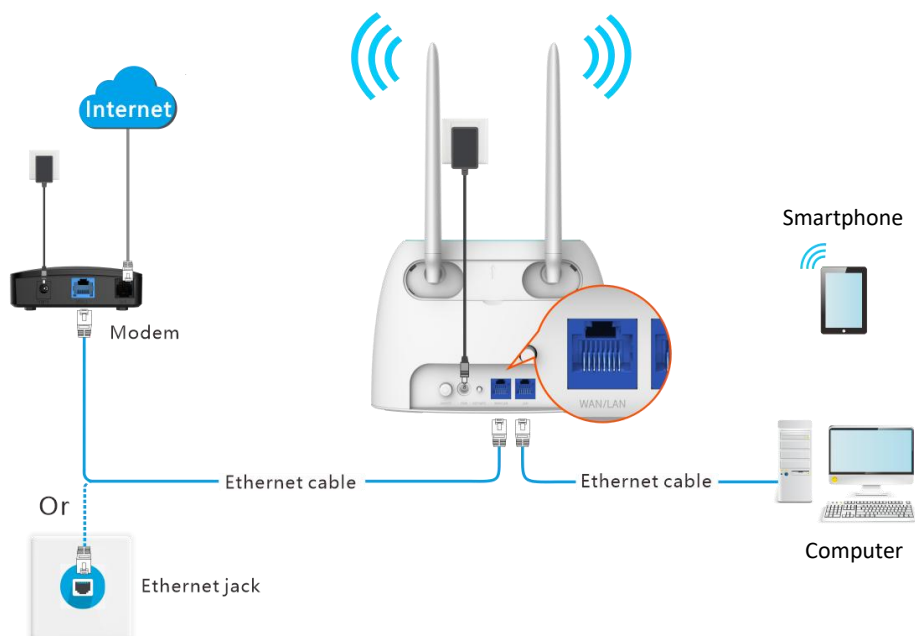
If you want to connect your broadband to the router to access the internet, you can set the router to wireless router mode (refer to [Operating mode](#)) and access the internet through the WAN port.



Parameters for accessing the internet are provided by your ISP. Contact your ISP for any doubt.

### 4.2.1 Access the internet with a PPPoE account

If the ISP provides you with PPPoE user name and password, you can choose this connection type to access the internet. The application scenario is shown below.



#### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit [tendawifi.com](http://tendawifi.com) to log in to the web UI of the router.
- Step 2** Choose **Internet Settings**.
- Step 3** Set **Connection Type** to **PPPoE**.
- Step 4** Enter the **PPPoE UserName** and **PPPoE Password**.
- Step 5** Click **Connect**.

The screenshot shows the 'Internet Settings' interface. At the top, there is a header with a home icon, the text 'Internet Settings', and a language dropdown set to 'English'. Below the header, the main content area is titled 'Internet Settings'. It displays 'WAN Port: Ethernet cable connected'. Underneath, there are several configuration fields: 'Connection Type' is set to 'PPPoE'; 'PPPoE Username' and 'PPPoE Password' are input fields with placeholder text 'Enter the user name from your ISP.' and 'Enter the password from your ISP.' respectively; 'DNS Settings' is set to 'Automatic'. Below these is a 'Failover Settings' section with a 'Failover' dropdown set to 'Disable'. At the bottom center, there is a green 'Connect' button.

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.

This screenshot shows the same 'Internet Settings' interface after a successful connection. The 'WAN Port' remains 'Ethernet cable connected'. The 'Connection Type' is still 'PPPoE'. The 'PPPoE Username' and 'PPPoE Password' fields are now filled with greyed-out text, indicating they have been entered. The 'DNS Settings' remain 'Automatic'. A new 'Connection Status' field is present, displaying the message 'Connected. You can access the internet now.' in green text, which is highlighted by a red dashed border. Below this, the 'Connection Duration' is shown as '5 min 37 s'. The 'Failover Settings' section remains the same with 'Failover' set to 'Disable'. The green 'Connect' button is still visible at the bottom.



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

- If “No response from the remote server. Please check whether your computer can access the internet directly using your Modem. If no, contact your ISP for help.” is shown on the page, you are recommended to choose [access the internet through dynamic IP address](#).
- If the problem persists, refer to [View the internet status](#) to find a solution.

#### Parameter description

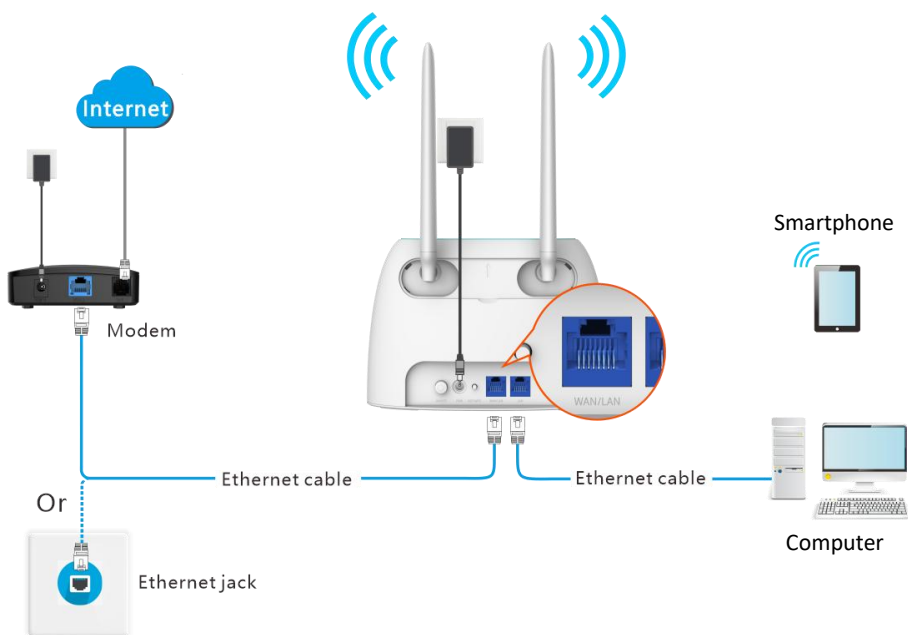
Parameter	Description
PPPoE Username	When PPPoE is chosen as the connection type, you need to enter the user name and password provided by your ISP to access the internet.
PPPoE Password	
DNS Settings	<p>It specifies the obtaining method of WAN port DNS address, which is <b>Automatic</b> by default.</p> <ul style="list-style-type: none"> <li>• <b>Automatic:</b> The router obtains a DNS server address from the DHCP server of the upstream network automatically.</li> <li>• <b>Manual:</b> The DNS server address is configured manually.</li> </ul>
Connection Status	<p>It specifies the internet connection status.</p> <ul style="list-style-type: none"> <li>• When “<b>Connected. You can access the internet now.</b>” is shown here, the router is connected to the internet successfully.</li> <li>• When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the information shown here.</li> </ul>
Connection Duration	It specifies the duration since the router is connected to the internet.

## 4.2.2 Access the internet through dynamic IP address

Generally, accessing the internet through dynamic IP address is applicable in the following situations:

- Your ISP does not provide PPPoE user name and password, or any information including IP address, subnet mask, default gateway and DNS server.
- You have a router with internet access and want to add a 4G09 as the other one.

The application scenario is shown below.



### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Internet Settings**.
- Step 3** Set **Connection Type** to **Dynamic IP Address**.
- Step 4** Click **Connect**.

The screenshot shows the 'Internet Settings' page in a web browser. The language is set to 'English'. The 'WAN Port' is 'Ethernet cable connected'. The 'Connection Type' is 'Dynamic IP Address'. The 'DNS Settings' are 'Automatic'. A green 'Connect' button is at the bottom.

---End

Wait a moment until “**Connected. You can access the internet now.**” is shown on the page, and you can access the internet.



The screenshot shows the 'Internet Settings' interface. At the top left is a globe icon and the title 'Internet Settings'. At the top right is a language dropdown menu set to 'English'. The main content area displays the following information:

- WAN Port:  Ethernet cable connected
- Connection Type: Dynamic IP Address (dropdown menu)
- DNS Settings: Automatic (dropdown menu)
- Connection Status: **Connected. You can access the internet now.**
- Connection Duration: 43 s

At the bottom center, there is a green button labeled 'Disconnect'.

If you fail to access the internet, refer to [View the internet status](#) to find a solution.

#### Parameter description

Parameter	Description
DNS Settings	<p>It specifies the obtaining method of WAN DNS address, which is <b>Automatic</b> by default.</p> <ul style="list-style-type: none"> <li>• <b>Automatic:</b> Obtain a DNS server address from the DHCP server of the upstream network.</li> <li>• <b>Manual:</b> Configure the DNS server address manually.</li> </ul>
Connection Status	<p>It specifies the internet connection status.</p> <ul style="list-style-type: none"> <li>• When “<b>Connected. You can access the internet now.</b>” is shown here, the router is connected to the internet successfully.</li> <li>• When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the information shown here.</li> </ul>
Connection Duration	It specifies the duration since the router is connected to the internet.

### 4.2.3 Access the internet with static IP address information

When your ISP provides you with information including IP address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet.

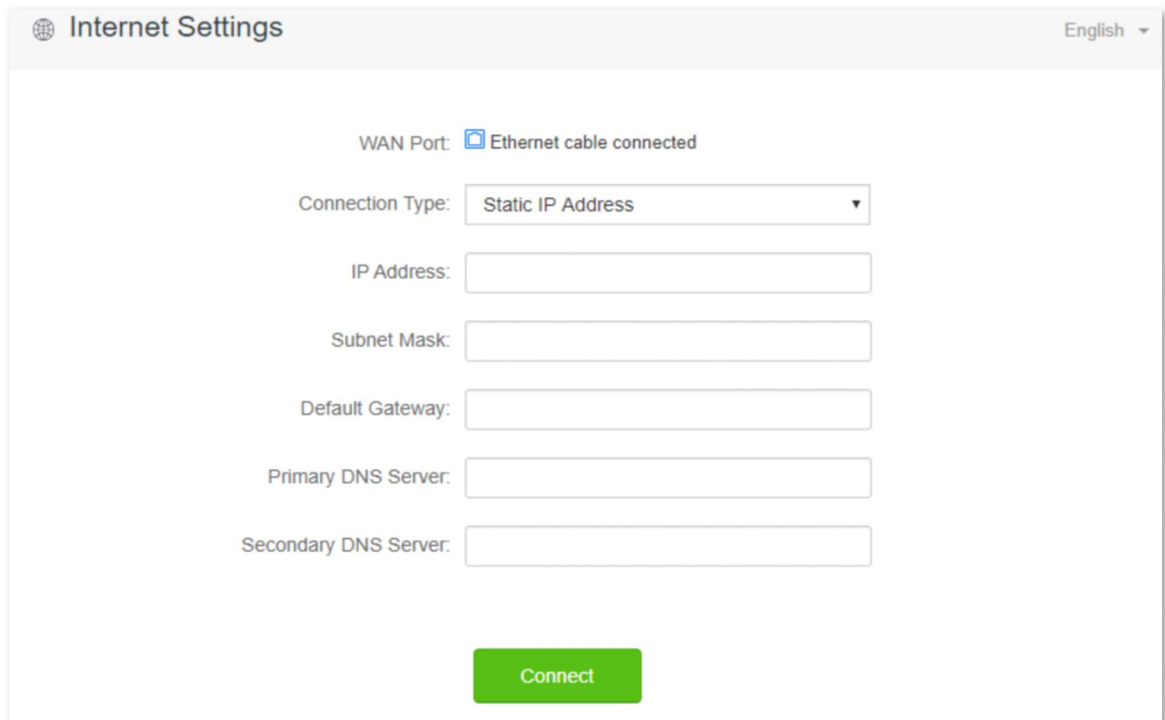
#### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Internet Settings**.

**Step 3** Set **Connection Type** to **Static IP Address**.

**Step 4** Enter **IP Address**, **Subnet Mask**, **Default Gateway** and **Primary/Secondary DNS server**.

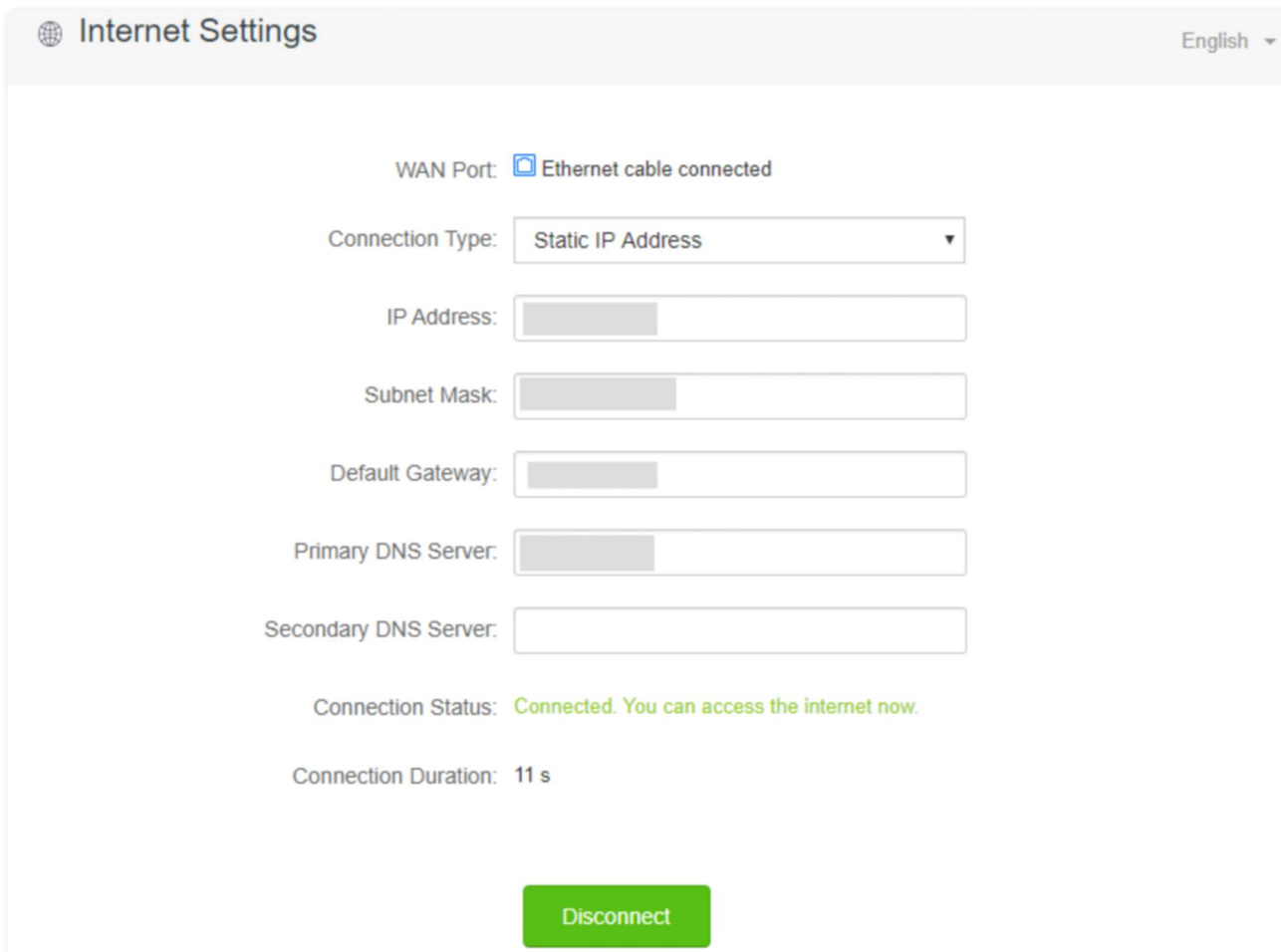
**Step 5** Click **Connect**.



The screenshot shows a window titled "Internet Settings" with a language dropdown set to "English". The "WAN Port" is set to "Ethernet cable connected". The "Connection Type" is set to "Static IP Address". Below this, there are input fields for "IP Address", "Subnet Mask", "Default Gateway", "Primary DNS Server", and "Secondary DNS Server". A green "Connect" button is located at the bottom center of the window.


**---End**

Wait a moment until "Connected. You can access the internet now." is shown on the page, you can access the internet.



If you fail to access the internet, refer to refer to [View the internet status](#) to find a solution.

**Parameter description**

Parameter	Description
IP Address	
Subnet Mask	When static IP address is chosen as the connection type, enter the fixed IP address information provided by your ISP.
Default Gateway	 <b>TIP</b>
Primary DNS Server	If your ISP only provides one DNS server, you can leave the secondary DNS server blank.
Secondary DNS Server	
Connection Status	<p>It specifies the internet connection status.</p> <ul style="list-style-type: none"> <li>• When “<b>Connected. You can access the internet now.</b>” is shown here, the router is connected to the internet successfully.</li> <li>• When other information is shown here, the router fails to connect to the internet. Please take corresponding measures according to the information shown on the page.</li> </ul>
Connection Duration	It specifies the duration since the router is connected to the internet.

## 4.3 Set failover connection

### 4.3.1 Overview

The router can work under either 3G/4G router mode or wireless router mode. By configuring the failover function, you can set parameters of the operating mode other than the current one. If the internet access under the current operating mode fails, the router switches to the other mode automatically, therefore ensuring an uninterrupted internet access for clients under the router.



Before setting the failover function, ensure that you insert a SIM card into the router, and connect the WAN port of the router to the internet at the same time.

To access the configuration page, [log in to the web UI of the router](#), and navigate to **Internet Settings**, and locate the **Failover Settings** part. This function is disabled by default.

- When the failover function is enabled under the 3G/4G router mode, the page is shown as below. You can configure the failover connection by referring to [Access the internet through the WAN port](#).

Failover Settings

Failover:

Connection Type:

DNS Settings:

- When the failover function is enabled under the wireless router mode, the page is shown as below. You can configure the failover connection by referring to [Access the internet with a SIM card](#).

Failover Settings

Failover:

Profile Name:

PDP Type:

APN:

User Name:

Password:

Authentication Type:

## 4.3.2 Example of setting up failover connection

**Scenario:** You used to insert a SIM card in the router to access the internet, but you install a smart home gateway after subscribing to the broadband service recently.

**Goal:** Set the router to access the internet through the broadband, and use the SIM card as backup in case of broadband failure.

**Solution:** Connect the broadband to the router and insert the SIM card into the router, and configure the failover function.

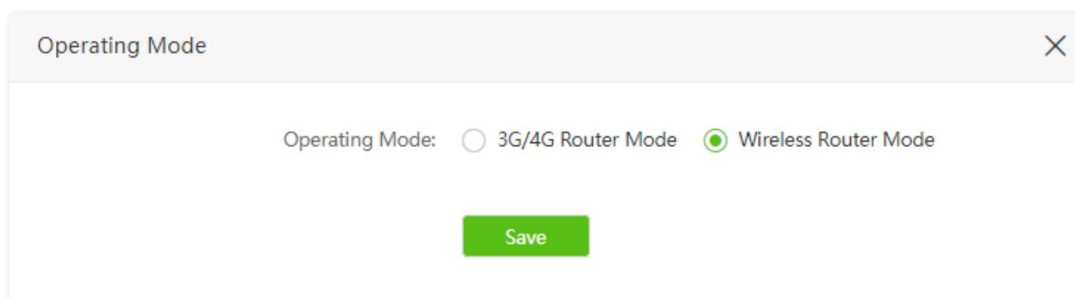
Assume that the ISP provides a PPPoE user name and PPPoE password for setting up internet connection.

### Configuring procedures:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Change operating mode.

1. Choose **Advanced Settings > Operating Mode**.
2. Choose **Wireless Router Mode**, and click **Save**.



Operating Mode

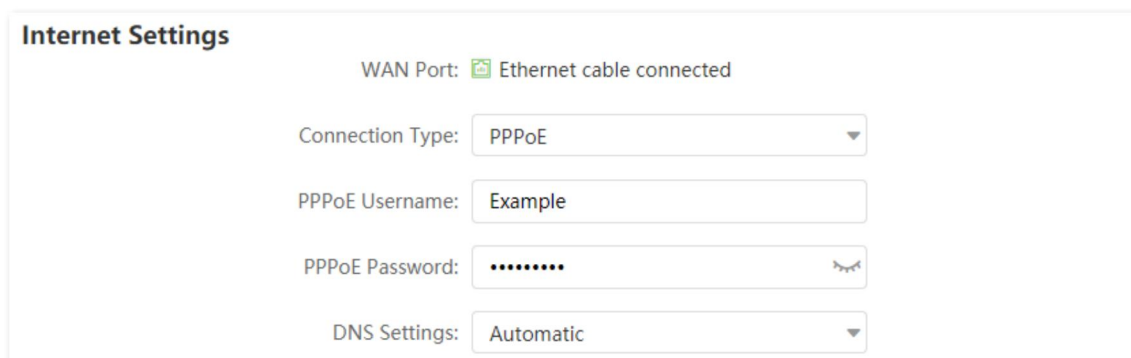
Operating Mode:  3G/4G Router Mode  Wireless Router Mode

Save


Wait for the router to reboot to enable the setting.

**Step 3** Configure internet access.

1. Connect the **WAN/LAN** port of the router to the LAN port of your smart home gateway.
2. Log in to the web UI of the router, and choose **Internet Settings**.
3. Set **Connection Type** to **PPPoE**, and enter the **PPPoE Username** and **PPPoE Password** provided by your ISP.



Internet Settings

WAN Port:  Ethernet cable connected

Connection Type:

PPPoE Username:

PPPoE Password:

DNS Settings:

4. Set **Failover** to **Enable**, and the router fills parameters concerning 3G/4G internet access automatically.

Failover Settings

Failover:

Profile Name:

PDP Type:

APN:

User Name:

Password:

Authentication Type:

5. Click **Connect** on the bottom.

---End

When the **Connection Status** turns “**Connected. You can access the internet now.**”, the router is connected to the internet successfully and you can enjoy uninterrupted internet access guaranteed by both the broadband and SIM card.

# 5 Wi-Fi settings

## 5.1 Wi-Fi name & password


### 5.1.1 Overview

To access the configuration page, log in to the web UI of the router, and navigate to **Wi-Fi Settings > Wi-Fi Name & Password**.

On this page, you can configure basic Wi-Fi parameters, such as the Wi-Fi name and password.

#### Parameter description

Parameter	Description
Unify 2.4 GHz & 5 GHz	It is used to enable or disable the Unify 2.4 GHz & 5 GHz function, which is enabled by default. When this function is enabled, the 2.4 GHz and 5 GHz Wi-Fi networks share the same SSID and password. Devices connected to the Wi-Fi network will use the network with better connection quality automatically.

Parameter	Description
Enable Wi-Fi Network	It is used to enable or disable the Wi-Fi networks of the router.
2.4 GHz Network	<p>You can enable or disable the 2.4 GHz network and 5 GHz network separately when the <b>Unify 2.4 GHz &amp; 5 GHz</b> function is disabled.</p> <ul style="list-style-type: none"> <li>• If the wireless devices, such as smartphones, are far away from the router, or blocked from the router by a wall, it is recommended to connect to the 2.4 GHz network.</li> </ul>
5 GHz Network	<ul style="list-style-type: none"> <li>• If the wireless devices are close to the router, it is recommended to connect to the 5 GHz network.</li> </ul>
Wi-Fi Name	It specifies the Wi-Fi network name (SSID) of the corresponding Wi-Fi network.
Hide	<p>It is used to hide the Wi-Fi name of the Wi-Fi network, to improve the security level of the Wi-Fi network.</p> <p>When this function is enabled, the Wi-Fi network is invisible to wireless devices. You need to enter the Wi-Fi name of the network on your wireless devices (such as a smartphone) manually if you want to join the network.</p>
Encryption Mode	<p>It specifies the encryption modes supported by the router, including:</p> <ul style="list-style-type: none"> <li>• <b>None:</b> It indicates that the Wi-Fi network is not encrypted and any clients can access the network without a password. This option is not recommended as it leads to low network security.</li> <li>• <b>WPA-PSK:</b> The network is encrypted with WPA-PSK/AES, which has a better compatibility than WPA2-PSK.</li> <li>• <b>WPA2-PSK:</b> The network is encrypted with WPA2-PSK/AES, which has a higher security level than WPA-PSK.</li> <li>• <b>WPA/WPA2-PSK (recommended):</b> It indicates that WPA-PSK and WPA2-PSK are adopted to encrypt the network, providing both security and compatibility.</li> </ul>
Wi-Fi Password	<p>It specifies the password for connecting to the Wi-Fi network. You are strongly recommended to set a Wi-Fi password for security.</p> <p> <b>TIP</b></p> <p>It is recommended to use the combination of digits, uppercase letters, lowercase letters, and special symbols in the password to enhance the security of the Wi-Fi network.</p>

### 5.1.2 Separate the 2.4 GHz Wi-Fi name from 5 GHz Wi-Fi name

The router supports both 2.4 GHz and 5 GHz Wi-Fi networks, which are unified and only one Wi-Fi name is displayed by default. If you want to separate the Wi-Fi names of the two networks, follow the procedures below.

#### Configuring procedure:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in



to the web UI of the router.

**Step 2** Choose **Wi-Fi Settings > Wi-Fi Name & Password**.

**Step 3** Disable **Unify 2.4 GHz & 5 GHz**.

**Step 4** Customize the **Wi-Fi Name** and **Wi-Fi Password** of each Wi-Fi network.

**Step 5** Click **Save**.

---End

When completing the configurations, you can connect to the Wi-Fi networks of the router to access the internet.

### 5.1.3 Change the Wi-Fi name and Wi-Fi password

The router supports both 2.4 GHz and 5 GHz Wi-Fi networks.

Assume that you want to change the 2.4 GHz Wi-Fi name and password to **John\_Doe\_2.4GHz** and **Tenda+Wireless24**, and the 5 GHz Wi-Fi name and password to **John\_Doe\_5GHz** and **Tenda+Wireless5**. Both networks adopt **WPA/WPA2-PSK (recommended)** as the encryption type.

**Configuring procedure:**

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Wi-Fi Settings > Wi-Fi Name & Password**.

**Step 3** Disable **Unify 2.4 GHz & 5 GHz**.

**Step 4** Change the parameters of the 2.4 GHz network.

1. Change the **Wi-Fi Name** of the 2.4 GHz network, which is **John\_Doe\_2.4GHz** in this example.
2. Choose an **Encryption Mode**, which is **WPA/WPA2-PSK (recommended)** in this example.
3. Change the **Wi-Fi Password** of the 2.4 GHz network, which is **Tenda+Wireless24** in this example.

**Step 5** Change the parameters of the 5 GHz network.

1. Change the **Wi-Fi Name** of the 5 GHz network, which is **John\_Doe\_5GHz** in this example.
2. Choose an **Encryption Mode**, which is **WPA/WPA2-PSK (recommended)** in this example.
3. Change the **Wi-Fi Password** of the 5 GHz network, which is **Tenda+Wireless5** in this example.

**Step 6** Click **Save**.

Wi-Fi Name & Password

Unify 2.4 GHz & 5 GHz

2.4 GHz Network

Wi-Fi Name:   Hide

Encryption Mode:  ▼

Wi-Fi Password:

5 GHz Network

Wi-Fi Name:   Hide

Encryption Mode:  ▼

Wi-Fi Password:

Save

**---End**

When completing the configurations, you can connect your wireless devices to any Wi-Fi networks of the router to access the internet.

## 5.1.4 Hide the Wi-Fi network

The hidden Wi-Fi networks are invisible to wireless devices, thus improving the security of the networks.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Wi-Fi Settings > Wi-Fi Name & Password**.
- Step 3** Tick **Hide** of the target network.
- Step 4** Click **Save**.

Wi-Fi Name & Password

Unify 2.4 GHz & 5 GHz

2.4 GHz Network

Wi-Fi Name: Tenda\_F5E8B0  Hide

Encryption Mode: WPA/WPA2-PSK (recommend ▾)

Wi-Fi Password: .....

5 GHz Network

Wi-Fi Name: Tenda\_F5E8B0\_5G  Hide

Encryption Mode: WPA/WPA2-PSK (recommend ▾)

Wi-Fi Password: .....

Save

---End

When configuration is completed, the corresponding Wi-Fi network name is invisible to wireless devices.

## 5.1.5 Connect to a hidden Wi-Fi network

When a Wi-Fi network is hidden, you need to enter the Wi-Fi name manually first and connect to it. Assume that the Unify 2.4 GHz & 5 GHz function is enabled and the parameters are:

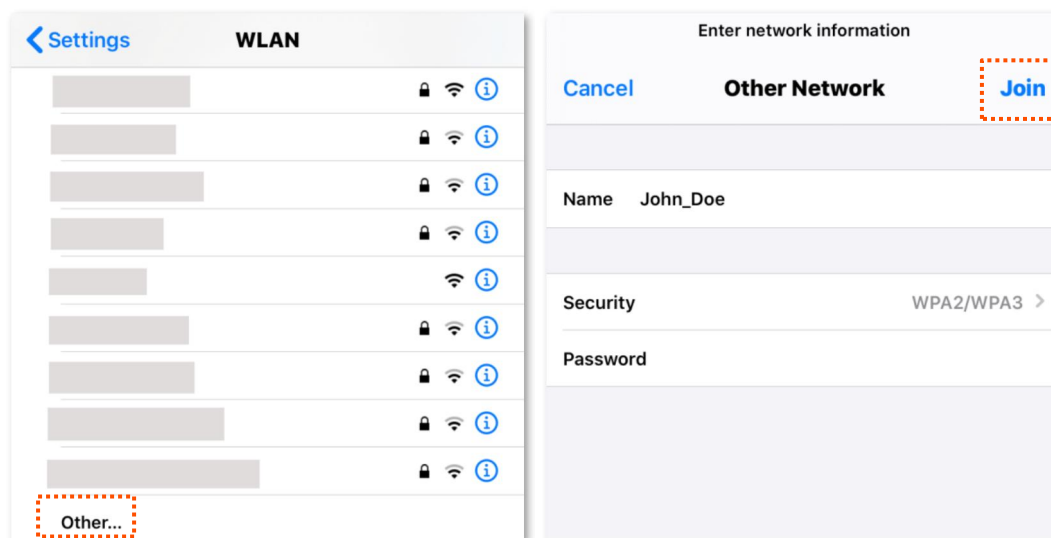
- Wi-Fi name: Jone\_Doe
- Encryption type: WPA/WPA2-PSK (recommended)
- Wi-Fi password: Tenda+Wireless245



If you do not remember the wireless parameters of the Wi-Fi network, log in to the web UI of the router and navigate to **Wi-Fi Settings > Wi-Fi Name & Password** to find them.

**Procedures for connecting to the Wi-Fi network on your wireless device (Example: iPhone):**

- Step 1** Tap **Settings** on your phone, and choose **WLAN**.
- Step 2** Enable **WLAN**.
- Step 3** Scroll the Wi-Fi list to the bottom, and tap **Other...**
- Step 4** Enter the Wi-Fi name and password, which are **John\_Doe** and **Tenda+Wireless245** in this example.
- Step 5** Set security to **WPA2/WPA3** (If WPA2/WPA3 is not available, choose WPA2).
- Step 6** Tap **Join**.



**---End**

When completing the configurations, you can connect to the hidden Wi-Fi network to access the internet.

## 5.2 Wi-Fi schedule

### 5.2.1 Overview

This Wi-Fi Schedule function allows you to disable the Wi-Fi networks of the router at specified period. By default, this function is disabled.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Wi-Fi Schedule**.



To make the Wi-Fi schedule function work properly, please ensure the system time is synchronized with the internet time. Refer to [Sync the system time with the internet time](#) for configuration.

#### Parameter description

Parameter	Description
Wi-Fi Schedule	It is used to enable/disable the Wi-Fi schedule function.
Turn Off During	It specifies the period when the Wi-Fi networks are disabled.
In	It specifies the day(s) on which the Wi-Fi networks are disabled during the specified period.

### 5.2.2 An example of configuring Wi-Fi schedule

Assume that you want to disable the Wi-Fi network from 22:00 to 07:00 every day.

**Configuring procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Wi-Fi Settings > Wi-Fi Schedule**.
- Step 3** Enable **Wi-Fi Schedule**.
- Step 4** Set a period for the Wi-Fi networks to be disabled, which is **22:00~07:00** in this example.
- Step 5** Set the days when the function works, which is **Every Day** in this example.
- Step 6** Click **Save**.

Wi-Fi Schedule

Wi-Fi Schedule:

Turn Off During: 22 : 00 ~ 07 : 00

In:  Every Day  Specified Day

Mon.  Tue.  Wed.  Thur.  Fri.  Sat.  
 Sun.

Save

---End

When the configuration is completed, the Wi-Fi networks will be disabled from 22:00 to 7:00 every day.

## 5.3 Wireless repeating



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

### 5.3.1 Overview

By configuring the wireless repeating function, you can extend the coverage of the existing Wi-Fi network.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Wireless Repeating**.

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



- When the wireless repeating function is enabled, some other functions will be unavailable, such as Wi-Fi schedule, guest network, WPS and IPTV.
- When wireless repeating is enabled, do not connect any device to the WAN port of the router.

Wireless Repeating
✕


Wireless Repeating:

Repeating Mode:  WISP  Client+AP

Upstream Wi-Fi Name:  ↻

#### Parameter description

Parameter	Description
Wireless Repeating	It is used to enable/disable the Wireless Repeating function.

Parameter	Description
Repeating Mode	<p>Two repeating modes are available:</p> <ul style="list-style-type: none"> <li>• <b>WISP</b>: Generally used to bridge the hotspot of ISPs.</li> <li>• <b>Client+AP</b>: Able to bridge all kinds of Wi-Fi network.</li> </ul> <p> <b>TIP</b></p> <ul style="list-style-type: none"> <li>• When <b>WISP</b> is chosen and the LAN IP address of the router is at the same network segment as that of the upstream device, the router will change the LAN IP address to a different network segment to avoid conflict.</li> <li>• After the router is set to WISP mode, you are required to access the internet by referring to the configuring procedures in <a href="#">Access the internet through the WAN port</a> according to the connection type you choose.</li> </ul>
Upstream Wi-Fi Name	It specifies the Wi-Fi name that you want to bridge. If you choose <b>Enter a Wi-Fi name manually</b> , you are required to enter the <b>Wi-Fi Name</b> , <b>Frequency Band</b> and <b>Encryption Mode</b> , <b>Encryption Algorithm</b> and <b>Upstream Wi-Fi Password</b> manually.
Upstream Wi-Fi Password	It specifies the Wi-Fi password of the Wi-Fi name that you want to bridge.
Wi-Fi Name	It is required when <b>Upstream Wi-Fi Name</b> is set to <b>Enter a Wi-Fi name manually</b> . It specifies the Wi-Fi name that you want to bridge.
Frequency Band	It is required when <b>Upstream Wi-Fi Name</b> is set to <b>Enter a Wi-Fi name manually</b> . It specifies the frequency band of the upstream Wi-Fi that you want to bridge.
Encryption Mode	It is required when <b>Upstream Wi-Fi Name</b> is set to <b>Enter a Wi-Fi name manually</b> . It specifies the encryption mode of the upstream Wi-Fi that you want to bridge. When you select any encryption mode other than <b>None</b> , <b>Encryption Algorithm</b> is required.
Encryption Algorithm	It is required when <b>Upstream Wi-Fi Name</b> is set to <b>Enter a Wi-Fi name manually</b> and <b>Encryption Mode</b> is set to any encryption mode other than <b>None</b> . It specifies the encryption algorithm of the upstream Wi-Fi that you want to bridge.

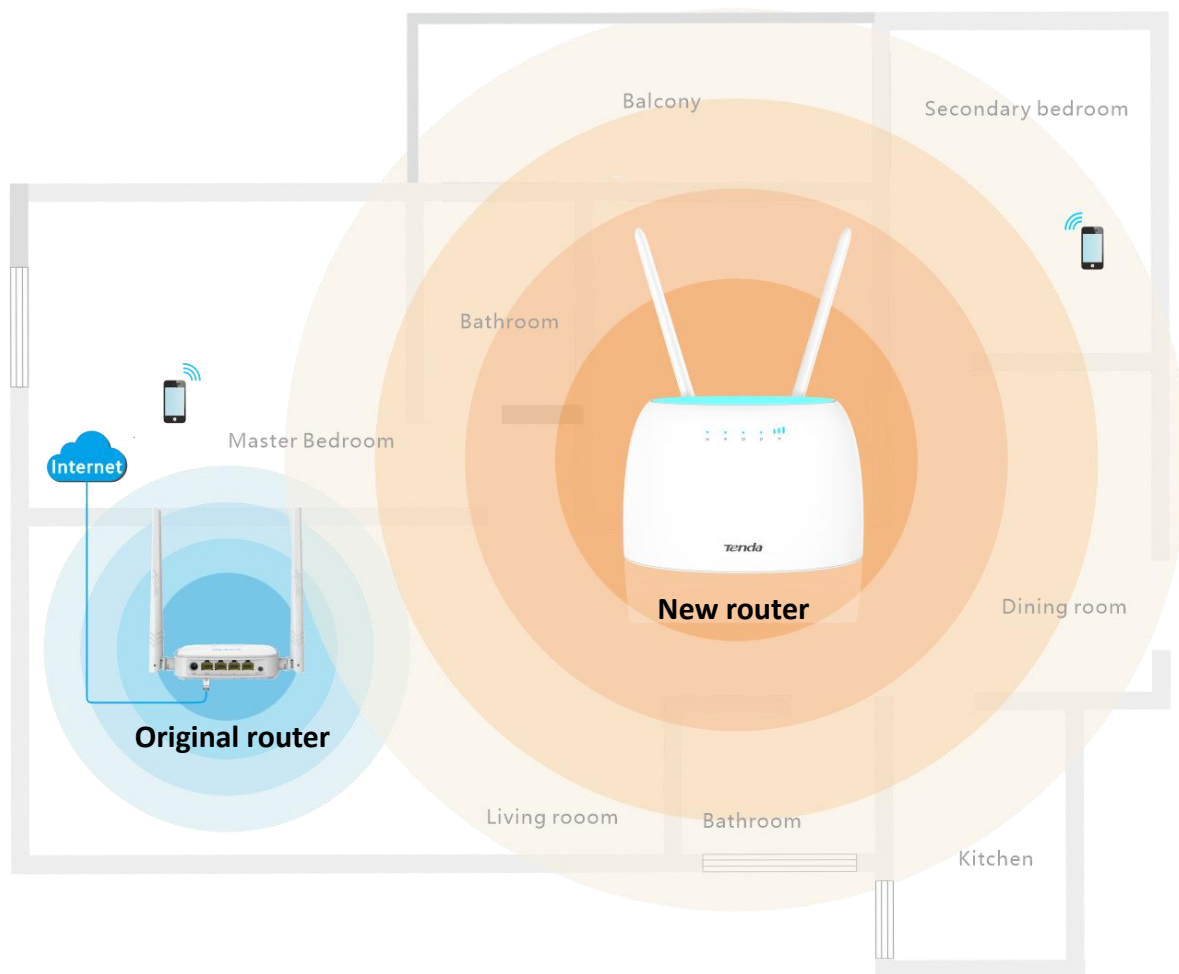
### 5.3.2 Extend the existing Wi-Fi network

When there is already a router with internet access in your home, you can refer to the configurations in this part to extend the Wi-Fi network coverage.

Assume that your existing Wi-Fi name and password are:

- Upstream Wi-Fi name: Home\_Wi-Fi
- Wi-Fi password: Tenda\_12345



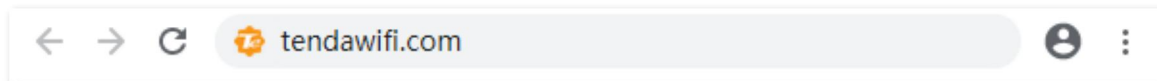


## Method 1: Set the new router to WISP mode

### Configuring procedure:

**Step 1** Log in to the web UI of the router.

1. Place the new router near the existing router and power it on. Connect your wireless device to the Wi-Fi network of your new router, or connect a computer to the LAN port of the new router. Do not connect any device to the WAN port of the new router.
2. Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router. A computer is used for illustration below.

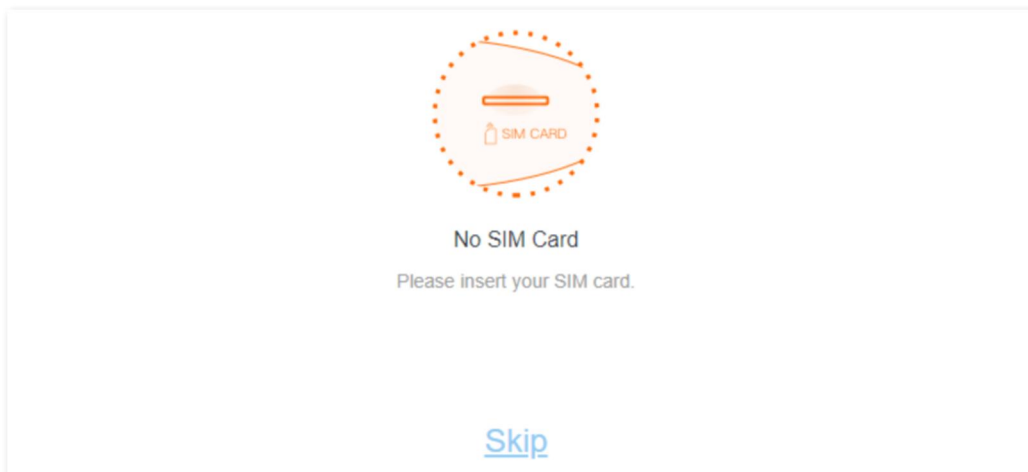


If you have finished the quick setup wizard before, skip to **Step 2** to proceed with the configuration.

3. Click **Start**.



4. Click **Skip**.



5. Do not set login and Wi-Fi password now by ticking **No Password**, and click **Next**.

The image shows the 'Wi-Fi Settings' screen. It features several input fields and checkboxes. The first field is for the Wi-Fi name, set to 'Tenda\_F5E8B0'. The second field is for the Wi-Fi password, with a 'No Password' checkbox checked. The third field is for the login password, also with a 'No Password' checkbox checked. A green 'Next' button is at the bottom center.

Wi-Fi Settings

Wi-Fi name for 2.4 GHz & 5 GHz.  
Smart devices will auto-connect to the better Wi-Fi network.

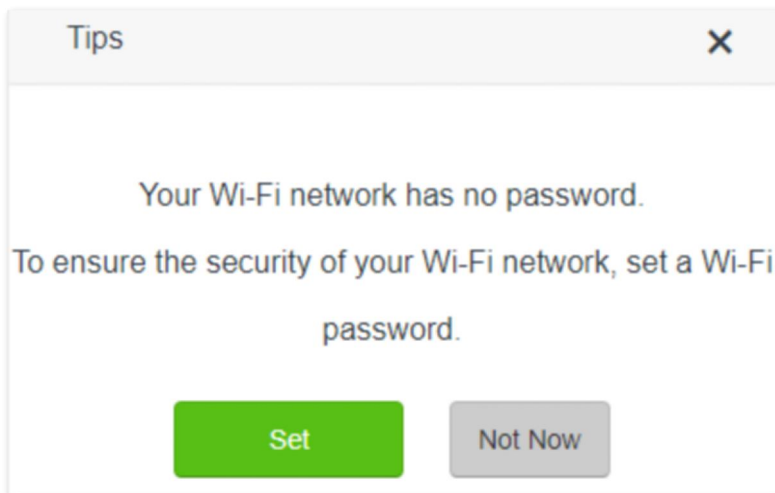
No Password

Sync the login password with the Wi-Fi password.

No Password

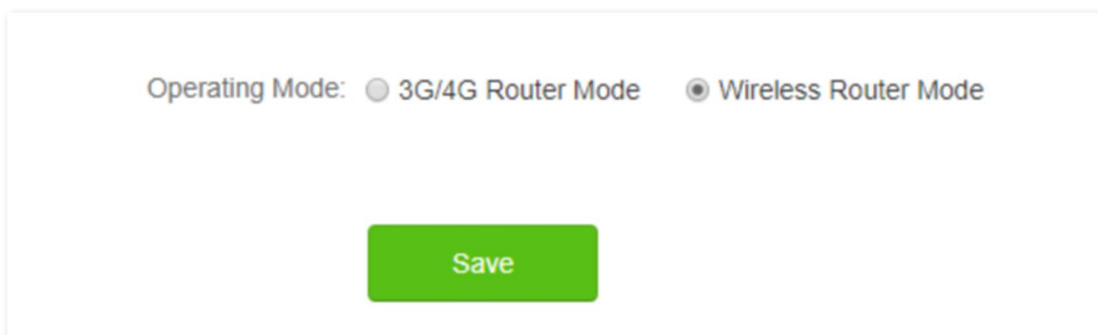
Next

6. Click **Not Now**.



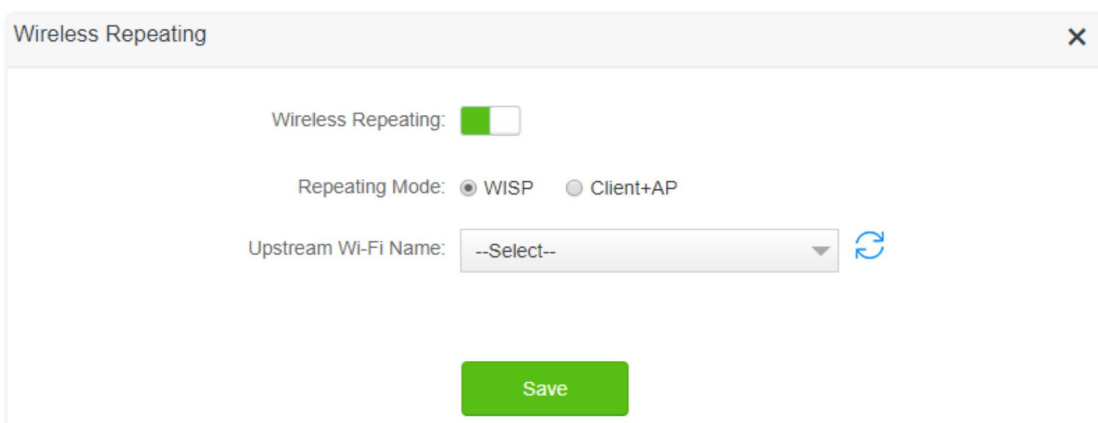
**Step 2** Set the router to wireless router mode.

1. Choose **Advanced Settings > Operating Mode**.
2. Click **Wireless Router Mode**, and click **Save**.

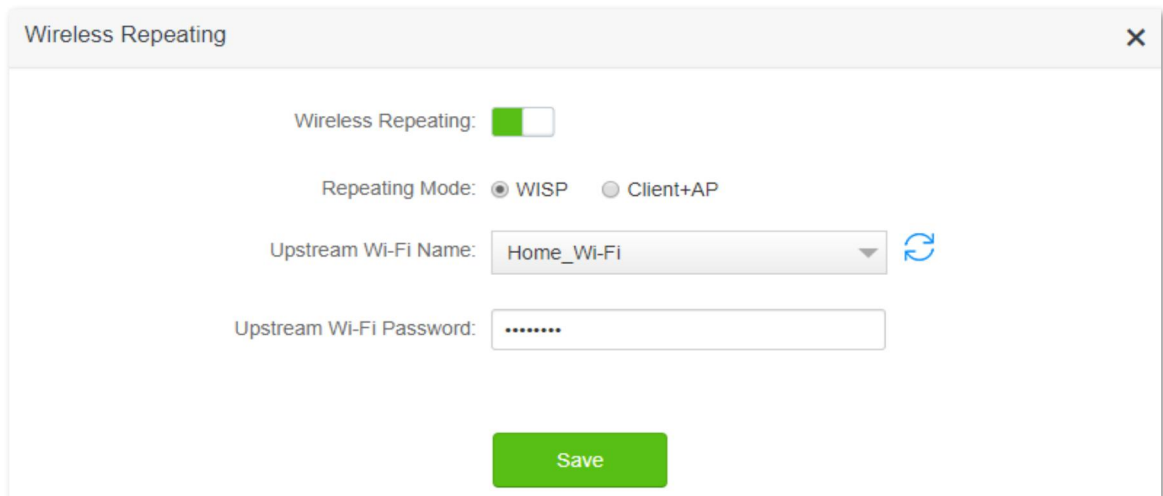


**Step 3** Set the new router to WISP mode.

1. Choose **Wi-Fi Settings > Wireless Repeating**.
2. Enable **Wireless Repeating**, and choose **WISP**.
3. Click **Select** to select an existing Wi-Fi network, which is **Home\_Wi-Fi** in this example.



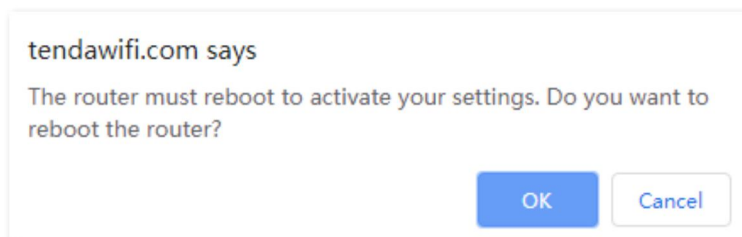
4. Enter the **Upstream Wi-Fi Password**, which is **Tenda\_12345** in this example.
5. Click **Save**.



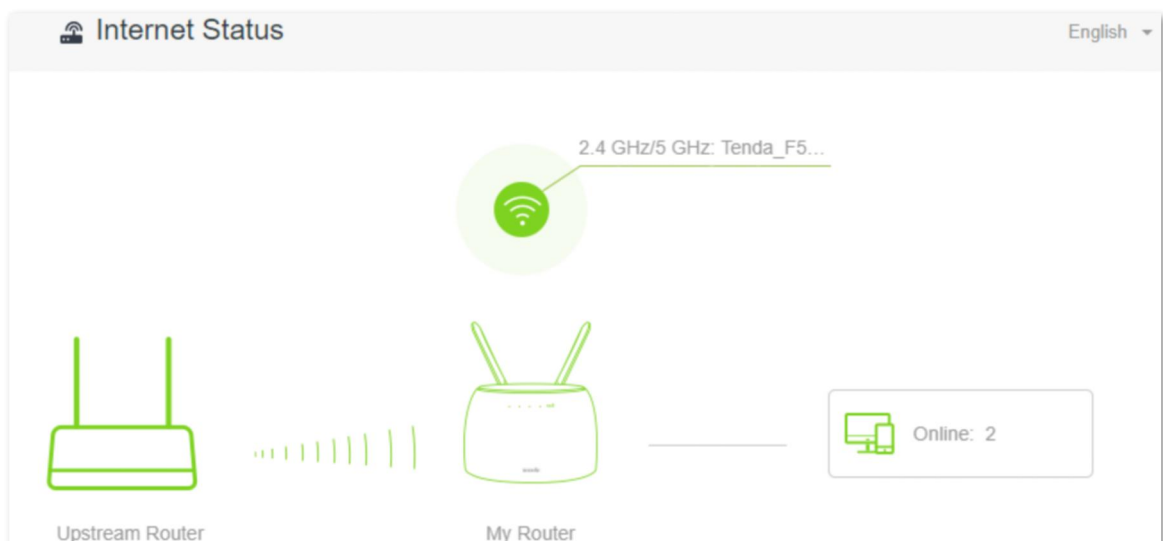
The image shows a 'Wireless Repeating' configuration window. It has a title bar with a close button. The settings are as follows:

- Wireless Repeating:
- Repeating Mode:  WISP  Client+AP
- Upstream Wi-Fi Name: Home\_Wi-Fi (dropdown menu with a refresh icon)
- Upstream Wi-Fi Password: [masked with dots]
- Save button (green)

6. Click **OK**, and wait for the router to reboot.



7. Log in to the web UI of the router again, navigate to **Internet Status** to check if the wireless **repeating** succeeds.





If the connection between the **Upstream router** and **My router** failed, try the following solutions:

- Ensure that you have entered the correct WiFi password of the WiFi, and mind case sensitivity.
- Ensure that **My router** is within the wireless coverage of the **Upstream router**.

**Step 4 Relocate** the new router and power it on by referring to the following suggestions.

- Between the original router and the uncovered area, but within the coverage of the original router
- Away from the microwave oven, electromagnetic oven, refrigerator
- Above the ground with few obstacles



Do not connect any device to the WAN port of the new router after setting the router to WISP mode.

---End

To access the internet, connect your computer to a LAN port of the new router, or connect your smartphone to the Wi-Fi network of the new router.

You can find the Wi-Fi name and password on the **Wi-Fi Settings > Wi-Fi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

Wi-Fi Name & Password

Unify 2.4 GHz & 5 GHz

Enable Wi-Fi network

Wi-Fi Name:   Hide

Encryption Mode:

Wi-Fi Password:

Save

**TIP**

If you cannot access the internet, try the following solutions:

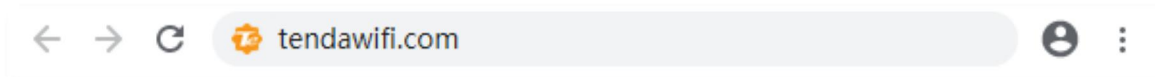
- Ensure that the existing router is connected to the internet successfully.
- Ensure that your wireless devices are connected to the Wi-Fi network of the new router.
- If the computer connected to the router for repeating cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.

## Method 2: Set the new router to Client+AP mode

### Configuring procedure:

**Step 1** Log in to the web UI of the router.

1. Put the new router near the existing router and power it on. Connect your wireless device to the Wi-Fi network of your new router, or connect a computer to the LAN port of the router. Do not connect any device to the WAN port of the new router.
2. Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router. A computer is used for illustration below.

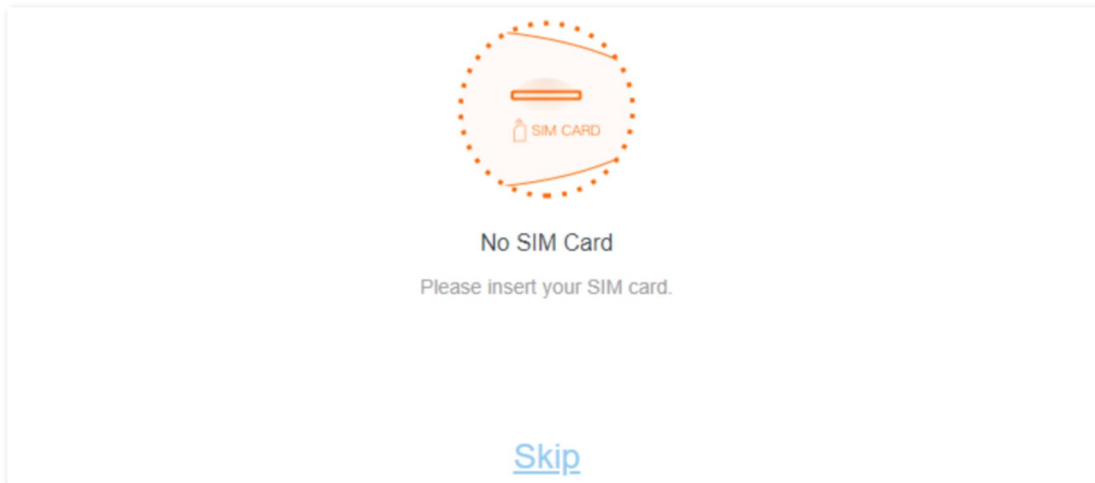
**TIP**

If you have finished the quick setup wizard before, skip to **Step 2** to proceed with the configuration.

3. Click **Start**.



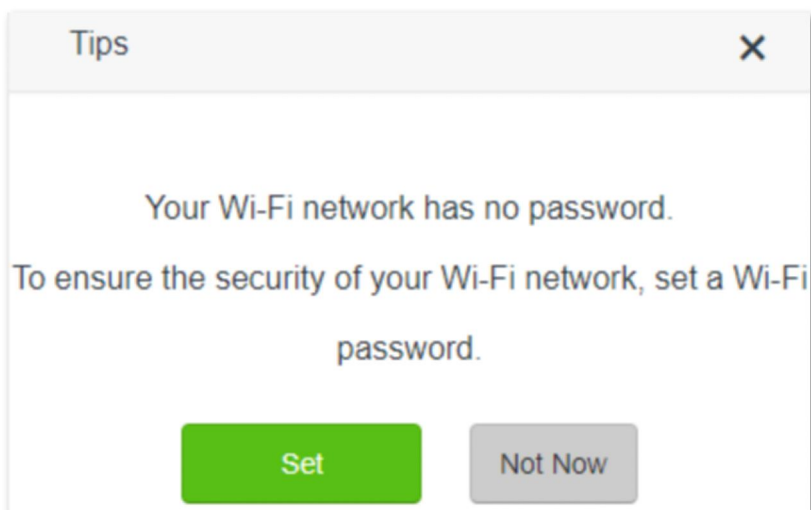
4. Click **Skip**.



5. Do not set login and Wi-Fi password now, and click **Next**.



6. Click **Not Now**.



**Step 2** Set the router to wireless router mode.

1. Choose **Advanced Settings > Operating Mode**.
2. Click **Wireless Router Mode**, and click **Save**.

Operating Mode:  3G/4G Router Mode  Wireless Router Mode

Save

**Step 3** Set the new router to **Client+AP** mode.

1. Choose **Wi-Fi Settings > Wireless Repeating**.
2. Enable **Wireless Repeating**, and choose **Client+AP**.
3. Click **Select** to select the existing Wi-Fi network, which is **Home\_Wi-Fi** in this example.

Wireless Repeating:

Repeating Mode:  WISP  Client+AP

Upstream Wi-Fi Name: --Select--

Save

4. Enter the **Upstream Wi-Fi Password**, which is **Tenda\_12345** in this example.

5. Click **Save**.

Wireless Repeating:

Repeating Mode:  WISP  Client+AP

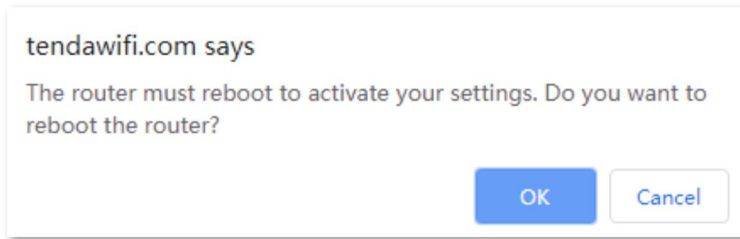
Upstream WiFi Name: Home\_WiFi

Upstream WiFi Password: .....

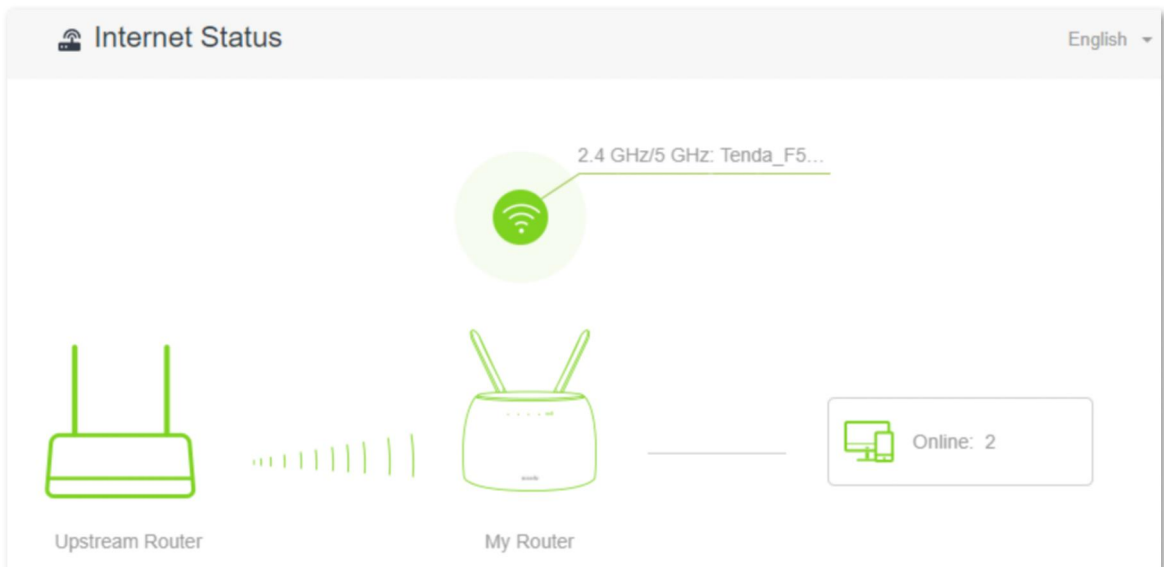
Save



6. Click **OK**, and wait for the router to reboot.



7. Log in to the web UI of the router again, navigate to **Internet Status** to check if the wireless repeating succeeds.



If the connection between the **Upstream Router** and **My Router** failed, try the following solutions:

- Ensure that you have entered the correct WiFi password of the WiFi, and mind case sensitivity.
- Ensure that **My Router** is within the wireless coverage of the **Upstream Router**.

- Step 4** Relocate the new router and power it on by referring to the following suggestions.
- Between the original router and the uncovered area, but within the coverage of the original router
  - Away from the microwave oven, electromagnetic oven, refrigerator
  - Above the ground with few obstacles



After the new router is set to Client+AP mode:

- Do not connect any device to the WAN port of the new router.
- The LAN IP address of the router will change. Please log in to the web UI of the router by visiting **tendawifi.com**. If there is another network device with the same login domain name (tendawifi.com) with the router, log in to the upstream router and find the IP address obtained by the new router in the client list. Then you can log in to the web UI of the router by visiting the IP address.

---End

To access the internet, connect your computer to the LAN port of the new router, or connect your smartphone to the Wi-Fi network of the new router.

You can find the Wi-Fi name and password on the **Wi-Fi Settings > Wi-Fi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

Wi-Fi Name & Password
✕

Unify 2.4 GHz & 5 GHz

Enable Wi-Fi network

Wi-Fi Name:   Hide

Encryption Mode:  ▼

Wi-Fi Password:



If you cannot access the internet, try the following solutions:

- Ensure that the existing router is connected to the internet successfully.
- Ensure that your wireless devices are connected to the Wi-Fi network of the new router.
- If the computer connected to the router cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS sever automatically.

## 5.4 Channel & bandwidth

In this section, you can change network mode, wireless channel, and wireless bandwidth of 2.4 GHz and 5 GHz Wi-Fi networks.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Channel & Bandwidth**.



To ensure the wireless performance, it is recommended to maintain the default settings on this page without professional instructions.

Channel & Bandwidth
✕

2.4 GHz Network

Network Mode:

Channel:

Bandwidth:

5 GHz Network

Network Mode:

Channel:

Bandwidth:

### Parameter description

Parameter	Description
Network Mode	<p>It specifies various protocols adopted for wireless transmission.</p> <p>2.4 GHz Wi-Fi network supports 11n, 11b/g mixed and 11b/g/n mixed modes.</p> <ul style="list-style-type: none"> <li>• <b>11n</b>: It indicates that devices compliant with IEEE 802.11n protocol can connect to the 2.4 GHz Wi-Fi network of the router.</li> <li>• <b>11b/g mixed</b>: It indicates that devices compliant with IEEE 802.11b or IEEE 802.11g protocol can connect to the 2.4 GHz Wi-Fi network of the router.</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>11b/g/n mixed</b>: It indicates that all devices can connect to the router if they are compliant with IEEE 802.11b or IEEE 802.11g protocol, or work at 2.4 GHz with IEEE 802.11n protocol.</li> </ul> <p>5 GHz Wi-Fi network supports 11ac, 11a/n/ac mixed modes.</p> <ul style="list-style-type: none"> <li>• <b>11ac</b>: It indicates that devices compliant with IEEE 802.11ac protocol can connect to the router.</li> <li>• <b>11a/n/ac mixed</b>: It indicates that all devices that are compliant with IEEE 802.11a or IEEE 802.11ac protocol, or work at 5 GHz with IEEE 802.11n protocol can connect to the router.</li> </ul>
Channel	<p>It specifies the channel in which the Wi-Fi network works.</p> <p>By default, the wireless channel is <b>Auto</b>, which indicates that the router selects a channel for the Wi-Fi network automatically. You are recommended to choose a channel with less interference for better wireless transmission efficiency. You can use a third-party tool to scan the Wi-Fi signals nearby to understand the channel usage situations.</p>
Bandwidth	<p>It specifies the bandwidth of the wireless channel of a Wi-Fi network. Please change the default settings only when necessary.</p> <ul style="list-style-type: none"> <li>• <b>20</b>: It indicates that the channel bandwidth used by the router is 20 MHz.</li> <li>• <b>40</b>: It indicates that the channel bandwidth used by the router is 40 MHz.</li> <li>• <b>20/40</b>: It specifies that a router can switch its channel bandwidth between 20 MHz and 40 MHz based on the ambient environment. This option is available only at 2.4 GHz.</li> <li>• <b>80</b>: It indicates that the channel bandwidth used by the router is 80 MHz. This option is available only at 5 GHz.</li> <li>• <b>20/40/80</b>: It specifies that a router can switch its channel bandwidth among 20 MHz, 40 MHz, and 80 MHz based on the ambient environment. This option is available only at 5 GHz.</li> </ul>

## 5.5 Transmit power


In this module, you can adjust the wall-penetration capability and wireless coverage of the router by setting the transmit power.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Transmit Power**.

The screenshot shows a window titled "Transmit Power" with a close button (X) in the top right corner. Inside the window, there are two sections for signal strength settings:

- 2.4 GHz Signal Strength:** A progress bar is shown with a dashed line and a solid green bar. Below it are three radio buttons: "Low", "Medium", and "High". The "High" radio button is selected.
- 5 GHz Signal Strength:** A similar progress bar is shown. Below it are two radio buttons: "Medium" and "High". The "High" radio button is selected.

At the bottom center of the window is a green "Save" button.

Parameter	Description
Signal Strength	<p>It specifies the mode of signal strength. The default mode is <b>High</b>.</p> <ul style="list-style-type: none"> <li>• <b>High:</b> It is typically used to meet wireless coverage requirements in large or multi-barrier environments.</li> <li>• <b>Medium:</b> It is typically used to meet wireless coverage requirements in medium-area or less-obstacle environments.</li> <li>• <b>Low:</b> It is typically used to meet wireless coverage requirements in small area or barrier-free environments.</li> </ul> <p> <b>TIP</b></p> <p>It is recommended to choose the <b>Low</b> mode if the network experience is satisfactory enough under this mode.</p>

## 5.6 WPS

### 5.6.1 Overview

The WPS function enables wireless devices, such as smartphones, to connect to Wi-Fi networks of the router quickly and easily.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > WPS**.

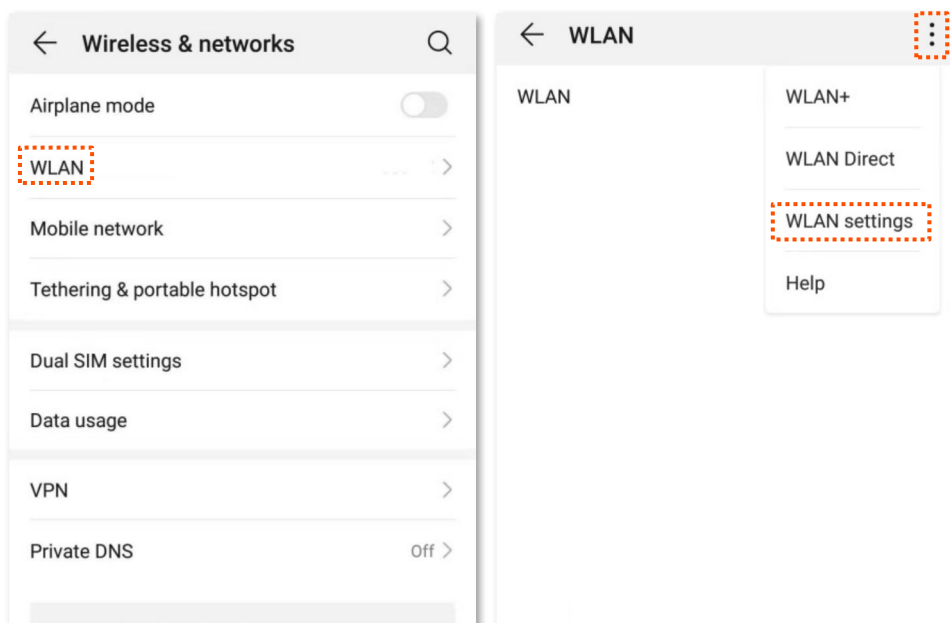


This function is only applicable to WPS-enabled wireless devices.

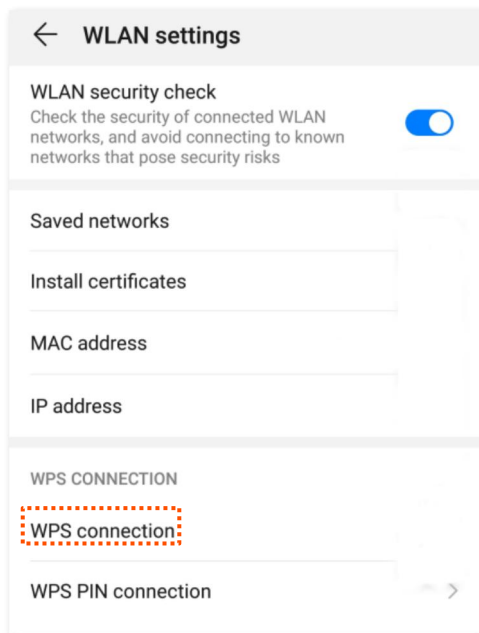
### 5.6.2 Connect devices to the Wi-Fi network using the WPS button

**Configuring procedure:**

- Step 1** Find the **RST/WPS** button on the rear panel of the router, and hold it down for 1 to 3 seconds. The Wi-Fi indicator blinks slow.
- Step 2** Configure the WPS function on your wireless devices **within 2 minutes**. Configurations on various devices may differ (Example: HUAWEI P10).
1. Find **Settings** on the phone.
  2. Choose **WLAN**.
  3. Tap **⋮**, and choose **WLAN settings**.

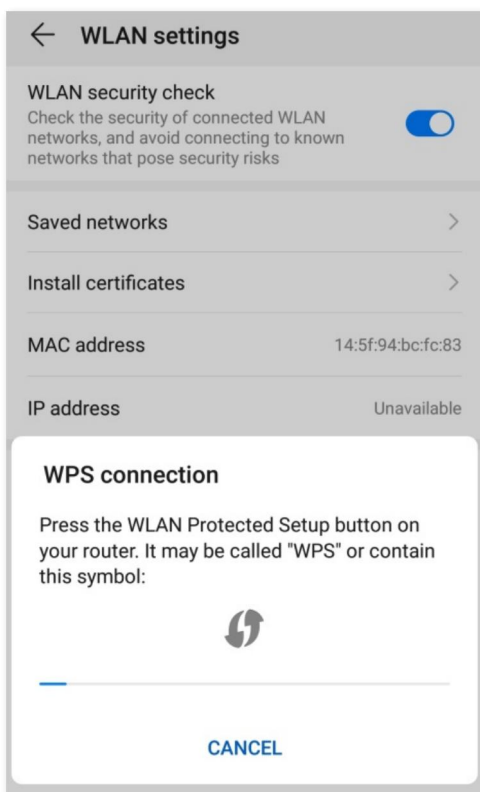


#### 4. Choose WPS connection.



---End

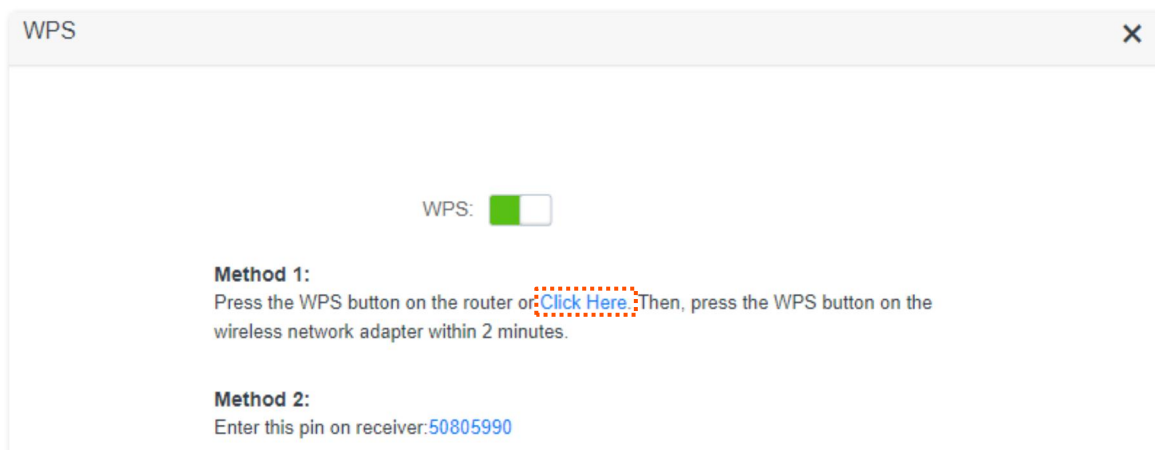
Wait a moment until the WPS negotiation is completed, and the smartphone is connected to the Wi-Fi network.




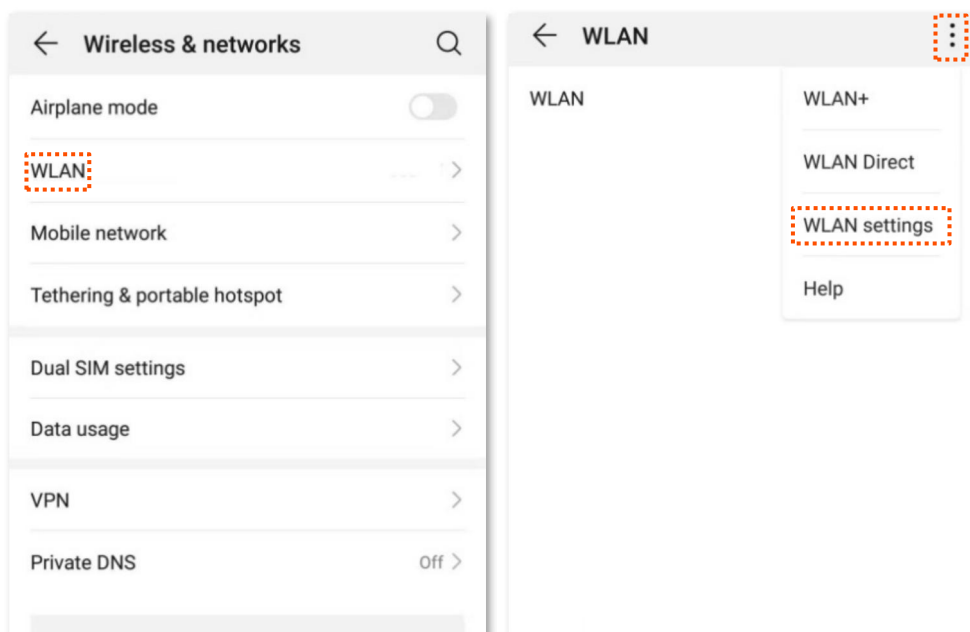
## 5.6.3 Connect devices to the Wi-Fi network through the web UI of the router

Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Wi-Fi Settings > WPS**.
- Step 3** Click [Click Here](#) below **Method 1**.

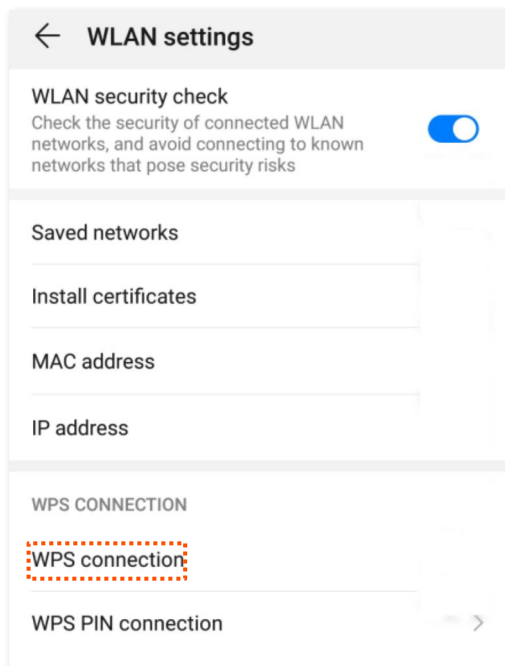


- Step 4** Configure the WPS function on your wireless devices **within 2 minutes**. Configurations on various devices may differ (Example: HUAWEI P10).
  1. Find **WLAN** settings on the smartphone.
  2. Tap , and choose **WLAN settings**.



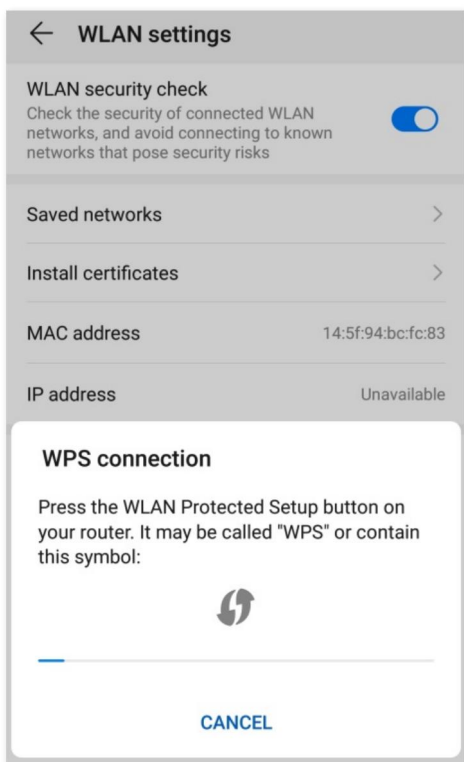


### 3. Choose WPS connection.



---End

Wait a moment until the WPS negotiation is completed, and the smartphone is connected to the Wi-Fi network.



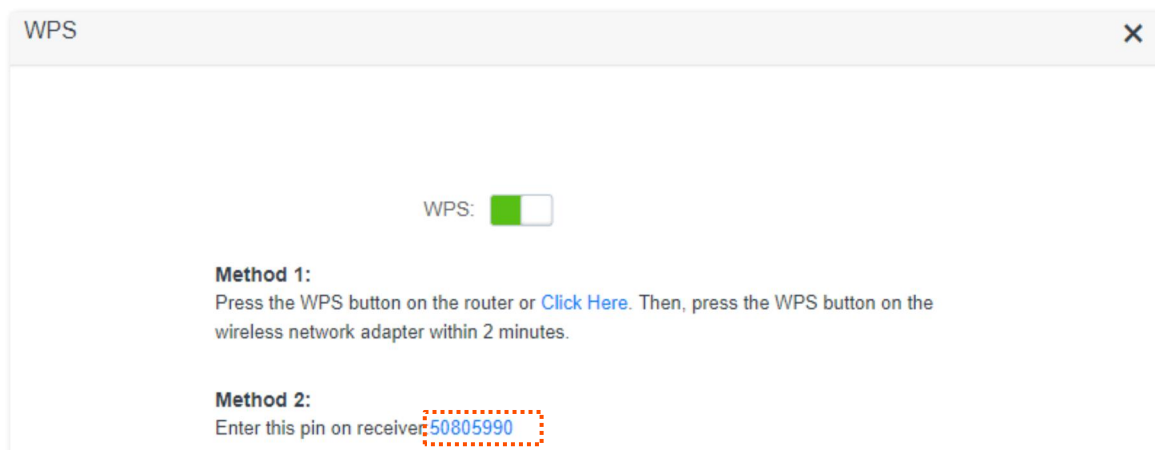
## 5.6.4 Connect devices to the Wi-Fi network using the PIN code of the router



The router only supports WPS connection by entering the PIN code on wireless devices, which is usually used on Wi-Fi network adapters. Please refer to the user guide of the Wi-Fi network adapter for configuration details.

### Configuring procedure:

- Step 1** Find the PIN code of the router by logging in to the web UI of the router, and navigate to **Wi-Fi Settings > WPS**. The PIN code is shown under **Method 2**.



- Step 2** Enter the PIN code on the wireless device that supports WPS connection using the PIN code.

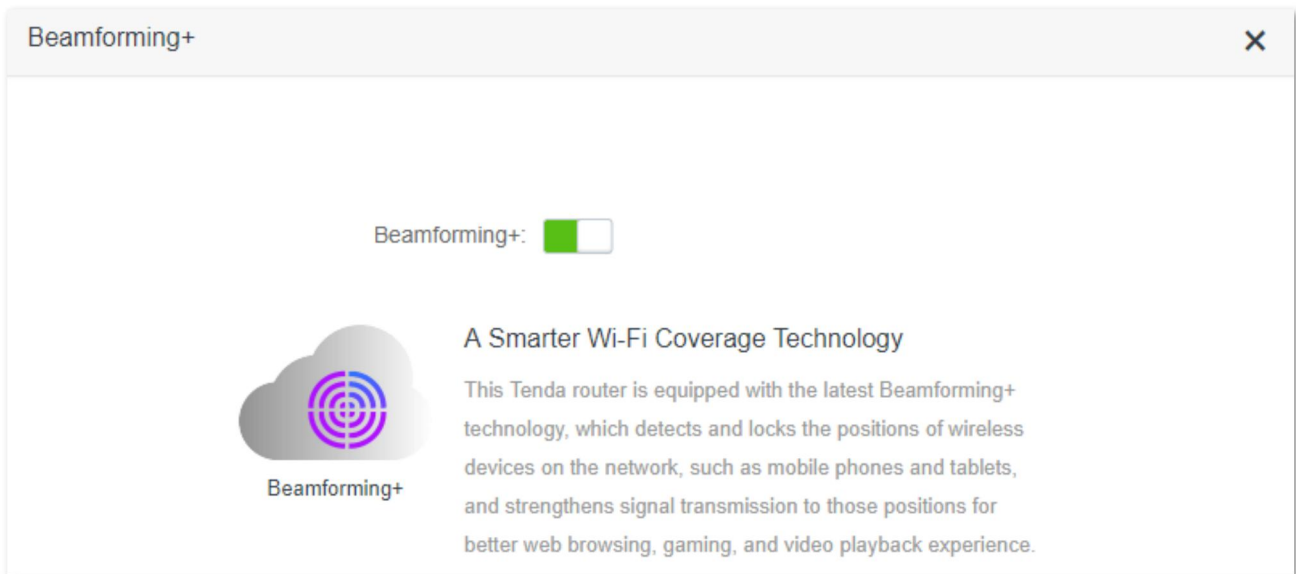
**---End**

Wait a moment until the WPS negotiation is completed, and the wireless device is connected to the Wi-Fi network.

## 5.7 Beamforming+

Beamforming+ is a radio wave technology written into IEEE 802.11ac standard. Traditionally, the router broadcasts the data in all directions when broadcasting a Wi-Fi signal. With beamforming, the router transmits radio signal in the direction of the client, thus creating a stronger, faster and more reliable wireless communication. This function is enabled by default.

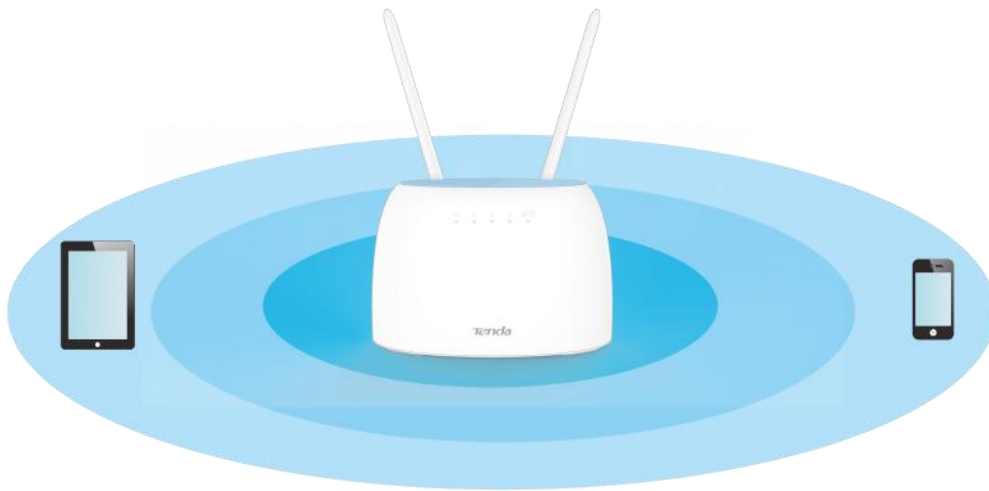
To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Beamforming+**.



The following figure shows the wireless transmission when Beamforming+ is enabled.



The following figure shows the wireless transmission when Beamforming+ is disabled.



## 5.8 AP mode



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

When you have a smart home gateway which only provides wired internet access, you can set the router to work in AP mode to provide wireless coverage.

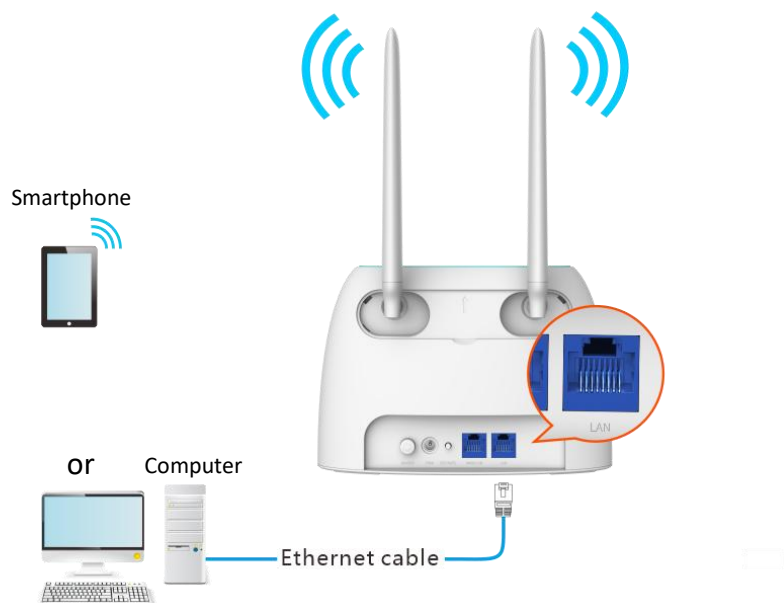


When the router is set to AP mode:

- Every physical port can be used as a LAN port.
- The LAN IP address of the router will be changed. Please log in to web UI of the router by visiting **tendawifi.com**.
- Functions, such as bandwidth control and virtual server, will be unavailable. Refer to the web UI for available functions.

### Configuring procedure:

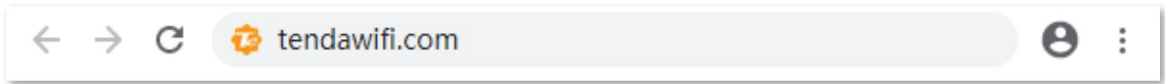
**Step 1** Power on the router. Connect a computer to the LAN port of the router, or connect your smartphone to the Wi-Fi network of the router.



If you have finished the quick setup wizard before, start a web browser and visit [tendawifi.com](http://tendawifi.com) and skip to **Step 2** to proceed with the configuration.

**Step 2** Log in to the web UI of the router.

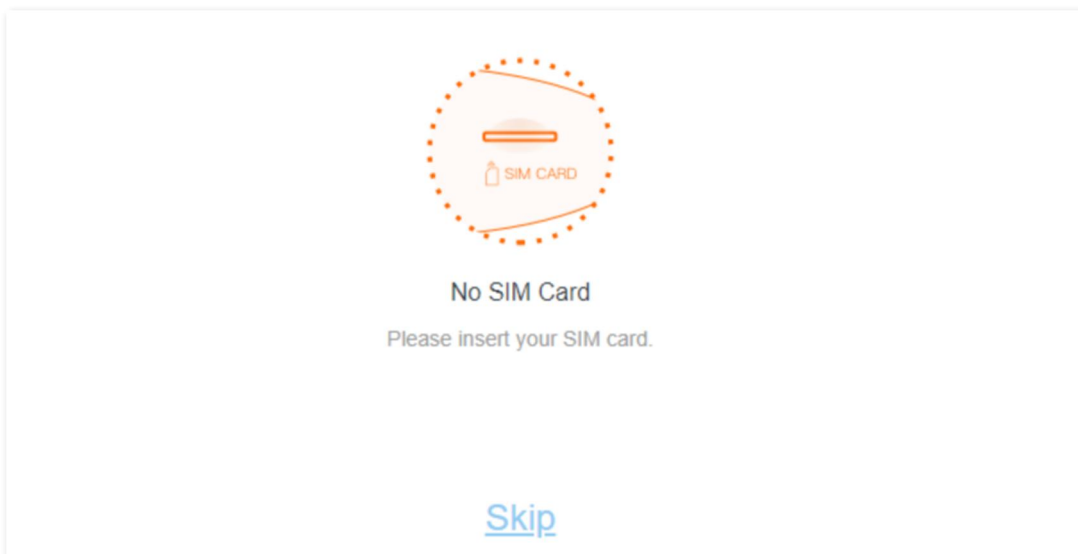
1. Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router. A computer is used for illustration below.



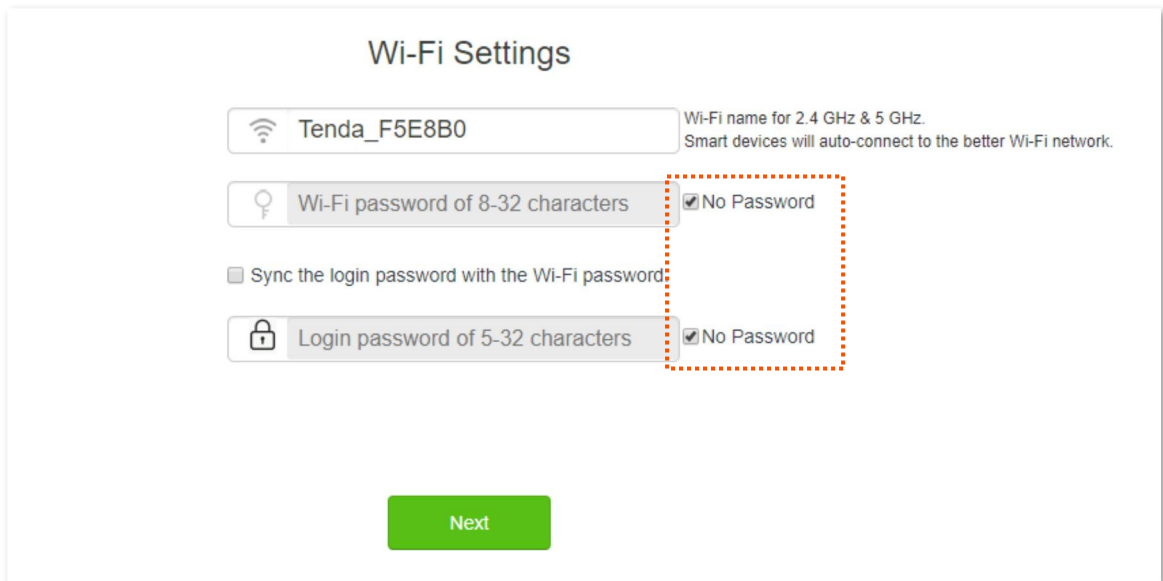
2. Click **Start**.



3. Click **Skip**.

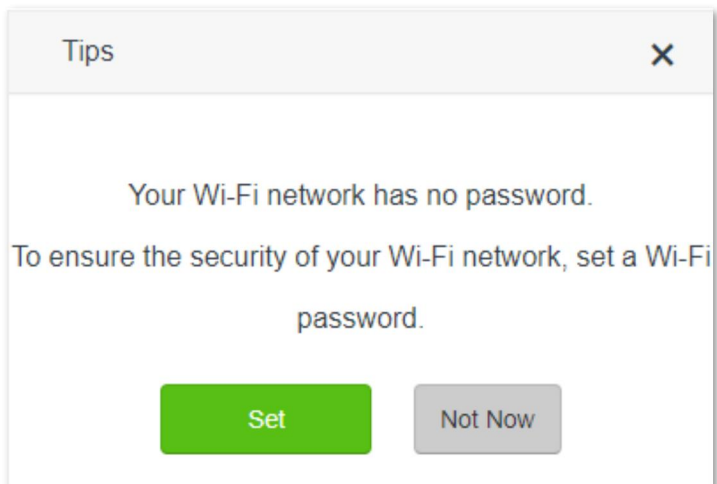


4. Do not set login and Wi-Fi password now by ticking **No Password**, and click **Next**.



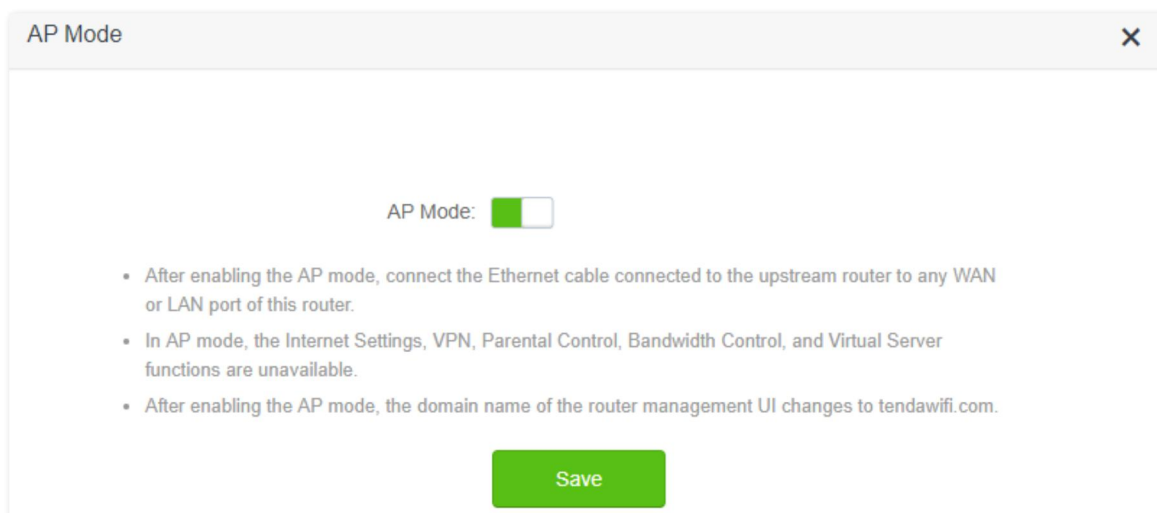
The image shows a 'Wi-Fi Settings' configuration screen. At the top, the title 'Wi-Fi Settings' is centered. Below it, there are three main input fields. The first field is for the Wi-Fi name, containing 'Tenda\_F5E8B0', with a small Wi-Fi icon on the left and explanatory text on the right: 'Wi-Fi name for 2.4 GHz & 5 GHz. Smart devices will auto-connect to the better Wi-Fi network.' The second field is for the Wi-Fi password, containing 'Wi-Fi password of 8-32 characters', with a key icon on the left and a dropdown menu on the right showing 'No Password' selected. The third field is for the login password, containing 'Login password of 5-32 characters', with a lock icon on the left and a dropdown menu on the right showing 'No Password' selected. A checkbox labeled 'Sync the login password with the Wi-Fi password' is located between the second and third fields. A green 'Next' button is positioned at the bottom center. A red dashed box highlights the two dropdown menus.

5. Click **Not Now**.

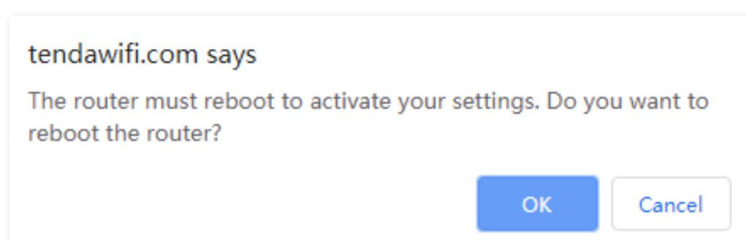


**Step 3** Set the router to AP mode.

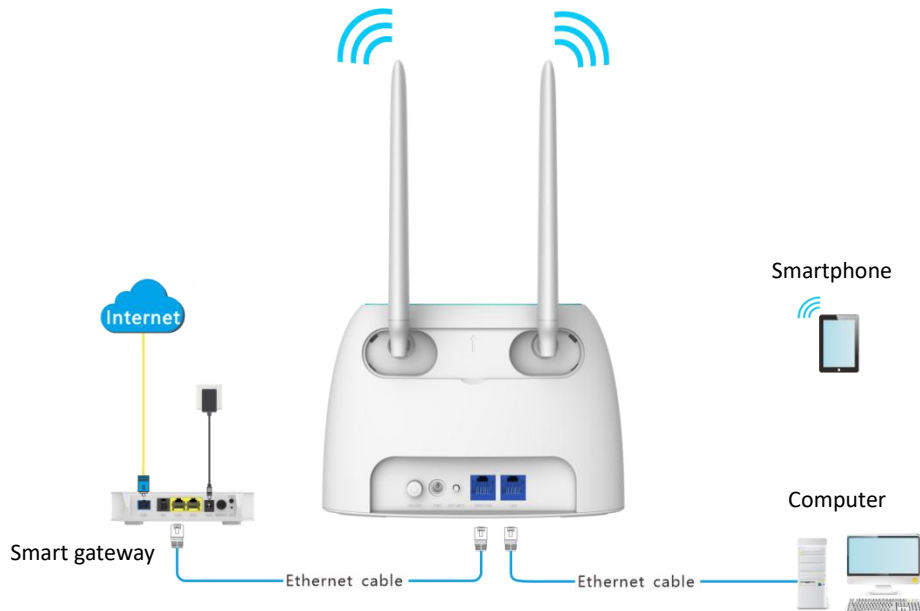
1. Navigate to **Wi-Fi Settings > AP Mode**.
2. Enable **AP Mode**.
3. Click **Save**.



4. Click **OK**, and wait for the router to reboot.



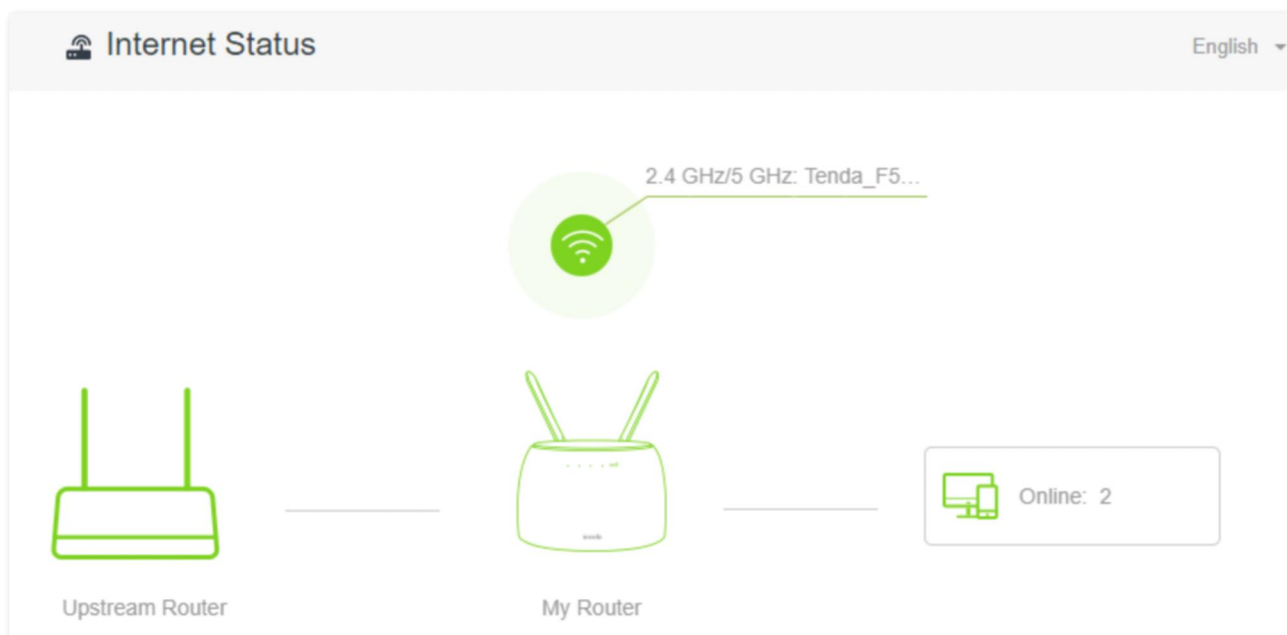
- Step 4** Connect the upstream device, such as a gateway, to any port of the router.



---End

Log in to the web UI of the router again, and navigate to **Internet Status** to check if the AP mode is configured successfully.





 **NOTE**

If there is another network device with the same login domain name (tendawifi.com) with the router, log in to the upstream router and find the IP address obtained by the new router in the client list. Then you can log in to the web UI of the router by visiting the IP address.

To access the internet, connect your computer to physical port, or connect your smartphone to the Wi-Fi network.

You can find the Wi-Fi name and password on the **Wi-Fi Settings > Wi-Fi Name & Password** page. If the network is not encrypted, you can also set a Wi-Fi password on this page for security.

Wi-Fi Name & Password
✕

Unify 2.4 GHz & 5 GHz

Enable Wi-Fi network

Wi-Fi Name:   Hide

Encryption Mode:  ▼

Wi-Fi Password:



If you cannot access the internet, try the following solutions:

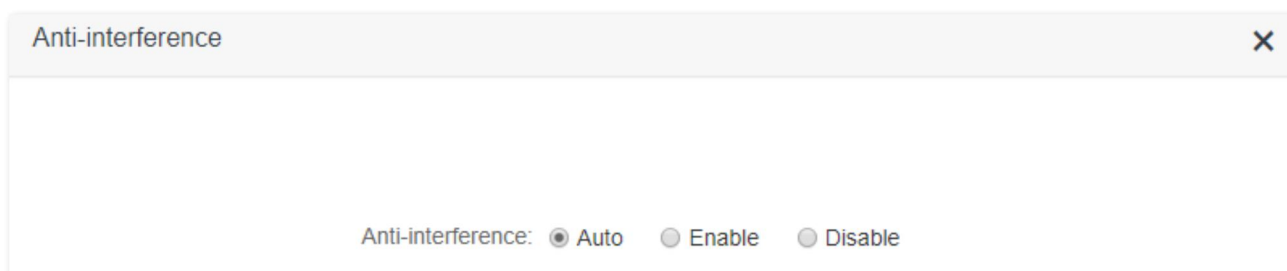
- Ensure that the existing router is connected to the internet successfully.
  - Ensure that your wireless devices are connected to the correct Wi-Fi network of the new router.
  - If the computer connected to the router cannot access the internet, ensure that the computer is configured to obtain an IP address and DNS server automatically.
-

## 5.9 Anti-interference

The router supports anti-interference function. When you are experiencing unsatisfactory internet access, you can try to change the anti-interference settings to improve it.

To access the configuration page, log in to the web UI of the router, and choose **Wi-Fi Settings > Anti-interference**.

The default setting is **Auto**.



- **Auto:** It indicates that the router will automatically adjust the receiving sensitivity according to the interference of the current environment. It is recommended to keep **Auto**.
- **Enable:** It indicates that the anti-interference ability of the router improves, but the Wi-Fi network coverage is reduced.
- **Disable:** It indicates that the wireless coverage of the router is improved. If the wireless interference in the environment is strong, it is recommended to select **Auto** or **Enable**.

# 6 SMS (3G/4G router mode)

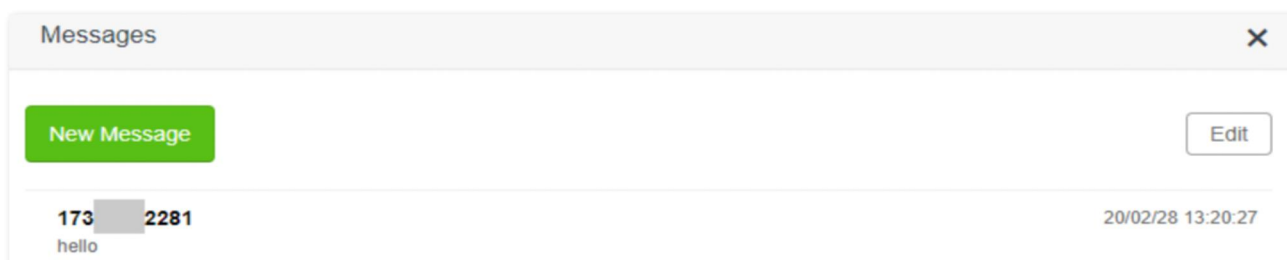
**TIP**

This function is only available under the 3G/4G router mode. Refer to [Operating mode](#) to set the operating mode of the router.

## 6.1 Manage SMS messages

This router supports sending, receiving, and deleting SMS messages in the web UI of the router.

To access the page, log in to the web UI of the router, and choose **SMS > Messages**.



### 6.1.1 Send SMS messages

#### Send SMS messages to a new smartphone number

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **SMS > Messages**.
- Step 3** Click **New Message**.
- Step 4** Enter the smartphone number in the **Send To** column.
- Step 5** Enter the message content in the **Message** column at the bottom.

**Step 6** Click **Send** at the bottom right corner.

---End

## Send messages to an existing smartphone number

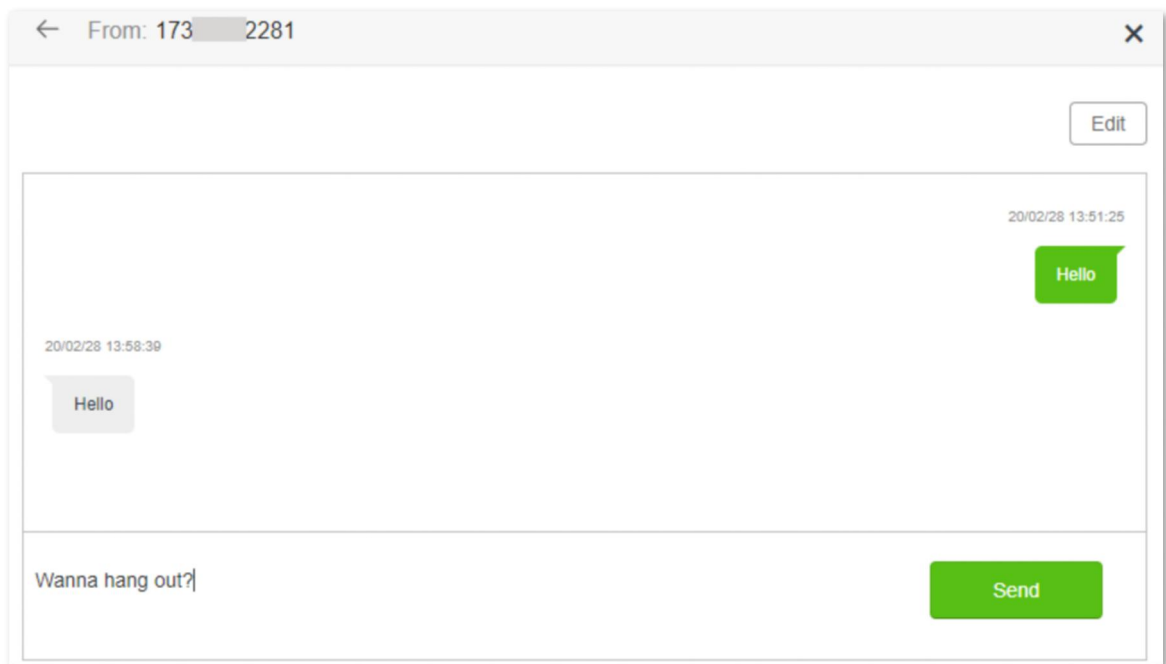
**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **SMS > Messages**.

**Step 3** Click the targeted smartphone number.

**Step 4** Enter the message content in the **Message** column at the bottom.

**Step 5** Click **Send**.



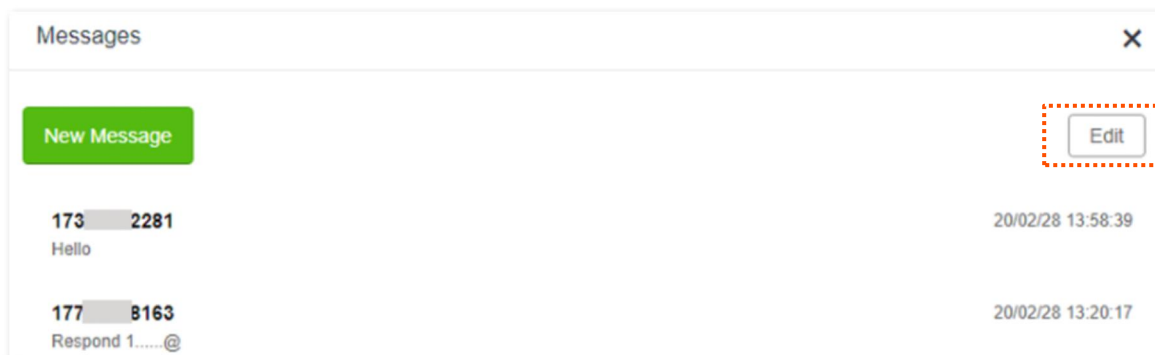
---End


After the messages are sent, you can view them on the same page.

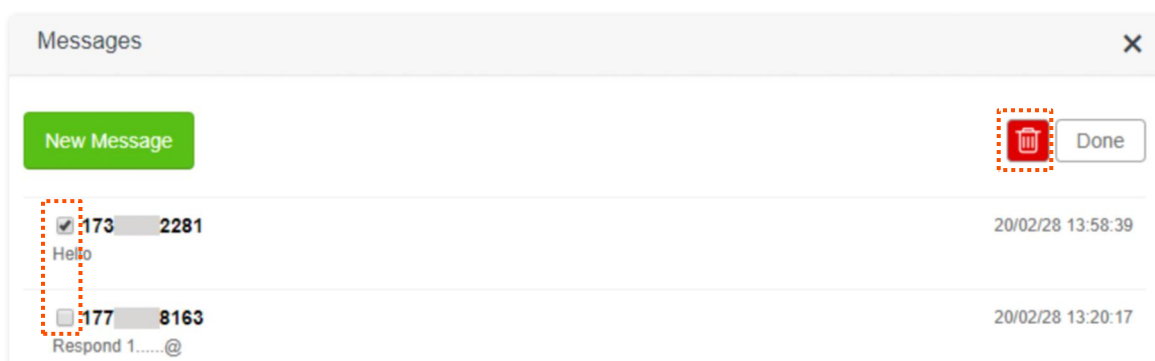
## 6.1.2 Delete SMS messages

### Delete all messages of the same smartphone numbers

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **SMS > Messages**.
- Step 3** Click **Edit** on the top right corner.



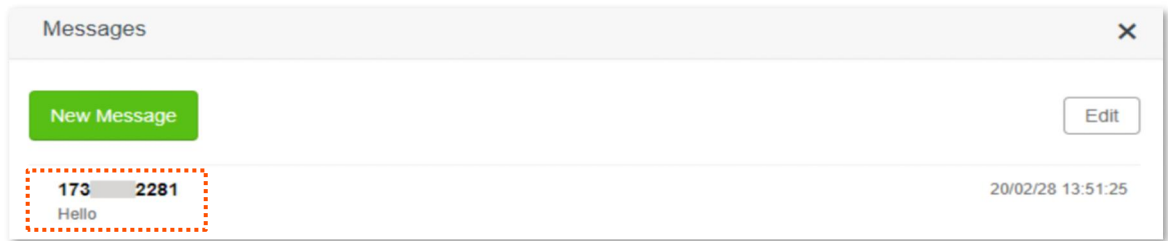
- Step 4** Select one or more smartphone number to be deleted.
- Step 5** Click  (click **Done** to cancel).



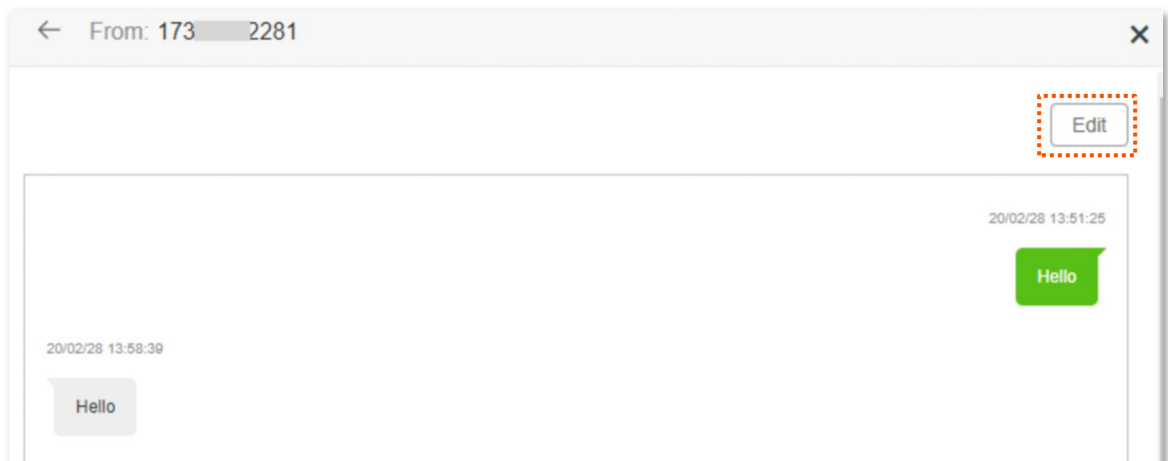
---End

### Delete certain messages of the same smartphone number


- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **SMS > Messages**.
- Step 3** Click the targeted smartphone number.



**Step 4** Click **Edit**.



**Step 5** Select the messages to be deleted.

**Step 6** Click  (click **Done** to cancel).



---End



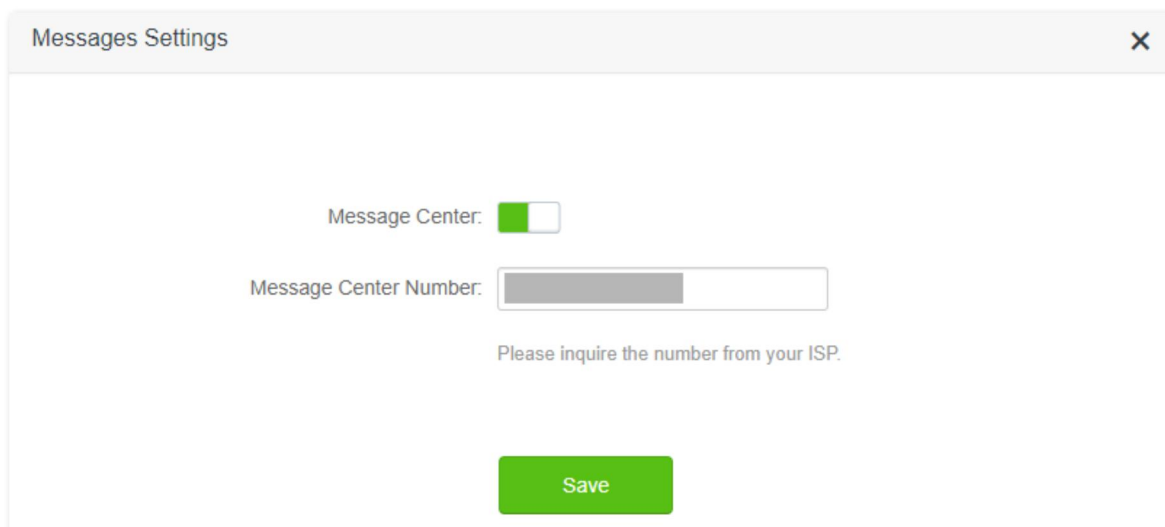
## 6.2 Set the message center number

Message center is the short message server for SMS messages. You will be unable to send SMS messages with a wrong message center number.

The router can automatically detect the message center number after you insert a SIM card. If you have problems in sending SMS messages, you are recommended to inquire your ISP for the message center number and change it in the web UI of the router if it is wrong.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **SMS > Message Center**.
- Step 3** Enable **Message Center**.
- Step 4** Enter the correct **Message Center Number**.
- Step 5** Click **Save**.



Messages Settings

Message Center:

Message Center Number:

Please inquire the number from your ISP.

Save

---End



Contact your ISP for correct message center number.

---

## 6.3 Inquire information by sending USSD commands

With **USSD** function, you can inquire specific information or perform specific operations by send a special code or command to your ISP.



Such codes or commands are predetermined. You can contact your ISP to find those codes or commands.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **SMS > USSD**.
- Step 3** Enter a **USSD CMD**, such as **\*108#**.
- Step 4** Click **Send**.

A screenshot of a web browser window titled "USSD". The window has a close button in the top right corner. Inside the window, there is a form with two main sections. The first section is labeled "USSD CMD:" and contains a text input field with the value "\*108#" and a green "Send" button to its right. The second section is labeled "USSD Read:" and contains a large, empty rectangular box for displaying the response.

**---End**

Wait a moment, you will get the desired information you want in the **USSD Read** box.

# 7 Guest network

## 7.1 Overview

In this module, you can enable/disable the guest network function and change the Wi-Fi names and password of the guest networks.

A guest network can be set up with a shared bandwidth limit for visitors to access the internet, and isolated from the main network. It protects the security of the main network and ensures the bandwidth of your main network.

To access the configuration page, log in to the web UI of the router and navigate to the **Guest Network**. This function is disabled by default.

The screenshot shows the 'Guest Network' configuration page. At the top left is a lightbulb icon and the title 'Guest Network'. At the top right is a language dropdown set to 'English'. The main content area contains several settings:

- Guest Network:** A toggle switch that is currently turned off.
- 2.4 GHz Wi-Fi Name:** A text input field containing 'Tenda\_VIP'.
- 5 GHz Wi-Fi Name:** A text input field containing 'Tenda\_VIP\_5G'.
- Guest Network Password:** A text input field containing 'Blank means no password'.
- Validity:** A dropdown menu set to '8 hours'.
- Bandwidth for Guests:** A dropdown menu set to 'Unlimited' with a unit of 'Mbps' to its right.

At the bottom center of the form is a green 'Save' button.

### Parameter description

Parameter	Description
Guest Network	It is used to enable or disable the guest network function.
2.4 GHz Wi-Fi Name	It specifies the Wi-Fi name of the router's guest network. By default, <b>Tenda_VIP</b> is for the 2.4 GHz Wi-Fi network and <b>Tenda_VIP_5G</b> for the 5 GHz Wi-Fi network.
5 GHz Wi-Fi Name	You can change the SSIDs (Wi-Fi names) as required. To distinguish the guest network from the main network, you are recommended to set different Wi-Fi network names.

<b>Parameter</b>	<b>Description</b>
Guest Network Password	It specifies the password for the router's two guest networks.
Validity	It specifies the validity of the guest networks. The guest network function will be disabled automatically out of the validity period.
Bandwidth for Guests	It allows you to specify the maximum upload and download speed for all devices connected to the guest networks. By default, the bandwidth is not limited.

## 7.2 An example of configuring the guest network

**Scenario:** A group of friends are going to visit your home and stay for about 8 hours.

**Goal:** Prevent the use of Wi-Fi network by guests from affecting the network speed of your computer for work purposes.

**Solution:** You can configure the guest network function and let your guests to use the guest networks.

Assume that the parameters you are going to set for the guest Wi-Fi network:

- Wi-Fi names for 2.4 GHz and 5 GHz networks: John\_Doe and John\_Doe\_5G
- Wi-Fi password for 2.4 GHz and 5 GHz networks: Tenda\_12345
- The shared bandwidth for guests: 2 Mbps

**Configuring procedure:**

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Guest Network**.

**Step 3** Enable the **Guest Network**.

**Step 4** Set the **2.4 GHz Wi-Fi Name**, which is **John\_Doe** in this example.

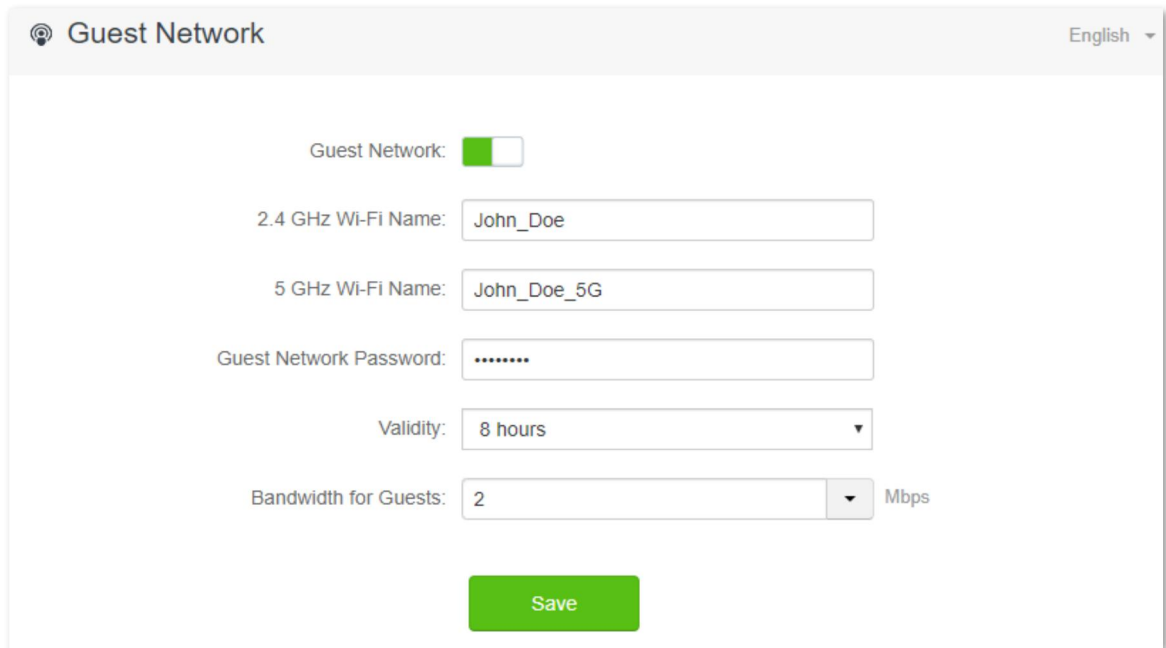
**Step 5** Set the **5 GHz Wi-Fi Name**, which is **John\_Doe\_5G** in this example.

**Step 6** Set the **Guest Network Password**, which is **Tenda\_12345** in this example.

**Step 7** Select a validity time from the **Validity** drop-down box, which is **8 hours** in this example.

**Step 8** Set the bandwidth in the **Bandwidth for Guests** drop-down box, which is **2** in this example.

**Step 9** Click **Save**.



The screenshot shows a web interface titled "Guest Network" with a language dropdown set to "English". The interface includes a toggle switch for "Guest Network" which is turned on. Below this are input fields for "2.4 GHz Wi-Fi Name" (containing "John\_Doe"), "5 GHz Wi-Fi Name" (containing "John\_Doe\_5G"), and "Guest Network Password" (masked with dots). There is a "Validity" dropdown menu set to "8 hours" and a "Bandwidth for Guests" input field set to "2" with a unit dropdown set to "Mbps". A green "Save" button is located at the bottom of the form.

---End

During the 8 hours after the configuration, guests can connect their wireless devices, such as smartphones, to **John\_Doe** or **John\_Doe\_5G** to access the internet and enjoy the shared bandwidth of 2 Mbps.

# 8 Parental control

## 8.1 Overview

On the parental control page, you can view the information of online devices and configure their internet access options.

To access the configuration page, log in to the web UI of the router, and navigate to the **Parental Control** page.


Device Name	MAC Address	Uptime	Operation
iQOO-5-Pro 192.168.0.120	[Redacted]	3min 46sec	
[Redacted] 192.168.0.116	[Redacted]	1hour(s) 19min 47sec	

[+New](#)

### Parameter description

Parameter	Description
Device Name	It specifies the name of the online device.
MAC Address	It specifies the MAC address of the online device.
Uptime	It specifies the online duration of the device.
Operation	Click  to configure the parental control rule for the device. After you have configured the parental control rule for the device, there should be a  or  button, which is used to enable or disable the configured rule.
+New	Click <b>+New</b> to add parental control rules for devices that are not connected to the router at the time.

## 8.2 Configure the parental control rule

Click  or **+New** to edit or add a parental control rule. The **+New** button is used for illustration here.

Parental Control
✕

Device Name:

MAC Address:

Internet Accessible At:   ~

In:  Every Day  Specified Day

Sun.     Mon.     Tue.     Wed.  
 Thur.     Fri.     Sat.

Website Access Limit:

Access Control Mode:  Blacklist  Whitelist

Blocked Websites:

Enter website keywords separated by a comma. For example, eHow,google indicates that the eHow and Google websites are inaccessible.

Parameter	Description
Device Name	It specifies the name of the device that the parental control rule applies to.
MAC Address	It specifies the MAC address of the device that the parental control rule applies to.
Internet Accessible At	It specifies the period during which the device can access the internet.
In	It specifies the days when the rule takes effect.
Website Access Limit	It is used to enable or disable the website access limit function.



Parameter	Description
Access Control Mode	<p>When the website access limit function is enabled, there are two access control modes available.</p> <ul style="list-style-type: none"> <li>• <b>Blacklist:</b> The device is blocked from accessing the websites specified in the rule during the specified period, but can access other websites. The device cannot access the internet at all out of the specified period.</li> <li>• <b>Whitelist:</b> The device can access the websites specified in the rule during the specified period, but cannot access other websites. The device cannot access the internet at all out of the specified period.</li> </ul>
Blocked Websites	They specify the websites that the device is blocked from accessing or allowed to access during the specified period.
Unblocked Websites	


## 8.3 An example of adding parental control rules

**Scenario:** The final exam for your kid is approaching and you want to restrict his internet access through the router.

**Goal:** Websites, such as Facebook, Twitter, Youtube and Instagram, are inaccessible during 8:00 to 22:00 on weekends using the computer in her room, and no internet access is available from 22:00 to 8:00.

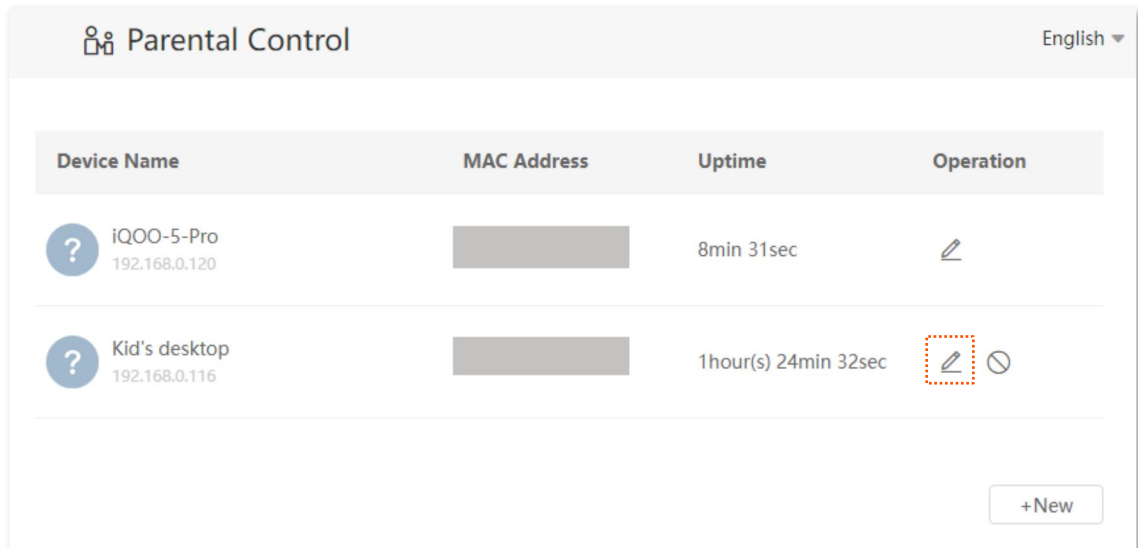
**Solution:** You can configure the parental control function to reach the goal.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Parental Control**.
- Step 3** Choose the device to which the rule applies, and click  .



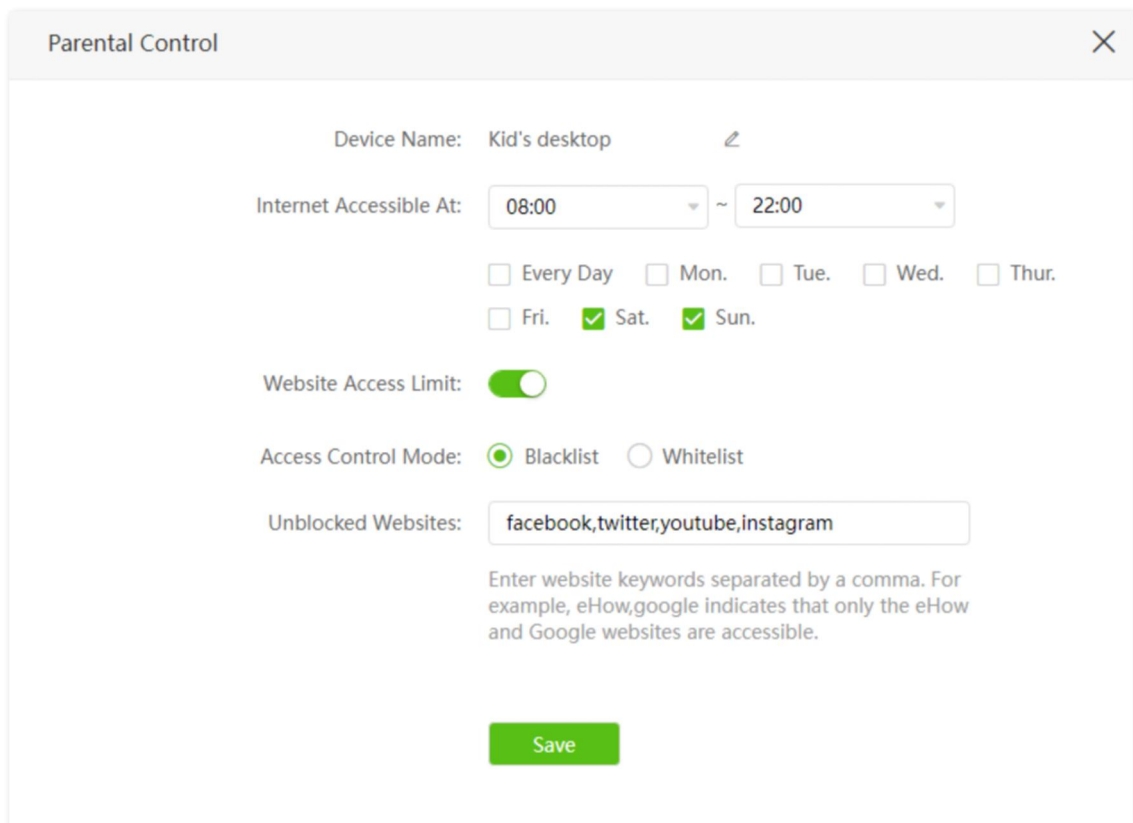
**TIP** If the device to which the rule applies is not online at the time, you can click **+New** to add a parental control rule for the device.



Device Name	MAC Address	Uptime	Operation
iQOO-5-Pro 192.168.0.120	[Redacted]	8min 31sec	[Edit]
Kid's desktop 192.168.0.116	[Redacted]	1hour(s) 24min 32sec	[Edit] [Stop]

+New

- Step 4** Specify the period when the target websites cannot be accessed, which is **8:00 ~ 22:00** in this example.
- Step 5** Choose **Specified Day**, and tick the days when the rule is applied, which are **Sun.** and **Sat.** in this example.
- Step 6** Enable **Website Access Limit**.
- Step 7** Choose **Blacklist**.
- Step 8** Set **Blocked Websites**, which is **facebook,twitter,youtube,instagram** in this example.
- Step 9** Click **Save**.



The image shows a 'Parental Control' configuration window. At the top, the title bar reads 'Parental Control' with a close button on the right. Below the title bar, the 'Device Name' is set to 'Kid's desktop'. The 'Internet Accessible At' section shows a time range from 08:00 to 22:00. Below this, there are checkboxes for days of the week: 'Every Day', 'Mon.', 'Tue.', 'Wed.', 'Thur.', 'Fri.', 'Sat.', and 'Sun.'. The 'Sat.' and 'Sun.' checkboxes are checked. The 'Website Access Limit' is turned on. The 'Access Control Mode' is set to 'Blacklist'. The 'Unblocked Websites' field contains the text 'facebook,twitter,youtube,instagram'. Below this field, there is a note: 'Enter website keywords separated by a comma. For example, eHow,google indicates that only the eHow and Google websites are accessible.' At the bottom center, there is a green 'Save' button.

Device Name: Kid's desktop

Internet Accessible At: 08:00 ~ 22:00

Every Day  Mon.  Tue.  Wed.  Thur.  
 Fri.  Sat.  Sun.

Website Access Limit:

Access Control Mode:  Blacklist  Whitelist

Unblocked Websites: facebook,twitter,youtube,instagram

Enter website keywords separated by a comma. For example, eHow,google indicates that only the eHow and Google websites are accessible.

Save

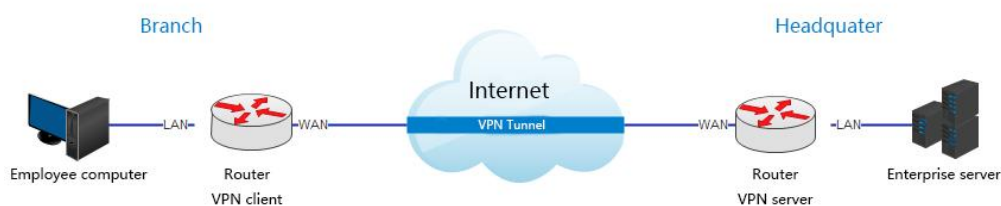
---End

After the configuration is completed, your kid can access any websites except for Facebook, Twitter, Youtube and Instagram from 8:00 to 22:00 on weekends, and he cannot access the internet at all between 22:00 to 8:00.

# 9 VPN

A VPN (Virtual Private Network) is a private network built on a public network (usually the Internet). This private network exists only logically and has no actual physical lines. VPN technology is widely used in corporate networks to share resources between corporate branches and headquarters, while ensuring that these resources are not exposed to other users on the internet.

The typology of a VPN network is shown below.



## 9.1 PPTP server

### 9.1.1 Overview

This series of routers can function as a PPTP server and accept connections from PPTP clients.

To access the configuration page, log in to the web UI of the router and choose **VPN > PPTP Server**. This function is disabled by default. When it is enabled, the page is shown as below.

PPTP Server
✕





PPTP Server:

IP Address Pool:  ~10.0.0.

MPPE Encryption:

User Name	Password	Connection Status	Operation
<input type="text"/>	<input type="text"/>	--	<input type="button" value="+New"/>

**Parameter description**

Parameter	Description
PPTP Server	It is used to enable or disable the PPTP server. When it is enabled, the router functions as a PPTP server, which can accept the connections from PPTP clients.
IP Address Pool	It specifies the range of IP address range within which the PPTP server can assign to PPTP clients. It is recommended to keep the default settings.
MPPE Encryption	It is used to enable or disable 128-bit data encryption. The encryption settings should be the same between the PPTP server and PPTP clients. Otherwise, the communication cannot be achieved normally.
User Name	It specifies the VPN user name and password, which the VPN user needs to enter when making PPTP dial-ups (VPN connections).
Password	
Connection Status	It specifies the connection status of the VPN connection.
Operation	<p>The available operations include:</p> <p> : It is used to add new PPTP user accounts.</p> <p> : It is used to disable the PPTP user account.</p> <p> : It is used to enable the PPTP user account.</p> <p> : It is used to delete the PPTP user account.</p>

## 9.1.2 Enable internet users to access resources of the LAN

**Scenario:** You have set up an FTP server within the LAN of the router.

**Goal:** Open the FTP server to internet users and enable them to access the resources of the FTP server from the internet.

**Solution:** You can configure the PPTP server function to reach the goal. Assume that:

- The user name and password that the PPTP server assigns to the client are both admin1.
- The WAN IP address of router is 113.88.112.220.
- The IP address of the FTP server is 192.168.0.136.
- The FTP server port is 21.
- The FTP login user name and password are both: JohnDoe.



**TIP** Please ensure the WAN IP address of router is a public network. This function may not work on a host with an IP address of a private network. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.

### Configuring procedure:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Enable the PPTP server function.

1. Choose **VPN > PPTP Server**.
2. Enable the **PPTP Server**.
3. Enable the **MPPE Encryption**, which means that the encryption digit remains the default value "128".
4. Click **Save**.


**Step 3** Add PPTP user name and password.

1. Set the **User Name** and **Password** of the PPTP server, which are **admin1** in this example.
2. Click **+New**.

User Name	Password	Connection Status	Operation
admin1	.....	--	+New

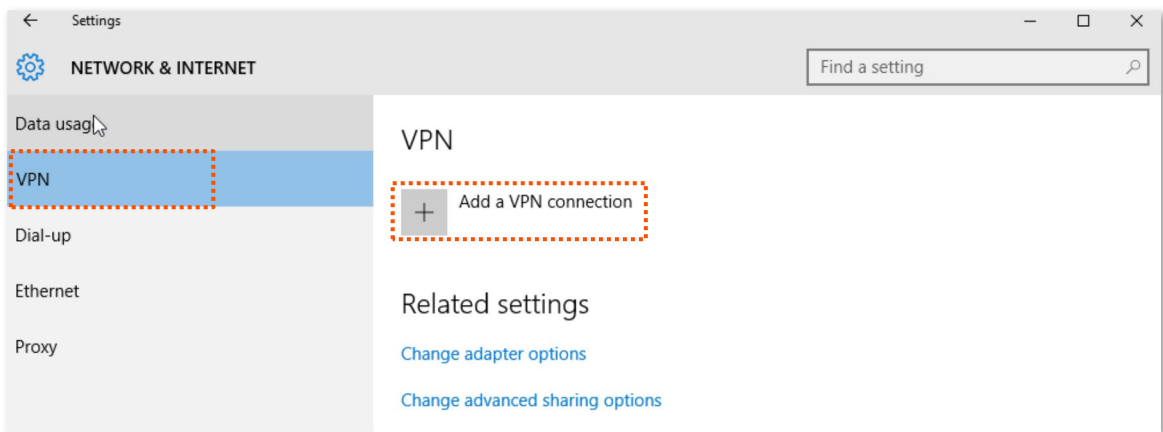
---End

When completing the configurations, internet users can access the FTP server by following these steps:

**Step 1** Click the  icon at the bottom right corner on the desktop, and then click **Network settings**.

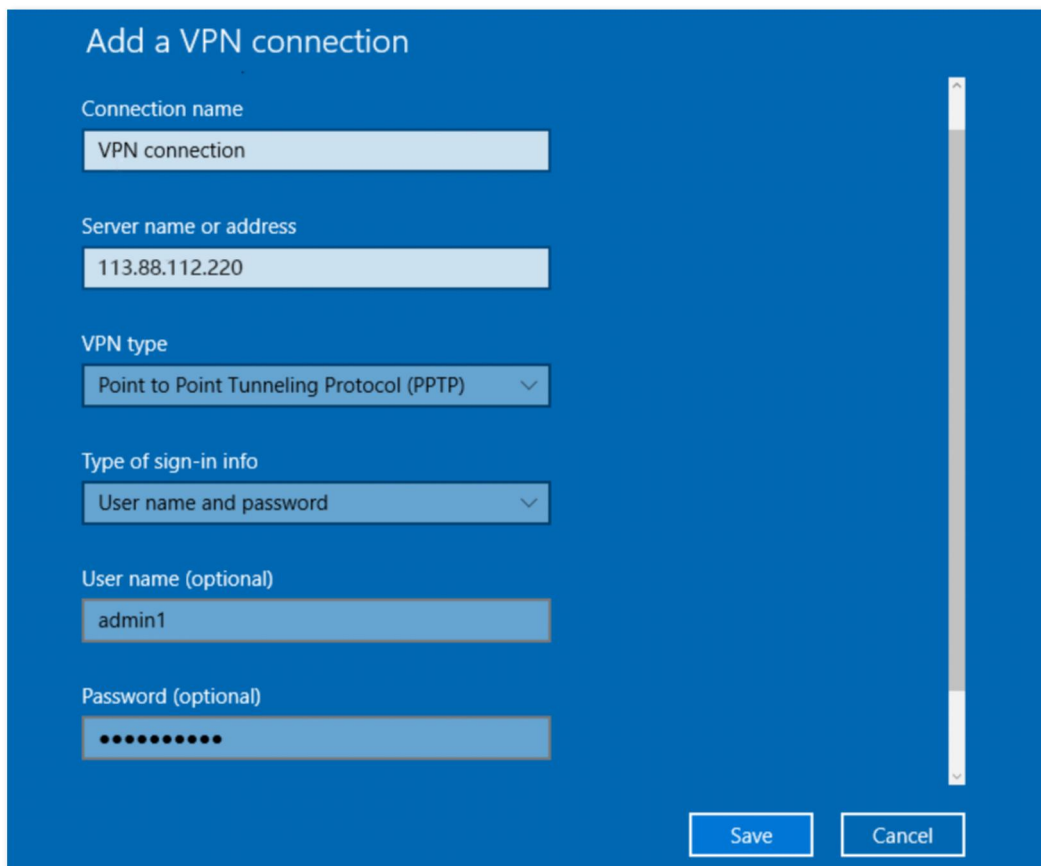


**Step 2** Choose **VPN** on the left side, and click **Add a VPN connection**.



**Step 3** Configure the VPN parameters.

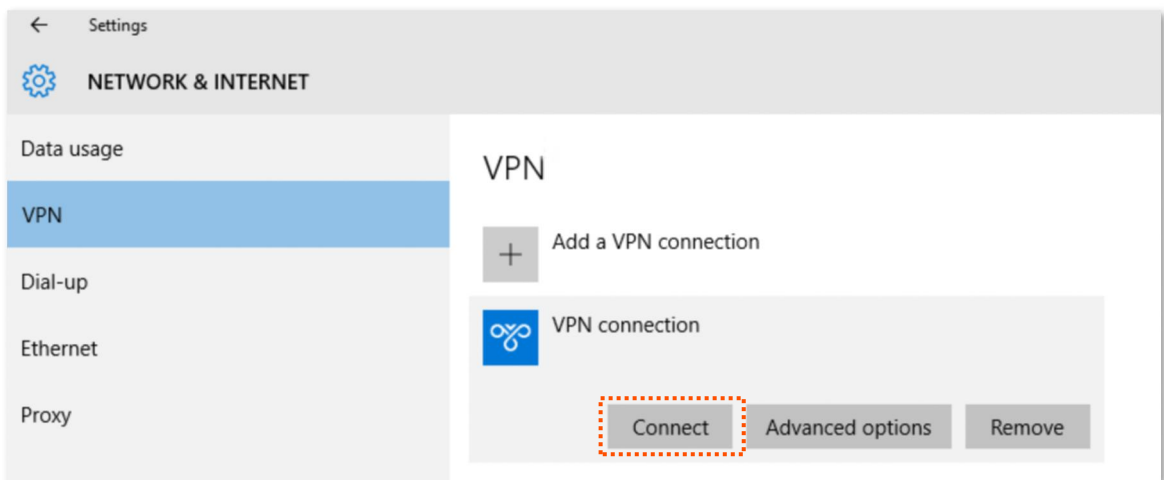
1. Enter a connection name, such as **VPN connection**.
2. Enter the server address, which is **113.88.112.220** in this example.
3. Select a VPN type, which is **Point to Point Tunneling Protocol (PPTP)** in this example.
4. Select a type of sign-in info, which is **User name and password** in this example.
5. Enter the user name and password, which are both **admin1** in this example.
6. Click **Save**.


A screenshot of the 'Add a VPN connection' dialog box. The background is blue. The title is 'Add a VPN connection'. There are several input fields and dropdown menus:

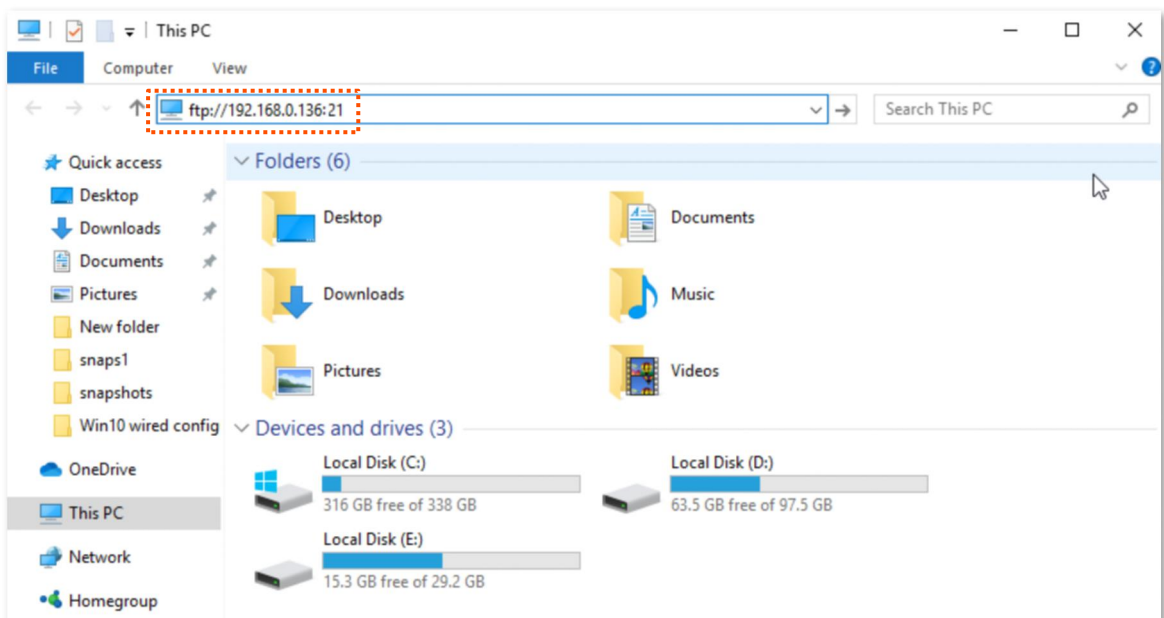
- 'Connection name' field with the text 'VPN connection'.
- 'Server name or address' field with the text '113.88.112.220'.
- 'VPN type' dropdown menu with 'Point to Point Tunneling Protocol (PPTP)' selected.
- 'Type of sign-in info' dropdown menu with 'User name and password' selected.
- 'User name (optional)' field with the text 'admin1'.
- 'Password (optional)' field with a masked password of ten dots.

At the bottom right, there are two buttons: 'Save' and 'Cancel'.

**Step 4** Target the VPN connection added, and click **Connect**.

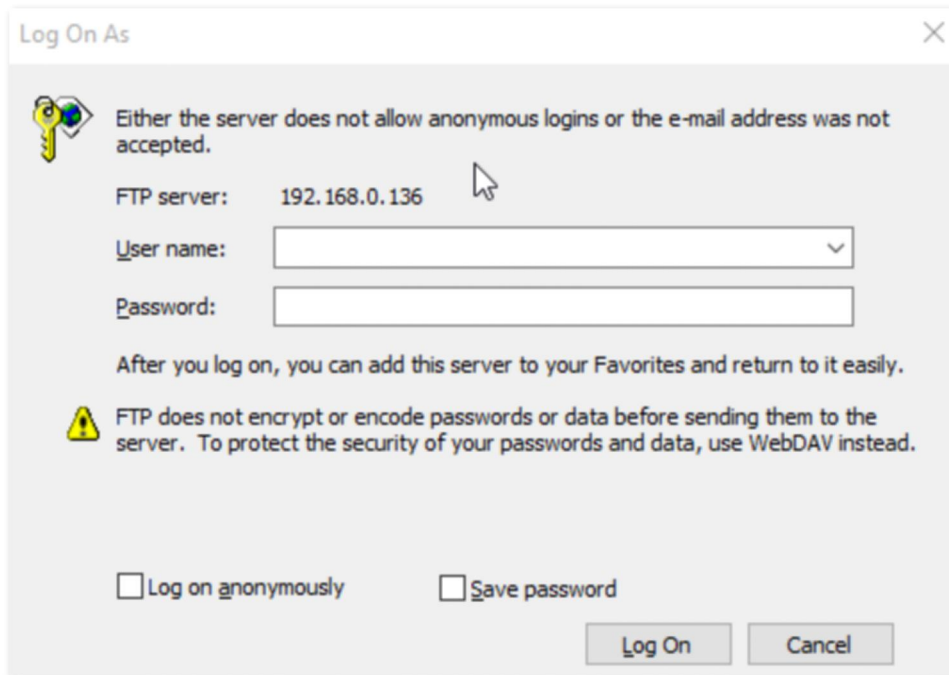


**Step 5** Click the  icon on the desktop, and enter the address in the address bar to access the FTP server, which is **ftp://192.168.0.136:21** in this example.





**Step 6** Enter the user name and password for logging in to the FTP server, which are both **JohnDoe** in this example, and click **Log On**.



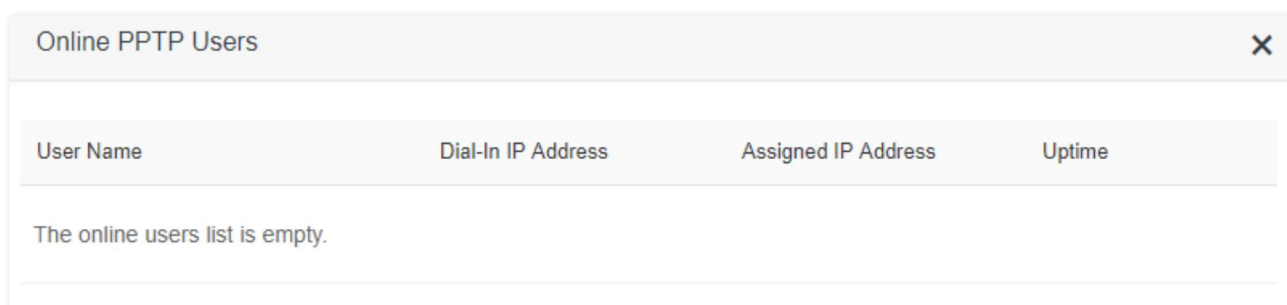
**---End**

By performing the steps above, you can access the resources on the FTP server.

## 9.2 Online PPTP users

When the PPTP server function is enabled, you can view the detailed information of VPN clients that establish connections with the PPTP server.

To access the configuration page, log in to the web UI of the router and choose **VPN > Online PPTP Users**.



User Name	Dial-In IP Address	Assigned IP Address	Uptime
The online users list is empty.			

### Parameter description

Parameter	Description
User Name	It specifies the VPN user name, which the VPN user uses when making PPTP dial-ups (VPN connection).
Dial-In IP Address	It specifies the IP address of the PPTP client. If the client is a router, it will be the IP address of the WAN port whose VPN function is enabled.
Assigned IP Address	It specifies the IP address that the PPTP server assigns to the client.
Uptime	It specifies the online time since the VPN connection succeeds.

## 9.3 PPTP/L2TP client

### 9.3.1 Overview

This router can function as a PPTP/L2TP client and connect to PPTP/L2TP servers.

The PPTP/L2TP client function is disabled by default. When it is enabled, the page is show as below.

PPTP/L2TP Client

PPTP/L2TP Client:

Client Type:  PPTP  L2TP

Server IP Address/Domain Name:

User Name:

Password:

Status: Disconnected

Connect

#### Parameter description

Parameter	Description
PPTP/L2TP Client	It is used to enable or disable the PPTP/L2TP client function.
Client Type	It specifies the client type that the router serves as, either PPTP or L2TP. <ul style="list-style-type: none"> <li>• PPTP: When the router is connecting to a PPTP server, choose this option.</li> <li>• L2TP: When the router is connecting to a L2TP server, choose this option.</li> </ul>
Server IP Address/Domain Name	It specifies the IP address or domain name of the PPTP/L2TP server that the router connects to. Generally, when a router serves as the PPTP/L2TP server at the peer side, the domain name or IP address should be that of the WAN port whose PPTP/L2TP server function is enabled.
User Name	They specify the user name and password that the PPTP/L2TP server assigns to the PPTP/L2TP clients.
Password	
Status	It specifies the connection status of the VPN connection.

## 9.3.2 Access VPN resources with the router

**Scenario:** You have subscribed to the PPTP VPN service when purchasing the broadband service from your ISP.

**Goal:** Access the VPN resources of your ISP.

**Solution:** You can configure the PPTP/L2TP client function to reach the goal. Assume that:

- The IP address of the PPTP server is 113.88.112.220.
- The user name and password assigned by the PPTP server are both **admin1**.

**Configuring procedure:**

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **VPN > PPTP/L2TP Client**.

**Step 3** Enable the **PPTP/L2TP Client**

**Step 4** Choose **PPTP** as the client type.

**Step 5** Enter the **Server IP Address/Domain Name**, which is **113.88.112.220** in this example.

**Step 6** Enter the **User Name** and **Password**, which are both **admin1** in this example.

**Step 7** Click **Connect**.

PPTP/L2TP Client

PPTP/L2TP Client:

Client Type:  PPTP  L2TP

Server IP Address/Domain Name:

User Name:

Password:

Status: Disconnected

**---End**

When **Connected** is shown in **Status**, you can access the VPN resources of your ISP.

## 9.4 IPSec



### 9.4.1 Overview

This router can function IPSec VPN.

To access the configuration page, log in to the web UI of the router and choose **VPN > IPSec**. This function is disabled by default. Click **+NEW** to configure the IPSec function.



#### Parameter description


Parameter	Description
Status	It specifies the status of IPSec function.
Connection Name	It specifies the name of the IPSec connection.
Encapsulation Mode	It specifies the IPSec data encapsulation mode. <ul style="list-style-type: none"> <li>• <b>Tunnel</b>: This mode is generally used between two security gateways.</li> <li>• <b>Transport</b>: This mode is generally used between hosts or host and gateway.</li> </ul>
Protocol	It specifies the protocol which offers the security service for IPSec. <ul style="list-style-type: none"> <li>• <b>AH</b>: It is abbreviated for Authentication Header. This protocol is used for verifying data integrity. If a packet is tampered during transmission, the receiver discards it during data integrity verification.</li> <li>• <b>ESP</b>: It is abbreviated for Encapsulating Security Payload. This protocol is used for verifying data integrity and encrypting data. If a packet processed using this protocol is intercepted during transmission, it is difficult for the intercepting party to obtain the real information contained in the packet. This compatible protocol is widely used in gateway products.</li> <li>• <b>AH+ESP</b>: It indicates that the function features both AH and ESP.</li> </ul>
Remote Gateway	It specifies the IP address or domain name of the peer gateway of the IPSec tunnel.
Operation	The available operations include: <ul style="list-style-type: none"> <li> : It is used to add a new IPSec VPN.</li> <li> : It is used to delete the IPSec VPN.</li> </ul>

## 9.4.2 Configure IPSec connection

When it is enabled, the page is shown as below.

The screenshot shows the 'Add IPSec VPN' configuration window. The 'IPSec Status' is toggled on. 'Mobile Data Options' is set to 'Tunnel mode'. 'Connection Name' is an empty text field. 'Negotiation Mode' is set to 'Initiator'. 'Protocol' is set to 'ESP'. 'Remote Gateway' is an empty text field with 'URL' to its right. 'Local LAN IP/Prefix Length' and 'Remote LAN IP/Prefix Length' are empty text fields. 'Key Exchange Method' is set to 'Auto (IKE)'. 'Authentication Method' is set to 'Pre-shared Key'. 'Pre-shared Key' is an empty text field. 'DPD' is toggled off. There is a 'Show Advanced Settings' dropdown arrow and a green 'Save' button at the bottom.

### Parameter description

Parameter	Description
IPSec Status	It is used to enable or disable the IPSec function.
Mobile Data Options	It specifies the IPSec mobile data options. <ul style="list-style-type: none"> <li>• <b>Tunnel:</b> This mode is generally used between two security gateways.</li> <li>• <b>Transport:</b> This mode is generally used between hosts or host and gateway.</li> </ul>
Connection Name	It specifies the name of the IPSec connection.
Negotiation Mode	It specifies the negotiation mode of the IPSec tunnel. <ul style="list-style-type: none"> <li>• <b>Initiator:</b> The device sends a connection request to the peer device.</li> <li>• <b>Responder:</b> The device waits for the peer device to send a connection request.</li> </ul> <p> <b>TIP</b></p> <p>Do not set both ends of the IPSec tunnel as <b>Responder</b>. Otherwise, the IPSec tunnel setup fails.</p>

Parameter	Description
Protocol	<p>It specifies the protocol which offers the security service for IPSec.</p> <ul style="list-style-type: none"> <li>• <b>AH:</b> It is abbreviated for Authentication Header. This protocol is used for verifying data integrity. If a packet is tampered during transmission, the receiver discards it during data integrity verification.</li> <li>• <b>ESP:</b> It is abbreviated for Encapsulating Security Payload. This protocol is used for verifying data integrity and encrypting data. If a packet processed using this protocol is intercepted during transmission, it is difficult for the intercepting party to obtain the real information contained in the packet. This compatible protocol is widely used in gateway products.</li> <li>• <b>AH+ESP:</b> It indicates that the function features both AH and ESP.</li> </ul>
Remote Gateway	It specifies the IP address or domain name of the peer gateway of the IPSec tunnel.
Local LAN IP/Prefix Length	It specifies the network segment/prefix length of the LAN of the device. For example, if the IP address of the LAN port of the device is 192.168.5.1 and the subnet mask is 255.255.255.0, the local LAN/prefix length can be 192.168.5.0/24.
Remote LAN IP/Prefix Length	It specifies the network segment/prefix length of the LAN of the peer gateway of the IPSec tunnel. If the peer device is a host, this parameter can be set as “the IP address of the device/32”.
Key Exchange Method	<p>It specifies the key exchange method of the IPSec security tunnel. By default, <b>Auto (IKE)</b> is selected.</p> <ul style="list-style-type: none"> <li>• <b>Auto (IKE):</b> It indicates that an SA is set up, maintained, and deleted automatically using IKE (Internet Key Exchange). This reduces configuration complexity and simplifies IPSec usage and management. Such an SA (Security Association) has a life cycle and is updated regularly, leading to higher security.</li> <li>• <b>Manual:</b> It indicates that an SA is set up by manually specifying encryption and authentication algorithms and keys. Such an SA does not have a life cycle, and therefore it remains valid unless being manually deleted, leading to security risks. Generally, this mode is used only for commissioning.</li> </ul>
Authentication Method	It specifies the shared key mode, which indicates a shared key string negotiated by IPSec parties with some way in advance.
Pre-shared Key	It specifies the pre-shared key used during negotiation. This parameter must be the same with that of the peer gateway. A maximum of 128 characters are allowed.
DPD	It specifies whether to enable the DPD Detection. This function can detect whether the remote tunnel site is valid.

Click **Advanced** to display the advanced parameters of auto negotiation. The following displays the page when the advanced parameters are displayed.

Phase 1

Exchange Mode:

Encryption Algorithm:

Integrity Algorithm:

Diffie-Hellman Group:

Local ID Type:

Remote ID Type:

Key Lifetime:  s (Range: 600 to 604800)

---

Phase 2

Perfect Forward Security:

Encryption Algorithm:



Integrity Algorithm:

Key Lifetime:  s (Range: 600 to 604800)

### Parameter description

Parameter	Description
Exchange Mode	<p>It specifies the exchange mode in IKE <b>Phase 1</b>, which should be the same as that of peer gateway.</p> <ul style="list-style-type: none"> <li>• <b>Main:</b> This mode is the primary mode. In this mode, exchanged packets are huge to offer identity protection, which is applicable to scenarios where identity protection is rigorous.</li> <li>• <b>Aggressive:</b> This mode does not offer identity protection. In this mode, the exchanged packets are few in number and negotiation rate is high, which is applicable to scenarios where identity protection is loose.</li> </ul>
Encryption Algorithm	<p>It specifies the IKE session encryption algorithm. The router supports the following algorithms:</p> <ul style="list-style-type: none"> <li>• <b>DES</b> (Data Encryption Standard): A 56-bit key is used to encrypt 64-bit data. The last 8 bits of the 64-bit data are used for parity check. <b>3DES</b> indicates that three 56-bit keys are used for encryption.</li> <li>• <b>AES</b> (Advanced Encryption Standard): <b>AES 128/192/256</b> indicates that 128/192/256-bit keys are used for encryption respectively.</li> </ul>



Parameter	Description
Integrity Algorithm	<p>It specifies the IKE session verification algorithm. The router supports the following algorithms:</p> <ul style="list-style-type: none"> <li>• <b>MD5</b> (Message Digest Algorithm): A 128-bit message digest is generated to prevent message tampering.</li> <li>• <b>SHA1</b> (Secure Hash Algorithm): A 160-bit message digest is generated to prevent message tampering, leading to higher security than MD5.</li> </ul>
Diffie-Hellman Group	<p>It specifies the group information for the Diffie-Hellman algorithm for generating a session key used to encrypt an IKE tunnel. The information should be the same as that of the remote gateway.</p>
Local ID Type	<p>It specifies the ID of the local gateway.</p> <ul style="list-style-type: none"> <li>• <b>IP Address</b>: The router uses the IP address of the specified WAN port for negotiation with the remote gateway.</li> <li>• <b>FQDN</b>: Fully Qualified Domain Name. If you select FQDN, you need to manually set a string of characters, which should be identical with the remote ID.</li> </ul> <p> <b>TIP</b></p> <p><b>Local ID Type</b> and <b>Remote ID Type</b> should be the same. Under such circumstances, you are recommended to modify the <b>Mode</b> to <b>Aggressive</b>.</p>
Remote ID Type	<p>It specifies the ID of the remote gateway.</p> <ul style="list-style-type: none"> <li>• <b>IP Address</b>: By default, the remote gateway uses the WAN IP address of the router for negotiation.</li> <li>• <b>FQDN</b>: Fully Qualified Domain Name. If you select FQDN, you need to manually set a string of characters, which should be identical with the local ID.</li> </ul> <p> <b>TIP</b></p> <p><b>Local ID Type</b> and <b>Remote ID Type</b> should be the same. Under such circumstances, you are recommended to modify the <b>Mode</b> to <b>Aggressive</b>.</p>
Key Lifetime	<p>It specifies the life cycle of IPSec SA.</p>
Perfect Forward Secrecy	<p>This feature generates a new key in IKE Phase II, which is unrelated to the key generated in IKE Phase I, ensuring that the key generated in Phase II is secure even if the key generated in IKE1 <b>Phase 2</b> is cracked.</p> <p>With the <b>Perfect Forward Secrecy</b> disabled, generation of the new key in IKE Phase II depends on the key in Phase I. Once the key generated in IKE Phase I is cracked, the key generated in Phase II will suffer threats, and further threatens the communication security.</p>

# 10 IPv6 (wireless router mode)



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

This router supports IPv4 and IPv6 dual stack protocols. In the IPv6 part, you can:

- [Connect to the IPv6 network of ISPs](#)
- [Configure the IPv6 tunnel and achieve communications between IPv6 islands](#)
- [Change IPv6 LAN settings](#)

## 10.1 IPv6 WAN settings

### 10.1.1 Connect to the IPv6 network of ISPs

The router can access the IPv6 network of ISPs through three connection types. Choose the connection type by referring to the following chart.

Scenario	Connection Type
<ul style="list-style-type: none"> <li>• The ISP does not provide any PPPoEv6 user name and password.</li> <li>• The ISP does not provide information about IPv6 address.</li> <li>• You have a router that can access IPv6 network.</li> </ul>	<a href="#">DHCPv6</a>
IPv6 service is included in the PPPoE user name and password.	<a href="#">PPPoEv6</a>
The ISP provides you with a set of information including IPv6 address, subnet mask, default gateway and DNS server.	<a href="#">Static IPv6 address</a>



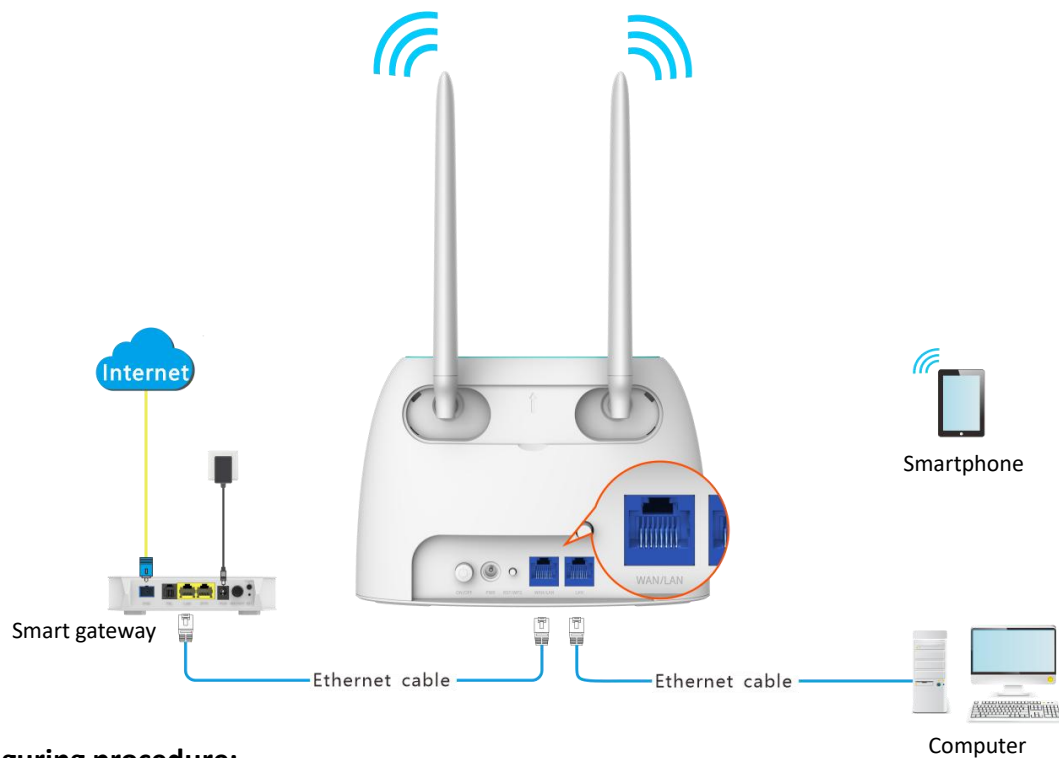
Before configuring the IPv6 function, please ensure that you are within the coverage of IPv6 network and already subscribed to the IPv6 internet service. Contact your ISP for any doubt about it.

### DHCPv6

DHCPv6 enables the router to obtain IPv6 address from DHCPv6 server to access the internet, which is applicable in the following scenarios.

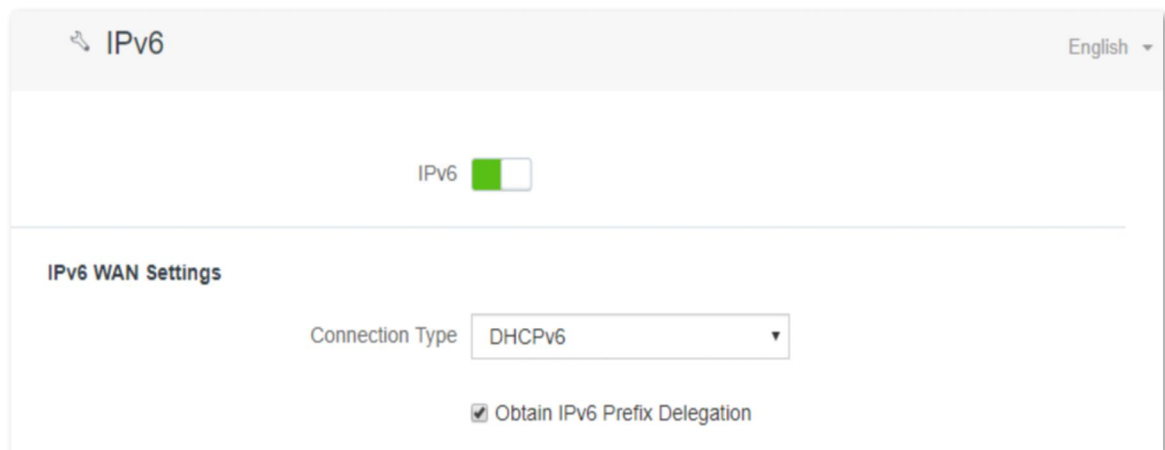
- The ISP does not provide any PPPoEv6 user name and password.
- The ISP does not provide information about IPv6 address.

- You have a router that can access IPv6 network.



### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the **Connection Type** to **DHCPv6**.
- Step 5** Click **Save**.



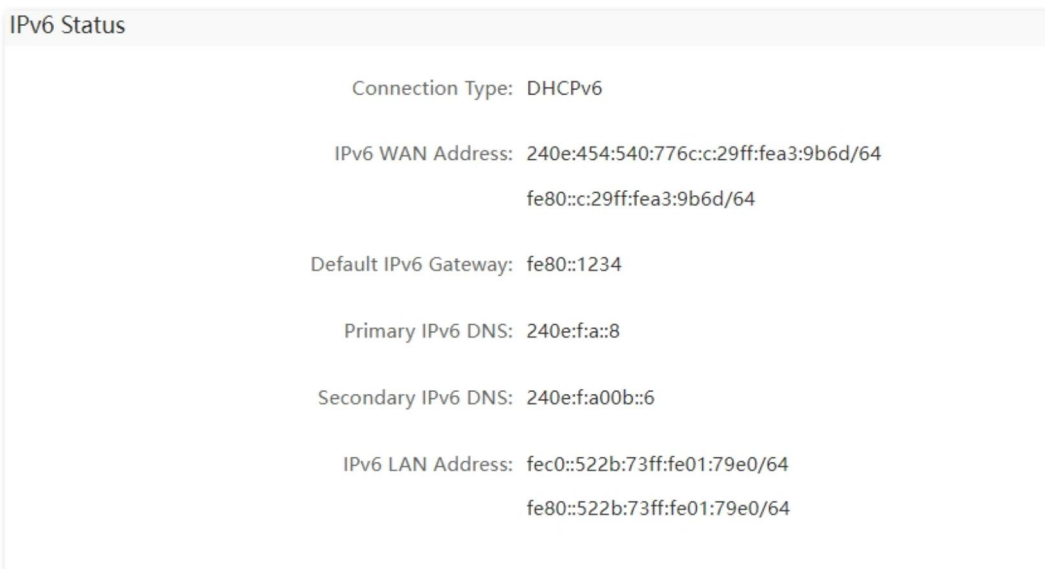
---End

**Parameter description**

Parameter	Description
Obtain IPv6 Prefix Delegation	<p>When the option is selected, the LAN port of router obtains IPv6 prefix from its upstream device.</p> <p>It is recommended to keep the default setting (Selected). If the LAN port cannot obtain the PD prefix, it is because the upstream device does not support PD prefix delivery. Contact your ISP to solve this problem.</p>

**IPv6 network test:**

When the **IPv6 Status** part in **System Settings > System Status** is as the following, it indicates that the configuration succeeds and you can access IPv6 services.



If the IPv6 network test fails, try the following solutions:

- Navigate to the **System Settings > System Status**, and move to the **IPv6 Status** part. Ensure that the IPv6 WAN address is a global unicast address.
- Ensure that devices connected to router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

## PPPoEv6

### Overview

If your ISP provides you with the PPPoE user name and password with IPv6 service, you can choose PPPoEv6 to access the internet.

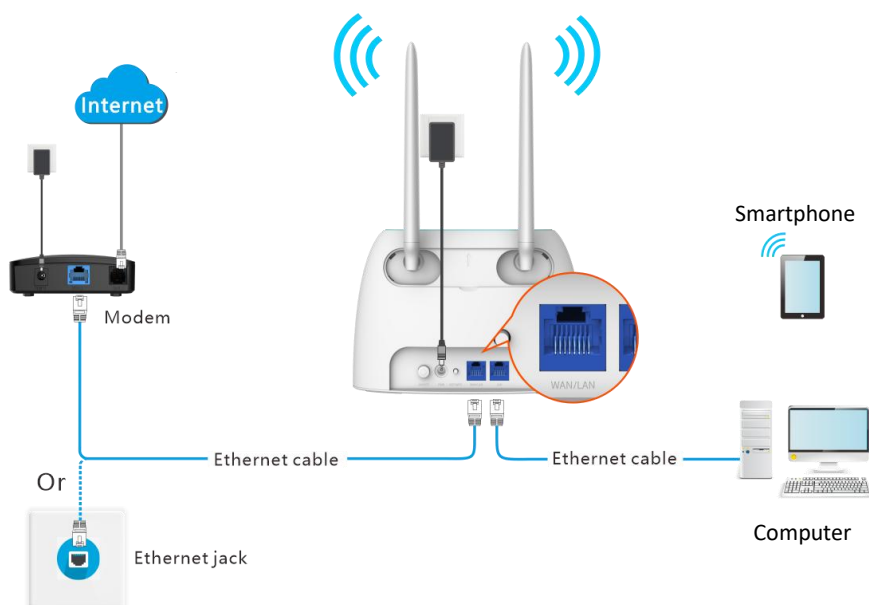
Log in to the web UI of the router, and navigate to the **IPv6**. When the connection type is set to **PPPoEv6**, the page is shown as below.

### Parameter description

Parameter	Description
PPPoE Username	They specify the PPPoE user name and password provided by your ISP.
PPPoE Password	<div style="display: flex; align-items: center;"> <b>TIP</b> </div> IPv4 and IPv6 services share the same PPPoE account.
Obtain IPv6 Prefix Delegation	When the option is selected, the LAN port of router obtains IPv6 prefix from its upstream device. It is recommended to keep the default setting (Selected). If the LAN port cannot obtain the PD prefix, it is because the upstream device does not support PD prefix delivery. Contact your ISP to solve this problem.

## Access the internet through PPPoEv6

If the PPPoE account provided by your ISP includes IPv6 service, you can choose PPPoEv6 to access the IPv6 service. The application scenario is shown as below.



### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the connection type to **PPPoEv6**.
- Step 5** Enter the **PPPoE Username** and **PPPoE Password**.
- Step 6** Click **Save**.

IPv6
English

IPv6:

---

**IPv6 WAN Settings**

Connection Type:

PPPoE Username:

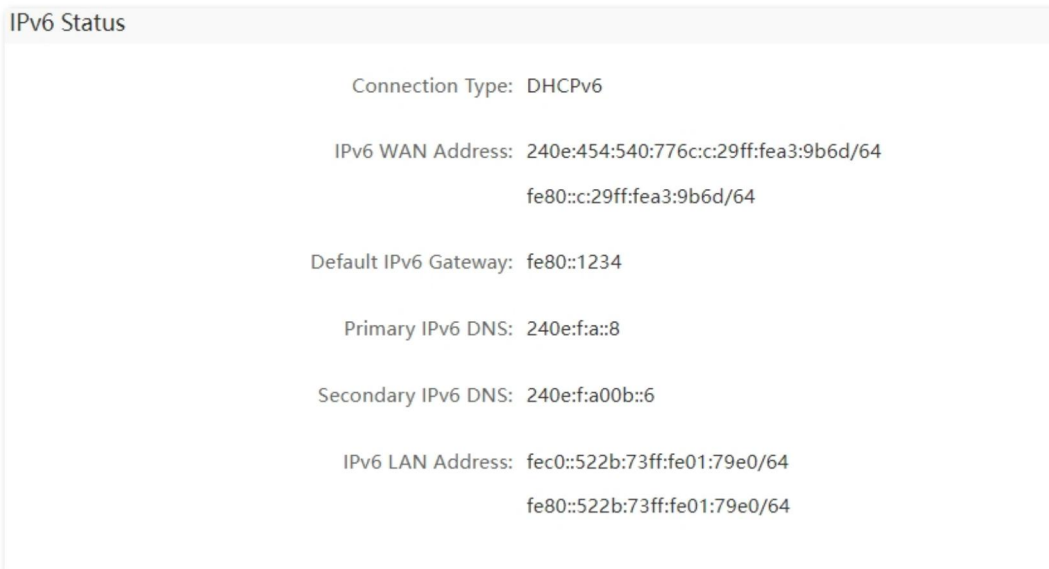
PPPoE Password:

Obtain IPv6 Prefix Delegation

---End

**IPv6 network test:**

When the **IPv6 Status** part in **System Settings > System Status** is as the following, it indicates that the configuration succeeds and you can access IPv6 services.



If the IPv6 network test fails, try the following solutions:

- Navigate to the **System Settings > System Status**, and move to the **IPv6 Status** part. Ensure that the IPv6 WAN address is a global unicast address.
- Ensure that devices connected to router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

## Static IPv6 Address


### Overview

When your ISP provides you with information including IPv6 address, subnet mask, default gateway and DNS server, you can choose this connection type to access the internet with IPv6.

Log in to the web UI of the router, and navigate to the **IPv6**. When the connection type is set to **Static IPv6 Address**, the page is shown as below.

The screenshot shows the IPv6 configuration interface. At the top, there's a breadcrumb 'IPv6' and a language dropdown set to 'English'. Below that, an 'IPv6' toggle switch is turned on. The main section is titled 'IPv6 WAN Settings'. It contains a 'Connection Type' dropdown menu currently set to 'Static IPv6 Address'. Underneath are several input fields: 'IPv6 Address' followed by a '/ 64' suffix, 'Default IPv6 Gateway', 'Primary IPv6 DNS', and 'Secondary IPv6 DNS'.

### Parameter description

Parameter	Description
IPv6 Address	
Default IPv6 Gateway	They specify the fixed IP address information provided by your ISP.
Primary IPv6 DNS	 <b>TIP</b> If your ISP only provides one DNS address, leave the secondary IPv6 DNS blank.
Secondary IPv6 DNS	

### Access the internet through Static IPv6 Address.

#### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **IPv6**.
- Step 3** Enable the **IPv6** function.
- Step 4** Set the connection type to **Static IPv6 Address**.



**Step 5** Enter the required parameters under IPv6 WAN settings.

**Step 6** Click **Save**.

IPv6 English ▾

IPv6:

---

**IPv6 WAN Settings**

Connection Type:  ▾

IPv6 Address:  /

Default IPv6 Gateway:

Primary IPv6 DNS:

Secondary IPv6 DNS:

**---End**

#### IPv6 network test:

When the **IPv6 Status** part in **System Settings > System Status** is as the following, it indicates that the configuration succeeds and you can access IPv6 services.

IPv6 Status

Connection Type: DHCPv6

IPv6 WAN Address: 240e:454:540:776c:c:29ff:fea3:9b6d/64  
fe80::c:29ff:fea3:9b6d/64

Default IPv6 Gateway: fe80::1234

Primary IPv6 DNS: 240e:f:a::8

Secondary IPv6 DNS: 240e:f:a00b::6

IPv6 LAN Address: fec0::522b:73ff:fe01:79e0/64  
fe80::522b:73ff:fe01:79e0/64

If the IPv6 network test fails, try the following solutions:

- Ensure that you have entered the correct WAN IPv6 address.
- Ensure that devices connected to router obtain their IPv6 address through DHCPv6.
- Consult your ISP for help.

## 10.1.2 IPv6 tunnel

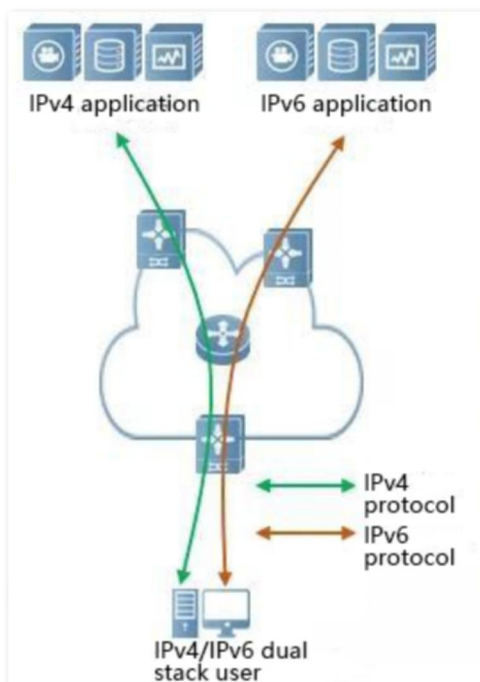
### Overview

#### IPv6 transition mechanism

Before the IPv6 network is widely deployed, IPv6 stations are like isolated islands. Therefore, the dual stack and tunneling technologies are developed to achieve the communications between IPv6 islands.

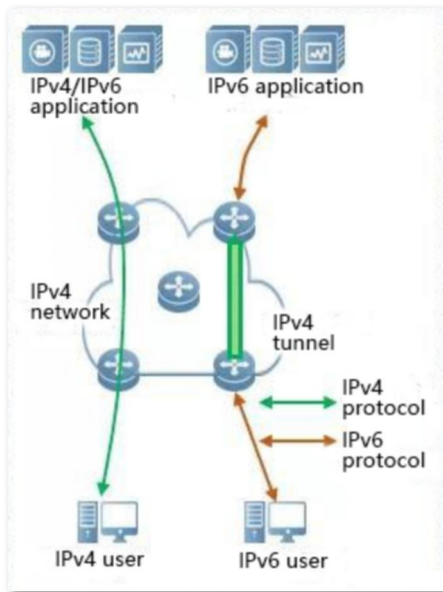
#### ■ Dual stack technology

With the dual stack technology, nodes within the network support both IPv4 and IPv6 protocol stack. The source node selects different protocol stacks according to the different destination nodes, and the network device selects different protocol stacks for processing and forwarding according to the protocol type of the message. The dual-stack technology can realize the coexistence of IPv4 and IPv6 networks, but it cannot solve the problem of interoperability between IPv4 and IPv6 networks, nor can it solve the problem of IPv4 address exhaustion.



#### ■ Tunneling technology

Tunneling technology is a technology for network transmission by encapsulating one IP protocol data packet in another IP protocol data packet, including data encapsulation, transmission, and decapsulation. IPv6 tunnel technology encapsulates IPv6 packets as data in IPv4 packets and communicates across IPv4 networks. With tunneling technology, you do not need to upgrade all devices to dual stacks. You only need the border devices of IPv4 / IPv6 networks to implement dual stack and tunnel functions.



### Manual and automatic tunnels

Generally, a tunnel consists of three parts: the tunnel start node, which encapsulates IPv6 packets, the tunnel end point, which decapsulates IPv6 packets, the tunnel, which is actually an IPv4 path, starts the encapsulated IPv6 packets from the tunnel. The node is transported to the end of the tunnel.

When the tunnel start node encapsulates an IPv6 packet in an IPv4 packet, it must determine the source and destination addresses of IPv4. The source address is the IPv4 address of the start node of the tunnel, and the destination address is the IPv4 address of the end of the tunnel.

Tunnels can be divided into manual tunnels and automatic tunnels based on how the tunnel end address is obtained.

- **Manual tunnel**

The network boundary device cannot automatically obtain the IPv4 address of the tunnel endpoint. You need to manually configure the IPv4 address of the tunnel endpoint so that the packets can be sent to the tunnel endpoint correctly. It is usually used in the tunnel between routers.

- **Automatic tunnel**

Network border devices can automatically obtain the IPv4 address of the tunnel endpoint, without the need to manually configure the IPv4 address of the endpoint. In general, the IPv6 addresses at both ends of the tunnel are in the form of special IPv6 addresses with embedded IPv4 addresses. In this way, routing devices can extract IPv4 addresses from the destination IPv6 addresses in IPv6 packets. Automatic tunnels can be used from host to host, or from host to router.

### 6in4 tunnel

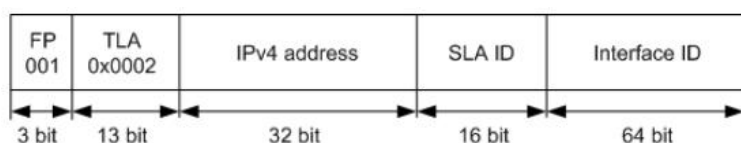
6in4 is a manual tunneling technology. It can implement IPv6 isolated island communication through manually configured tunnels without the network operator providing IPv6 interconnection services.

## 6to4 tunnel

6to4 is an automatic tunneling technology that enables communication between isolated IPv6 islands and between sites within the IPv6 backbone and IPv6 backbone networks without the network operator providing IPv6 interconnection services.

The 6to4 tunnel technology is used to establish a tunnel between border routers at an IPv6 site. The border router at the source site is the start node of the tunnel, and the border router at the destination site is the end point of the tunnel.

The 6to4 tunnel technology uses a special IPv6 address, that is, a 6to4 address, which starts with 2002. The IPv4 address of the border router is embedded in the prefix of this address. The address structure is shown in the figure below.

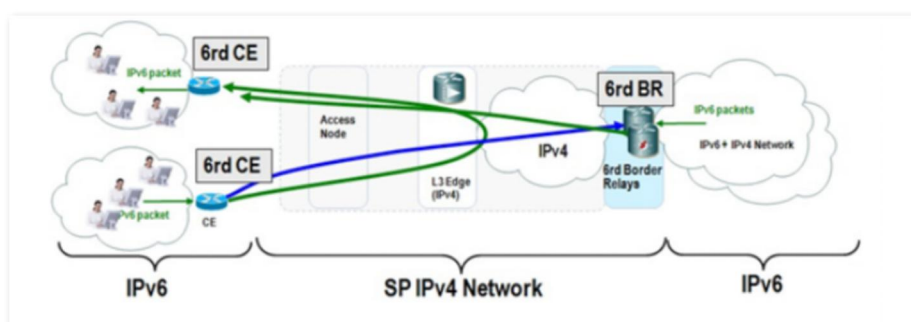


- FP: Format Prefix, which is 001
- TLA: Top Level Aggregator, which is 0x0002
- IPv4 address: The IPv4 address of the border router
- SLA ID: Site Level Aggregator, namely the ID of subnet
- Interface ID: The ID of the interface

## 6rd tunnel

6RD (IPv6 Rapid Deployment) is an IPv6 network transition technology solution developed based on 6to4. It adds a 6RD BR (Border Relay, Border Relay Device) to an existing IPv4 network, establishes a 6in4 tunnel at the home gateway (6RD CE (Customer Edge)) and 6RD BR of IPv6 users, and provides IPv6 access to users.

The 6RD network typology is as follows.



As shown in the figure above, the 6RD tunnel technology is used to implement mutual access between IPv6 islands, and the BR can also be used to access the IPv6 network after the BR.

The main differences between 6RD and 6to4:

6RD does not need to use a specific address 2002::/16, it can use the network operator's own address block, which greatly increases the convenience of implementation.

## Configure IPv6 tunnel



- Devices at both ends of the tunnel must support the dual stack protocol.
- The WAN IPv4 address of the routers must be a public IP address.

### 6in4 tunnel

Log in to the web UI of the router, and navigate to **IPv6**. Set **Connection Type** to **6in4 Tunnel**, enter required parameters and save the configurations.

The screenshot shows the IPv6 configuration interface. At the top, there is a breadcrumb 'IPv6' and a language dropdown set to 'English'. Below this is a toggle switch for 'IPv6' which is turned on. The main section is titled 'IPv6 WAN Settings'. It contains three fields: 'Connection Type' is a dropdown menu set to '6in4 Tunnel'; 'Remote IPv4 Address' consists of four input boxes for the IP address; and 'Local IPv6 Address' is a single input box followed by '/ 64'.

### Parameter description

Parameter	Description
Remote IPv4 Address	It specifies the WAN IPv4 address of the dual stack router at the peer side.
Local IPv6 Address	It specifies the IPv6 address of the LAN, which needs to be customized.

### 6to4 tunnel

Log in to the web UI of the router, and navigate to **IPv6**. Set the connection type to **6to4 Tunnel** and save the configurations.

The screenshot shows the IPv6 configuration interface, similar to the previous one. The 'IPv6' toggle is on. In the 'IPv6 WAN Settings' section, the 'Connection Type' dropdown menu is now set to '6to4 Tunnel'.

## 6rd tunnel

Log in to the web UI of the router, and navigate to **IPv6**. Set the connection type to **6rd Tunnel**, enter required parameters and save the configurations.

The screenshot shows the IPv6 configuration interface. At the top, there is a breadcrumb 'IPv6' and a language dropdown set to 'English'. Below this, an 'IPv6' toggle switch is turned on. The main section is titled 'IPv6 WAN Settings'. It contains the following fields:

- Connection Type:** A dropdown menu with '6rd Tunnel' selected.
- Remote IPv4 Address:** Four empty input boxes for the IP address.
- Subnet Mask:** Four input boxes containing '255', '255', '0', and '0'.
- IPv6 Prefix:** An input box containing '2001:db8::' followed by a slash and an input box containing '32'.

### Parameter description

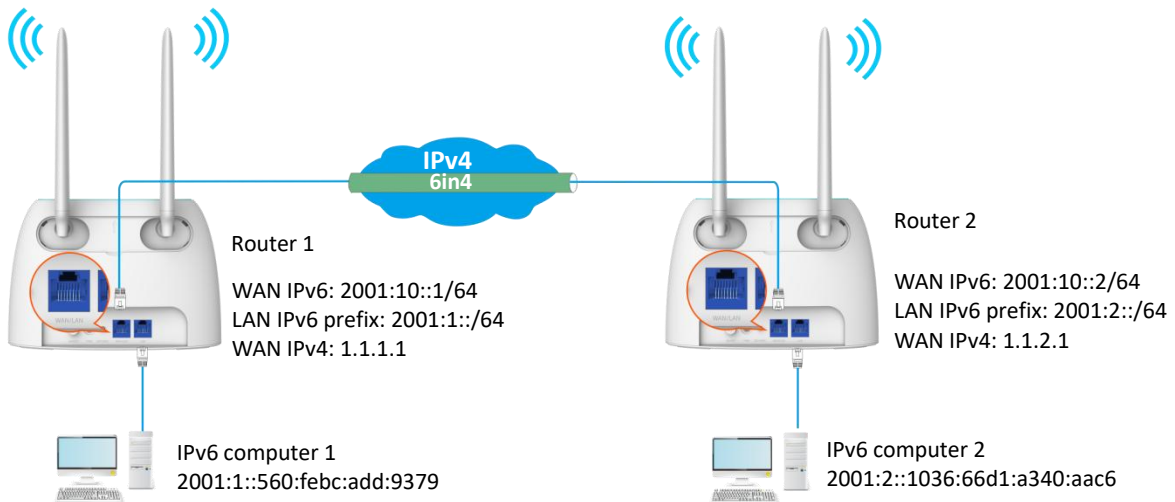
Parameter	Description
Remote IPv4 Address	It specifies the WAN IPv4 address of the dual stack router or 6rd BR at the peer side.
Subnet Mask	It specifies the subnet mask of the IPv4 network. The IPv4 network at both sides should be at the same network segment.
IPv6 Prefix	<p>It specifies the IPv6 prefix of the network.</p> <ul style="list-style-type: none"> <li>When the 6rd tunnel is used to achieve the communication between isolated islands, users can customize the IPv6 prefix.</li> <li>If the 6rd tunnel is used to connect to the network of ISPs, contact your ISP for the IPv6 prefix.</li> </ul>

## Examples of IPv6 tunnel configuration

### 6in4 tunnel

As shown below, the two routers support dual stack protocol. To achieve the communication between the two hosts, you can configure the 6in4 tunnel.

Assume that the two routers are connected to IPv4 network and obtain public IPv4 addresses.



### Configuring procedure:

#### Step 1 Configure the Router 1.

1. Start a web browser on a device connected to the router 1 and visit [tendawifi.com](http://tendawifi.com) to log in to the web UI of the router.
2. Choose **IPv6**.
3. Enable the **IPv6** function.
4. Set the connection type to **6in4 Tunnel**.
5. Enter the WAN IPv4 address of the device at the peer side, which is **1.1.2.1** in this example.
6. Customize the local IPv6 address, which is **2001:10::1/64** in this example.
7. Set the IPv6 LAN prefix length, which is **2001:1::/64** in this example.
8. Click **Save**.

IPv6

English

IPv6:

### IPv6 WAN Settings

Connection Type: 6in4 Tunnel

Remote IPv4 Address: 1.1.2.1

Local IPv6 Address: 2001:10::1 / 64

### IPv6 LAN Settings

IPv6 LAN Address: Auto

IPv6 LAN Prefix Length: Manual 2001:1:: / 64

DHCPv6: Enable

DHCPv6 Address Assignment Method: Auto

IPv6 DNS: Manual

Primary IPv6 DNS: 2001:2::3

Secondary IPv6 DNS:

Save

## Step 2 Configure the Router 2.

1. Start a web browser on a device connected to the router 2 and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **IPv6**.
3. Enable the **IPv6** function.
4. Set the connection type to **6in4 Tunnel**.
5. Enter the WAN IPv4 address of the device at the peer side, which is **1.1.1.1** in this example.
6. Customize the local IPv6 address, which is **2001:10::2/64** in this example.
7. Set the IPv6 LAN prefix length, which is **2001:2::/64** in this example.



8. Click **Save**.

The screenshot shows the IPv6 configuration interface. At the top, there is a toggle switch for IPv6, which is currently turned on. Below this, the settings are divided into two sections: IPv6 WAN Settings and IPv6 LAN Settings.

**IPv6 WAN Settings:** This section is highlighted with a red dashed border. It includes:
 

- Connection Type: 6in4 Tunnel (dropdown menu)
- Remote IPv4 Address: 1 . 1 . 1 . 1 (four input fields)
- Local IPv6 Address: 2001:10::2 / 64 (input field)

**IPv6 LAN Settings:** This section includes:
 

- IPv6 LAN Address: Auto (dropdown menu)
- IPv6 LAN Prefix Length: Manual (dropdown menu) and 2001:2:: / 64 (input field) - this entire row is highlighted with a red dashed border.
- DHCPv6: Enable (dropdown menu)
- DHCPv6 Address Assignment Method: Auto (dropdown menu)
- IPv6 DNS: Manual (dropdown menu)
- Primary IPv6 DNS: 2001:2::3 (input field)
- Secondary IPv6 DNS: (empty input field)

At the bottom center of the window is a green **Save** button.

---End

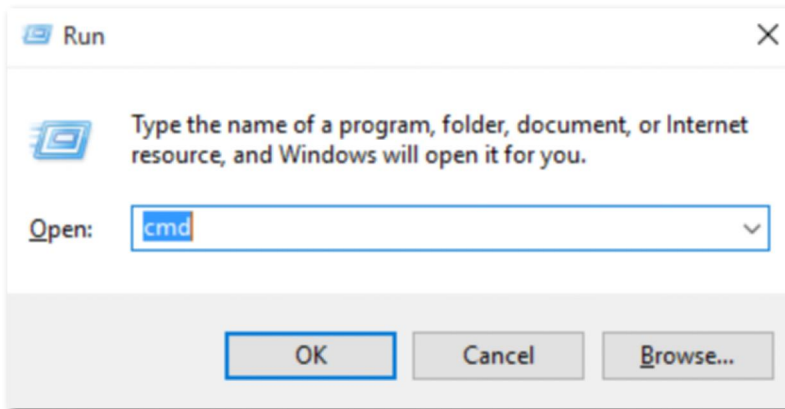
### Verification

To verify whether the 6in4 tunnel is established successfully, you can ping each other on the two computers.

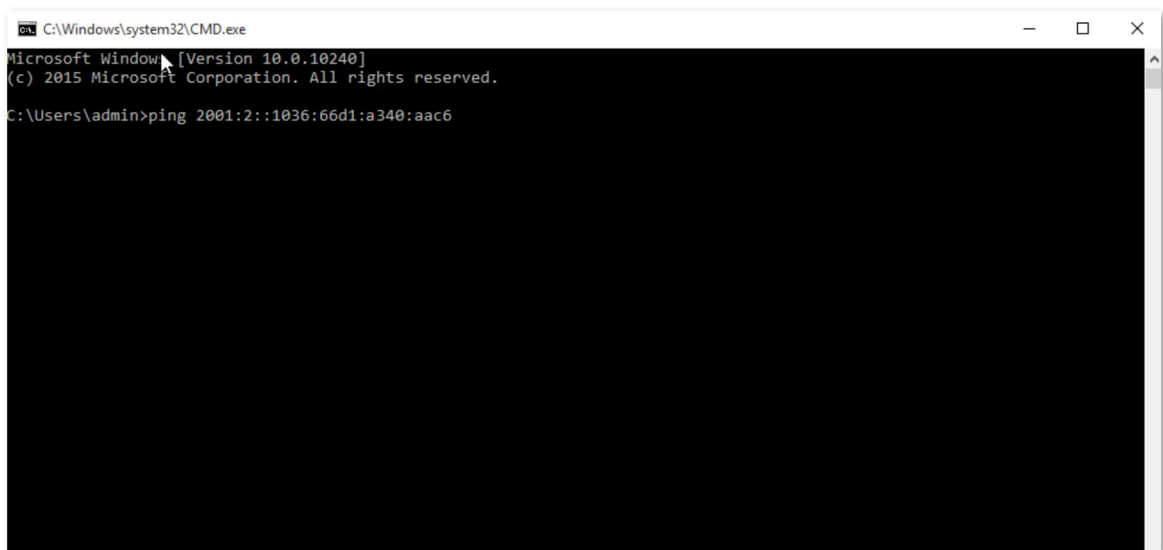
Now, ping computer 2 (IPv6 address: 2001:2::1036:66d1:a340:aac6) on computer 1.

**Step 1** Use **Windows + R** shortcut to open the **Run** dialog window.

**Step 2** Enter **cmd**, and click **OK**.

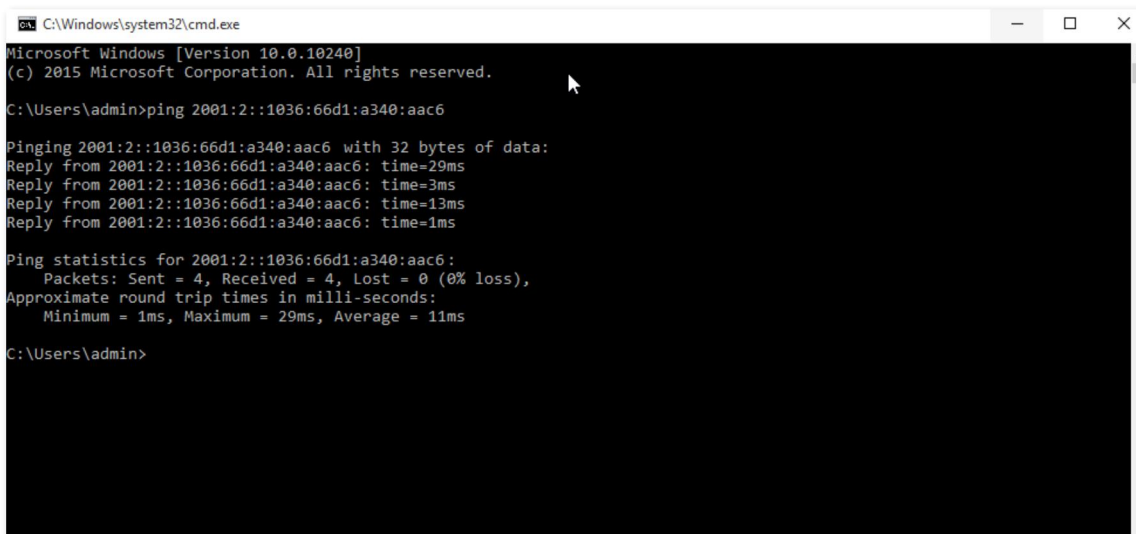


**Step 3** Enter the ping command, which is **ping 2001:2::1036:66d1:a340:aac6** in the example, and press **Enter**.



**---End**

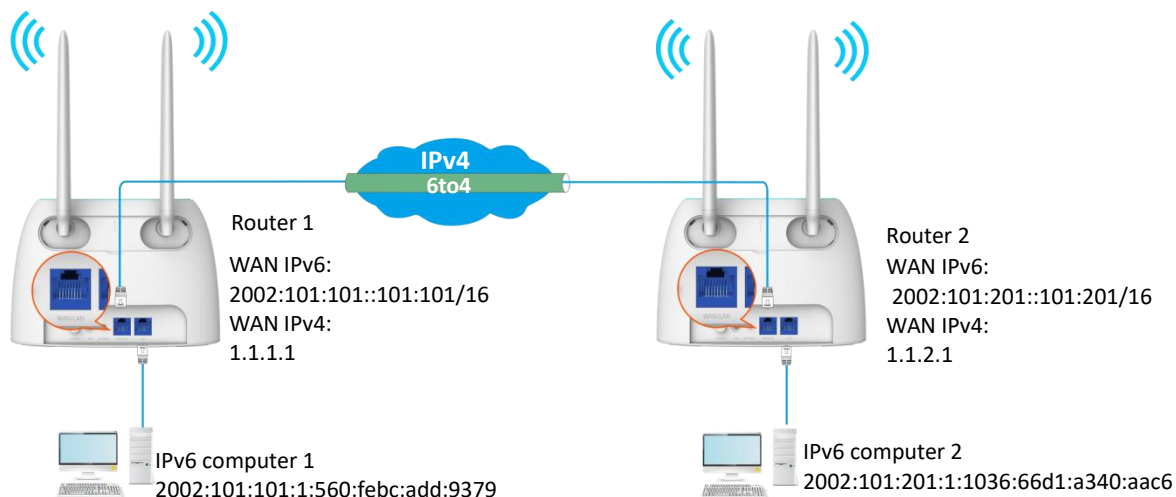
Wait a moment. The 6in4 tunnel configuration succeeds when the result is shown as below.



## 6to4 tunnel

As shown below, the two routers support dual stack protocol. To achieve the communication between the two hosts, you can configure the 6to4 tunnel.

Assume that the two routers are connected to IPv4 network and obtain public IPv4 addresses.



### Configuring procedure:

#### Step 1 Configure Router 1.

1. Start a web browser on a device connected to the router 1 and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **IPv6**.
3. Enable the **IPv6** function.
4. Set the connection type to **6to4 Tunnel**.
5. Click **Save**.



#### Step 2 Repeat Step 1 to set the connection type of Router 2 to 6to4 Tunnel.

---End

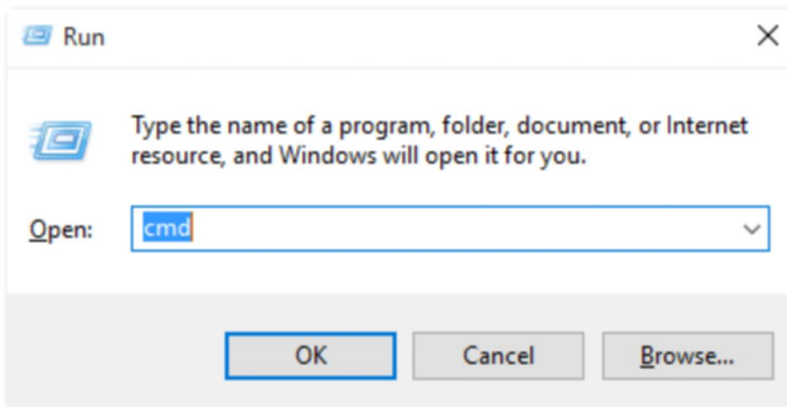
### Verification

To verify whether the 6to4 tunnel is established successfully, you can ping each other on the two computers.

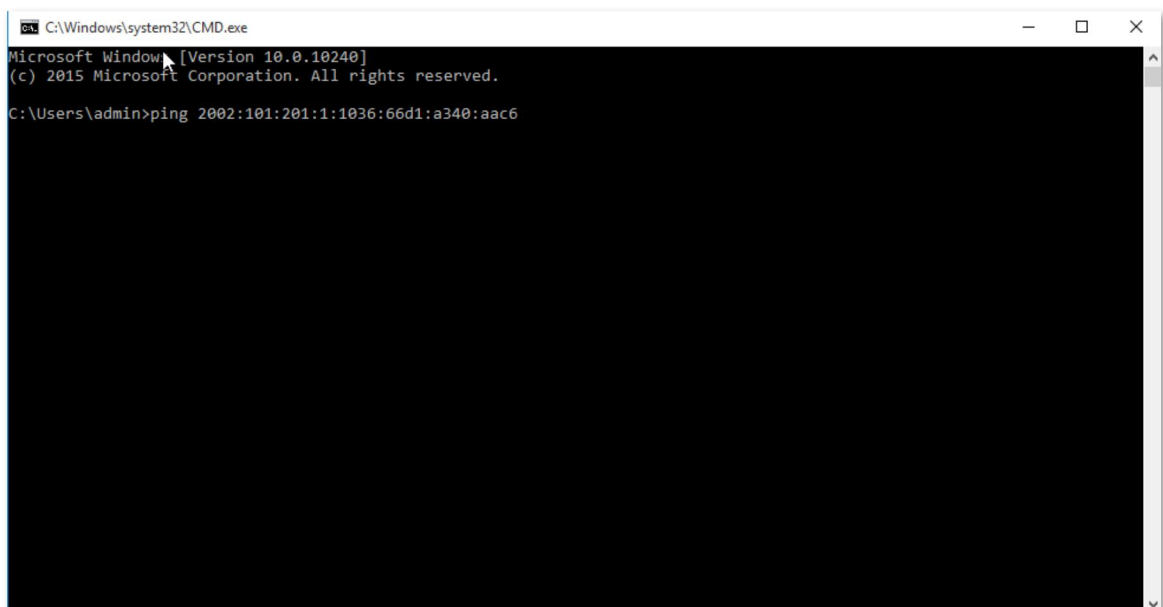
Now, ping computer 2 (IPv6 address: 2002:101:201:1:1036:66d1:a340:aac6) on computer 1.

**Step 1** Use **Windows + R** shortcut to open the **Run** dialog window.

**Step 2** Enter **cmd**, and click **OK**.



**Step 3** Enter the ping command, which is **ping 2002:101:201:1:1036:66d1:a340:aac6** in the example and press **Enter**.



**---End**

Wait a moment. The 6to4 tunnel configuration succeeds when the result is shown as below.

```

C:\Windows\system32\CMD.exe
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\admin>ping 2002:101:201:1:1036:66d1:a340:aac6

Pinging 2002:101:201:1:1036:66d1:a340:aac6 with 32 bytes of data:
Reply from 2002:101:201:1:1036:66d1:a340:aac6: time=15ms
Reply from 2002:101:201:1:1036:66d1:a340:aac6: time=12ms
Reply from 2002:101:201:1:1036:66d1:a340:aac6: time=108ms
Reply from 2002:101:201:1:1036:66d1:a340:aac6: time=10ms

Ping statistics for 2002:101:201:1:1036:66d1:a340:aac6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 10ms, Maximum = 108ms, Average = 36ms

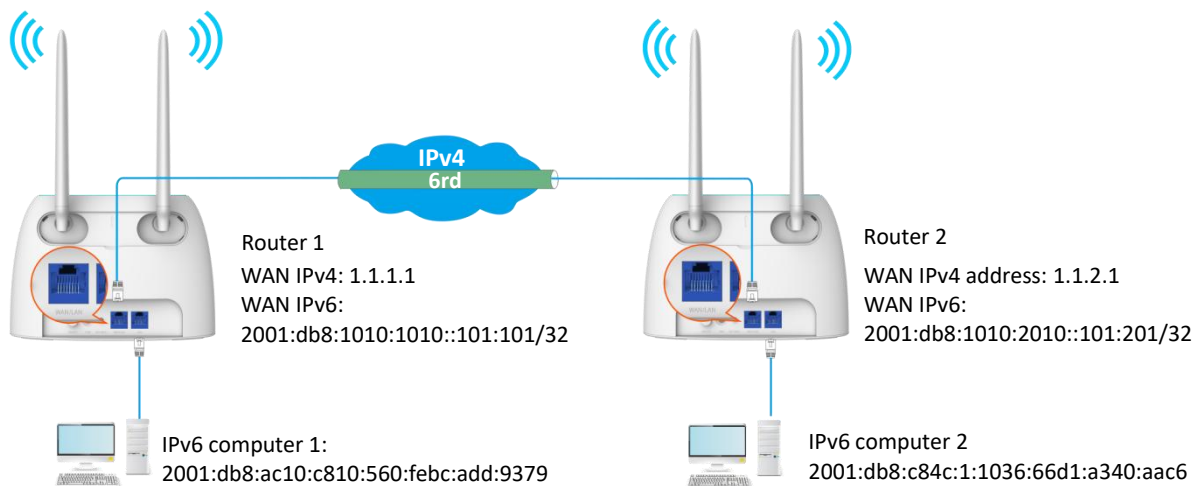
C:\Users\admin>

```

## 6rd tunnel

As shown below, the two routers support dual stack protocol. To achieve the communication between the two hosts, you can configure the 6rd tunnel.

Assume that the two routers are connected to IPv4 network and obtain public IPv4 addresses.



## Configuring procedure:



Before configuring the 6rd tunnel, navigate to [View system information](#) to find the WAN IPv4 address of the router.

### Step 1 Configure Router 1.

1. Start a web browser on a device connected to the router 1 and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **IPv6**.
3. Enable the **IPv6** function.
4. Set the connection type to **6rd Tunnel**.
5. Enter the WAN IPv4 address of the device at the peer side in **Remote IPv4 Address**, which is **1.1.2.1** in this example.
6. Enter the Subnet Mask of the IPv4 network. **240.0.0.0** is recommended.
7. Customize the **IPv6 Prefix** (the default is recommended).
8. Click **Save**.

## Step 2 Configure Router 2.

1. Start a web browser on a device connected to the router 2 and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **IPv6**.
3. Enable the **IPv6** function.
4. Set the connection type to **6rd Tunnel**.
5. Enter the WAN IPv4 address of the device at the peer side in **Remote IPv4 Address**, which is **1.1.1.1** in this example.
6. Enter the **Subnet Mask** of the IPv4 network. **240.0.0.0** is recommended.
7. Customize the **IPv6 Prefix**.
8. Click **Save**.



---End

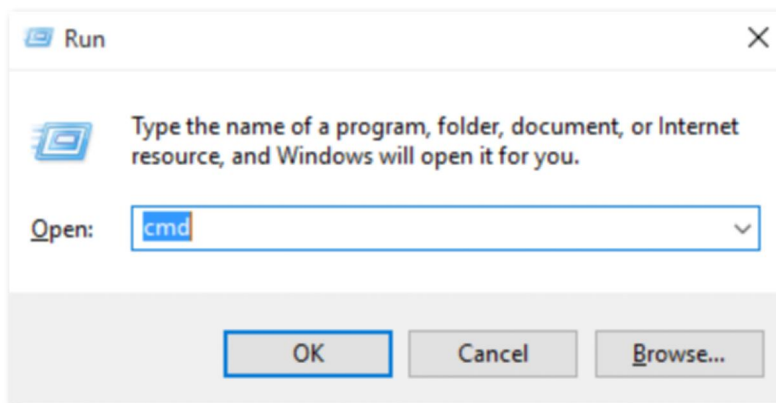
### Verification

To verify whether the 6rd tunnel is established successfully, you can ping each other on the two computers.

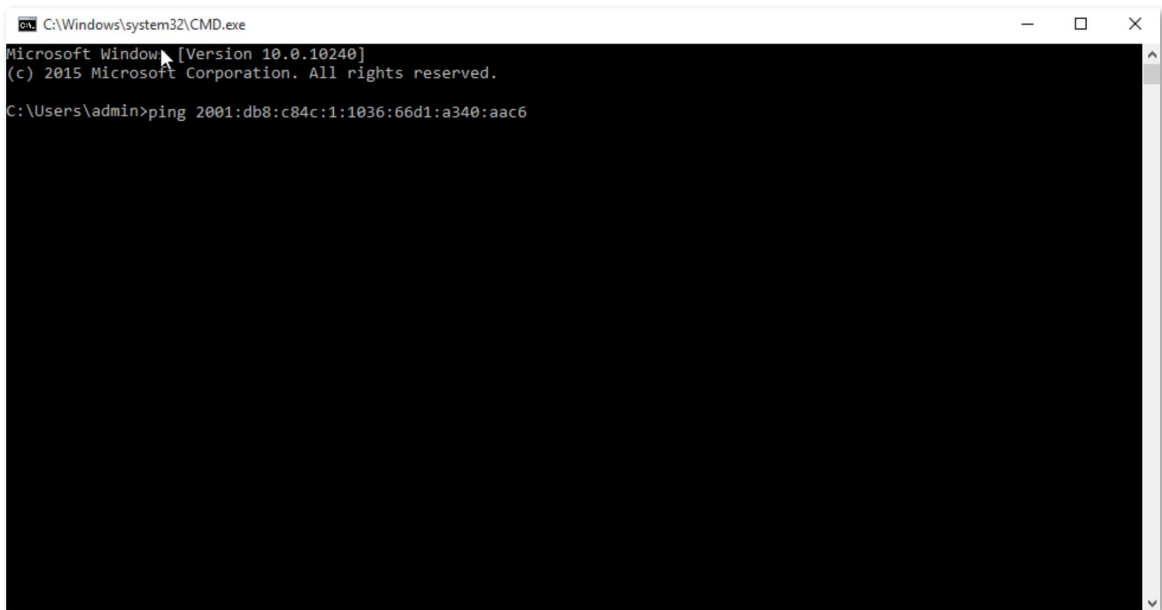
Now, ping computer 2 (IPv6 address: 2001:db8:c84c:1:1036:66d1:a340:aac6) on computer 1.

**Step 1** Use **Windows + R** shortcut to open the **Run** dialog window.

**Step 2** Enter **cmd**, and click **OK**.



**Step 3** Enter the ping command, which is **ping 2001:db8:c84c:1:1036:66d1:a340:aac6** in the example and press **Enter**.

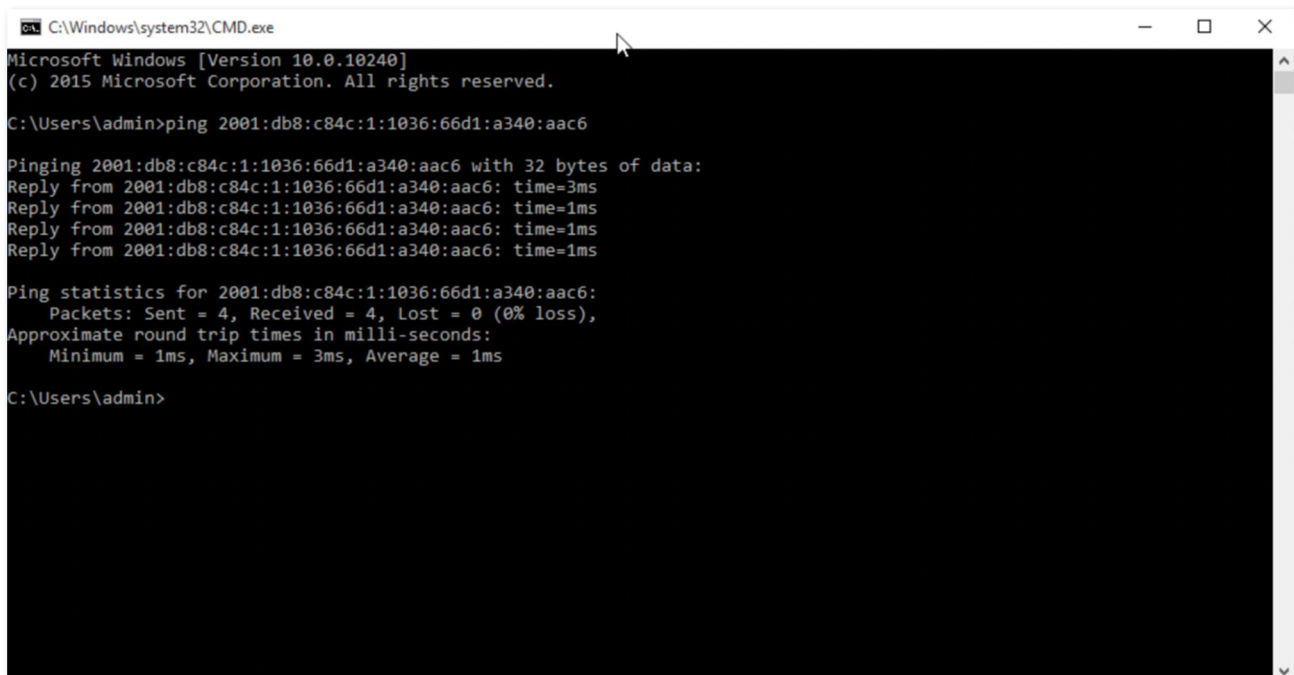


```
C:\Windows\system32\CMD.exe
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\admin>ping 2001:db8:c84c:1:1036:66d1:a340:aac6
```

---End

Wait a moment. The 6rd tunnel configuration succeeds when the result is shown as below.



```
C:\Windows\system32\CMD.exe
Microsoft Windows [Version 10.0.10240]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\admin>ping 2001:db8:c84c:1:1036:66d1:a340:aac6

Pinging 2001:db8:c84c:1:1036:66d1:a340:aac6 with 32 bytes of data:
Reply from 2001:db8:c84c:1:1036:66d1:a340:aac6: time=3ms
Reply from 2001:db8:c84c:1:1036:66d1:a340:aac6: time=1ms
Reply from 2001:db8:c84c:1:1036:66d1:a340:aac6: time=1ms
Reply from 2001:db8:c84c:1:1036:66d1:a340:aac6: time=1ms

Ping statistics for 2001:db8:c84c:1:1036:66d1:a340:aac6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\Users\admin>
```



## 10.2 IPv6 LAN settings

To access the page, log in to the web UI of the router and choose **IPv6**.

You can change the IPv6 LAN settings here.

**IPv6 LAN Settings**

IPv6 LAN Address:

IPv6 LAN Prefix Length:

DHCPv6:

DHCPv6 Address Assignment Method:


IPv6 DNS:

Primary IPv6 DNS:

Secondary IPv6 DNS:

### Parameter description

Parameter	Description
IPv6 LAN Address	<p>It specifies two types of IPv6 LAN address assignment.</p> <ul style="list-style-type: none"> <li>• <b>Auto:</b> The router generates the IPv6 address based on the LAN MAC address of the router. By default, the prefix has 64 digits.</li> <li>• <b>Manual:</b> You need to set the IPv6 LAN address manually.</li> </ul>
IPv6 LAN Prefix Length	<p>It specifies two types IPv6 LAN prefix address assignment.</p> <ul style="list-style-type: none"> <li>• <b>Auto:</b> The router obtains an LAN prefix from the upstream device.</li> <li>• <b>Manual:</b> You need to set the IPv6 LAN prefix manually.</li> </ul>
DHCPv6	<p>Dynamic Host Configuration Protocol for IPv6 (DHCPv6) is used to assign IP addresses and prefix to IPv6 hosts on a network. It is the IPv6 equivalent of the DHCP for IPv4. This is also known as a stateful autoconfiguration.</p>

Parameter	Description
DHCPv6 Address Assignment Method	<p>It specifies the assignment type of IPv6 address information by the DHCPv6 server.</p> <ul style="list-style-type: none"> <li>• <b>Auto:</b> DHCPv6 stateless configuration. Clients obtain their IPv6 address through Router Advertisement (Stateless Address Auto Configuration) and other parameters are allocated by the DHCPv6 server.</li> <li>• <b>Manual:</b> DHCPv6 stateful configuration. The DHCPv6 server automatically assigns IPv6 addresses/prefixes and other network configuration parameters (e.g. DNS server addresses, etc.) to clients. The user needs to manually configure the start ID and the end ID.</li> </ul>
Start ID	The configuration is required when the DHCPv6 address assignment method is set to stateful.
End ID	It specifies the range of the last segment of the IPv6 address that the DHCPv6 server assigns to the devices. Range: 1-ffff.
IPv6 DNS	<p>It specifies the LAN IPv6 DNS configuration method.</p> <ul style="list-style-type: none"> <li>• <b>Auto:</b> Obtain the IPv6 DNS address from the upstream device.</li> <li>• <b>Manual:</b> Configure the IPv6 DNS address manually.</li> </ul>
Primary IPv6 DNS	Enter the fixed IPv6 DNS address provided by your ISP.
Secondary IPv6 DNS	<p> <b>TIP</b></p> <p>If your ISP only provides one DNS server address, you can leave the secondary IPv6 DNS blank.</p>

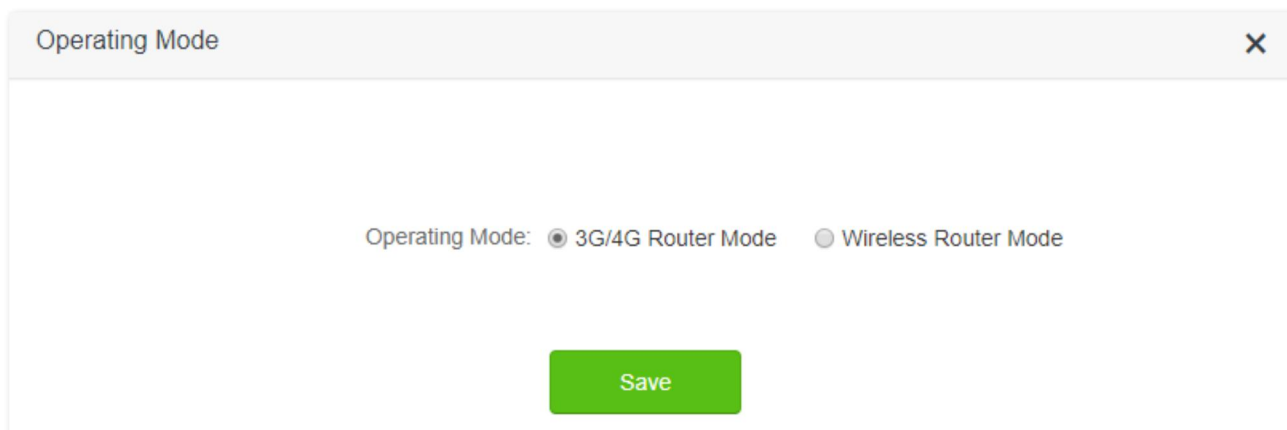
# 11 Advanced settings

## 11.1 Operating mode

### 11.1.1 Overview

In addition to providing internet access with a SIM card, the router can also be connected to a broadband. By switching the operating mode, you can access the internet through the corresponding method. The default operating mode is 3G/4G router mode.

To access the configuration page, log in to the web UI of the router and navigate to **Advanced Settings > Operating Mode**.



Operating Mode

Operating Mode:  3G/4G Router Mode  Wireless Router Mode

Save

To access the internet:

- 3G/4G router mode: Refer to the quick installation guide or [Access the internet with a SIM card](#).
- Wireless router mode: Refer to [Access the internet through the WAN port](#).

### 11.1.2 Set the router to wireless router mode

If you have already used the router and is able to [access the web UI](#), navigate to the **Advanced Settings > Operating Mode** to change the operating mode.

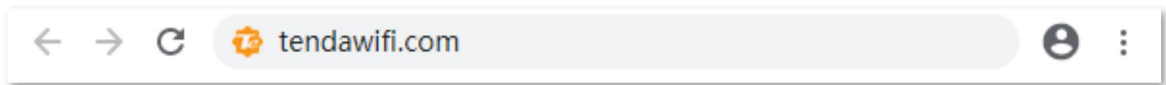
If you are using the router for the first time, or the router is reset to factory settings, follow the steps below to set the router to wireless router mode.

#### Configuring procedure:

**Step 1** Log in to the web UI of the router.

1. Connect your wireless device to the Wi-Fi network of your router, or connect a computer to the LAN port of the router.

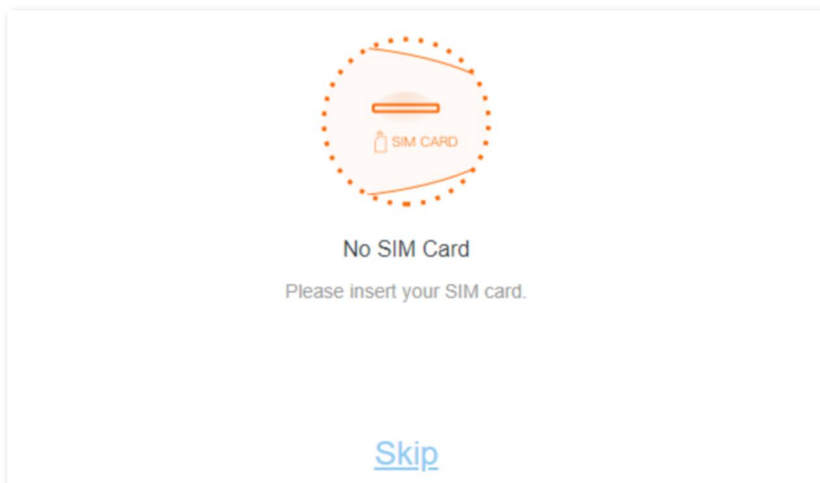
2. Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router. A computer is used for illustration below.



3. Click **Start**.



4. Click **Skip**.



5. Do not set login and Wi-Fi password now by ticking **No Password**, and click **Next**.

**Wi-Fi Settings**

Wi-Fi name for 2.4 GHz & 5 GHz.  
Smart devices will auto-connect to the better Wi-Fi network.

No Password

Sync the login password with the Wi-Fi password.

No Password

**Next**

6. Click **Not Now**.

**Tips** ✕

Your Wi-Fi network has no password.  
To ensure the security of your Wi-Fi network, set a Wi-Fi password.

- Step 2** Set the router to wireless router mode.
1. Choose **Advanced Settings > Operating Mode**.
  2. Click **Wireless Router Mode**, and click **Save**.

Operating Mode:  3G/4G Router Mode  Wireless Router Mode

**Save**

**---End**

After rebooting, the router is set to wireless router mode.

## 11.2 SIM PIN (3G/4G wireless router mode)

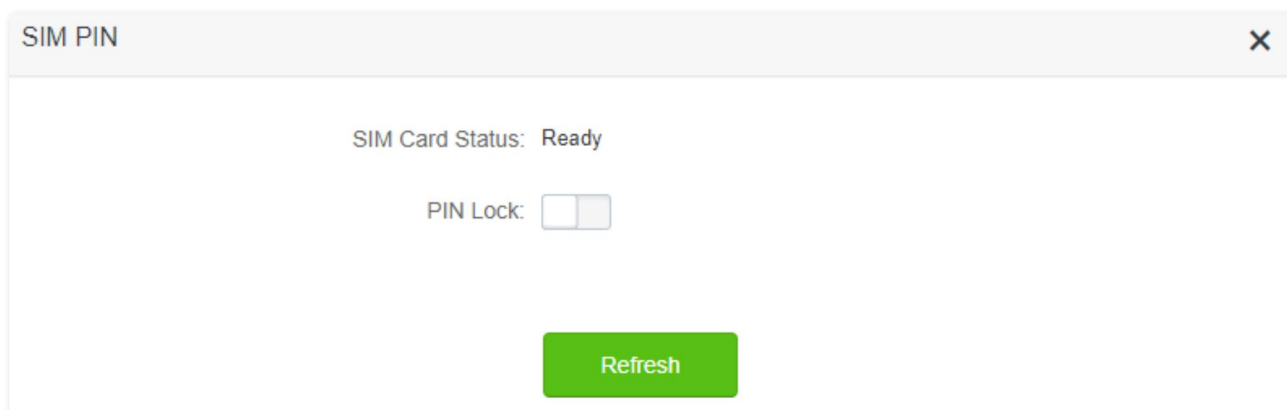


This function is only available under the 3G/4G router mode. Refer to [Operating mode](#) to set the operating mode of the router.

SIM PIN is a protective measure to prevent your SIM card from misuse. If your SIM card is locked when you insert it into the router, you are required to unlock it for internet access. You can also enable the PIN lock and specify a PIN code for an unlocked SIM card.

To access the SIM PIN setting page, log in to the web UI of the router and navigate to **Advanced Settings > SIM PIN**.

When the SIM card is not set with PIN code, the page is shown as below.



The PIN code can be set and changed by users. Contact your ISP for the original PIN code or other help.

### 11.2.1 Unlock the SIM card

If you want to use a locked SIM card to access the internet, you need to unlock it first.

#### Unlock the SIM card in the quick setup wizard

When you use the router for the first time or the router is reset, you are required to unlock the SIM card in the quick setup wizard.

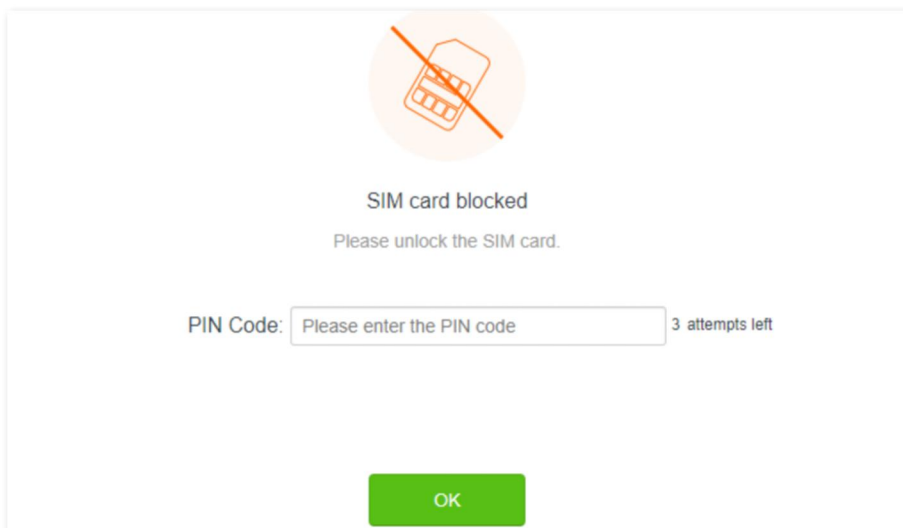
#### Configuring procedure:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Click **Start**.



**Step 3** Enter the **PIN Code**, and click **OK**.



You can only try the PIN code for 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card may be locked permanently after entering the wrong PUK code for 10 times.

---

**Step 4** Follow the steps to complete the setup process.

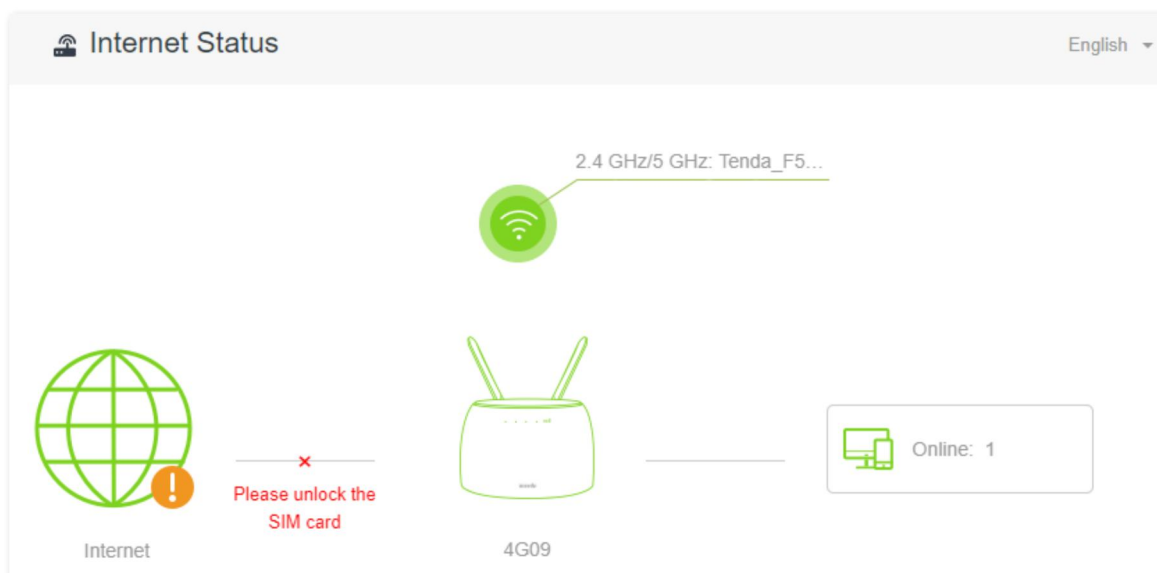
**---End**

## Unlock the SIM card in the web UI

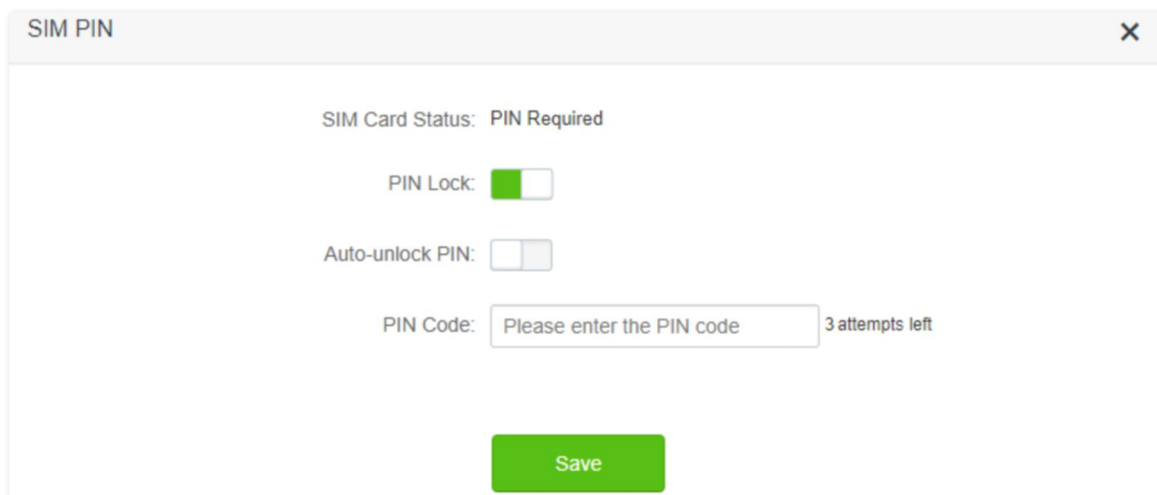
You can also unlock the SIM card when you already can access the web UI of the router.

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Click **Please unlock the SIM card**, or navigate to **Advanced Settings > SIM PIN**.



- Step 3** Enter the **PIN Code**, and click **Save**.







- You can only try the PIN code for 3 times. If you fail all, you must use PUK code to reset the PIN code. Contact your ISP for the PUK code. Otherwise the SIM card may be locked permanently after entering the wrong PUK code for 10 times.
- When **Auto-unlock PIN** is enabled, the router will unlock the SIM card automatically each time the router completes rebooting (the PIN code is still required after resetting).

---End

## 11.2.2 Disable PIN lock for the SIM card

After PIN lock is disabled for the SIM card, your SIM card will not be protected by PIN lock.

### Configuring procedure:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **Advanced Settings > SIM PIN**.

**Step 3** Disable **PIN Lock**.

SIM PIN

SIM Card Status: PIN unlocked

PIN Lock:

Auto-unlock PIN:

Refresh

**Step 4** Enter the original **PIN Code**, and click **Save**.

SIM PIN

SIM Card Status: PIN unlocked

PIN Lock:

PIN Code:  3 attempts left

Save

---End

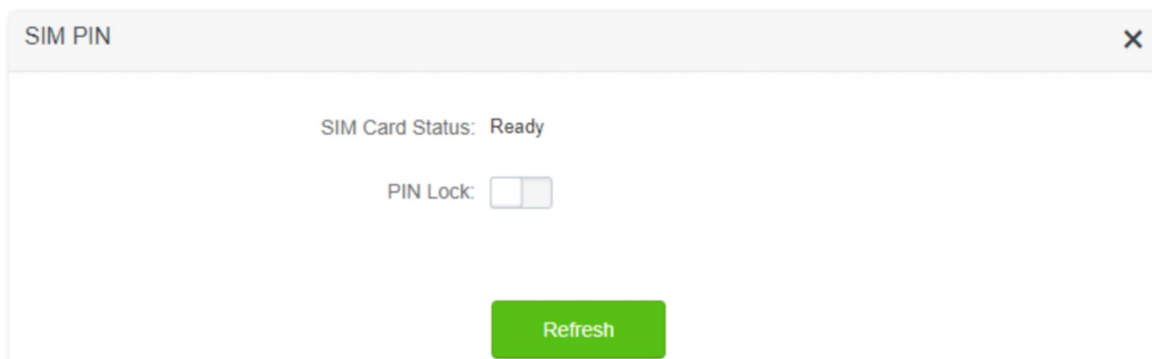
### 11.2.3 Set a PIN code for the SIM card

You can also set a PIN code for a SIM card without PIN code.

**Configuring procedure:**

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Enable **PIN Lock**.



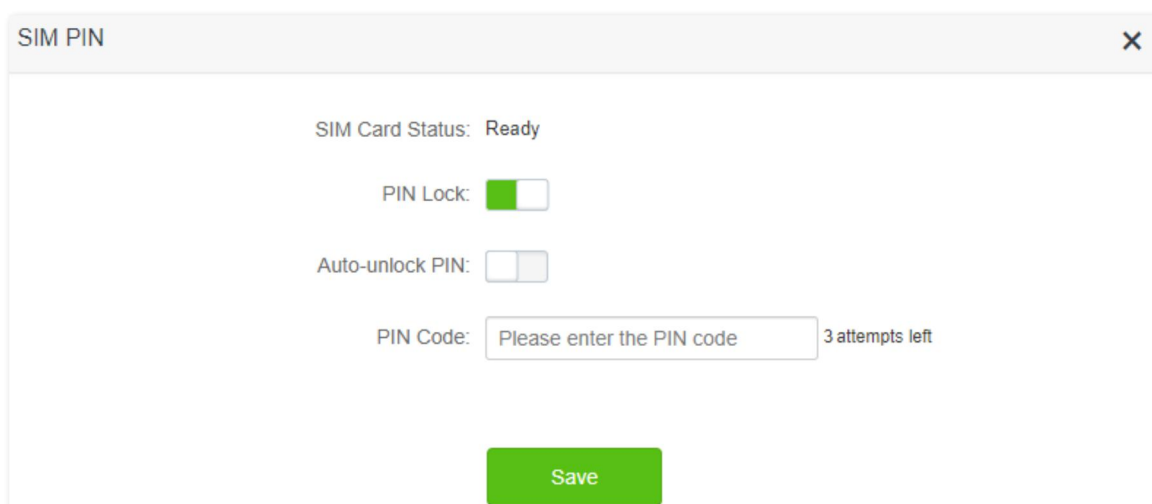
SIM PIN

SIM Card Status: Ready

PIN Lock:

Refresh

**Step 3** Specify a **PIN Code**, and click **Save**.



SIM PIN

SIM Card Status: Ready

PIN Lock:

Auto-unlock PIN:

PIN Code:  3 attempts left

Save



When **Auto-unlock PIN** is enabled, the router will unlock the SIM card automatically each time the router completes rebooting (the PIN code is still required after resetting).

---End

### 11.2.4 Change the PIN code of SIM card

To change the PIN code of the SIM card, [disable the PIN code of SIM card](#) first, then [set a PIN code for the SIM card](#).

## 11.3 Mobile data



This function is only available under the 3G/4G router mode. Refer to [Operating mode](#) to set the operating mode of the router.

### 11.3.1 Overview

You can view and update data usage statistics, and configure data usage settings, such as data usage limit and usage alert.

To access the configuration page, log in to the web UI of the router and choose **Advanced Settings > Mobile Data**.

Mobile Data
✕

Total Used: 0.261 MB Update

This usage statistic is for reference. You can send messages to your ISP to inquire the accurate usage statistic and update it here manually.

Data Limit:

The router automatically disconnects from the internet when the data limit is reached.

Monthly Allowance:  GB ▾

Usage Alert:  80%

SMS Alert of Usage:  Send Test Message

Note: This function may cause SMS charges.

Monthly Data Statistics:

Start Date:

Save

#### Parameter description

Parameter	Description
Total Used	It specifies the total data traffic that has been used. You can correct it by consulting

Parameter	Description
	you ISP and clicking <b>Update</b> to change it manually. When the <b>Monthly Data Statistics</b> function is enabled, the router will clear the number at the date specified in <b>Start Date</b> .
Data Limit	It is used to enable or disable the data limit function. When the limit is reached, the router will disconnect from the internet automatically.
Monthly Allowance	It specifies the specific maximum data usage allowed for each month.
Usage Alert	When the percentage of data traffic used reaches the limit, the router will send an alert SMS message to a specified smartphone number.
SMS Alert of Usage	It specifies the smartphone number for receiving the alert SMS message. You can click <b>Send Test Message</b> to test the smartphone number you entered.
Monthly Data Statistics	It is used to enable or disable the Monthly Data Statistics. When it is enabled, the router will clear the number of <b>Total Used</b> at the date specified in <b>Start Date</b> .
Start Date	It specifies the date at which the router clears the data statistics of the last month and start to record in the following month.

### 11.3.2 An example of mobile data configurations

**Scenario:** You inserted a SIM card in the router to provide mobile internet access for your smartphone, iPad and laptop.

**Goal:** You want to receive SMS message alert on your smartphone and get prepared when the usage reaches a certain amount every month.

**Solution:** You can configure mobile data settings to reach the goal.

Assume that:

- Available data traffic: 10 GB
- Start date of data usage record: 1st each month
- Smartphone number: 188\*\*\*\*5555
- Alert percentage: 80%

**Configuring procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Advanced Settings > Mobile Data**.
- Step 3** (Optional) Click **Update** to update the current usage data in **Total Used**.
- Step 4** Enable **Data Limit**.
- Step 5** Enter **10** in Monthly Allowance, and choose **GB** in the drop-down box.
- Step 6** Set **Usage Alert** to **80%**.

**Step 7** Enter **188\*\*\*\*5555** in **SMS Alert of Usage**.

**Step 8** Enable **Monthly Data Statistics**.

**Step 9** Enter **1** in **Start Date**.

**Step 10** Click **Save**.

Mobile Data

Total Used: 0.000 MB

This usage statistic is for reference. You can send messages to your ISP to inquire the accurate usage statistic and update it here manually.

Data Limit:

The router automatically disconnects from the internet when the data limit is reached.

Monthly Allowance:  GB

Usage Alert:  80%

SMS Alert of Usage:

Note: This function may cause SMS charges.

Monthly Data Statistics:

Start Date:

**---End**

After completing the configuration, you will receive a SMS message when the data traffic usage reached 8 GB and cannot access the internet through the router when the data traffic usage reached 10 GB.



If you want to connect to the internet again after the data limit is reached, try the following methods:

- Change the **Total Usage** by clicking **Update**.
- Disable **Data Limit**.
- Navigate to **Internet Settings**, and click **Connect** at the bottom of the page.

## 11.4 Bandwidth control

### 11.4.1 Overview

By configuring this function, you can limit the upload and download speed of devices connected to the router and allocate the bandwidth reasonably.

To access the configuration page, log in to the web UI of the router and choose **Advanced Settings > Bandwidth Control**.

Device Name	Upload Speed	Download Speed	Upload Limit	Download Limit
DESKTOP-5LII2L5 192.168.0.136	0.0KB/s	0.0KB/s	Unlimited	Unlimited
Apple 192.168.0.174	0.0KB/s	0.0KB/s	Unlimited	Unlimited

#### Parameter description

Parameter	Description
Device Name	It specifies the name and IP address of the device. You can click  to change the name of the device.
Upload Speed	They specify the current upload and download speed of the device.
Download Limit	
Upload Limit	They specify the upload and down load speed limit for the device. You can click the drop-down box to choose a number or set it manually.
Download Limit	

### 11.4.2 Set the upload and download speed limit for users

**Scenario:** You want to allocate bandwidth equally among connected and enable all connected devices to enjoy smooth 720p videos.

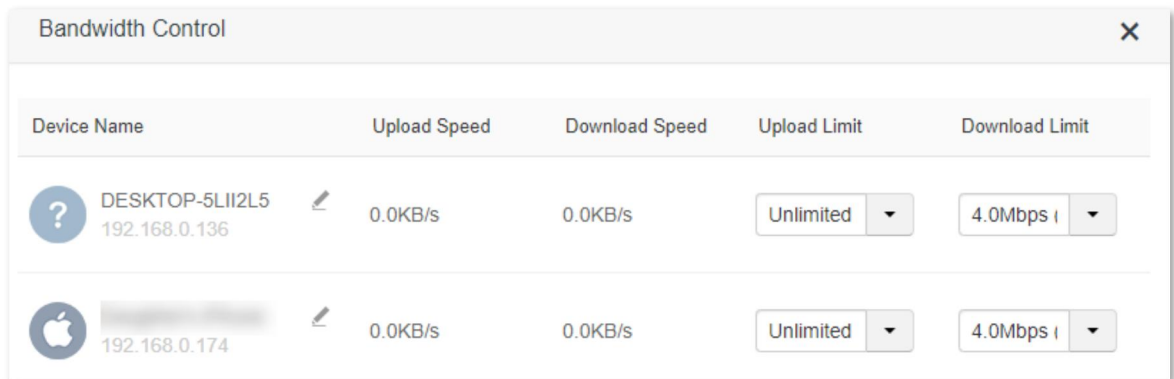
**Solution:** Configure the bandwidth control function to meet the requirement.



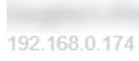
#### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Advanced Settings > Bandwidth Control**.
- Step 3** Target the devices to be controlled, and set the **Download Limit** to **4.0 Mbps (For HD**

Video).

**Step 4** Click **Save**.



Device Name	Upload Speed	Download Speed	Upload Limit	Download Limit
 DESKTOP-5LII2L5 192.168.0.136	0.0KB/s	0.0KB/s	Unlimited	4.0Mbps
  192.168.0.174	0.0KB/s	0.0KB/s	Unlimited	4.0Mbps

---End

After the configuration, the highest speed for the device is 4 Mbps (or 512 KB/s) and the requirement of 720p videos can be satisfied.

## 11.5 IPTV (wireless router mode)



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

### 11.5.1 Overview

IPTV is the technology integrating internet, multimedia, telecommunication and many other technologies, providing interactive services, including digital TV, to family users by internet broadband lines.

You can set the multicast and STB functions here.

- **Multicast:** If you want to watch multicast videos from the WAN side of the router on your computer, you can enable the multicast function of the router.
- **STB (Set-Top Box):** If the IPTV service is included in your broadband service, you can enjoy both internet access through the router and rich IPTV contents with a set-top box.

To access the configuration page, log in to the web UI of the router and choose **Advanced Settings > IPTV**.

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

IPTV

Multicast:

STB:

Connect the IPTV STB to the IPTV port of the router.

VLAN: Default ▼

Save



**Parameter description**

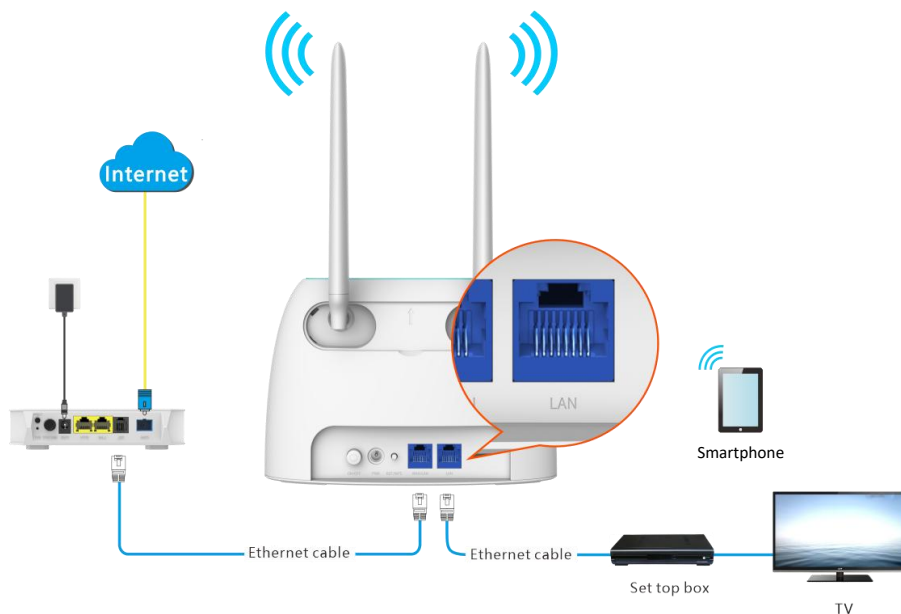
Parameter	Description
STB	It is used to enable and disable the IPTV function of the router. When this function is enabled, the <b>LAN</b> port can be used only as an IPTV port and be connected to an IPTV set-top box.
VLAN	It specifies the VLAN ID of your IPTV service. <ul style="list-style-type: none"> <li>If your ISP does not provide any VLAN ID information when the IPTV service is available, please keep <b>Default</b>.</li> <li>If you have obtained VLAN ID from your ISP when the IPTV service is available, please choose <b>Custom</b> VLAN and enter the VLAN value.</li> </ul>

## 11.5.2 Watch IPTV programs through the router

**Scenario:** The IPTV service is included in your broadband service. You have obtained the IPTV account and password from your ISP, but no VLAN information.

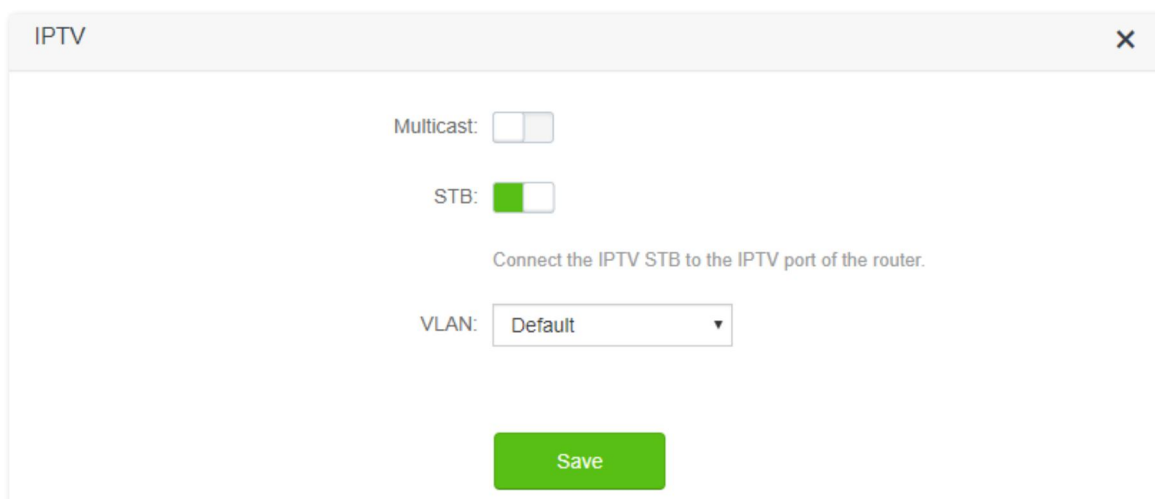
**Goal:** Be able to watch IPTV programs through the router.

**Solution:** You can configure the IPTV function to reach the goal.

**Configuring procedure:****Step 1** Set your router.

1. Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **Advanced Settings > IPTV**.
3. Enable the **STB** function.

4. Click **Save**.



Multicast:

STB:

Connect the IPTV STB to the IPTV port of the router.

VLAN: Default

Save

**Step 2** Configure the set-top box.

Use the IPTV user name and password to dial up on the set-top box.

---End

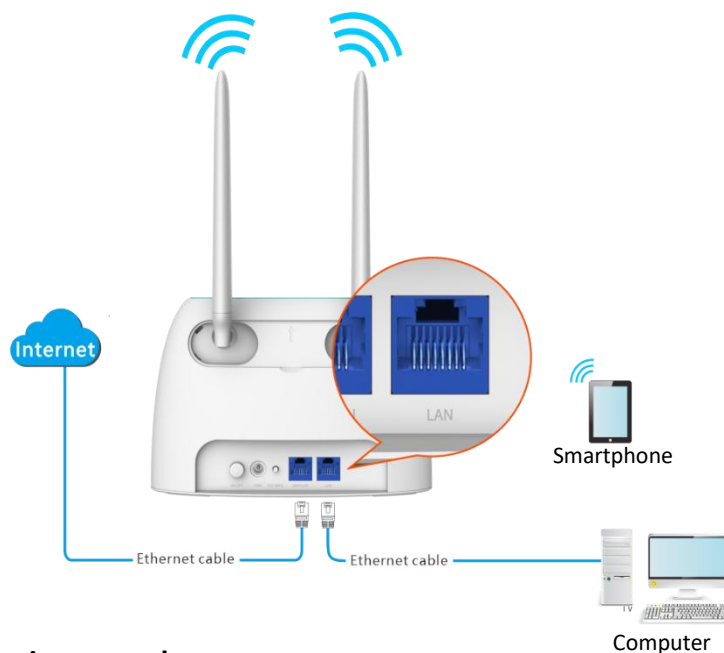
When completing the configurations, you can watch IPTV programs on your TV.

### 11.5.3 Watch multicast videos through the router

**Scenario:** You have the address of multicast videos.

**Goal:** Be able to watch multicast videos.

**Solution:** You can configure the multicast function to reach the goal.



**Configuring procedure:**

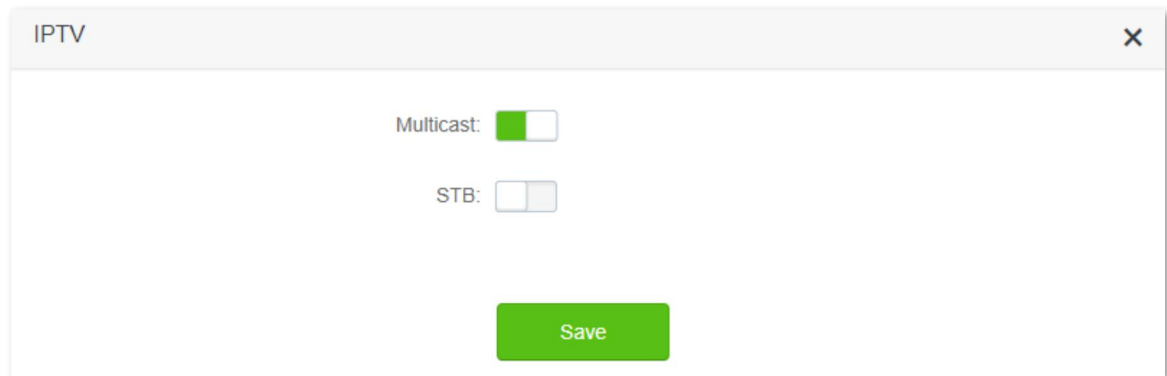
**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in

to the web UI of the router.

**Step 2** Choose **Advanced Settings > IPTV**.

**Step 3** Enable the **Multicast** function.

**Step 4** Click **Save**.



**---End**

When completing the configurations, you can watch multicast videos on your computer.

## 11.6 Tenda WiFi App (wireless router mode)



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

The router supports management through the Tenda WiFi App. With the App, you can:

- Manage your router within the LAN.
- Manage your router through the internet.



To manage the router with Tenda WiFi App, follow the steps below (Example: iPhone).

### Configuring procedure:

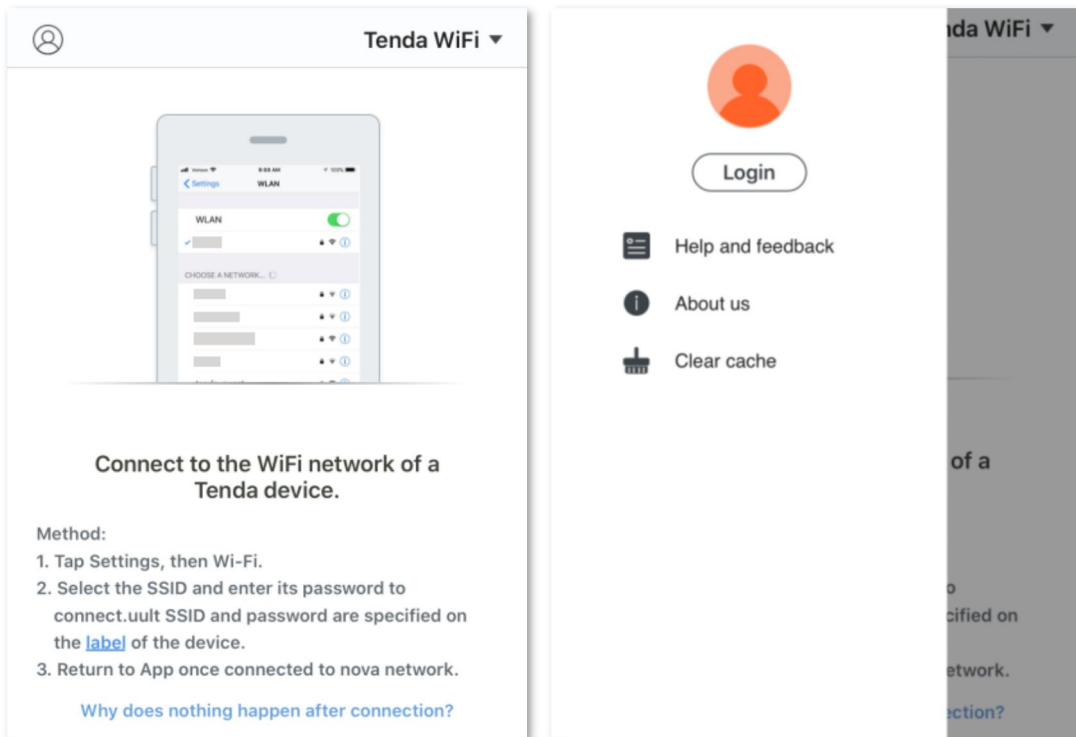
**Step 1** Scan the QR code or search in the App store for the **Tenda WiFi** App. Download and install it on your smartphone.



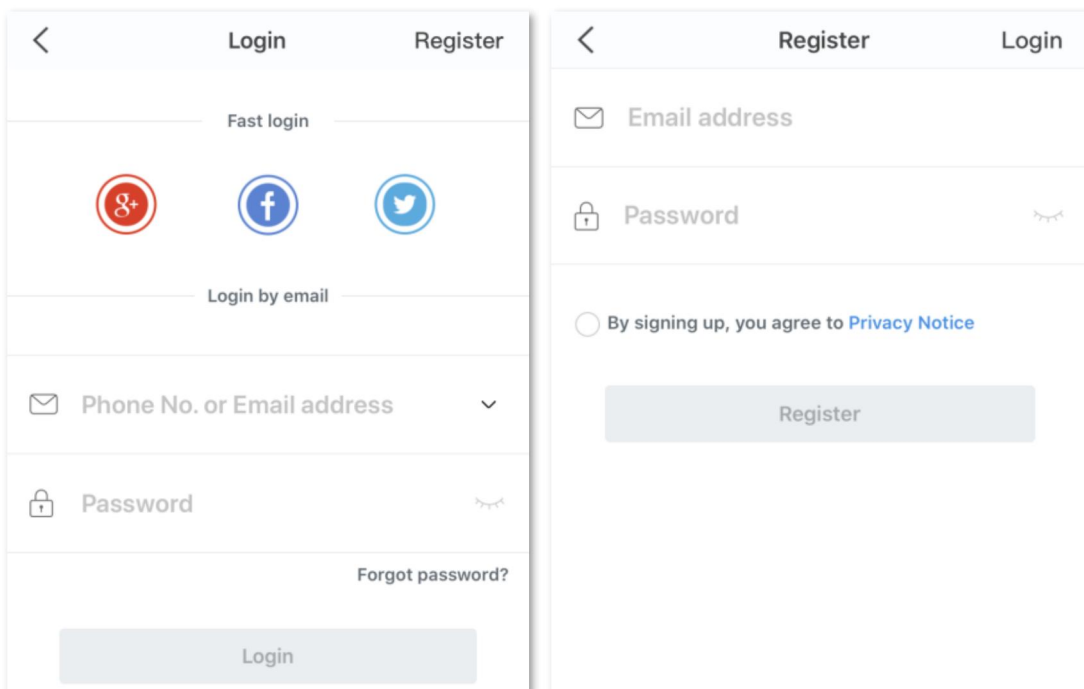
If you already have a Tenda WiFi App account or want to use the fast login approach, skip to **Step 3** and proceed with the settings.

**Step 2** (Optional) Register an account in the Tenda WiFi App.

1. Open the Tenda WiFi App, tap the  at the top left corner and tap **Login**.

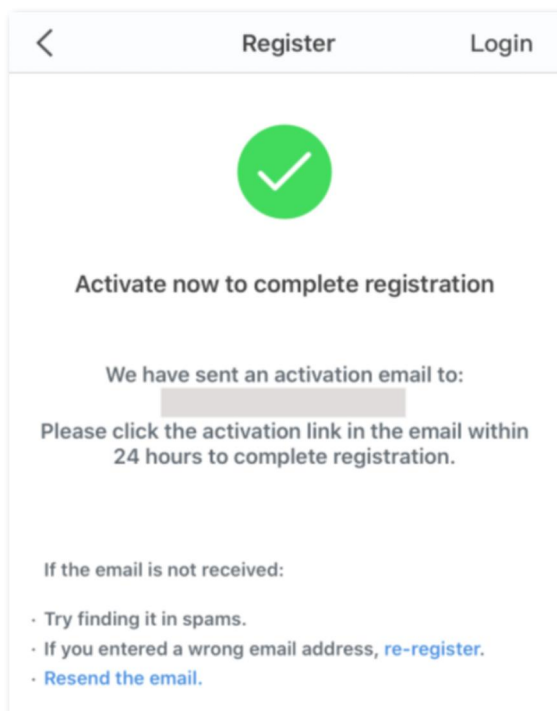


2. Tap **Register** at the top right corner, and register with an Email account.



3. Check the Email sent to your Email account and follow the instruction to finish the Email account confirmation process.

4. Tap **Login** at the top right corner of the registration page.



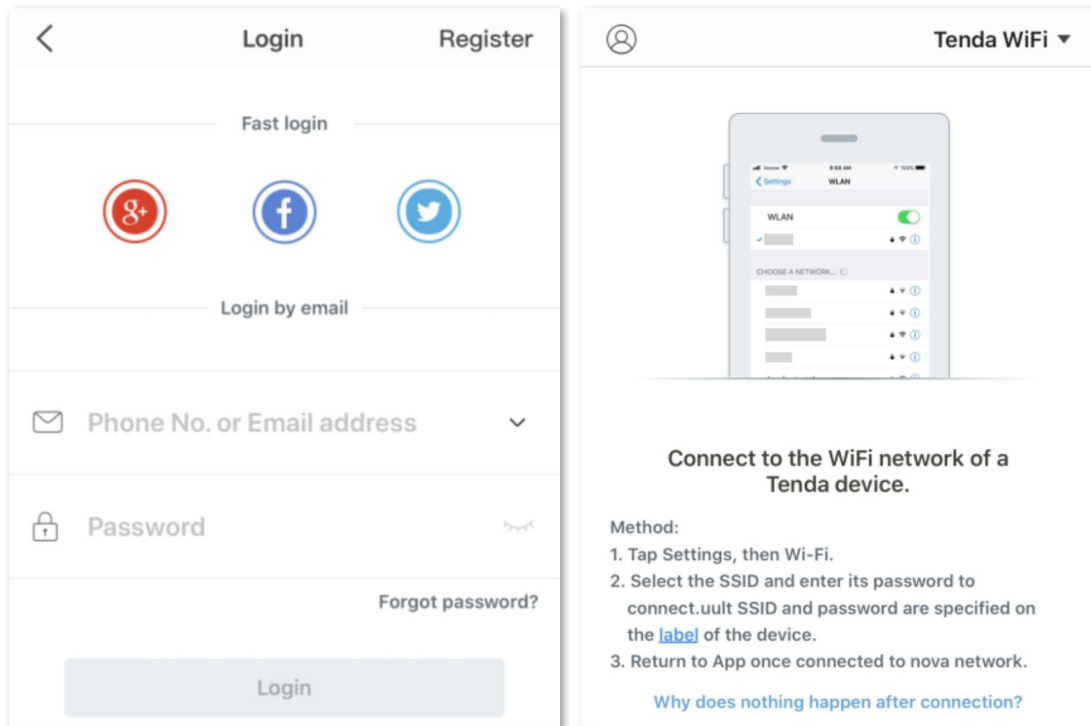
- Step 3** Log in with a registered account.

Follow the instructions on the home page of the Tenda WiFi App to add the router.



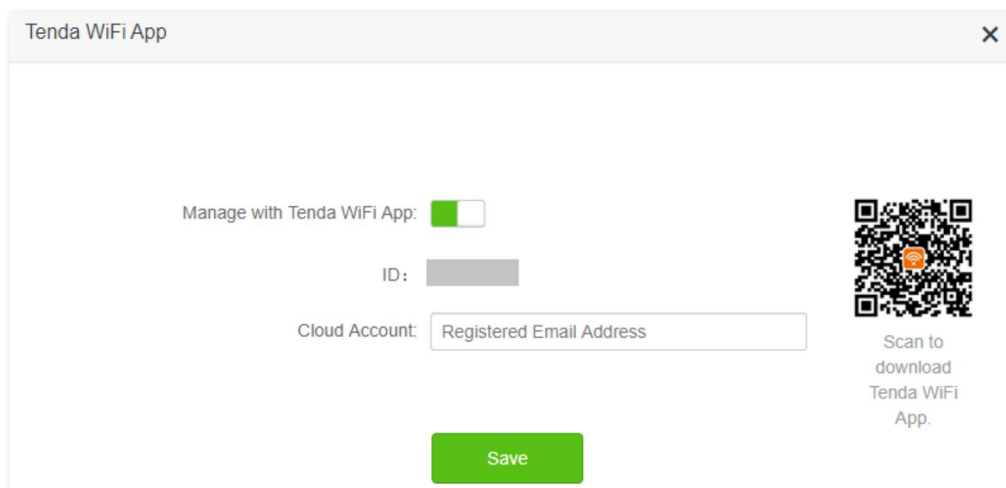
You can also choose to log in with your Google, Facebook and Twitter account without registering a Tenda WiFi App account. Choose an option in **Fast login**.

---



**Step 4** Bind your router with your smartphone.

1. Start a web browser on the smartphone connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
2. Choose **Advanced Settings > Tenda WiFi App**.
3. Enable **Manage with Tenda WiFi App**.
4. Enter an account registered in the Tenda WiFi App in **Cloud Account**.
5. Click **Save**.



**---End**

When completing the configurations, you can manage your router with Tenda WiFi App on your smartphone anywhere and anytime through the internet.

## 11.7 Sleeping mode

When the sleeping mode function is enabled, the router turns off its LED indicators and disables the Wi-Fi network during the specified period.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > Sleeping Mode**.

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

### Parameter description

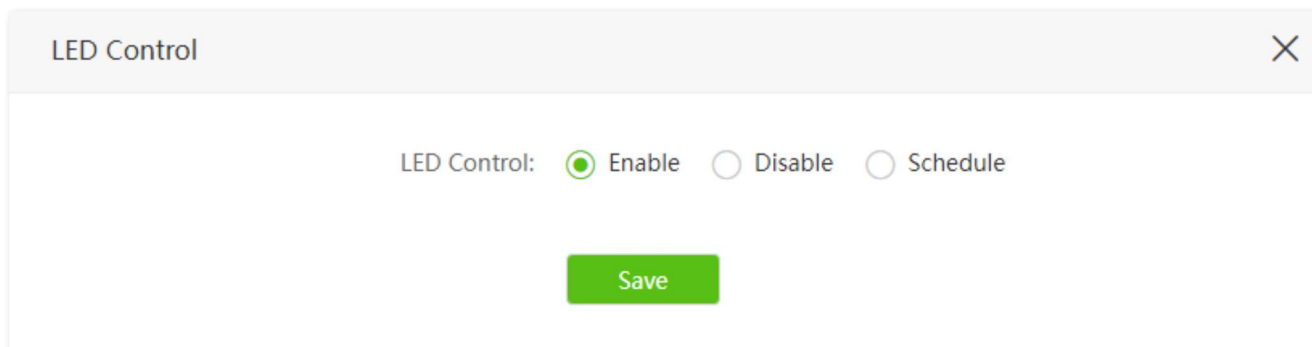
Parameter	Description
Sleeping Mode	It is used to enable or disable the function. When the router is under sleeping mode and you want to use the Wi-Fi network, use the Tenda WiFi App to wake up the router.
Sleeping Time	It specifies the period during which the router is under the sleeping mode.
Delay	It is used to enable or disable the Delay function. <ul style="list-style-type: none"> <li>• Ticked: The function is enabled. During the sleeping time, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s within 30 minutes, the router will delay entering the sleeping mode. If there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will enter the sleeping mode.</li> <li>• Unticked: The function is disabled. The router enters the sleeping mode during the sleeping time.</li> </ul>




## 11.8 LED control

With the LED control function, you can control the status of the LED indicators.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > LED Control**.



### Parameter description

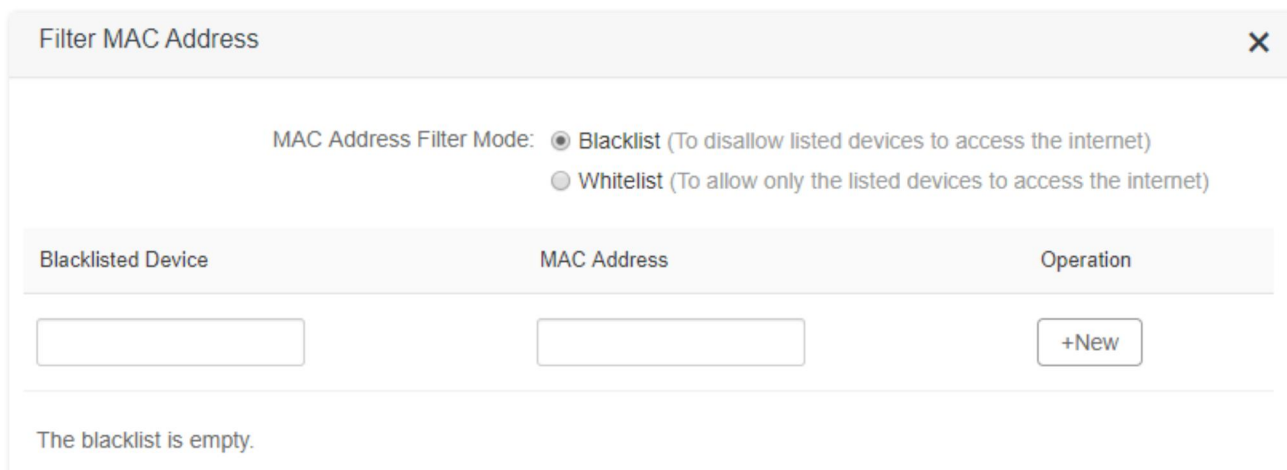
Parameter	Description
Enable	All LED indicators stay in their normal status.
Disable	All LED indicators are turned off.
Schedule	LED indicators are only turned off during the specified period.
Turn Off During	<p>It is required only when <b>Schedule</b> is selected.</p> <p>It specifies the period during which the LED indicators are turned off.</p> <p> <b>TIP</b></p> <p>If the start time you set is greater than the end time, the schedule starts from the start time to the end time on second day. For example, if you set <b>Turn Off During</b> to <b>08:00~06:25</b>, it indicates that the schedule starts from 08:00 to 06:25 on the second day.</p>

## 11.9 Filter MAC address



### 11.9.1 Overview

This function enables you to add devices to the whitelist or blacklist to enable or disable specified users to access the internet through the router.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > Filter MAC address**.



#### Parameter description

Parameter	Description
MAC Address Filter Mode	<p>It specifies the MAC address filter mode.</p> <ul style="list-style-type: none"> <li>• <b>Blacklist:</b> Wireless devices listed are unable to connect to the Wi-Fi network of the router, and wired devices listed are unable to access the internet.</li> <li>• <b>Whitelist:</b> Wireless devices listed can connect to the Wi-Fi network of the router, and wired devices listed are able to access the internet.</li> </ul>
Blacklisted Device	They specify the name or remark for the device.
Whitelisted Device	
MAC Address	It specifies the MAC addresses of devices added to the list.
Operation	<p> : It is used to add new devices to the blacklist or whitelist.</p> <p> : It is used to remove devices from the blacklist or whitelist.</p>
<a href="#">Add all online devices to the whitelist</a>	It is only available when you set the whitelist for the first time. By clicking it, you can add all currently connected devices to the whitelist.

## 11.9.2 Only allow specified device to access the internet

**Scenario:** The Wi-Fi in your home is misused by unknown users sometimes.

**Goal:** Only allow certain devices of family members to access the internet.

**Solution:** You can configure the MAC address filter function to reach the goal.

Assume that:

Device	MAC address	Status
Your own phone	8C:EC:4B:B3:04:92	Connected
Kid 1's phone	94:C6:91:29:C2:12	Disconnected
Kid 2's phone	98:9C:57:19:D0:1B	Disconnected

**Configuring procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **Advanced Settings > Filter MAC Address**.
- Step 3** Set the **MAC Address Filter Mode** to **Whitelist**.
- Step 4** (Optional) Enter the device name in the **Whitelist Device** field, which is **Kid 1's phone** in this example.
- Step 5** Enter the **MAC Address** of the device, which is **94:C6:91:29:C2:12** in this example.
- Step 6** Click **+Add**.

**Step 7** Repeat **Step 4** to **Step 6** to add **Kid 2's phone (98:9C:57:19:D0:1B)** to the whitelist.

**Step 8** Click **Save**.

Filter MAC Address ✕

MAC Address Filter Mode:  Blacklist(To disallow listed devices to access the internet)  
 Whitelist(To allow only the listed devices to access the internet)

Whitelisted Device	MAC Address	Operation
<input type="text" value="Kid 2's phone"/>	<input type="text" value="98:9C:57:19:D0:1B"/>	<input type="button" value="+ Add"/>
Kid 1's phone	94:C6:91:29:C2:12	<input type="button" value="✕"/>
Unknown	8C:EC:4B:B3:04:92	<input type="button" value="✕"/>

---End

When configuration is completed, only the three devices added can access the internet through the router.

## 11.10 Firewall

The firewall function helps the router detect and defend ICMP flood attack, TCP flood attack and UDP flood attack, and ignore Ping packet from WAN port. It is recommended to keep the default settings.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > Firewall**.

### Parameter description

Parameter	Description
ICMP Flood Attack Defense	<p>It is used to enable or disable the ICMP flood attack defense.</p> <p>The ICMP flood attack means that, to implement attacks on the target host, the attacker sends a large number of ICMP Echo messages to the target host, which causes the target host to spend a lot of time and resources on processing ICMP Echo messages, but cannot process normal requests or responses.</p>
TCP Flood Attack Defense	<p>It is used to enable or disable the TCP flood attack defense.</p> <p>The TCP flood attack means that, to implement attacks on the target host, the attacker quickly initiates a large number of TCP connection requests in a short period of time, and then suspends in a semi-connected state, thereby occupying a large amount of server resources until the server denies any services.</p>
UDP Flood Attack Defense	<p>It is used to enable or disable the UDP flood attack defense.</p> <p>The UDP flood attack is implemented in a similar way with ICMP flood attack, during which the attacker sends many UDP packets to the target host, causing the target host to be busy processing these UDP packets, but unable to process normal packet requests or responses.</p>
Ignore Ping Packet	<p>It is used to enable or disable the Ignore Ping packet from WAN Port function.</p>

Parameter	Description
From WAN Port	When it is enabled, the router automatically ignores the ping to its WAN from hosts from the internet and prevent itself from being exposed, while preventing external ping attacks.

## 11.11 Static route

### 11.11.1 Overview

Routing is the act of choosing an optimal path to transfer data from a source address to a destination address. A static route is a special route that is manually configured and has the advantages of simplicity, efficiency, and reliability. Proper static routing can reduce routing problems and overload of routing data flow, and improve the forwarding speed of data packets.




A static route is set by specifying the target network, subnet mask, default gateway, and interface. The target network and subnet mask are used to determine a target network or host. After the static route is established, all data whose destination address is the destination network of the static route are directly forwarded to the gateway address through the static route interface.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > Static Route**.

Static Route
✕

Destination Network	Subnet Mask	Gateway	Port	Operation
<input type="text"/>	<input type="text"/>	<input type="text"/>	WAN	<input type="button" value="+ Add"/>
0.0.0.0	0.0.0.0	192.168.96.1	WAN1	System
192.168.0.0	255.255.255.0	0.0.0.0	br0	System
192.168.96.0	255.255.255.0	0.0.0.0	WAN1	System
224.0.0.0	240.0.0.0	0.0.0.0	br0	System

**Parameter description**

Parameter	Description
Destination Network	<p>It specifies the IP address of the destination network.</p> <p>When the Destination Network and Subnet Mask are both 0.0.0.0, it indicates that this is the default route.</p> <p> <b>TIP</b></p> <p>When the route of packets cannot be found in the routing table, the router will forward the packets using the default route.</p>
Subnet Mask	It specifies the subnet mask of the destination network.
Gateway	<p>It specifies the ingress IP address of the next hop route after the data packet exits from the interface of the router.</p> <p>0.0.0.0 indicates that the destination network is directly connected to the router.</p>
WAN	It specifies the interface that the packet exits from.
Operation	<p> : It is used to add a static route rule.</p> <p> : It is used to delete a static route rule.</p>

**11.11.2 Add a static route rule**

**Scenario:** You have a 4G09 and another two routers. Router1 is connected to the internet and its DHCP server is enabled. Router2 is connected to an intranet and its DHCP server is disabled.

**Goal:** You can access both the internet and intranet at the same time.

**Solution:** You can configure the static route function to reach the goal.



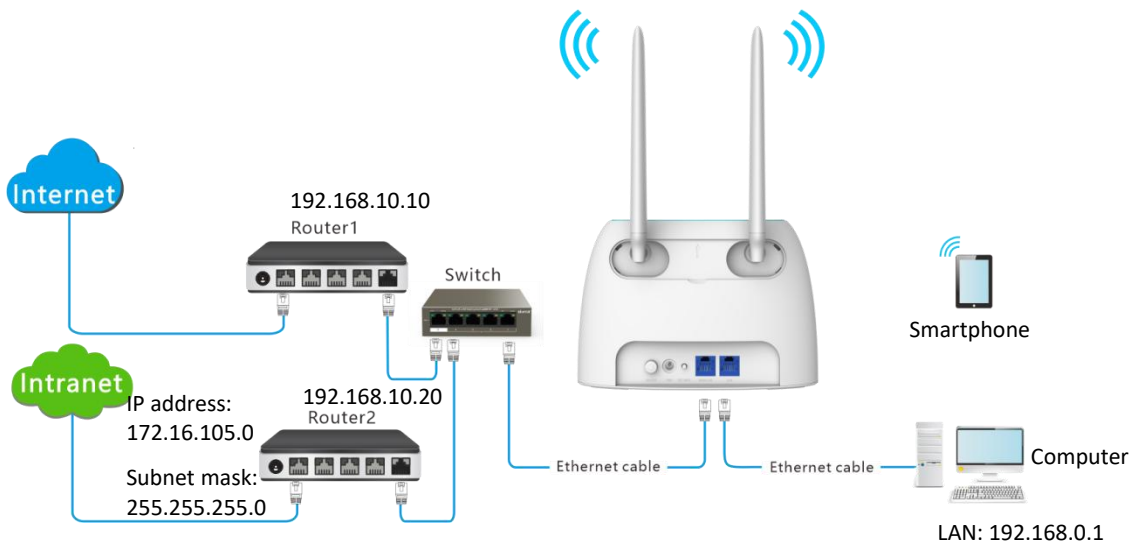
This solution is only applicable when the router is under wireless router mode.

Assume the LAN IP addresses of these devices are:

- 4G09: 192.168.0.1
- Router1: 192.168.10.10
- Router2: 192.168.10.20

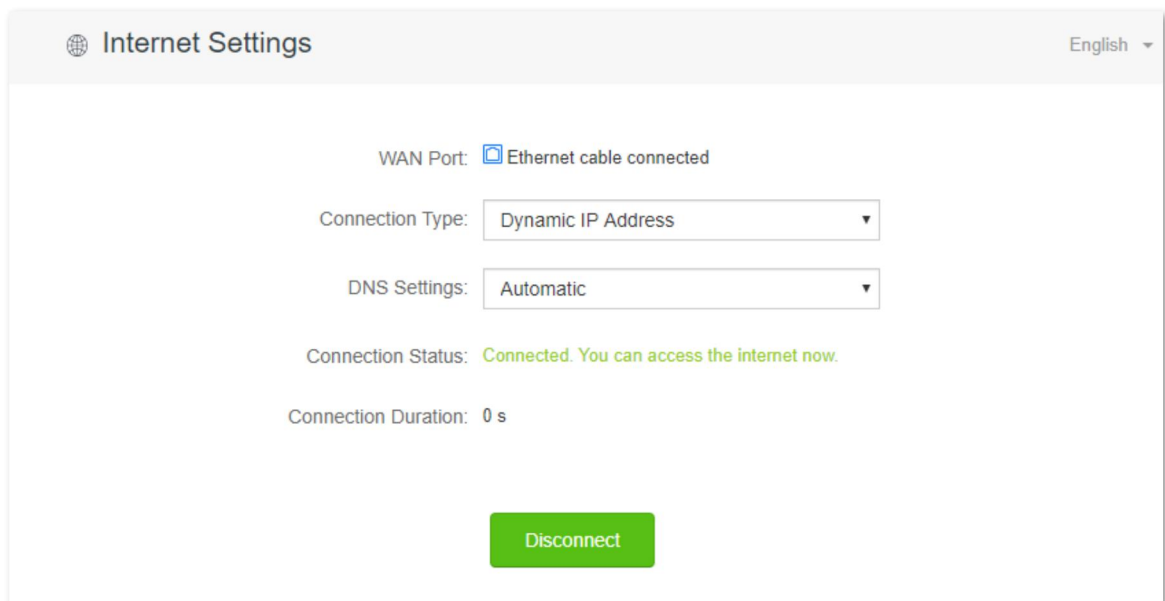
The information about the intranet:

- IP address: 172.16.105.0
- Subnet mask: 255.255.255.0



### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Refer to [Access the internet with a dynamic IP address](#) to configure the internet access for 4G09.



- Step 3** Add a static route rule on 4G09.
1. Choose **Advanced Settings > Static Route**.
  2. Enter the IP address of the destination network, which is **172.16.105.0** in this example.
  3. Enter the subnet mask of the destination network, which is **255.255.255.0** in this example.
  4. Enter the ingress IP address of the next hop route, which is **192.168.10.20** in this example.
  5. Click **+New**.



Static Route ✕

Destination Network	Subnet Mask	Gateway	Port	Operation
<input type="text" value="172.16.105.0"/>	<input type="text" value="255.255.255.0"/>	<input type="text" value="192.168.10.20"/>	WAN	<input type="button" value="+ Add"/>

---End

When completing the configurations, you can access both the internet and intranet through 4G09 at the same time.

## 11.12 DDNS

### 11.12.1 Overview

DDNS normally interworks with [virtual server](#), [DMZ host](#) and remote management, so that the internet users can be free from the influence of dynamic WAN IP address and access the internal server or the router's web UI with a fixed domain name.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > DDNS**.

#### Parameter description

Parameter	Description
DDNS	It is used to enable or disable the DDNS function.
Service Provider	It specifies the DDNS service provider.
User Name	They specify the user name and password registered on a DDNS service provider's website for logging in to the DDNS service.
Password	
Domain Name	It specifies the domain name registered on the DDNS service provider's website. If this field is invisible after the service provider is chosen, it is not required.
Connection Status	It specifies the current connection status of the DDNS service.

## 11.12.2 Enable internet users to access LAN resources using a domain name

**Scenario:** You have set up an FTP server within your LAN.

**Goal:** Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet using a domain name.

**Solution:** You can configure the DDNS plus virtual server functions to reach the goal.

Assume that the information of the FTP server includes:

- IP address: 192.168.0.136
- MAC address of the host: D4:61:DA:1B:CD:89
- Service port: 21

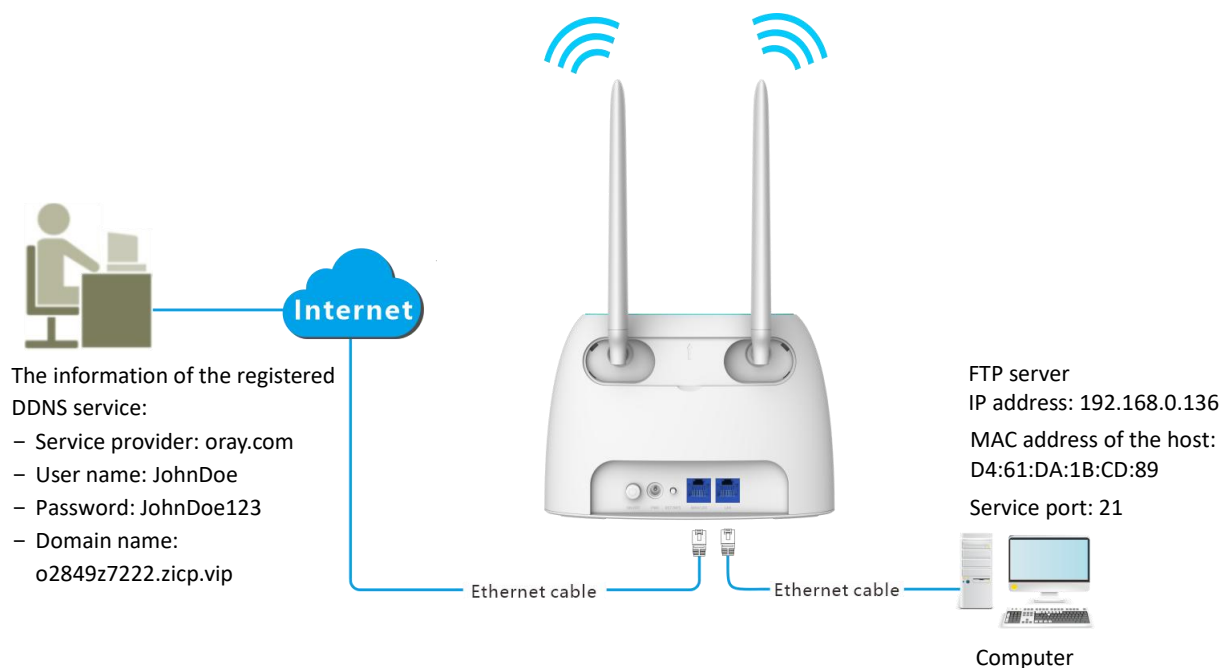
The information of the registered DDNS service:

- Service provider: oray.com
- User name: JohnDoe
- Password: JohnDoe123
- Domain name: o2849z7222.zicp.vip



**TIP**

Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.



**Configuration procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Configure the DDNS function.
1. Choose **Advanced Settings > DDNS**.
  2. Enable the **DDNS** function.
  3. Choose a service provider, which is **oray.com** in this example.
  4. Enter the user name and password, which are **JohnDoe** and **JohnDoe123** in this example.
  5. Click **Save**.

DDNS:

Service Provider: oray.com [Register](#)

User Name: JohnDoe

Password: .....

Connection Status: **Disconnected**

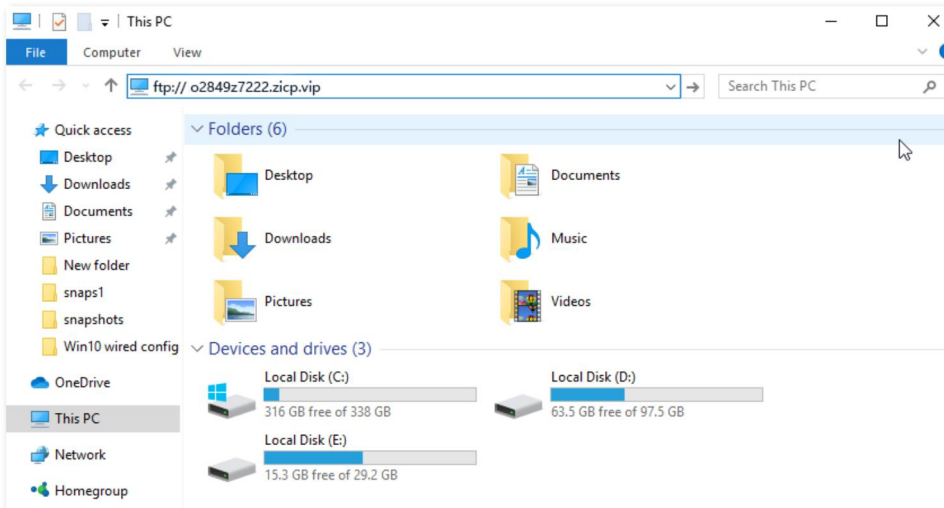
**Save**

Wait a moment, when the Connection Status turns **Connected**, the configurations succeed.

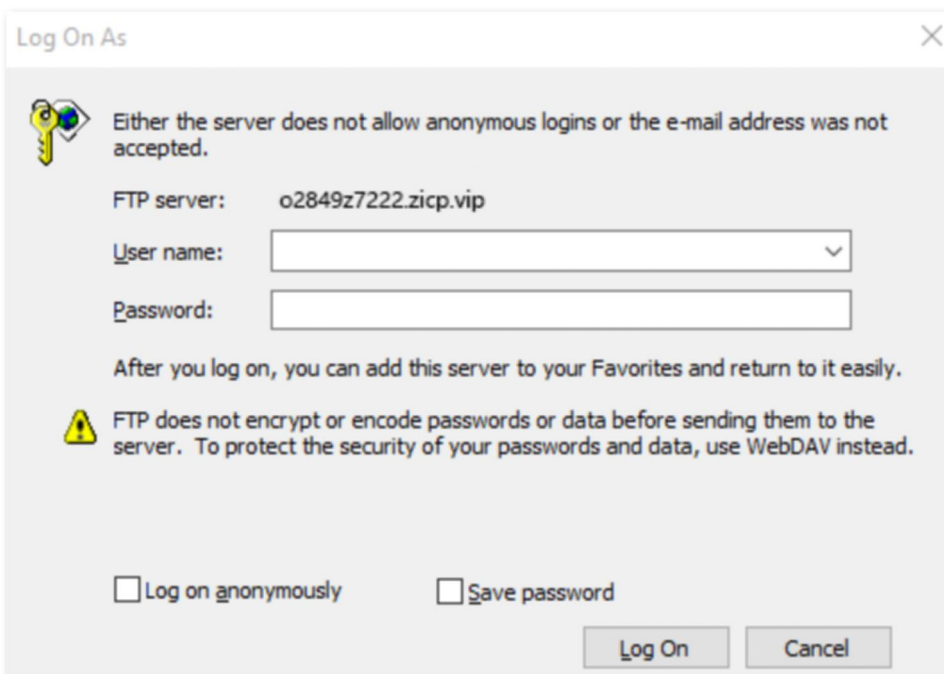
- Step 3** Configure the virtual server function (refer to [Virtual server](#))

**---End**

When completing the configurations, users from the internet can access the FTP server by visiting *"Intranet service application layer protocol name://the domain name"*. If the WAN port number is not the same as the default intranet service port number, the visiting address should be: *"Intranet service application layer protocol name://the domain name:WAN port number"*. In this example, the address is **ftp://o2849z7222.zicp.vip**.



Enter the user name and password to access the resources on the FTP server.



After the configurations, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
- Close the firewall, antivirus software and security guards on the host of the FTP server and try again.

## 11.13 Virtual server

### 11.13.1 Overview

By default, internet users cannot actively access the LAN of the router.

The virtual server function opens a port of the router, and binds the LAN server to the port using the server's IP address and intranet service port. All access requests to the WAN port of the router will be directed to the server. Therefore, the server within the LAN can be accessed by internet users and the LAN can be free from attacks from the internet.

For example, the virtual server function enables internet users to access web servers or FTP servers within the LAN.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > Virtual Server**.

Internal IP Address	LAN Port	WAN Port	Protocol	Operation
<input type="text"/>	21	<input type="text"/>	TCP	+ Add

#### Parameter description

Parameter	Description
Internal IP Address	It specifies the IP address of the server within the LAN of the router.
LAN Port	It specifies the service port number of the server under the LAN of the router. You can either choose a service port number in the drop-down box, or enter a service port number manually.
WAN Port	It specifies the port of the router which is opened and accessible to internet users.
Protocol	It specifies the transport layer protocol of the service. If you are not sure about this parameter, <b>TCP&amp;UDP</b> is recommended.
Operation	Available operations include: <input type="button" value="+ Add"/> : It is used to add a new virtual server rule. : It is used to delete existing virtual server rules.

## 11.13.2 Enable internet users to access LAN resources

**Scenario:** You have set up an FTP server within your LAN.

**Goal:** Open the FTP server to internet users and enable family members who are not at home to access the resources of the FTP server from the internet.

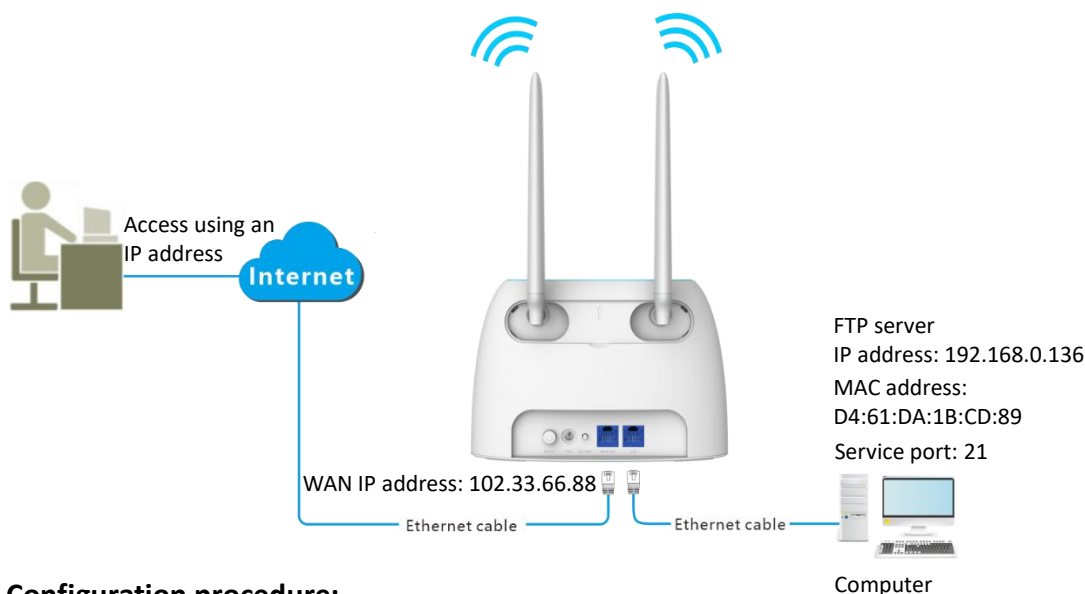
**Solution:** You can configure the virtual server function to reach the goal.

Assume that the information of the FTP server includes:

- IP address: 192.168.0.136
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.



- Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.
- ISPs may block unreported web services to be accessed with the default port number 80. Therefore, when the default LAN port number is 80, please change it to an uncommon port number (1024-65535) manually, such as 9999.
- The LAN port number can be different from the WAN port number.



### Configuration procedure:

**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Add a virtual server rule.

1. Choose **Advanced Settings > Virtual Server**.
2. Enter the **Internal IP Address**, which is **192.168.0.136** in this example.
3. Choose a **LAN Port** in the drop-down box, which is **21** in this example.
4. Choose a protocol, which is **TCP&UDP** in this example.
5. Click **+New**.

Internal IP Address	LAN Port	WAN Port	Protocol	Operation
192.168.0.136	21	21	TCP&UDP	+New

**Step 3** Assign a fixed IP address to the host where the server locates.

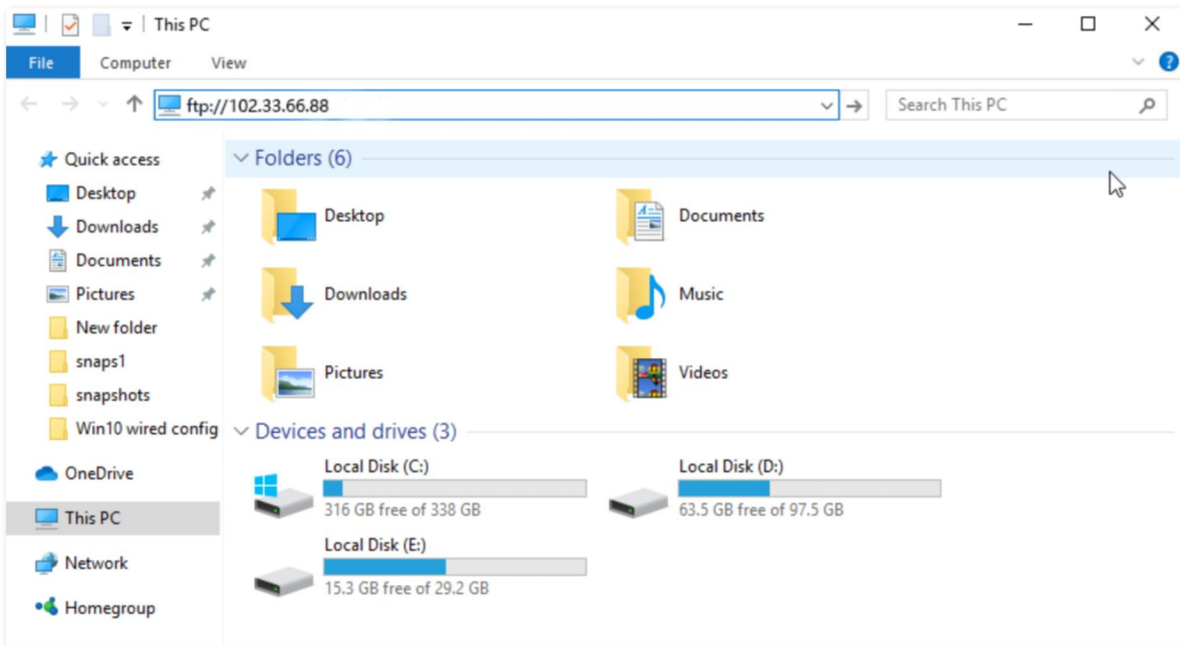
1. Choose **System Settings > DHCP Reservation**.
2. Specifies a **Device Name** for the host of the server, which is **FTP server** in this example.
3. Enter the **MAC Address** of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the **IP Address** of host of the server, which is **192.168.0.136** in this example.
5. Click **+New**.

Device Name	MAC Address	IP Address	Status	Operation
FTP server	:61:DA:1B:CD:89	192.168.0.136	--	+New
DESKTOP-5LII2L5		192.168.0.136		

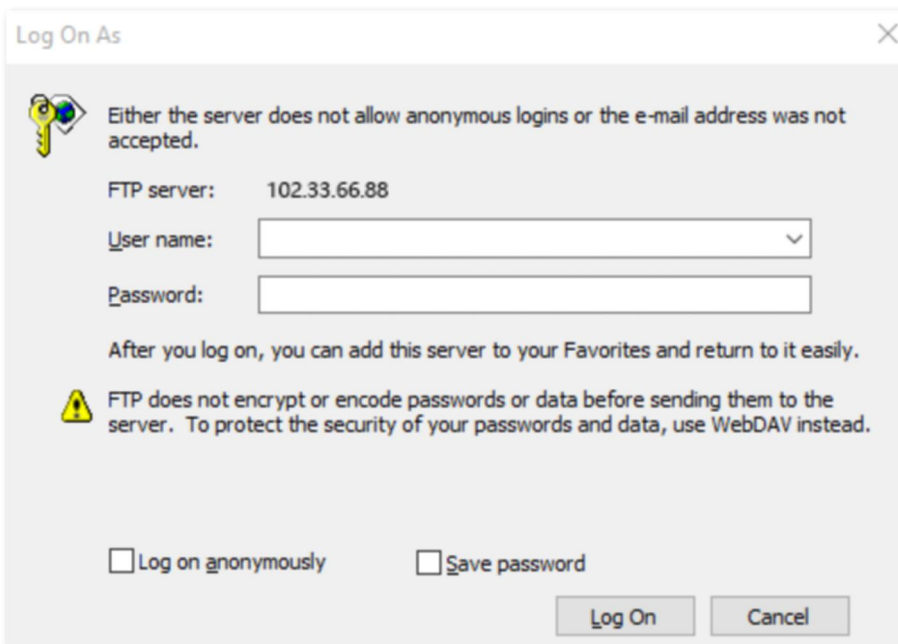
**---End**

When completing the configurations, users from the internet can access the FTP server by visiting *"Intranet service application layer protocol name://WAN IP address of the router"*. If the WAN port number is not the same as the default intranet service port number, the visiting address should be: *"Intranet service application layer protocol name://WAN IP address of the router:WAN port number"*. In this example, the address is **"ftp://102.33.66.88"**. You can find the WAN IP address of the router in [View system information](#).





Enter the user name and password to access the resources on the FTP server.



If you want to access the server within a LAN using a domain name, refer to the solution [DDNS + Virtual server](#).



After the configurations, if internet users still cannot access the FTP server, try the following methods:

- Ensure that the LAN port number configured in the virtual server function is the same as the service port number set on the server.
  - Close the firewall, antivirus software and security guards on the host of the FTP server and try again.
-

## 11.14 DMZ host

### 11.14.1 Overview

A DMZ host on a LAN is free from restrictions in communicating with the internet. It is useful for getting better and smoother experience in video conferences and online games. You can also set the host of a server within the LAN as a DMZ host when in need of accessing the server from the internet.



- A DMZ host is not protected by the firewall of the router. A hacker may leverage the DMZ host to attack your LAN. Therefore, enable the DMZ function only when necessary.
- Hackers may leverage the DMZ host to attack the local network. Do not use the DMZ host function randomly.
- Security software, antivirus software, and the built-in OS firewall of the computer may cause DMZ function failures. Disable them when using the DMZ function. If the DMZ function is not required, you are recommended to disable it and enable your firewall, security, and antivirus software.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > DMZ Host**.

#### Parameter description

Parameter	Description
DMZ Host	It is used to enable or disable the DMZ host function.
DMZ Host IP Address	It specifies the IP address of the host that is to be set as the DMZ host.

### 11.14.2 Enable internet users to access LAN resources

**Scenario:** You have set up an FTP server within your LAN.

**Goal:** Open the FTP server to internet users and enable family members who are not at home to

access the resources of the FTP server from the internet.

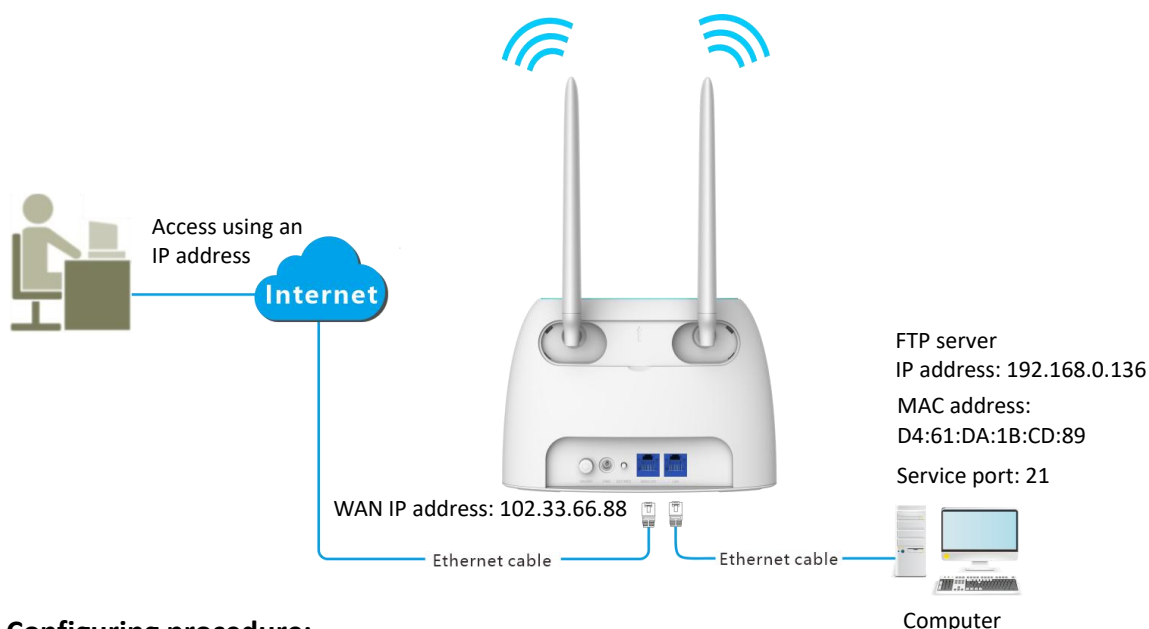
**Solution:** You can configure the DMZ host function to reach the goal.

Assume that the information of the FTP server includes:

- IP address: 192.168.0.136
- MAC address: D4:61:DA:1B:CD:89
- Service port: 21
- The WAN IP address of the router: 102.33.66.88.



Please ensure that router obtains an IP address from the public network. This function may not work on a host with an IP address of a private network or an intranet IP address assigned by ISPs that start with 100. Common IPv4 addresses are classified into class A, class B and class C. Private IP addresses of class A range from 10.0.0.0 to 10.255.255.255. Private IP addresses of class B range from 172.16.0.0-172.31.255.255. Private IP addresses of class C range from 192.168.0.0-192.168.255.255.



### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Set the server host as the DMZ host.
1. Choose **Advanced Settings > DMZ Host**.
  2. Enable **DMZ Host**.
  3. Enter the IP address of the host, which is **192.168.0.136** in this example.
  4. Click **Save**.

**Step 3** Assign a fixed IP address to the host where the server locates.

1. Choose **System Settings > DHCP Reservation**.
2. Specifies a **Device Name** for the server host, which is **FTP server** in this example.
3. Enter the MAC Address of the host of the server, which is **D4:61:DA:1B:CD:89** in this example.
4. Enter the reserved IP Address for the server host, which is **192.168.0.136** in this example.
5. Click **+New**.

Device Name	MAC Address	IP Address	Status	Operation
FTP server	:61:DA:1B:CD:89	192.168.0.136	—	+New
DESKTOP-5LII2L5		192.168.0.136		

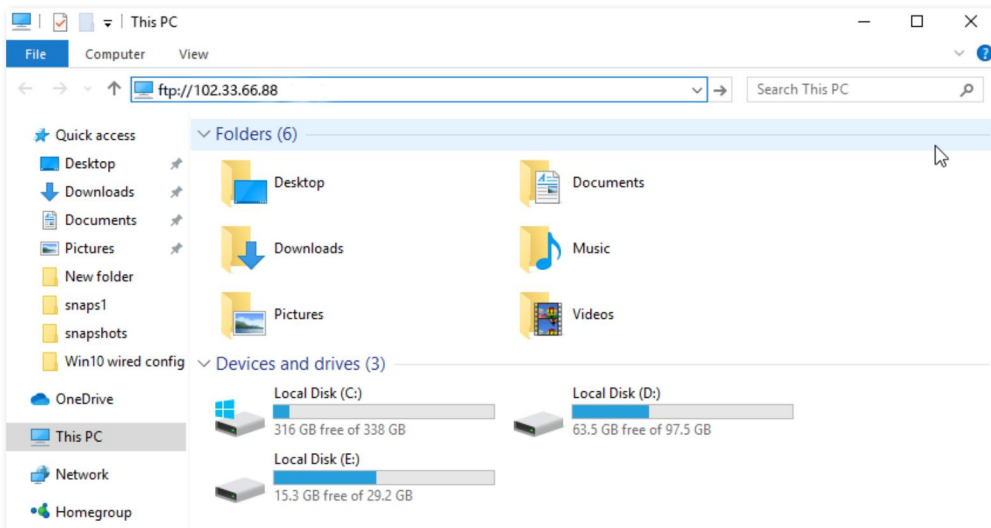
-----End

When the configurations are completed, users from the internet can access the DMZ host by visiting “*Intranet service application layer protocol name://WAN IP address of the router*”. If the intranet service port number is not the default number, the visiting address should be: “*Intranet service application layer protocol name://WAN IP address of the router:intranet service port number*”.

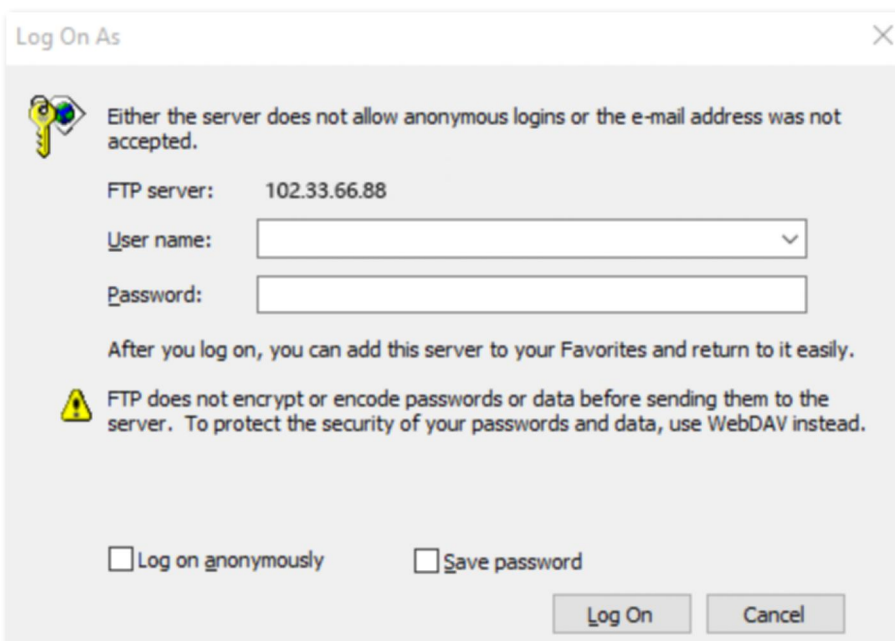
In this example, the address is “**ftp://102.33.66.88**”. You can find the WAN IP address of the router in [View system information](#).



When the default intranet service port number is 80, please change the service port number to an uncommon one (1024-65535), such as 9999.



Enter the user name and password to access the resources on the FTP server.



If you want to access the server within a LAN using a domain name, refer to the solution [DMZ](#) + [DDNS](#).



**TIP** After the configurations, if internet users still cannot access the FTP server, close the firewall, antivirus software and security guards on the host of the FTP server and try again.

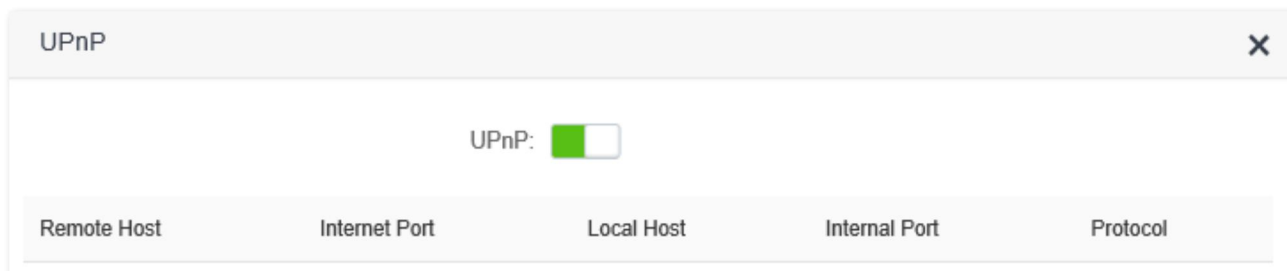
---

## 11.15 UPnP

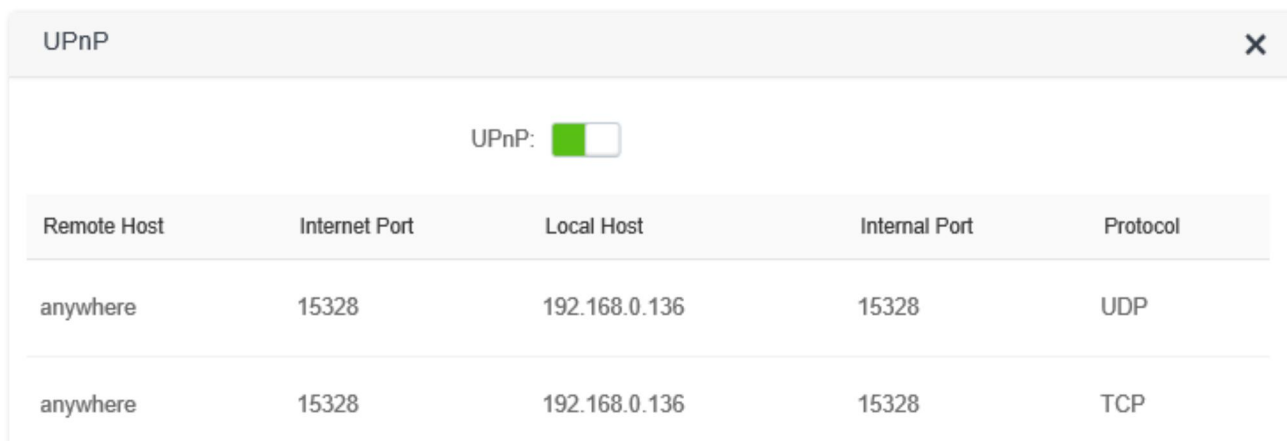
UPnP is short for Universal Plug and Play. This function enables the router open port automatically for UPnP-based programs. It is generally used for P2P programs, such as BitComet and AnyChat, and helps increase the download speed.

To access the configuration page, log in to the web UI of the router, and choose **Advanced Settings > UPnP**.

This function is enabled by default.



When any program that supports the UPnP function is launched, you can find the port conversion information on this page when the program sends any requests.



## 11.16 Antenna settings

**TIP**

- Only 4G03 is equipped with internal antennas and supports antenna settings.
- External antennas are not included in the package of 4G03 and need to be bought additionally.
- External antennas can only enable the router to receive 3G/4G signal at a greater distance from the ISP and in a hasher environment. They do not work under the wireless router mode.

Antenna settings enable you to choose the antennas used for receiving 3G/4G signal from the ISP. Compatible external antennas enable the router to receive 3G/4G signal at a greater distance from the ISP and in a hasher environment.

Three modes are available for the router.

- **Auto (default):** The router switches between internal and external antennas automatically based on whether external antennas are installed. When external antennas are installed, the router gives priority to external antennas.
- **External Antennas (better performance):** The router receives and transmits 4G signal through external antennas. Under the wireless router mode, the setting does not work.
- **Internal Antennas:** The router receives and transmits 4G signal, or provides Wi-Fi network through internal antennas.

To access the configuration page, log in to the web UI of the router and choose **Advanced Settings > Antennas Settings**. Choose the suitable mode as required.

Antenna Settings

Please select an antenna mode:

Auto (default)

External Antennas (better performance)

Internal Antennas

Save



## 11.17 TR069

The TR069 (Technical Report - 069) protocol allows an Auto-Configuration Server (ACS) to perform auto-configuration, provision, collection, and diagnostics to the modem router from the internet. Generally, it is used by the ISP to manage the router and is disabled by default. Contact your ISP for these parameters.

To access the configuration page, log in to the web UI of the router and choose **Advanced Settings > TR069**.

### TR069 Settings

Enable TR069:

#### ACS

URL:

ACS User Name:

ACS Password:

Enable Scheduled Notification:

Scheduled Notification Interval:  Unit: Second

#### Connection Request

Connection Request User Name:

Connection Request Password:

Port:

#### STUN Connection

Enable STUN:

STUN Server Address:

STUN Server Port:

**Parameter description**

<b>Parameter</b>	<b>Description</b>
Enable TR069	It is used to enable or disable the TR069 function.
URL	It specifies the domain name of the ACS.
ACS User Name	It specifies the user name used to authenticate the router when the router connects to the ACS using the TR069 protocol.
ACS Password	It specifies the password used to authenticate the router when the router connects to the ACS using the TR069 protocol.
Enable Scheduled Notification	It is used to enable or disable the scheduled notification function, which enables the router to send messages to the ACS at interval.
Scheduled Notification Interval	It specifies the interval at which the router sent messages to the ACS.
Connection Request User Name	It specifies the user name used to authenticate the ACS when it sends the connection request to the router.
Connection Request Password	It specifies the password used to authenticate the ACS when it sends the connection request to the router.
Port	It specifies the port used to receive the connection request sent by the ACS.
Enable STUN	It is used to enable or disable the STUN function, which facilitates the communication between the router and the public network when the router is under a LAN.
STUN Server Address	It specifies the IP address of the STUN server.
STUN Server Port	It specifies the port of the STUN server.

# 12 System settings

## 12.1 LAN settings

To access the configuration page, log in to the web UI of the router, and choose **System Settings > LAN Settings**.

On this page, you can:

- **Change the LAN IP address and subnet mask of the router.**
- **Change the DHCP server parameters of the router.**

The DHCP server can automatically assign IP address, subnet mask, gateway and other information to clients within the LAN. If you disable this function, you need to manually configure the IP address information on the client to access the internet. Do not disable the DHCP server function unless necessary.

- **Configure the DNS information assigned to clients.**

LAN Settings

LAN IP Address:

Subnet Mask:

DHCP Server:



IP Address Range: 192.168.0.  ~

Lease Time:

DNS Settings:

### Parameter description

Parameter	Description
LAN IP Address	It specifies the LAN IP address of the router, which is also the management IP address for logging in to the web UI of the router.

Parameter	Description
Subnet Mask	It specifies the subnet mask of the LAN port, used to identify the IP address range of the local area network.
DHCP Server	It is used to enable or disable the DHCP server. Once enabled, the DHCP server automatically assigns internet parameters such as IP address, subnet mask, and gateway address to the terminal device. This function is recommended to be enabled.
IP Address Range	It is required only when <b>DHCP Server</b> is enabled. It specifies the range of IP addresses that can be assigned to devices connected to the router. The default range is 192.168.0.100 to 192.168.0.200.
Lease Time	It is required only when <b>DHCP Server</b> is enabled. It specifies the valid duration of the IP address that is assigned to a client. When the lease time reaches half, the client will send a DHCP Request to the DHCP server for renewal. If the renewal succeeds, the lease is renewed based on the time of the renewal application. If the renewal fails, the renewal process is repeated again at 7/8 of the lease period. If it succeeds, the lease is renewed based on the time of the renewal application. If it still fails, the client needs to reapply for IP address information after the lease expires. The default value is recommended.
DNS Settings	It is required only when <b>DHCP Server</b> is enabled. It specifies whether to allocate another DNS address to the client. When it is disabled, the LAN port IP address of the router is used as the DNS address of the client. When it is enabled, <b>Primary DNS</b> must be set and <b>Secondary DNS</b> is optional.  <b>TIP</b> This router has the DNS proxy function.
Primary DNS Server	It is required only when <b>DNS Settings</b> is enabled. It specifies the primary DNS address of the router, which is assigned to the clients. You can change it if necessary.  <b>TIP</b> Make sure that the primary DNS server is the IP address of the correct DNS server or DNS proxy. Otherwise, you may fail to access the internet.
Secondary DNS Server	It specifies the secondary DNS address of the router used to assign to the clients. It is an optional field and is left blank by default.





## 12.2 DHCP reservation

### 12.2.1 Overview

Through the DHCP reservation function, specified clients can always obtain the same IP address when connecting to the router, ensuring that the router's "Virtual server", "DDNS", "DMZ host" and other functions can function normally. This function takes effect only when the DHCP server function of the router is enabled.

To access the configuration page, log in to the web UI of the router, and choose **System Settings > DHCP Reservation**.

#### Parameter description

Parameter	Description
Device Name	It specifies the device name of the client.
MAC Address	It specifies the MAC address of the client.
IP Address	It specifies the IP address reserved for the client.
Status	It specifies whether the client is online or not.
Operation	<p>The available options include:</p> <p> : It is used to add a new DHCP reservation rule.</p> <p> : It is used to bind the MAC address to the reserved IP address.</p> <p> : It is used to unbind the MAC address from the reserved IP address.</p> <p> : It is used to delete the DHCP reservation rule.</p>

### 12.2.2 Assign static IP addresses to LAN clients

**Scenario:** You have set up an FTP server within your LAN.

**Goal:** Assign a fixed IP address to the host of the FTP server and prevent the failure of access to the FTP server owing to the change of IP address.

**Solution:** You can configure the DHCP reservation function to reach the goal.

Assume that the information of the FTP server includes:

- The fixed IP address for the server: 192.168.0.136
- MAC address of the FTP server host: D4:61:DA:1B:CD:89

### Configuring procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **System Settings > DHCP Reservation**.
- Step 3** (Optional) Enter the device name for the host.
- Step 4** Enter the MAC address of the host, which is **D4:61:DA:1B:CD:89** in this example.
- Step 5** Enter the IP address reserved for the host, which is **192.168.0.136** in this example.
- Step 6** Click **+New**.

Device Name	MAC Address	IP Address	Status	Operation
FTP server	:61:DA:1B:CD:89	192.168.0.136	--	+New

---End

When the configuration is completed, the page is shown as below and the FTP server host always gets the same IP address when connecting to the router, which is 192.168.0.136 in this example.

Device Name	MAC Address	IP Address	Status	Operation
Optional			--	+New
DESKTOP-5LII2L5		192.168.0.135		
FTP server	D4:61:DA:1B:CD:89	192.168.0.136		

## 12.3 WAN settings (wireless router mode)



This function is only available under the wireless router mode. Refer to [Operating mode](#) to set the operating mode of the router.

In the **WAN Parameters** module, you can check and modify MTU value, WAN speed, duplex mode, MAC address, service name and server name.

### 12.3.1 Change MTU value

Maximum Transmission Unit (MTU) is the largest data packet transmitted by a network device. When the connection type is PPPoE, the default MTU value is 1480. When the connection type is dynamic IP address or static IP address, the default MTU value is 1500. Do not change the value unless necessary. If you need to, please refer to the following instructions.

To access the configuration page, log in to the web UI of the router, and choose **System Settings** > **WAN Settings**.

The screenshot shows the 'WAN Settings' configuration window. The 'MTU' field is set to '1480' and is highlighted with a red dashed box. Below it, the 'Speed' is set to '1000 Mbps auto-negotiation'. The 'MAC Address' is set to 'Default' with a greyed-out input field. The 'Service Name' and 'Server Name' are both set to 'Default' with the instruction 'Keep the default unless necessary'. A green 'Save' button is located at the bottom of the form.

Generally, the default value is recommended. Try to change the MTU value when:

- You cannot access some specific websites or encrypted websites (such as E-banking or Paypal websites).
- You cannot receive and send Emails or access an FTP or POP server.

You can try reducing the value of MTU gradually from 1500 until the problem is resolved (The recommended range is 1400 to 1500).

**MTU application description**

MTU	Application
1500	It is commonly used for non-ADSL and non-VPN dial-up connections.
1492, 1480	It is used for ADSL dial-up connections.
1472	It is the maximum value for the ping command. A packet with a larger size is fragmented.
1468	It is used for DHCP connections.
1436	It is used for VPN or PPTP connections.

**12.3.2 Change the WAN speed and duplex mode**

To access the configuration page, log in to the web UI of the router, and choose **System Settings > WAN Settings**.

When the Ethernet cable is intact and connected to the WAN port properly, but **Ethernet cable disconnected** is still shown on the **Internet Settings** page, you can try to change the **Speed** to **10 Mbps FDX** or **10 Mbps HDX** to solve the problem. Otherwise, keep the default settings.

WAN Settings

MTU: 1480

Speed: 1000 Mbps auto-negotiation  
10 Mbps FDX  
10 Mbps HDX  
100 Mbps FDX  
100 Mbps HDX

MAC Address: Default

Service Name: Default Keep the default unless necessary

Server Name: Default Keep the default unless necessary

Save

**MTU parameter description**

MTU	Application
1000 Mbps auto-negotiation	It indicates that the speed and duplex mode are determined through the negotiation with the peer port.
10 Mbps FDX	10 Mbps Full Duplex. It indicates that the WAN port is working at the speed of 10 Mbps, and the port can receive and send data packets at the same time.



MTU	Application
10 Mbps HDX	10 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 10 Mbps, but the port can only receive or send data packets alternately.
100 Mbps FDH	100 Mbps Full Duplex. It indicates that the WAN port is working at the speed of 100 Mbps, and the port can receive and send data packets at the same time.
100 Mbps HDX	100 Mbps Half Duplex. It indicates that the WAN port is working at the speed of 100 Mbps, but the port can only receive or send data packets alternately.

### 12.3.3 Change the MAC address of the WAN port

If you still cannot access the internet after completing [Access the internet through the WAN port](#), it could be the result of the ISP's configuration to bind the internet account information with a fixed MAC address. In this case, you can clone and change the MAC address of the router to solve the problem.

To access the configuration page, log in to the web UI of the router, and choose **System Settings > WAN Settings**.

The screenshot shows the WAN Settings configuration page. The fields are as follows:

- MTU: 1480
- Speed: 1000 Mbps auto-negotiator
- MAC Address: Default (dropdown menu is open showing options: Default, Clone local MAC address, Set MAC address)
- Service Name: Clone local MAC address (Keep the default unless necessary)
- Server Name: Default (Keep the default unless necessary)

A green Save button is located at the bottom of the form.

- **Default:** Keep the factory setting of MAC address.
- **Clone local MAC address:** Set the MAC address of the router to the same as that of the device which is configuring the router.
- **Set MAC address:** Manually set a MAC address.



Please ensure the cloned MAC address is that of the computer or the router which is already able to access the internet.

#### Configuration procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **System Settings > WAN Settings**.
- Step 3** Click the drop-down box of **MAC Address**, choose **Clone local MAC address**, or **Set MAC address** and enter the desired MAC address.
- Step 4** Click **Save**.
- End

### 12.3.4 Change the service name and server name

To access the configuration page, log in to the web UI of the router, and choose **System Settings > WAN Settings**.

You may need to change the service name and server name of the broadband service only when the connection type is PPPoE.

If you obtain the service name and server name from your ISP when purchasing the broadband service, you can change them on this page after completing the internet settings. Otherwise, keep the default settings.

WAN Settings

MTU: 1480

Speed: 1000 Mbps auto-negotiator

MAC Address: Clone local MAC address Local: [REDACTED]

Service Name: Default Keep the default unless necessary

Server Name: Default Keep the default unless necessary

Default  
Default  
Custom

Save

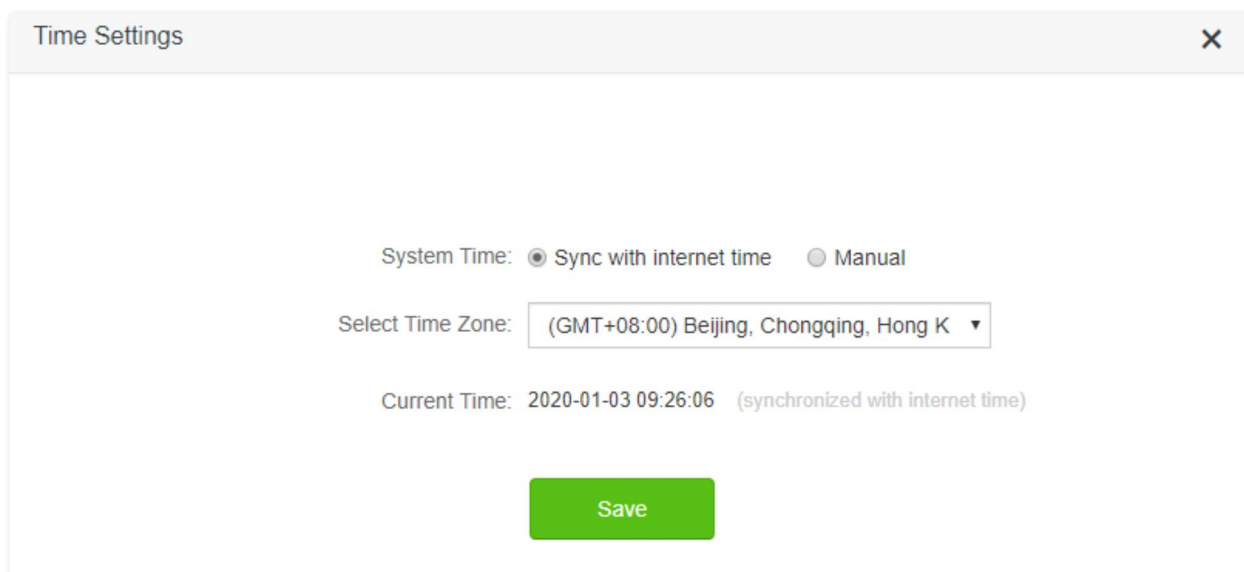
## 12.4 Time settings

To access the configuration page, log in to the web UI of the router, and choose **System Settings > Time Settings**.

You can change the time settings on this page. The functioning of functions based on time requires an accurate system time. The system time of the router can be synchronized with the internet or set manually. By default, it is synchronized with the internet.

### 12.4.1 Sync system time with the internet time

Under this mode, the router will automatically sync its time with the internet time when it is connected to the internet. You can also choose the time zone to be synchronized.



Time Settings

System Time:  Sync with internet time  Manual

Select Time Zone: (GMT+08:00) Beijing, Chongqing, Hong K

Current Time: 2020-01-03 09:26:06 (synchronized with internet time)

Save

### 12.4.2 Set the time manually

When the system time is set to **Manual**, you can enter a desired time or sync the system time of the router with the device that is configuring the router. Besides, you need to correct it every time after you reboot the router to ensure the accuracy of system time.

Time Settings

System Time:  Sync with internet time  Manual

Date & Time: 2020 Year 01 Month 03 Day 10 hrs 26 min 00 sec

Sync with Local PC Time

Save

## 12.5 Login password

To ensure network security, a login password is recommended. A login password consisting of more types of characters, such as uppercase letters and lowercase letters, brings higher security.

To access the login password configuration page, log in to the web UI and choose **System Settings > Login Password**.

When you use the router for the first time, no password is required to log in to the web UI of the router and you can set a login password on this page.

Login Password

New Password:

Confirm Password:

Save

If you have already set a login password, you can change the password on this page and the old password is required.

Login Password ×

Old Password:

New Password:

Confirm Password:



**TIP** If you forget your login password and cannot log in to the web UI of the router, refer to [reset the router](#) to restore the router to factory settings and log in to the web UI without password.

---

## 12.6 Reboot and reset

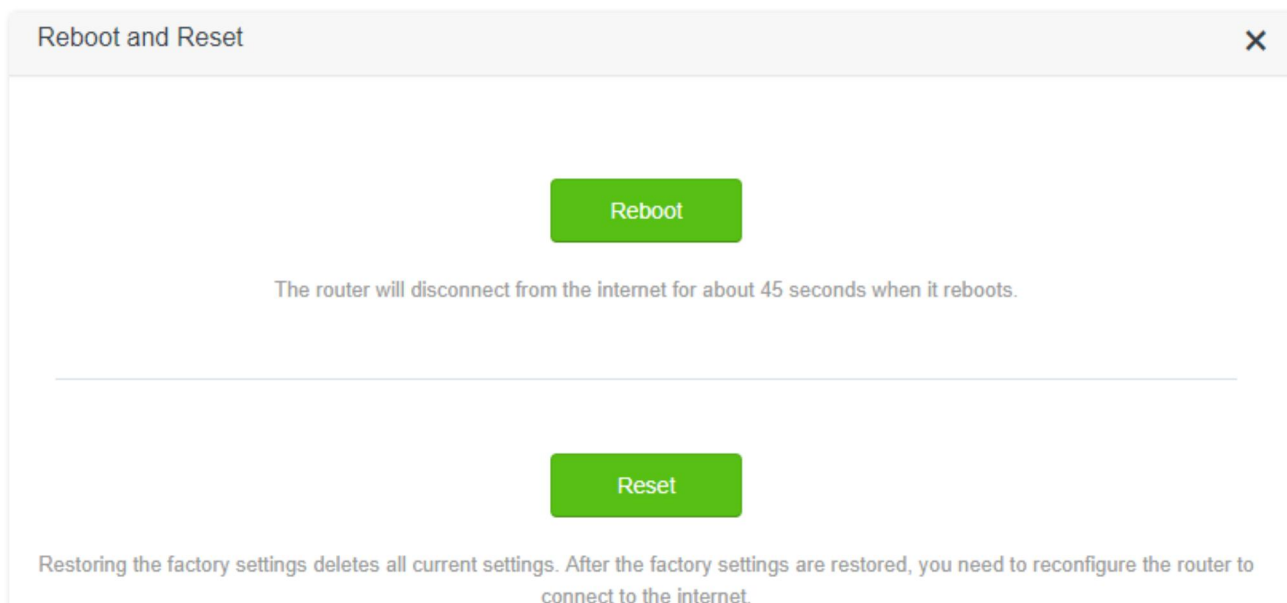
### 12.6.1 Reboot the router

If any parameter fails to take effect or the router does not work properly, you can try rebooting the router.



Rebooting the router will disconnect all connections to the router. Reboot the router during leisure times.

To reboot the router, log in to the web UI of the router and choose **System Settings > Reboot and Reset**. Click **Reboot** to reboot the router.



Wait for a moment until the ongoing process finishes.

### 12.6.2 Reset the router

If you are uncertain about why the internet is inaccessible through the router or you forget the login password of the router, you can reset the router.



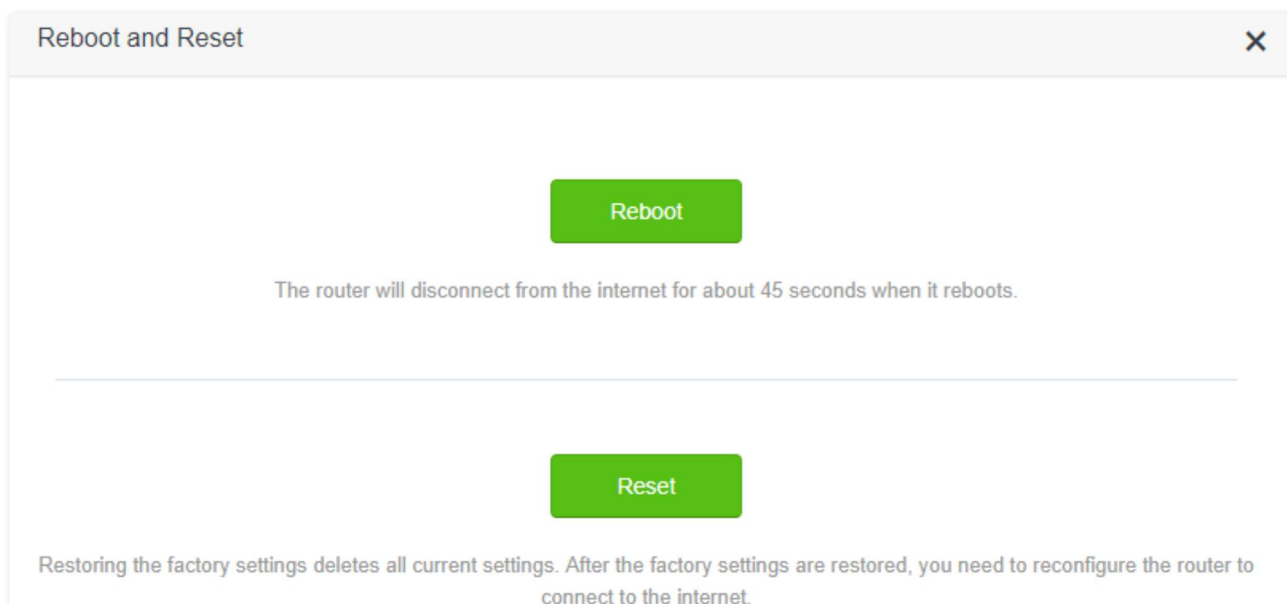
- Resetting the router is not recommended unless you cannot find a solution for the current problem anyway. You need to reconfigure the router after it is reset.
- Ensure that the power supply of the router is normal when the router is reset. Otherwise the router could be damaged.
- The default login IP address is 192.168.0.1 after resetting, and no password is required.

## Reset the router using the reset button

Hold down the **RST/WPS** button on the rear panel of the router for about 8 seconds and release when all LED indicators blink once. The router is reset and restored to factory settings.

## Reset the router on the web UI

Start a web browser and log in to the web UI of the router. Choose **System Settings > Reboot and Reset**, and click **Reset**.



Wait for a moment until the ongoing process finishes.

## 12.7 Upgrade firmware

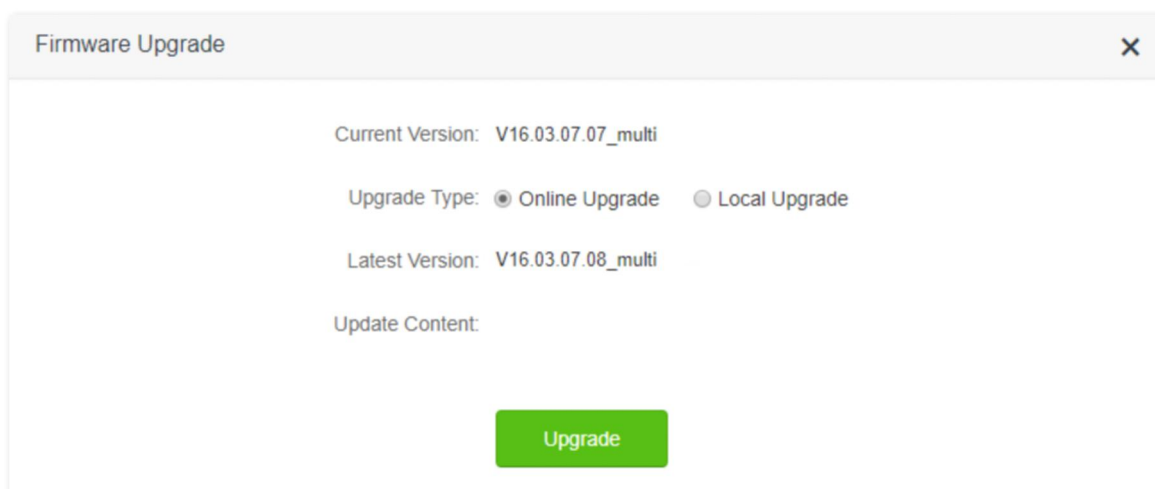
This function enables the router to obtain the latest functions and more stable performance. The router supports online firmware upgrade and local firmware upgrade.

### 12.7.1 Online upgrade

When the router is connected to the internet, it auto-detects whether there is a new firmware and displays the detected information on the page. You can choose whether to upgrade to the latest firmware.

#### Configuration procedure:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **System Settings > Firmware Upgrade**.
- Step 3** Wait until a new firmware version is detected.



- Step 4** Click **Update**.

---End

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again. Choose **System Settings > System Status** and check whether the upgrade is successful based on the **Firmware Version**.



TIP

For better performance of the new firmware of the router, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

---



## 12.7.2 Local upgrade



To prevent the router from being damaged:

- Ensure that the firmware is applicable to the router.
- It is recommended to upgrade the firmware by connecting a LAN port to a computer and performing the upgrade on the web UI.
- When you are upgrading the firmware, do not power off the router.

**Step 1** Go to [www.tendacn.com](http://www.tendacn.com). Download an applicable firmware of the router to your local computer and unzip it.

**Step 2** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

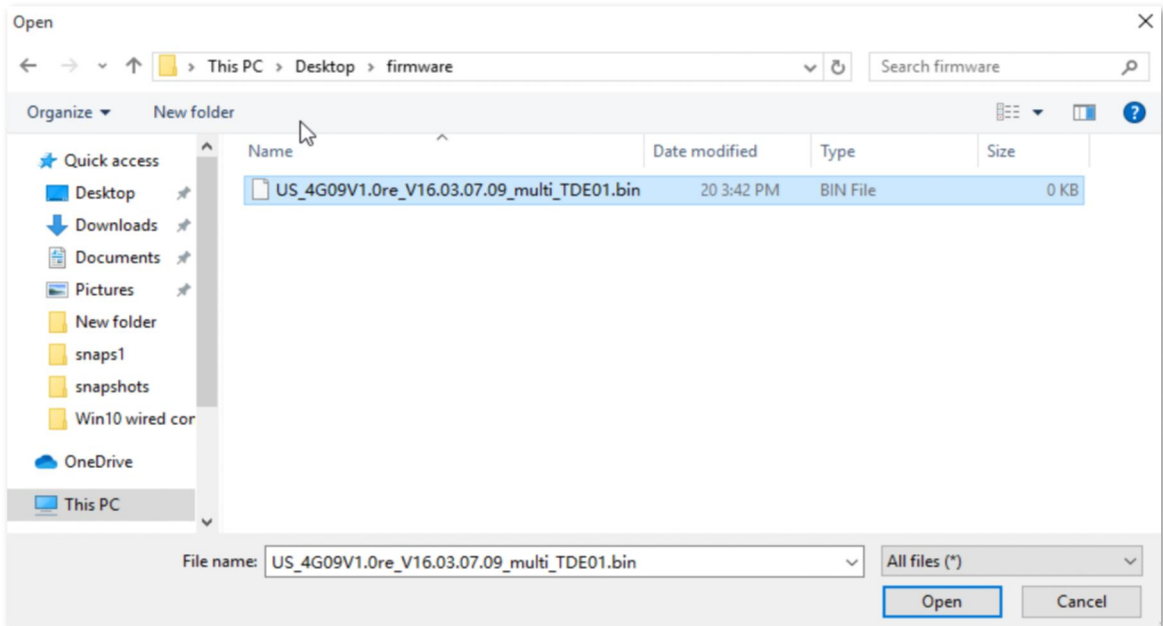
**Step 3** Choose **System Settings > Firmware Upgrade**.

**Step 4** Choose **Local Upgrade**.

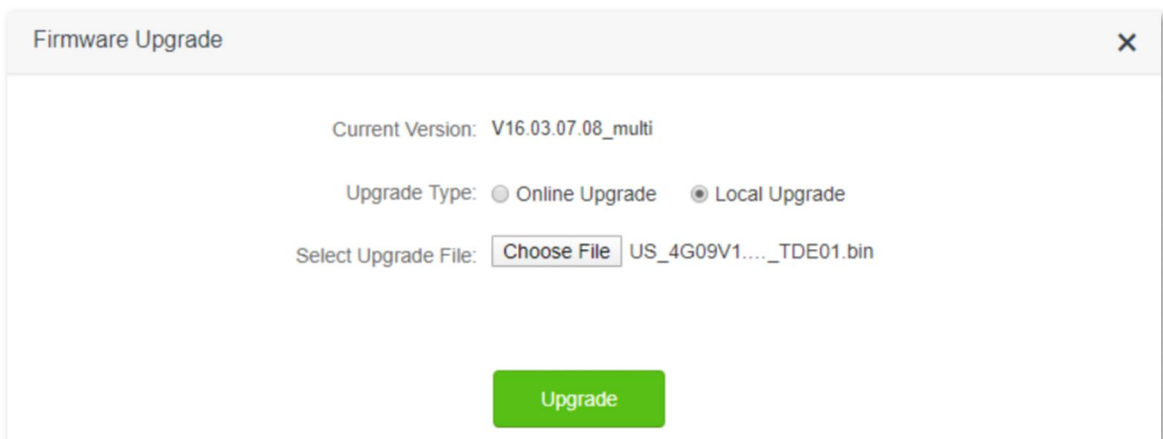
**Step 5** Click **Choose File**.

A screenshot of a web browser window titled "Firmware Upgrade". The window has a close button (X) in the top right corner. The main content area shows the current version as "V16.03.07.08\_multi". Below this, there are two radio buttons for "Upgrade Type": "Online Upgrade" (which is unselected) and "Local Upgrade" (which is selected). Underneath, there is a label "Select Upgrade File:" followed by a "Choose File" button and the text "No file chosen". At the bottom center of the form is a large green "Upgrade" button.

**Step 6** Target the firmware file downloaded previously (extension: bin), and click **Open**.



**Step 7** Click **Upgrade**.



**---End**

Wait for a moment until the ongoing process finishes. Log in to the web UI of the router again. Choose **System Settings > System Status** and check whether the upgrade is successful based on the **Firmware Version**.



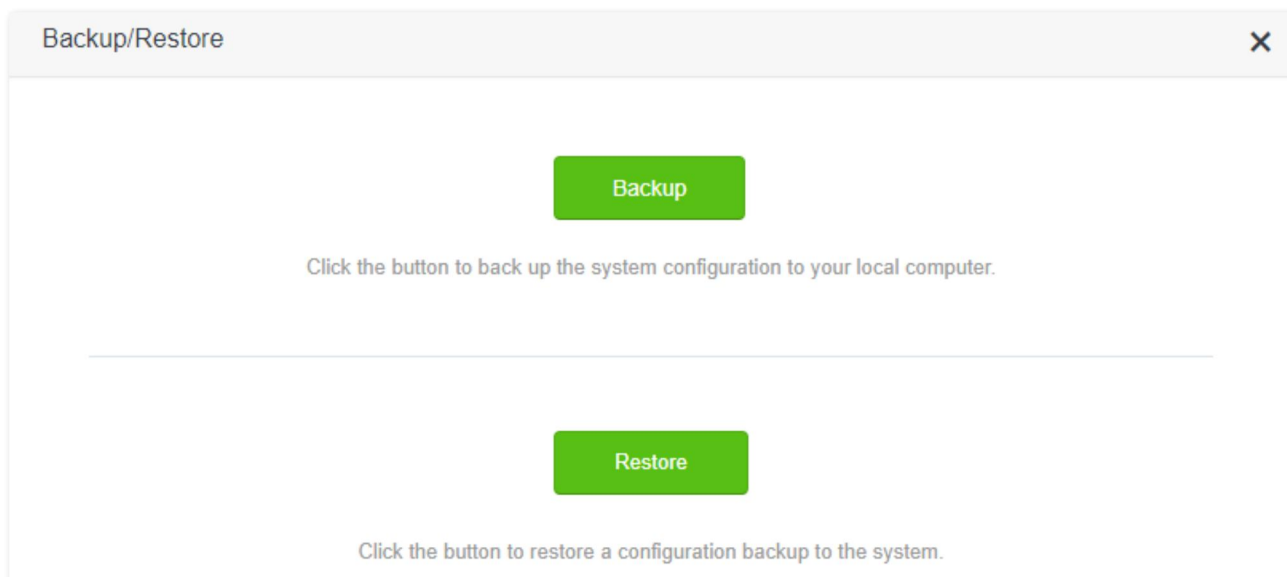
For better performance of the new firmware, you are recommended to reset the router to factory default settings and re-configure the router when the upgrading is completed.

## 12.8 Backup/Restore

In this module, you can back up the current configurations of the router to your computer. You are recommended to back up the configuration after the settings of the router are significantly changed, or the router works in a good condition.

After you restore the router to factory settings or upgrade it, you can use this function to restore the configurations that have been backed up.

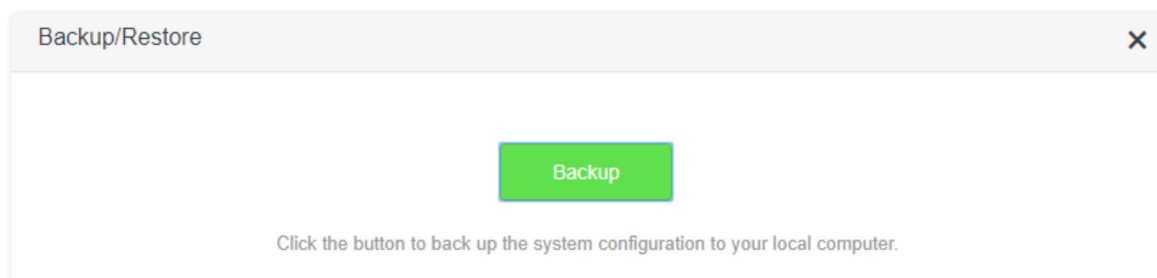
To access the configuration page, log in to the web UI of the router, and choose **System Settings > Backup/Restore**.



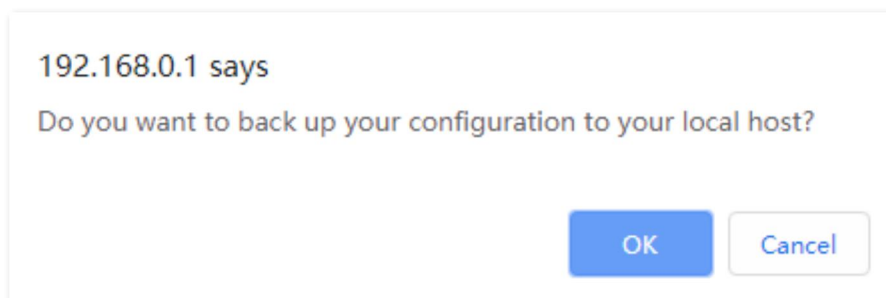
### 12.8.1 Back up the configurations of the router

To back up the configurations of the router:

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **System Settings > Backup/Restore**.
- Step 3** Click **Backup**.



**Step 4** Click **OK** in the pop-up window.



**---End**

A file named **RouterCfm.cfg** will be downloaded to your local host.

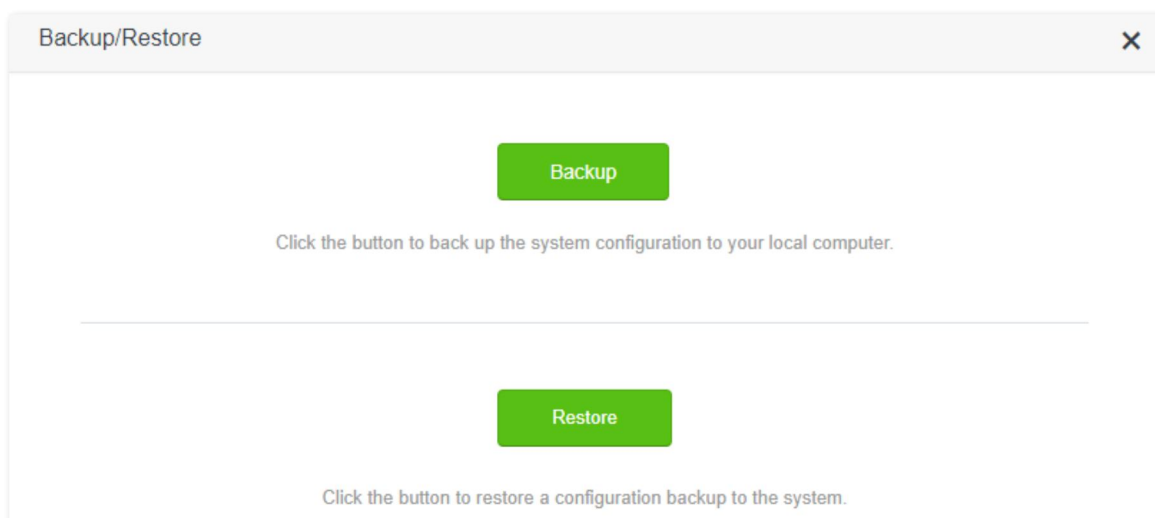
## 12.8.2 Restore previous configurations of the router

To restore the previous configurations of the router:

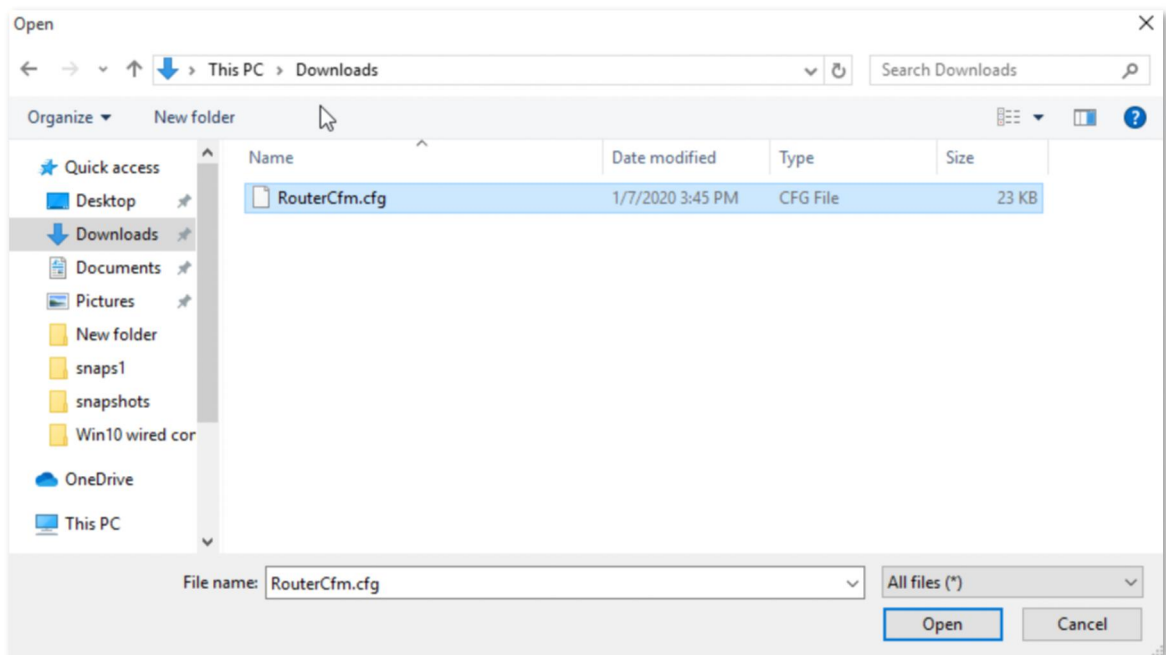
**Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.

**Step 2** Choose **System Settings > Backup/Restore**.

**Step 3** Click **Restore**.



**Step 4** Choose the configuration file (extension: .cfg) to be restored, and click **Open**.



**---End**

Wait for a moment until the ongoing process finishes, and the router restores previous settings.

## 12.9 Remote management


### 12.9.1 Overview

Generally, the web UI of the router can only be accessed on devices that are connected to the router by a LAN port or wireless connection. When you encounter a network fault, you can ask for remote technical assistance, which improves efficiency and reduces costs and efforts.

To access the configuration page, log in to the web UI of the router, and choose **System Settings > Remote Management**.

By default, this function is disabled. When this function is enabled, the page is shown as below.

#### Parameter description

Parameter	Description
Remote Management	It is used to enable or disable the remote management function of the router.
Remote IP Address	<p>It specifies the IP address of the host which can access the web UI of the router remotely.</p> <ul style="list-style-type: none"> <li>0.0.0.0: It indicates that hosts with any IP address from the internet can access the web UI of the router. It is not recommended for security.</li> <li>Other specified IP address: Only the host with the specified IP address can access the web UI of the router remotely. If the host is under a LAN, ensure that the IP address is the IP address of the gateway of the host (a public IP address).</li> </ul>
Port	<p>It specifies the port number of the router which is opened for remote management. Change it as required.</p> <p> <b>TIP</b></p> <ul style="list-style-type: none"> <li>The port number from 1 to 1024 has been occupied by familiar services. It is</li> </ul>

Parameter	Description
	<p>strongly recommended to enter a port number from 1025 to 65535 to prevent confliction.</p> <ul style="list-style-type: none"> <li>Remote management can be achieved by visiting “http://the WAN IP address of the router:port number”. If the DDNS host function is enabled, the web UI can also be accessed through “http://the domain name of the router’s WAN port:port number”.</li> </ul>

## 12.9.2 Enable Tenda technical support to access and manage the web UI

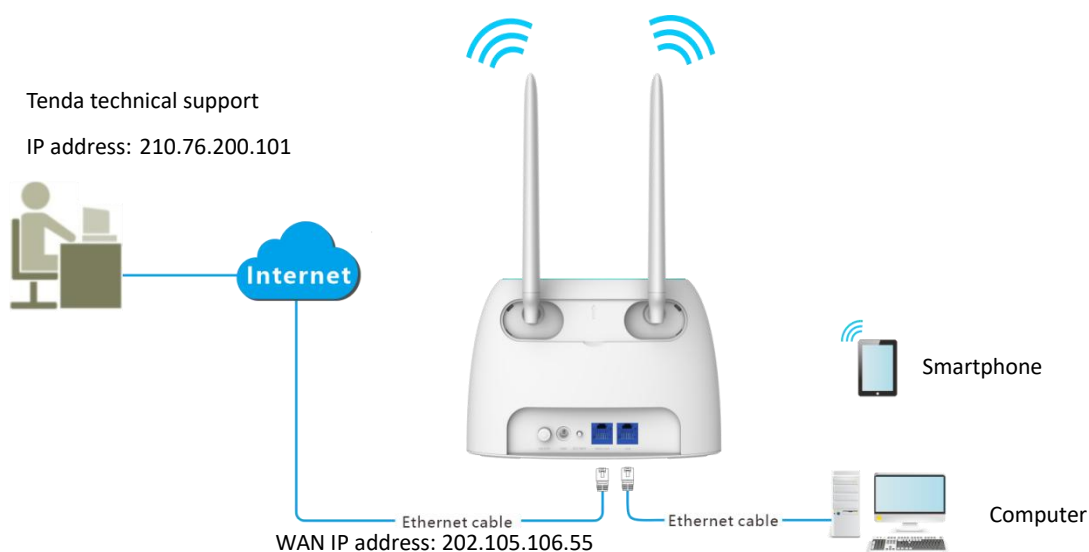
**Scenario:** You encounter a problem in configuring the router, and the router can access internet access.

**Goal:** Ask the Tenda technical support to help you configure the router remotely.

**Solution:** You can configure the remote management function to reach the goal.

Assume that:

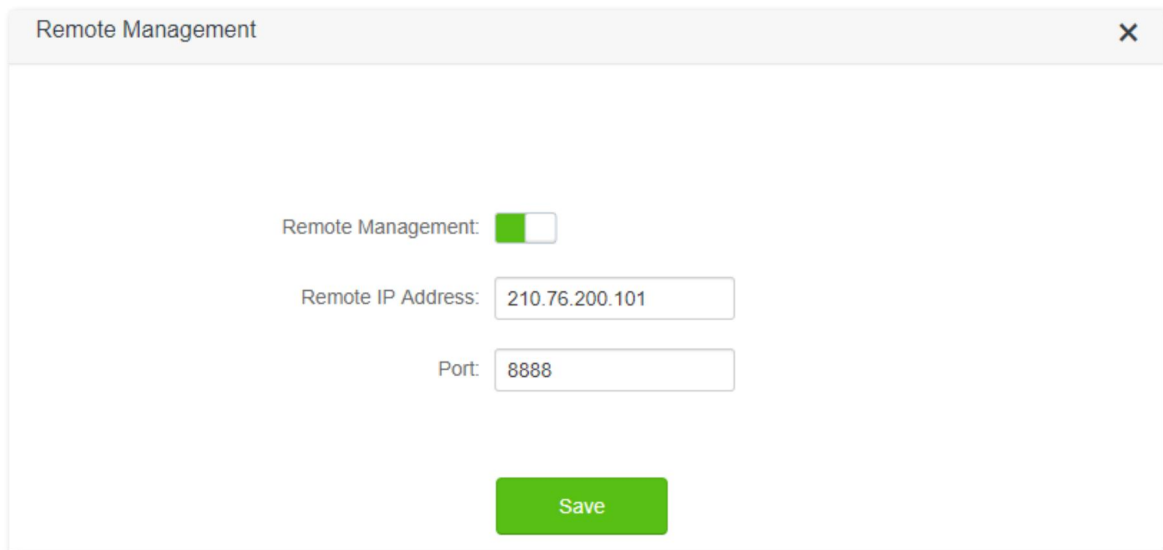
- The IP address of Tenda technical support: 210.76.200.101
- The WAN port IP address of the router: 202.105.106.55



**Configuring procedure:**

- Step 1** Start a web browser on a device connected to the router and visit **tendawifi.com** to log in to the web UI of the router.
- Step 2** Choose **System Settings > Remote Management**.
- Step 3** Enable the **Remote Management**.
- Step 4** Enter the IP address that can access the web UI remotely, which is **210.76.200.101** in this example.

**Step 5** Click **Save**.



The screenshot shows a window titled "Remote Management" with a close button (X) in the top right corner. Inside the window, there are three configuration fields: "Remote Management" with a green toggle switch, "Remote IP Address" with a text box containing "210.76.200.101", and "Port" with a text box containing "8888". A green "Save" button is located at the bottom center of the window.

**---End**

When the configurations are completed, the Tenda technical support can access and manage the web UI of the router by visiting "http://202.105.106.55:8888" on the computer.



## 12.10 System status

On this page, you can find the basic information of the router, WAN status, LAN status, Wi-Fi status and IPv6 status.

To access the page, log in to the web UI of the router, and choose **System Settings > System Status**.

### 12.10.1 Basic information

In this part, you can view the basic information of the router, such as system time, uptime and firmware version and hardware version.

Information

System Time: 2020-02-25 16:31:20

Uptime: 1 hour(s) 28 min 21 s

Firmware Version: V16.03.07.08\_multi

Hardware Version: V1.0

#### Parameter description

Parameter	Description
System Time	It specifies the system time of the router.
Uptime	It specifies operating time of the router since it is powered on.
Firmware Version	It specifies the firmware version of the router.
Hardware Version	It specifies the hardware version of the router.

## 12.10.2 Connection status

### 3G/4G

Under the 3G/4G router mode, you can view the information of the SIM card and 3G/4G network in this part.

3G/4G

SIM Card Status: Ready

Connection Status: Connected

Signal Strength: Excellent

ISP:

Mobile Network: 4G

Statistics: 0.438MB

Upload Speed: 0.0KB/s

Download Speed: 0.0KB/s

IP Address: 10.136.116.154

Subnet Mask: 255.255.255.252

Default Gateway: 10.136.116.153

Primary DNS: 120.80.80.80

Secondary DNS: 221.5.88.88

MAC Address:

#### Parameter description

Parameter	Description
SIM Card Status	It specifies the SIM card status inserted in the router.
Connection Status	It specifies internet connection status of 3G/4G mobile network.
Signal Strength	It specifies the signal strength of 3G/4G mobile network, including Excellent, Good and Fair.

Parameter	Description
ISP	It specifies the ISP (Internet Service Provider) name of the SIM card.
Mobile Network	It specifies the current network type for internet access.
Statistics	It specifies the data traffic of the SIM card that has been used.
Upload Speed	It specifies the upload speed of the mobile network of the router.
Download Speed	It specifies the download speed of the mobile network of the router.
IP address	It specifies the IP address of the router obtained from the ISP.
Subnet Mask	It specifies the subnet mask of mobile network.
Default Gateway	It specifies the gateway IP address of the router.
Primary DNS	It specifies the IP address of primary and secondary DNS servers of the router.
Secondary DNS	
MAC Address	It specifies the 3G/4G MAC address of the router.

## Wireless router mode

Under the wireless router mode, you can view the information of the WAN port, including connection type, connection status and connection duration, etc.

WAN Status
Connection Type: Dynamic IP Address
Connection Status: Connected
Connection Duration: 2 hour(s) 29 min 38 s
IP Address: 172.16.20.80
Subnet Mask: 255.255.255.0
Default Gateway: 172.16.20.20
Primary DNS: 8.8.8.8
Secondary DNS: 3.3.3.3
MAC Address: <span style="background-color: #cccccc; display: inline-block; width: 100px; height: 1em;"></span>

**Parameter description**

Parameter	Description
Connection Type	It specifies the IPv4 connection type of the WAN port.
Connection Status	It specifies internet connection status of the WAN port.
Connection Duration	It specifies the duration since the router is connected to the internet.
IP address	It specifies the WAN IP address of the router.
Subnet Mask	It specifies the WAN subnet mask of the router.
Default Gateway	It specifies the gateway IP address of the router.
Primary DNS	They specify the IP address of primary and secondary DNS servers of the router.
Secondary DNS	
MAC Address	It specifies the WAN MAC address of the router.

**12.10.3 LAN status**

In this part, you can view the information, such as LAN IPv4 address, subnet mask and MAC address.

LAN Status
IP Address: 192.168.0.1
Subnet Mask: 255.255.255.0
MAC Address: <input type="text"/>

**Parameter description**

Parameter	Description
IP Address	It specifies the LAN IP address of the router, and the IP address for logging in to the web UI of the router.
Subnet Mask	It specifies the LAN subnet mask of the router.
MAC Address	It specifies the LAN MAC address of the router.

## 12.10.4 Wi-Fi status

In this part, you can view the information of 2.4 GHz and 5 GHz Wi-Fi network, including the connection status, visibility, hotspot name and encryption mode, etc.

**Wi-Fi Status**

2.4 GHz Wi-Fi Network: Visible

2.4 GHz Wi-Fi Name: Tenda\_F5E8B0

Encryption Mode: None

Channel: 9

Bandwidth: 20

MAC Address:

5 GHz Wi-Fi Network: Visible

5 GHz Wi-Fi Name: Tenda\_F5E8B0

Encryption Mode: None

Channel: 161

Bandwidth: 80

MAC Address:

### Parameter description

Parameter	Description
2.4 GHz Wi-Fi Network	They specify whether the corresponding Wi-Fi network is enabled or disabled, and the visibility of the Wi-Fi network.
5 GHz Wi-Fi Network	
2.4 GHz Wi-Fi Name	They specify the 2.4 GHz Wi-Fi and 5 GHz Wi-Fi name of the router.
5 GHz Wi-Fi Name	
Encryption Mode	It specifies the encryption mode of the respective Wi-Fi network.
Channel	It specifies the channel that the respective Wi-Fi network works in.

Parameter	Description
Bandwidth	It specifies the bandwidth of the respective Wi-Fi network.
MAC Address	It specifies the MAC address of the respective Wi-Fi network.

## 12.10.5 IPv6 status

This part is only displayed when the IPv6 function is enabled. You can view the information of IPv6 connection, including connection type, IPv6 WAN address and IPv6 LAN address.

IPv6 Status
Connection Type: DHCPv6
IPv6 WAN Address: 2408:805f:e206:23a3:78ed:cbff:fe25:1627/64 fe80::78ed:cbff:fe25:1627/64 fe80::522b:73ff:fe5:e8b9/64
Default IPv6 Gateway: fe80::50b3:fff7:3ee5:8840
Primary IPv6 DNS: 2408:805d:8::
Secondary IPv6 DNS: 2408:805c:4008::
IPv6 LAN Address: fec0::522b:73ff:fe5:e8b0/64 fe80::522b:73ff:fe5:e8b0/64

### Parameter description

Parameter	Description
Connection Type	It specifies the IPv6 connection type of the router.
IPv6 WAN Address	It specifies the WAN IPv6 address of the router. After the IPv6 function is configured, the WAN port of the router obtains a global unicast IPv6 address or a tunnel address.
Default IPv6 Gateway	It specifies the primary DNS server address of IPv6 network.
Primary IPv6 DNS	They specify the primary and secondary DNS server address of IPv6 network.
Secondary IPv6 DNS	
IPv6 LAN Address	It specifies the LAN IPv6 address of the router. After the IPv6 function is configured, the LAN port of the router obtains a global unicast IPv6 address or a tunnel address, and a link local address.

## 12.11 System log

To access the configuration page, log in to the web UI of the router, and choose **System Settings > System Log**.

This function logs all key events that occur after the router is started. If you encounter a network fault, you can turn to system logs for fault rectification.

If necessary, you can also export the system logs to your local computer by clicking **Export**.

System Log
✕

Note: If the router is not connected to the internet, the default logging time is 2000-X-X XX:XX:XX.

Number	Time	Type	Log Content
1	2020-01-03 15:20:11	system	WiFi Configuration Start
2	2020-01-03 15:20:01	system	2.4G MAIN WiFi UP
3	2020-01-03 15:19:59	system	WiFi Basic Set
4	2020-01-03 15:19:57	system	WiFi Configuration Start
5	2020-01-03 15:19:51	system	WiFi Basic Set
6	2020-01-03 15:19:17	system	WiFi Configuration Start
7	2020-01-03 15:19:16	system	2.4G MAIN WiFi DOWN
8	2020-01-03 15:19:15	system	WiFi Basic Set
9	2020-01-03 15:19:03	system	LAN1 up
10	2020-01-03 15:16:06	system	LAN1 down

Export

<<
<
>
>>



**TIP** Rebooting the router will clear all previous system logs.


## 12.12 Automatic maintenance

Automatic maintenance enables you to make the router restart regularly. It helps improve the stability and service life of the router.

To access the configuration page, log in to the web UI of the router, and choose **System Settings > Automatic Maintenance**.

This function is enabled by default.

### Parameter description

Parameter	Description
System Reboot Schedule	It is used to enable or disable the automatic reboot function.
Reboot At	It specifies the time when the router reboots automatically every day.
Delay	<p>It is used to enable or disable the delay function.</p> <ul style="list-style-type: none"> <li>• <b>Ticked:</b> The function is enabled. When the time for rebooting approaches, if there is any user connected to the router and the traffic over the router's WAN port exceeds 3 KB/s within 30 minutes, the router will delay rebooting. If there is any user connected to the router and the traffic over the WAN port does not exceed 3 KB/s within 30 minutes, or there is no user connected to the router and the traffic over the router's WAN port is slower than 3 KB/s within 3 minutes, the router will reboot automatically.</li> <li>• <b>Unticked:</b> The function is disabled. The router enters the sleeping mode during the sleeping time.</li> </ul> <p> <b>TIP</b></p> <p>When the system reboot schedule function is enabled, the router detects the traffic over the WAN port continuously within 2 hours after the specified reboot time and reboot when the traffic requirement for rebooting is met.</p>




# Appendix

## A.1 Configuring the computer to obtain an IPv4 address automatically

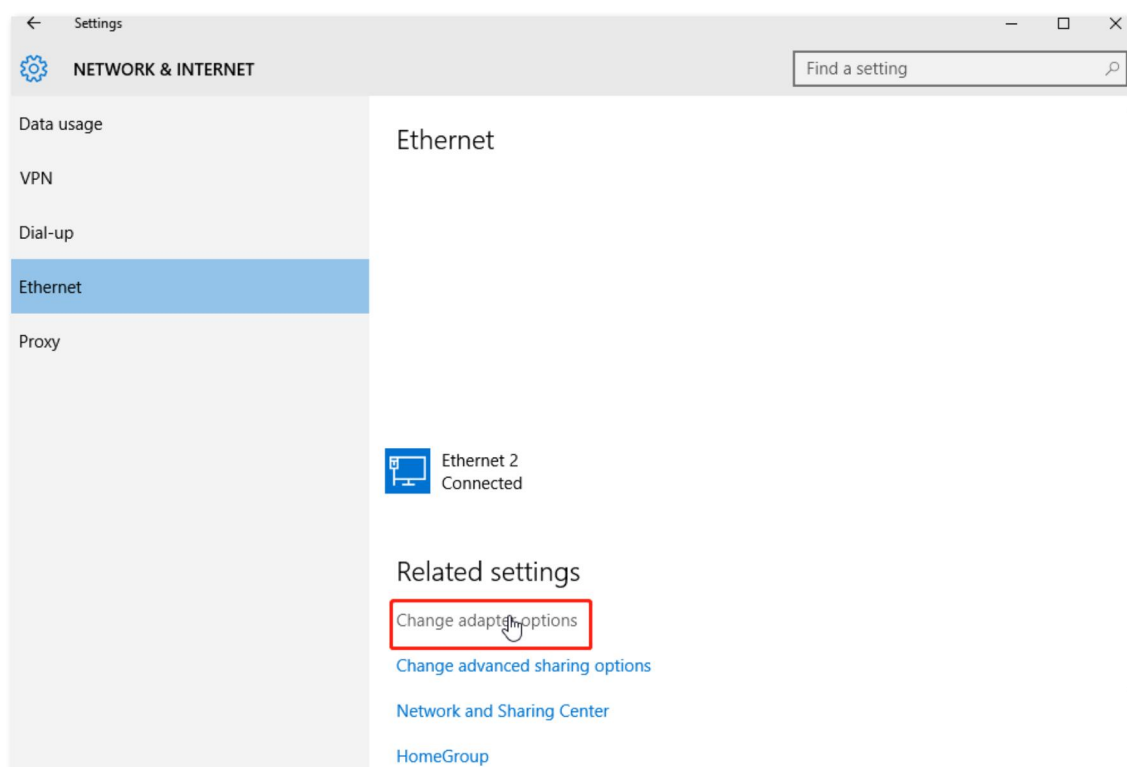
Perform the configuration procedures corresponding to [Windows 10](#), [Windows 8](#) and [Windows 7](#) and as required. A computer installed with a wired network adapter is used as an example to describe the procedures. The procedures for configuring computers installed with a Wi-Fi network adapter are similar.

### A.1.1 Windows 10

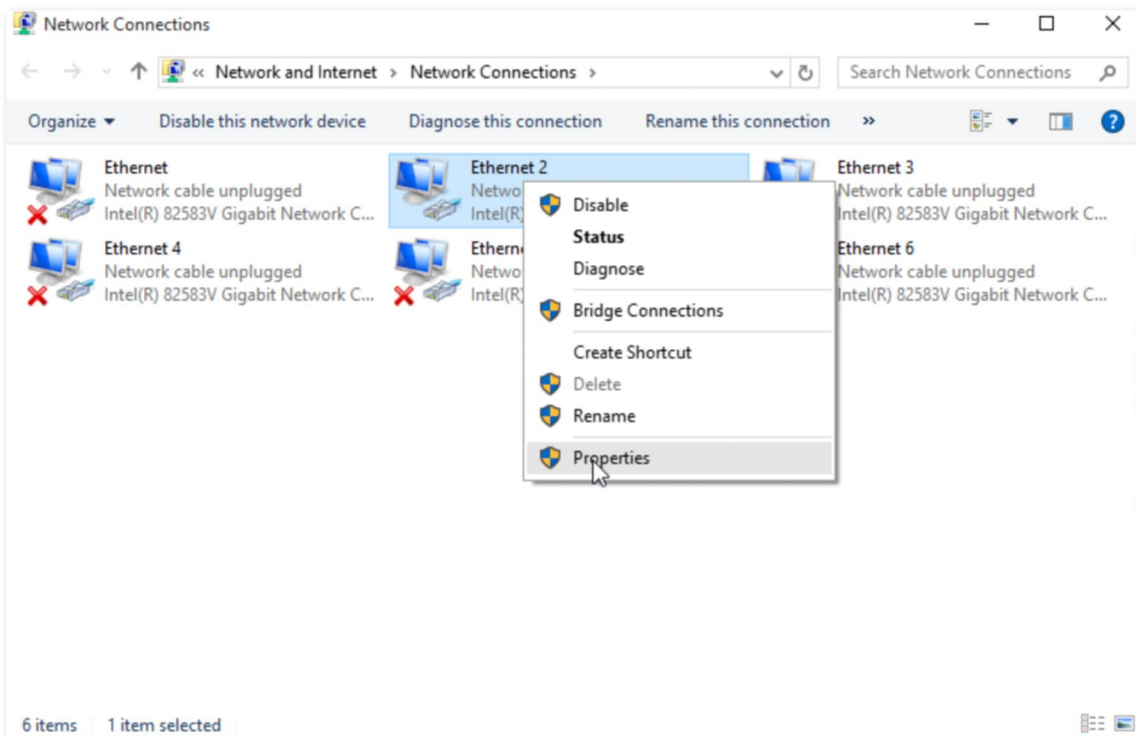
**Step 1** Click  in the bottom right corner of the desktop and choose **Network settings**.



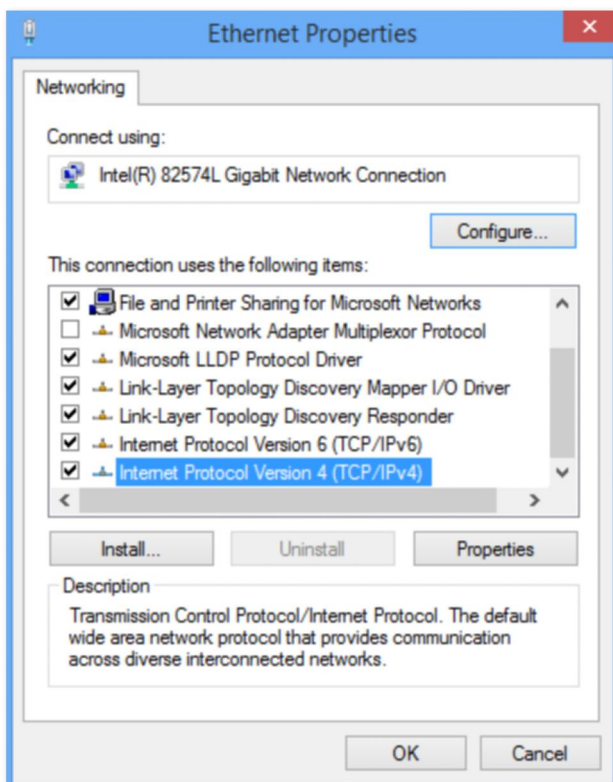
**Step 2** Click **Change adapter options**.



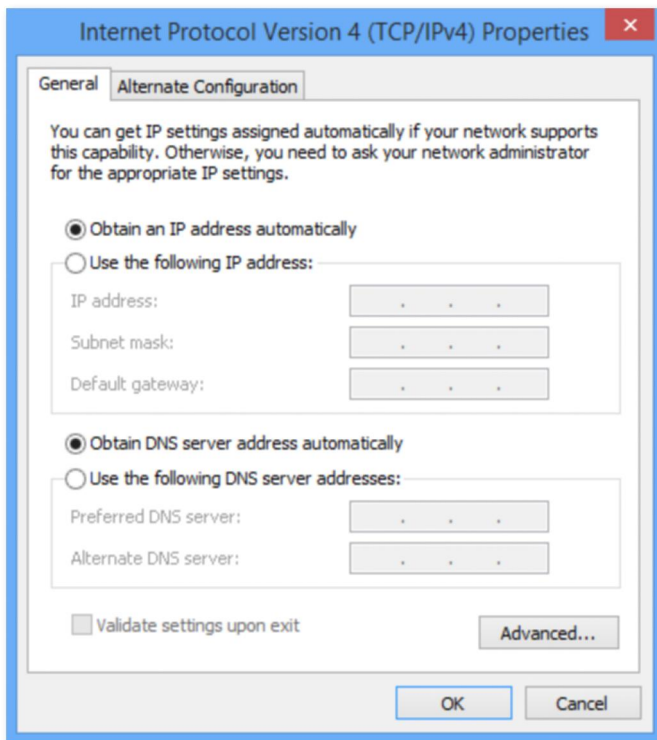
**Step 3** Right click on the connection which is being connected, and then click **Properties**.



**Step 4** Double-click **Internet Protocol Version 4 (TCP/IPv4)**.




- Step 5** Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

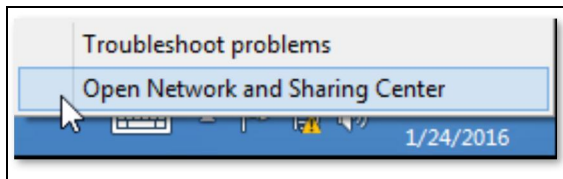


- Step 6** Click **Close** in the **Ethernet Properties** window.

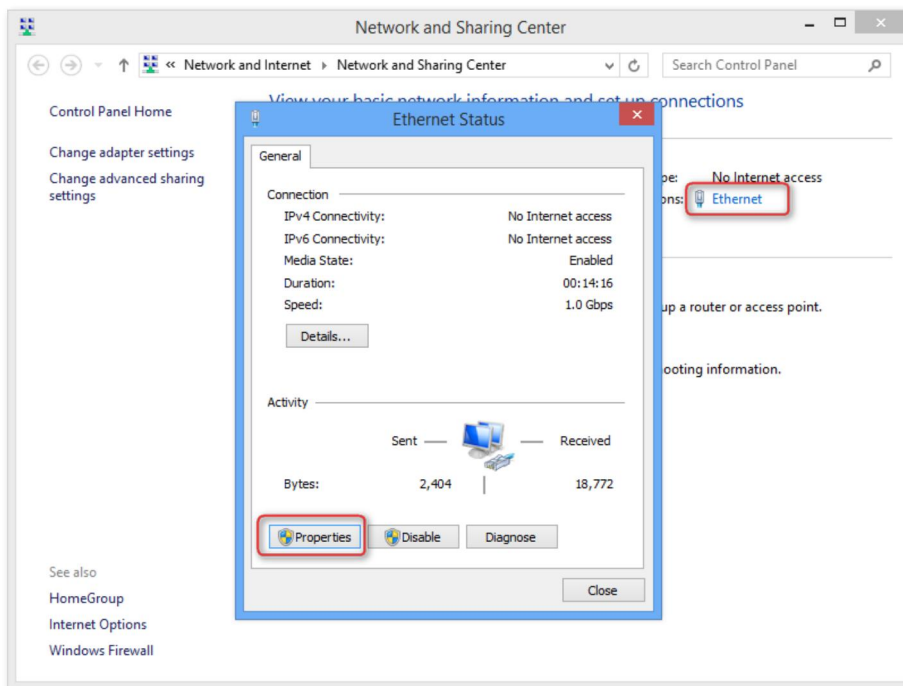
---End

## A.1.2 Windows 8

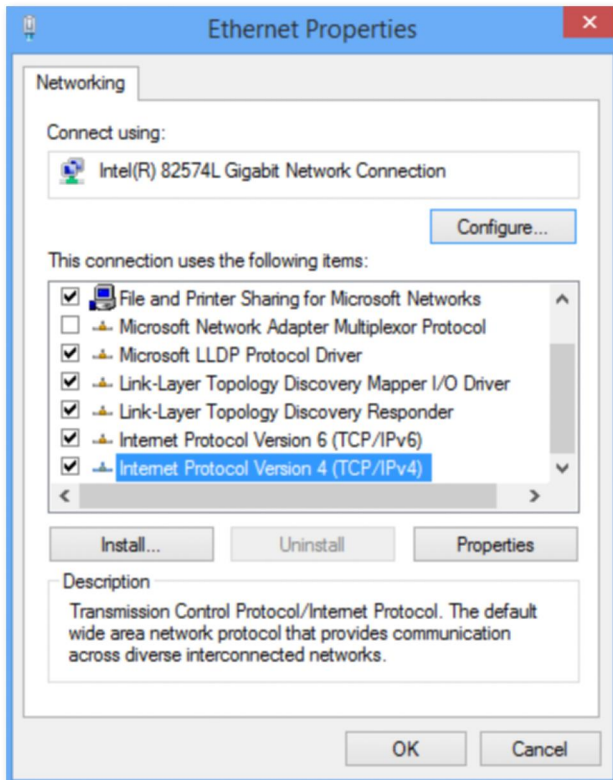
**Step 1** Right-click  in the bottom right corner of the desktop and choose **Open Network and Sharing Center**.



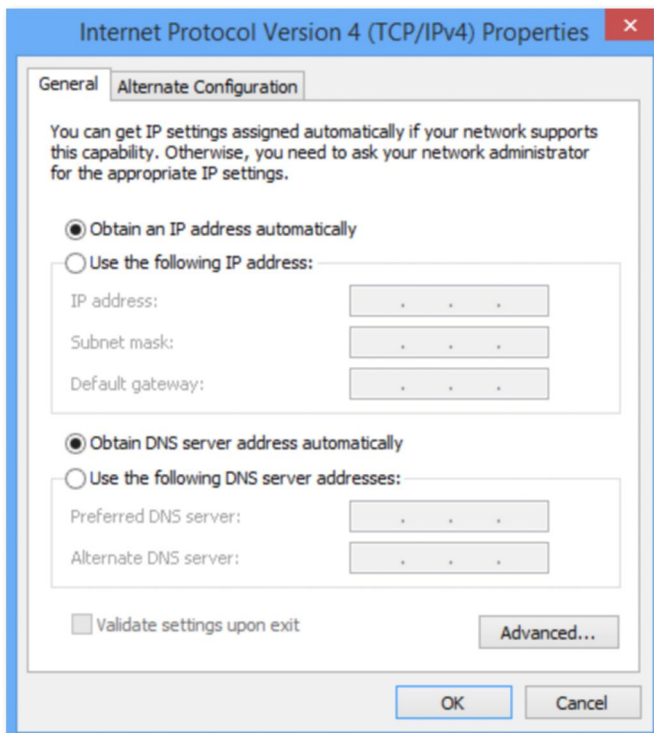
**Step 2** Click **Ethernet** and then **Properties**.



**Step 3** Double-click **Internet Protocol Version 4 (TCP/IPv4)**.




**Step 4** Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.

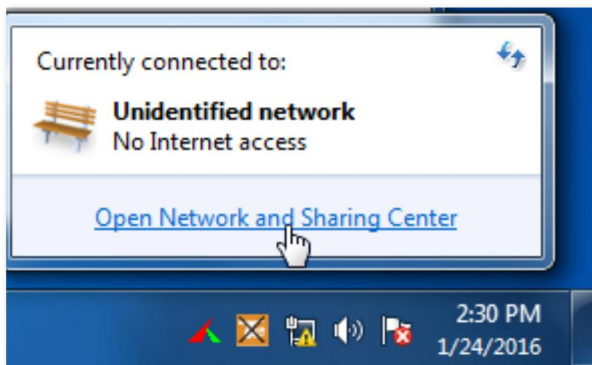


**Step 5** Click **OK** in the **Ethernet Properties** window.

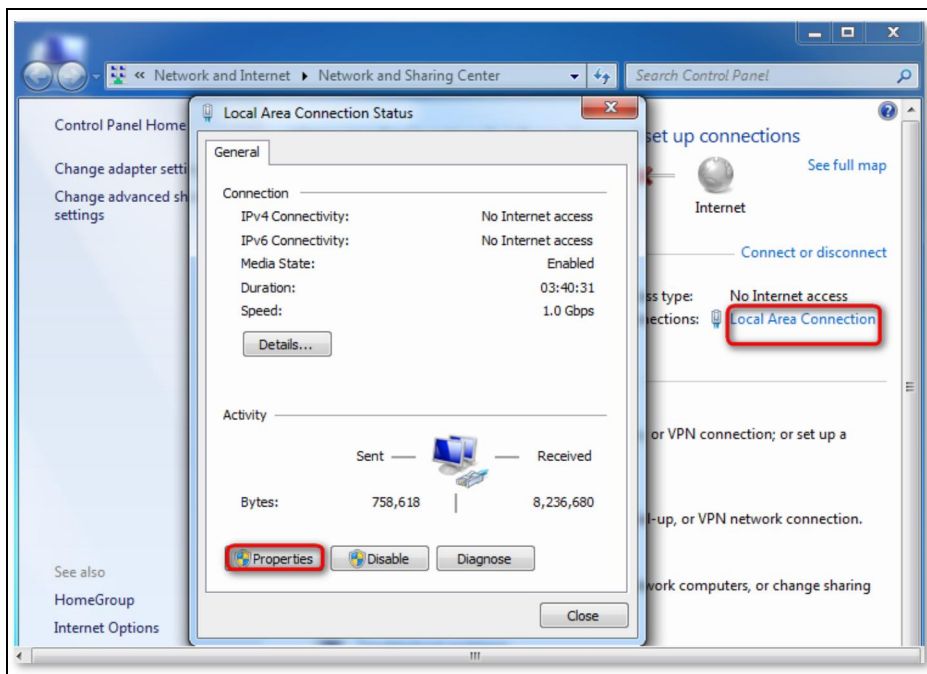
**---End**

### A.1.3 Windows 7

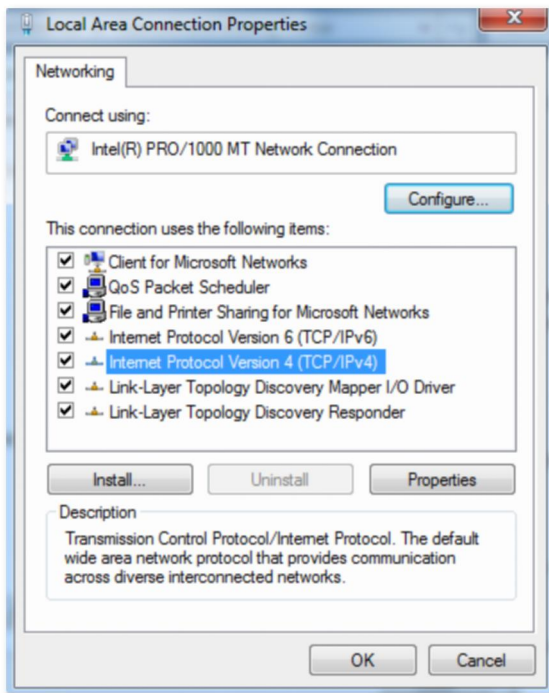
**Step 1** Click  in the bottom right corner of the desktop and choose **Open Network and Sharing Center**.



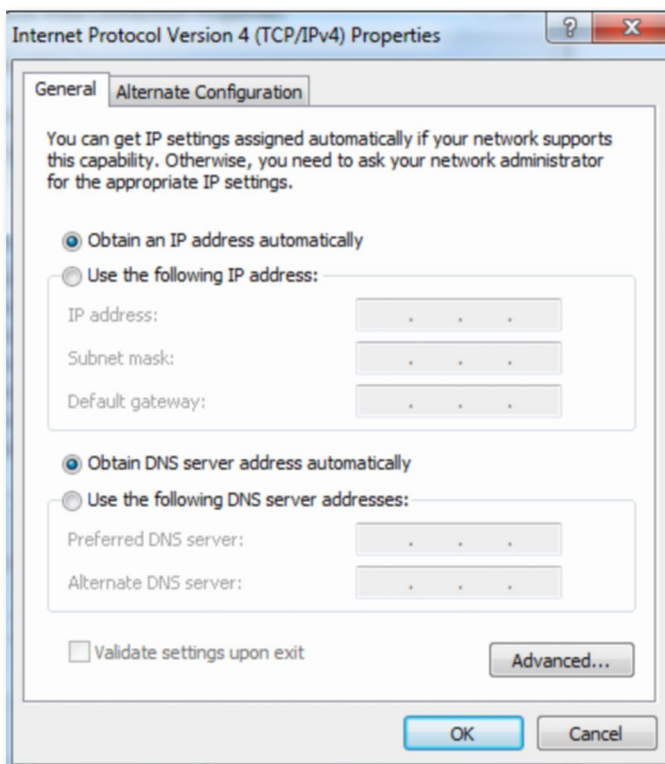
**Step 2** Click **Local Area Connection** and then **Properties**.



**Step 3** Double-click **Internet Protocol Version 4 (TCP/IPv4)**.



**Step 4** Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**, and click **OK**.



**Step 5** Click **OK** in the **Local Area Connection Properties** window.

---End

## A.2 Acronyms and abbreviations

Acronym or Abbreviation	Full Spelling
AES	Advanced Encryption Standard
BR	Border Relay
CE	Customer Edge
DDNS	Dynamic Domain Name System
DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone
DNS	Domain Name System
GMT	Greenwich Mean Time
IKE	Internet Key Exchange
IP	Internet Protocol
IPTV	Internet Protocol Television
IPv4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
ISP	Internet Service Provider
L2TP	Layer 2 Tunneling Protocol
LAN	Local Area Network
MAC	Medium Access Control
MTU	Maximum Transmission Unit
PIN	Personal Identification Number
PPPoE	Point-to-Point Protocol over Ethernet
PPTP	Point to Point Tunneling Protocol
PUK	Personal Identification Number Unlock Key
SIM	Subscriber Identity Module
SMS	Short Message Service
SSID	Service Set Identifier
TCP	Transmission Control Protocol



<b>Acronym or Abbreviation</b>	<b>Full Spelling</b>
UDP	User Datagram Protocol
UPnP	Universal Plug and Play
USSD	Unstructured Supplementary Service Data
WAN	Wide Area Network
WISP	Wireless Internet Service Provider
WPA-PSK	WPA-Pre-shared Key