



# Quick Installation Guide

AC1200 Dualband Wi-Fi xPON ONT

HG9

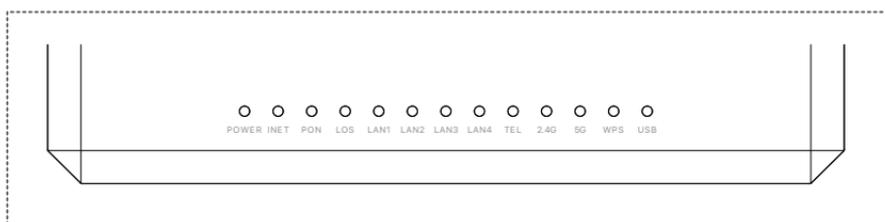
## Package contents

- xPON ONT x 1
- Power adapter x 1
- Ethernet cable (RJ45) x 1
- Telephone cable (RJ11) x 1
- User manual x 1

For product or function details, please go to [www.tendacn.com](http://www.tendacn.com) to download the user guide.

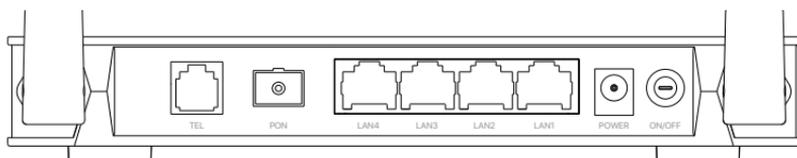
# Get to know the ONT

## LED indicators

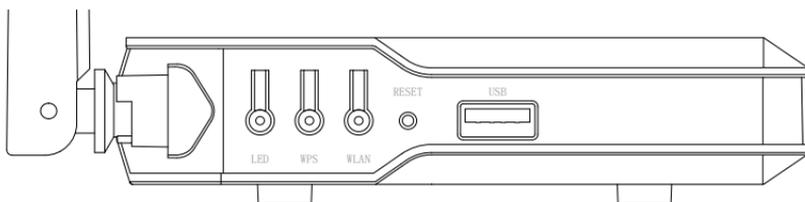


LED indicator	Color	Status	Description
POWER	Green	Solid on	The ONT is powered on properly.
		Off	The ONT is powered off or not powered on properly.
INET	Green	Solid on	The internet access is available via the ONT.
		Blinking	Data is being transmitted via the ONT.
		Off	No internet access is available via the ONT.
PON	Green	Solid on	The ONT is registered successfully.
		Blinking	The registration is not completed (unregistered or registering).
		Off	The received optical power is lower than the optical receiver sensitivity, or no fiber cord is connected.
LOS	Red	Blinking	The received optical power is lower than the optical receiver sensitivity.
		Off	The received optical power is within the optical receiver sensitivity.
LAN1/2/3/4	Green	Solid on	The LAN port is connected properly, but no data is being transmitted over the corresponding port.
		Blinking	The LAN port is connected properly, and data is being transmitted over the corresponding port.
		Off	No Ethernet device is connected or the Ethernet device is not connected to the LAN port properly.
TEL	Green	Solid on	The ONT is registered with IMS, but no data is being transmitted.
		Blinking	The ONT is registered with IMS, and data is being transmitted.
		Off	The ONT is not registered with IMS.
2.4G/5G	Green	Solid on	The Wi-Fi network of the corresponding frequency is enabled, but no data is being transmitted wirelessly.
		Blinking	The Wi-Fi network of the corresponding frequency is enabled, and data is being transmitted wirelessly.
		Off	The Wi-Fi network of the corresponding frequency is disabled.
WPS	Green	Solid on for 2 minutes	A WPS connection is established.
		Blinking	The ONT is performing WPS negotiation.
		Off	The ONT is not performing WPS negotiation.
USB	Green	Solid on	The USB device is connected to the USB port properly, but no data is being transmitted over the port.
		Blinking	The USB device is connected to the USB port properly, and data is being transmitted over the port.
		Off	The USB port is disconnected or not connected properly.

## Ports & Buttons



Port/Button	Description
TEL	Telephone port. Used to connect to a telephone for voice service.
PON	Optical fiber port. Used to connect to a fiber cord.
LAN1/2/3/4	Gigabit LAN ports. Used to connect to a router, switch, computer or IPTV set top box.
POWER	Power jack. Please use the included power adapter to connect the ONT to a power source.
ON/OFF	Power on/off button. Press the button to turn on or off the ONT.



Port/Button	Description
LED	LED indicator on/off button. Press the button to turn on or off the LED indicators of the ONT.
WPS	WPS button. Press the button to start the WPS negotiation process of the ONT. The WPS LED indicator blinks. Within 2 minutes, enable the WPS function on a WPS-supported device to establish a WPS connection.
WLAN	Wi-Fi network button. Press the button to enable or disable the Wi-Fi network of the ONT.
RESET	Reset button. After the ONT completes startup, use an object with a spike to hold down the button for more than 10 seconds and release it. All LED indicators light off in a few seconds. When the <b>POWER</b> LED indicator lights solid on again, the ONT is restored to the configurations preset by the ISP.
USB	USB 2.0 port. Used to connect to a USB storage for resource sharing.

### Tips:

- This ONT supports wall mounting (two mounting holes on the bottom). The recommended parts are as follows:  
Expansion bolt: PA6\*26.4mm; inner diameter: 2.4mm  
Screw: Quantity: 2; Diameter: 3.0-4.0mm; head diameter: 5.0-6.5mm; head thickness: ≤2.0mm.
- This ONT is only suitable for mounting at heights ≤ 2m.

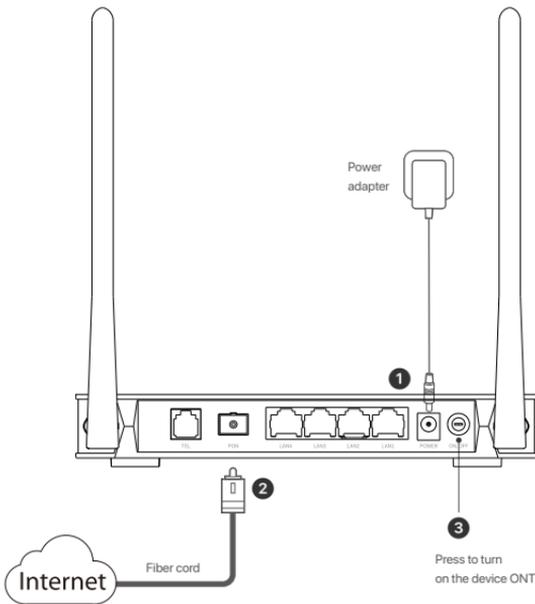
# 1. Connect and register the ONT



## Caution, laser

DO NOT look directly at the **PON** port when the device is powered on, as well as the terminal of the indoor fiber cord, to prevent any harm to your eyes.

Connect the ONT as shown in the figure. Wait until the **PON** LED indicator lights solid on, then the ONT is registered successfully.



## 💡 Tips:

If ISP offers you parameters, you need to use them to manually register the ONT.

Method:

- 1 Use an Ethernet cable to connect a LAN port of the ONT to a computer, or connect your smartphone to the Wi-Fi network of the ONT using the **SSID** (Wi-Fi name) and **Key** (Wi-Fi password) on the bottom label.
- 2 Enter **192.168.1.1** in a web browser and log in to the web UI of the ONT (default login user name and password are both **admin**).
- 3 Navigate to **Admin > GPON Settings** (or **EPON Settings**) and enter the parameters provided by your ISP.

## 2. Configure the internet access

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### Tips:

Choose a desired mode to configure your internet access:

- Router mode: Choose this mode if your internet access type is PPPoE or DHCP.
  - Bridge mode (default): Choose this mode if your internet access type is PPPoE.
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### Router mode

#### Option 1 Access internet over PPPoE

##### Step 1: Log in to the web UI

- 1 Connect a LAN port of the ONT to a computer using an Ethernet cable, or connect your smartphone to the Wi-Fi network of the ONT using the **SSID** (Wi-Fi name) and **Key** (Wi-Fi password) on the bottom label.
- 2 Start a web browser and visit **192.168.1.1**.
- 3 Enter the **User Name** and **Password** (**admin** for both by default).
- 4 Click **Login**.



The screenshot shows a web browser window with the address bar containing '192.168.1.1'. The main content area displays the 'Tenda' logo in orange. Below the logo, there are two input fields: 'User Name:' and 'Password:'. At the bottom of the form, there are two buttons: 'Login' and 'Reset', both in orange.

### Tips:

If the above page does not appear, refer to **Q1** in **FAQ**.

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##### Step 2: Set up a WAN connection

- 1 Choose **WAN > PON WAN**.
- 2 Tick **Enable VLAN**.
- 3 Enter the **VLAN ID** provided by your ISP.
- 4 Set **Channel Mode** to **PPPoE**.
- 5 Set **Connection Type** to **INTERNET**.
- 6 Enter the PPPoE **UserName** and **Password** provided by your ISP.
- 7 Click **Apply Changes**.

- 8 Click **OK** when **Change setting successfully** is shown on the page.

### PON WAN

This page is used to configure the parameters for PONWAN

<input type="text" value="nas0_0"/>	
Enable VLAN:	<input checked="" type="checkbox"/>
VLAN ID:	<input type="text"/>
802.1p_Mark	<input type="text" value="0"/>
Channel Mode:	<input type="text" value="PPPoE"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Connection Type:	<input type="text" value="INTERNET"/>
MTU:	<input type="text" value="1492"/>
Enable IGMP-Proxy:	<input type="checkbox"/>
Enable MLD-Proxy:	<input type="checkbox"/>
IP Protocol:	<input type="text" value="IPv4"/>

#### PPP Settings:

UserName:	<input type="text"/>
Password:	<input type="text"/>
Type:	<input type="text" value="Continuous"/>
Service-Name:	<input type="text"/>

#### Port Mapping:

LAN_1	<input type="checkbox"/> LAN_2
LAN_3	<input type="checkbox"/> LAN_4
WLAN0	
WLAN0-AP1	<input type="checkbox"/> WLAN0-AP2
WLAN0-AP3	<input type="checkbox"/> WLAN0-AP4
WLAN1	
WLAN1-AP1	<input type="checkbox"/> WLAN1-AP2
WLAN1-AP3	<input type="checkbox"/> WLAN1-AP4

### Done.

To access the internet:

- Connect your wired device, such as a computer, to a LAN port of the ONT.
- Connect your wireless device, such as a smartphone, to the Wi-Fi networks of the ONT, using the SSID (Wi-Fi name) and Key (Wi-Fi password) on the bottom label.

### Tips:

- If you cannot access the internet after the configuration, refer to **Q2** in **FAQ**.
- If you want to change the Wi-Fi name and Wi-Fi password, refer to **Q6** in **FAQ**.

# Option 2 Access internet over DHCP

## Step 1: Log in to the web UI

Refer to **Step 1: Log in to the web UI in Option 1 Access internet over PPPoE** to log in to the web UI of the ONT.

## Step 2: Set up a WAN connection

- 1 Choose **WAN > PON WAN**.
- 2 Tick **Enable VLAN**.
- 3 Enter the **VLAN ID** provided by ISP.
- 4 Set **Channel Mode** to **IPoE**.
- 5 Set **Connection Type** to **INTERNET**.
- 6 Click **Apply Changes**.
- 7 Click **OK** when **Change setting successfully** is shown on the page.

PON WAN	
This page is used to configure the parameters for PONWAN	
	<input type="text" value="nas0_0"/>
Enable VLAN:	<input checked="" type="checkbox"/>
VLAN ID:	<input type="text"/>
802.1p_Mark	<input type="text" value="0"/>
Channel Mode:	<input type="text" value="IPoE"/>
Admin Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Connection Type:	<input type="text" value="INTERNET"/>
MTU:	<input type="text" value="1500"/>
Enable IGMP-Proxy:	<input type="checkbox"/>
Enable MLD-Proxy:	<input type="checkbox"/>
IP Protocol:	<input type="text" value="IPv4"/>

WAN IP Settings:	
Type:	<input type="radio"/> Fixed IP <input checked="" type="radio"/> DHCP
Local IP Address	<input type="text" value="0.0.0.0"/>
Remote IP Address	<input type="text" value="0.0.0.0"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
IP Unnumbered	<input type="checkbox"/>
Request DNS	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Primary DNS Server	<input type="text"/>
Secondary DNS Server	<input type="text"/>

## Done.

To access the internet:

- Connect your wired device, such as a computer, to a LAN port of the ONT.
- Connect your wireless device, such as a smartphone, to the Wi-Fi networks of the ONT, using the SSID (Wi-Fi name) and Key (Wi-Fi password) on the bottom label.

💡 Tips:

- If you cannot access the internet after the configuration, refer to **Q2** in **FAQ**.
- If you want to change the Wi-Fi name and Wi-Fi password, refer to **Q6** in **FAQ**.

## Bridge mode

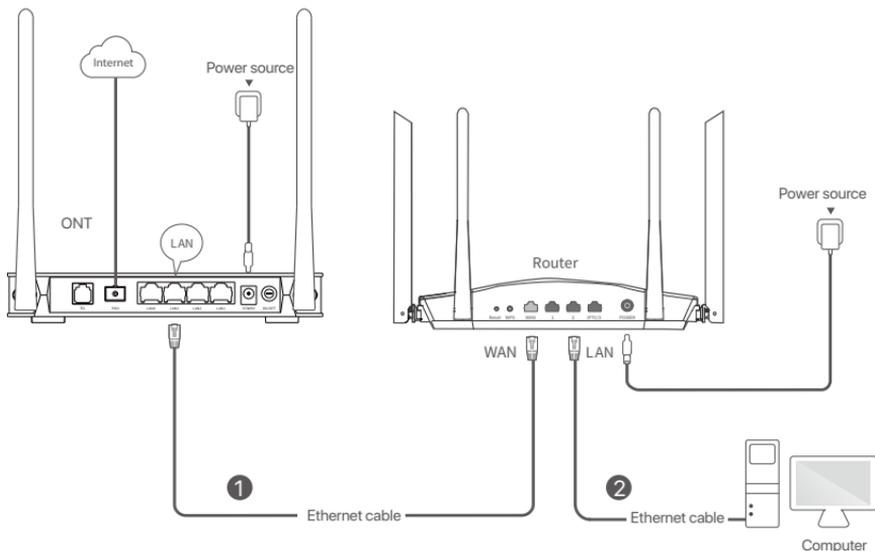
💡 Tips:

When the ONT is set to Bridge mode, please configure internet settings based on ISP requirement.

### Access internet over PPPoE

- 1 Connect a LAN port of the ONT to the WAN port of a router using an Ethernet cable.
- 2 Connect the computer to a LAN port of the router using an Ethernet cable.
- 3 Set up a PPPoE connection on the router as required.

After the settings, you can access the internet through the router.



# FAQ

## Q1: I cannot log in to the web UI by visiting 192.168.1.1. What should I do?

A1: Try the following solutions:

- Ensure that the ONT is powered on properly (the **POWER** LED indicator is solid green).
- If you use a wireless device, such as a smartphone, to configure the ONT:
  - Ensure that your smartphone has disabled mobile data and is connected to the Wi-Fi network of the ONT.
  - Clear the cache of the web browser or change a web browser and try again.
  - Use another smartphone and try again.
- If you use a wired device, such as a computer, to configure the ONT:
  - Ensure that your computer is connected to the ONT properly (the **LAN** LED indicator of the connected port lights up).
  - Ensure that your computer is set to **Obtain an IP address automatically**.
  - Ensure that the IP address of your computer is at the same network segment as the ONT.
  - Use another computer and try again.
- Reset the ONT (after the ONT completes startup, use an object with a spike to hold down the **RESET** button for 10 or more seconds and release it. All LED indicators light off in a few seconds. When the **POWER** LED indicator lights solid on again, the ONT is reset) and try again.

## Q2: I cannot access the internet after the configuration. What should I do?

A2: Try the following solutions:

- Check the LED indicator status of ONT:
    - If the **POWER** LED indicator is off, ensure that the ONT is powered on properly.
    - If the **LOS** LED indicator blinks, ensure that the **PON** port is clean and connected properly, the fiber cord is not bent excessively and the input optical power is within the normal range (Rx Power between -28 dBm to -8 dBm in GPON mode (or -27 dBm to -3 dBm in EPON mode) on the **Status > PON** page).
    - If the **PON** LED indicator blinks, the ONT is not registered. Contact your ISP or verify the parameters for registration are correct.
  - Ensure that your ISP supports self-purchased PON device for internet access.
  - If you set the ONT to the router mode:
    - Ensure that the ONT obtains a valid IP address and gateway on the **Status > Device > WAN Configuration** page. If not, the WAN connection is not set up successfully. Verify the parameters are correct.
    - Ensure that the wired device is connected to a LAN port of the ONT or downstream router (if any) properly and set to **obtain an IP address automatically**.
    - Ensure that the wireless device is connected to the Wi-Fi network of the ONT or downstream router (if any).
  - If you set the ONT to the bridge mode:
    - Ensure that the router or computer used for dial up is connected and configured properly.
- If the problem persists, consult ISP.

**Q3: Why cannot I find the Wi-Fi signal of the ONT?**

**A3:** Ensure that the **2.4G** and **5G** LED indicators light up. If not, press the **WLAN** button on the side panel of the ONT. The Wi-Fi networks of the ONT are enabled when the two LED indicators light up. Then try again.

**Q4: Why cannot I find the 5 GHz Wi-Fi network of the ONT?**

**A4:** Try the following solutions:

- If you can find other 5 GHz Wi-Fi networks, refer to **Q3** to find a solution.
- Only devices supporting 5 GHz Wi-Fi network can find and connect to the 5 GHz Wi-Fi network.

**Q5: How to reset the ONT?**

**A5:** Method1: After the ONT completes startup, use an object with a spike to hold down the **RESET** button for 10 or more seconds and release it. All LED indicators light off in a few seconds. When the **POWER** LED indicator lights solid on again, the ONT is reset.

Method2: Log in to the web UI of the ONT, choose **Admin > Backup/Restore** and click **Reset** on the page.

**Q6: How to change the Wi-Fi name and password?**

**A6:** Log in to the web UI of the ONT, choose **WLAN** and repeat the following steps in **wlan0 (5GHz)** and **wlan1 (2.4GHz)**:

- Wi-Fi name: Choose **Basic Settings** and change the **SSID** (Wi-Fi name). Click **Apply Changes**, and click **OK** when **Change setting successfully** is shown.
- Wi-Fi password: Choose **Security**, set **Encryption** to **WPA/WPA2-PSK** (recommended) and change the **Pre-Shared Key** (Wi-Fi password). Click **Apply Changes**, and click **OK** when **Change setting successfully** is shown.

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