Quick Installation Guide

AC1200 Dualband Wi-Fi GPON ONT

HG9

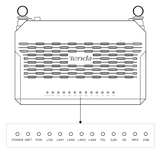
Package contents

- GPON ONT x 1
- Power adapter x 1
- Ethernet cable (RJ45) x 1
- Telephone cable (RJ11) x 1
- Quick installation guide x 1

For product or function details, please go to www.tendacn.com to download the user guide.

Get to know the ONT

LED indicators

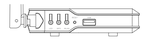


LED indicator	Color	Status	Description
POWER	Green	Solid on	The ONT is powered on properly.
		Off	The ONT is powered off or not powered on properly.
INET	Green	Solid on	The internet access is available via the ONT.
		Blinking	Data is being transmitted via the ONT.
		Off	No internet access is available 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, or no fiber cord is connected.
		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 2.4GHz/5GHz Wi-Fi network of the corresponding frequency is enabled, but no data is being transmitted wirelessly.
		Blinking	The 2.4GHz/5GHz Wi-Fi network of the corresponding frequency is enabled, and data is being transmitted wirelessly.
		Off	The 2.4GHz/5GHz Wi-Fi network of the corresponding frequency is disabled.

LED indicator	Color	Status	Description
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	SC/APC 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 for one time 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 RESET button for 10 or more seconds and release it. All LED indicators light up for a few seconds. When the POWER LED indicator lights solid on again, the ONT is reset.
USB	USB 2.0 port. Used to connect to a USB storage for resource sharing.

Tips:

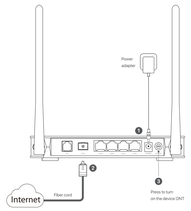
This ONT supports wall mounting (two mounting holes on the bottom). The recommended parts are as follows:
Expansion bolt: PA6*35 dowel, inner diameter: 2.4mm
Quantity: 2, Diameter: 3.0–4.0mm; head diameter: 5.0–6.5mm; head thickness: ≥2.0mm.

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:

- Ensure that your fiber access type is **GPON**. The ONT is not compatible with **EPON**.
- You may be required to register the ONT using parameters provided by your ISP.

Method: Connect a LAN port of the ONT to a computer using an Ethernet cable, or connect your smart phone to the Wi-Fi network of the ONT using the **SSID** (Wi-Fi name) and **Key** (Wi-Fi password) on the bottom label. Log in to the web UI by visiting **192.168.1.1** in a web browser (default login user name and password are both **admin**). Navigate to **Admin** > **GPON Settings** to register with the parameters provided by your ISP.

2. Configure the internet access

Tips:

Choose a desired mode to configure your internet access:
- Router mode: Configure the internet on the ONT.
- Bridge mode (default): Dial up on a router or computer.

Router mode

Step 1: Log in to the web UI

❶ Connect a LAN port of the ONT to a computer using an Ethernet cable, or connect your smart phone to the Wi-Fi network of the ONT using the **SSID** (Wi-Fi name) and **Key** (Wi-Fi password) on the bottom label.
❷ Start a web browser and visit **192.168.1.1**.
❸ Enter the **User Name** and **Password**, which are both **admin** by default.
❹ Click **Login**.

Tips:

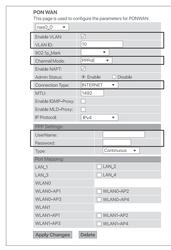
If the above page does not appear, refer to **Q1** in **FAQ**.

Step 2: Set up a WAN connection

Tips:

PPPoE is used for illustration here. Please change the parameters as required by your ISP.

❶ Choose **WAN** > **PON WAN**.
❷ Tick **Enable VLAN**.
❸ Enter the **VLAN ID** provided by your ISP.
❹ Set **Channel Mode** to **PPPoE**.
❺ Set **Connection Type** to **INTERNET**.
❻ Enter the PPPoE **UserName** and **Password** provided by your ISP.
❼ Click **Apply Changes**.
❽ Click **OK** when **Change setting successfully** is shown on the page.



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 smart phone, 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 password, refer to **Q6** in **FAQ**.

2. Configure the internet access

Bridge mode

Tips:

When the ONT is set to Bridge mode, you cannot access the internet through the Wi-Fi network or the LAN ports of the ONT.

Option 1: Dial up on a router

❶ Connect a LAN port of the ONT to the WAN port of a router using an Ethernet cable.
❷ Connect the computer to a LAN port of the router using an Ethernet cable.
❸ Set up a PPPoE connection on the router as required.
After the settings, you can access the internet through the router.

Option 2: Dial up on a computer (Windows 10)

❶ Connect a LAN port of the ONT to a computer using an Ethernet cable.
❷ Right-click ⊞ on the desktop and choose **Network Connections**.
❸ Choose **Dial-up** and click **Set up a new connection**.

❹ Click **Connect to the Internet** and click **Next**.

❺ Click **Broadband (PPPoE)**.

❻ Enter the PPPoE **User name** and **Password** provided by your ISP and click **Connect**.

Wait a few seconds until the dial-up succeeds, then you can access the internet on the computer.

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.
- If you use a wireless device, such as a smart phone, to configure the ONT:
  - Ensure that your smart phone 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 smart phone 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.
  - 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 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.
  - Note that internet access is not available through the LAN ports or the Wi-Fi network of the ONT.

If the problem persists, consult your 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.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
— Reorient or relocate the receiving antenna.
— Increase the separation between the equipment and receiver.
— Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
— Consult the dealer or an experienced radio/TV technician for help.
The device is for indoor usage only.
Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules.
This equipment should be installed and operated with minimum distance 20cm between the device and your body.

Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Operating frequency: 2412-2462MHz; 5150-5250MHz; 5725-5850MHz

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.
Operations in the 5.15–5.25GHz band are restricted to indoor use only.
This equipment should be installed and operated with minimum distance 20cm between the device and your body.
NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

Declaration of Conformity

Hereby, SHENZHEN TENDA TECHNOLOGY CO., LTD. declares that the radio equipment type HG9 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address: http://www.tendacn.com/en/service/download-cate-101.html
Operating Frequency:
2.4 GHz: 2.412–2.472 GHz (CH1–CH13)
5 GHz: 5.170–5.250 GHz (CH36–CH48)
5.735–5.815 GHz (CH149–CH161)
5.815–5.835 GHz (CH165)
EIRP Power (Max.):
2.4 GHz ≤ 20 dBm
5 GHz ≤ 23 dBm
Software Version: V1.0.0

For EU/EFTA, this product can be used in the following countries:

BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	
LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	

NOTE: (1) The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. (2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable.

Caution:
Adapter Model: BN074-A180120F, BN074-A180121X
Manufacturer: SHENZHEN HEWEISHUN NETWORK TECHNOLOGY CO., LTD.
Input: 100–240V AC 50/60Hz 0.8A
Output: 12V ⎓ 1.5A
⎓ : DC Voltage

Operating Environment

Temperature: 0°C ~ 40°C
Humidity: (10 ~ 90) %RH, non-condensing

RECYCLING

This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.
User has the choice to give his product to a competent recycling organization or to the retailer when he buys new electrical or electronic equipment.

Technical Support

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