

Huawei HG8546M

Huawei HG8546M GPON ONU ONT User Manual

Model: HG8546M | Brand: Huawei

1. INTRODUCTION

The Huawei HG8546M is a GPON Optical Network Terminal (ONT) designed for home and small office users. It provides high-speed internet access through GPON technology, offering four Fast Ethernet (FE) ports, four LAN ports, and Wi-Fi capabilities (802.11bgn) for comprehensive networking solutions. This manual provides detailed instructions for setting up, operating, maintaining, and troubleshooting your device.

2. PACKAGE CONTENTS

Upon unboxing your Huawei HG8546M, please verify that all the following items are included:

- Huawei HG8546M GPON ONU ONT Unit
- Power Adapter (Input: 100V-240V AC, Output: 12V, 1A)
- Ethernet Cable
- Quick Start Guide (if applicable)



Figure 2.1: Huawei HG8546M and included accessories in the box.

3. PRODUCT FEATURES

- **GPON Connectivity:** High-speed fiber optic network access.
- **Multiple Ethernet Ports:** Equipped with 4 LAN ports for wired connections.
- **Integrated Wi-Fi:** Supports 802.11bgn wireless standards for convenient wireless networking.
- **WPS Functionality:** For easy and secure Wi-Fi setup.
- **Robust Power Supply:** Adapter input: 100V-240V AC, Adapter output: 12V, 1A.
- **Non-condensing Power Supply:** Ensures stable operation.

4. SETUP GUIDE

4.1. Unboxing and Initial Inspection

Carefully remove the HG8546M unit and all accessories from the packaging. Inspect the device for any visible damage. Ensure all components listed in Section 2 are present.

4.2. Connecting the Device

1. **Optical Fiber Connection:** Connect the optical fiber cable from your service provider to the GPON port (usually labeled 'PON' or 'Optical') on the HG8546M. Ensure the fiber connector is clean and properly seated.
2. **LAN Connections:** Connect your computers, smart TVs, or other wired devices to the LAN ports (yellow ports) using Ethernet cables.
3. **Power Connection:** Connect the power adapter to the 'POWER' port on the HG8546M and then plug the adapter into a power outlet.



Figure 4.1: Rear panel of the Huawei HG8546M with port layout.

4.3. Powering On

After connecting all cables, press the power button (if available) or ensure the device powers on automatically. Observe the indicator lights on the front panel. The 'PON' and 'LOS' indicators should stabilize, and the 'LAN' and 'WLAN' indicators should light up when active.

4.4. Initial Configuration

To access the device's web management interface for initial setup and advanced configurations:

1. Ensure your computer is connected to one of the LAN ports or via Wi-Fi.
2. Open a web browser and enter the default IP address: **192.168.1.1**
3. You will be prompted for a username and password. Refer to the label on the bottom of your device for default credentials. For example, default Wi-Fi Name (SSID) might be **CMCC-4A93** and default Wi-Fi Key (Password) might be **bthky**.
4. Follow the on-screen instructions to complete the setup, including changing default Wi-Fi name and password for security.



Figure 4.2: Device bottom label with default network information.

5. OPERATING INSTRUCTIONS

5.1. Wi-Fi Connection

To connect devices wirelessly:

- Enable Wi-Fi on your device (smartphone, laptop, etc.).
- Search for available Wi-Fi networks.
- Select your network's SSID (e.g., CMCC-4A93 or your customized name).
- Enter the Wi-Fi password (network key).
- Alternatively, use the WPS button on the device for quick connection with WPS-enabled clients.

5.2. LAN Connection

For wired connections, simply plug an Ethernet cable from your device into any of the yellow LAN ports on the HG8546M. The corresponding LAN indicator light on the ONT will illuminate.

5.3. Advanced Settings

Access the web management interface (192.168.1.1) to configure advanced settings such as port forwarding, firewall rules, QoS, parental controls, and more. Consult your service provider or the device's full user manual for detailed instructions on these features.

6. MAINTENANCE

- **Cleaning:** Regularly clean the exterior of the device with a soft, dry cloth. Do not use liquid cleaners or aerosols. Ensure ventilation holes are free from dust.
- **Firmware Updates:** Check with your internet service provider or Huawei's official support website for available firmware updates. Keeping your firmware updated ensures optimal performance and security.

- **Placement:** Place the device in a well-ventilated area, away from direct sunlight, heat sources, and moisture. Avoid placing it near large metal objects or other electronic devices that may cause interference.
- **Restarting:** If you experience minor network issues, try restarting the device by unplugging the power adapter for 10 seconds and then plugging it back in.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No Power	Power adapter not connected or faulty outlet.	Ensure power adapter is securely connected and the power outlet is functional.
No Internet Access (Wired)	Ethernet cable loose or faulty; ONT not receiving signal (LOS light on).	Check Ethernet cable connections. If LOS light is on, contact your service provider.
No Internet Access (Wi-Fi)	Incorrect Wi-Fi password; Wi-Fi disabled; signal interference.	Verify Wi-Fi password. Ensure WLAN light is on. Try moving closer to the device or changing Wi-Fi channel.
Slow Internet Speed	Network congestion; signal interference; outdated firmware.	Restart the device. Reduce number of connected devices. Check for firmware updates.
Cannot Access Web Interface	Incorrect IP address; network configuration issue.	Ensure your computer's IP settings are set to obtain automatically (DHCP). Verify IP address 192.168.1.1. Try a different browser.

8. SPECIFICATIONS

Feature	Detail
Brand	Huawei
Model Name	HG8546M
Product Dimensions	20 x 20 x 20 cm
Item Weight	600 g
Item Part Number	16520
Operating System	Versatile Routing Platform
Compatible Devices	Laptop, Personal Computer, Smart Television, Smartphone
Special Features	WPS
Voltage	240 Volts
Wireless Type	802.11bgn
Number of Ports	4 (LAN)
Connector Type	Wi-Fi, Ethernet

Feature	Detail
Frequency Band Class	Dual-Band

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided by your service provider or visit the official Huawei support website. You can also visit the [Huawei Store on Amazon](#) for more product details and contact options.

Note: Product specifications and appearance are subject to change without prior notice.