

# **Huawei OptiXstar HG8145X6 GPON Terminal**

## **Quick Start**



# Safety Precautions

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To use the device properly and safely, read the safety precautions carefully before using the device and strictly observe these precautions when using the device.

## Safety precautions:

- Do not look directly into the optical port without eye protection.
- Keep the device out of the reach of children as the components or accessories may be swallowed.
- The power supply voltage of the device must meet the requirements on the input voltage of the device.
- If the power adapter is damaged and its internal circuit is exposed due to man-made factors, do not touch the exposed circuit, which may bring safety risks.
- Prevent objects, such as metal, from entering the device through the heat dissipation hole.
- Dry your hands before connecting or disconnecting cables. Stop the device and switch off the power before connecting or disconnecting cables.
- Switch off the power and disconnect all cables, including the power cable, optical fiber, and network cable, during periods of lightning activities. The socket-outlet shall be installed near the power adapter and shall be easily accessible. Before use the power adapter, please check no damage on the adapter.
- Do not lead the strength member of the optical fiber or other metal parts indoors. Do not install network cables, power adapters or power adapter cables outdoors. Adopting these measures will help prevent device damage and bodily injuries which are especially prone during thunderstorms.
- Install the device according to the requirements of the manufacturer. To be specific, reserve at least 10 cm for heat dissipation at the top and four sides of the device, keep the device away from flammable objects, highly magnetic or electric devices, such as microwave ovens, refrigerators, and mobile phones.
- Do not place any object on the device, so that the device will not be damaged due to overheating or deformation.
- If an abnormality occurs, for example, liquid entering the device, smoke, unusual sound, and smell, stop the device immediately, switch off the power, disconnect all cables (such as the power cable, optical cable, and network cable) to the device, and contact the authorized service center.
- Do not disassemble the device without permission. In the case of a device fault, contact the authorized service center.
- Dispose of the packing materials, expired batteries, and old or abandoned devices in accordance to local laws and regulations (recycling them is strongly recommended).
- Do not change the structure, safety design, or performance design of the device without prior authorization.

## Fireproof precautions:

- Keep the device away from large heat source equipment, bare flames, and high-power devices, such as electric heaters, candles, and blow drier, to eliminate safety risks.
- If there are aged cables or power socket facilities on the power supply line to or near the device, replace them in time to eliminate safety risks. The power supply voltage of the device must meet the input voltage requirement.

# 1 Packing List

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The following table lists the items in the product package.

Item	Quantity
GPON Terminal	1
Power Adapter	1
Ethernet Cable	1
Fiber Patch cord	1



## NOTE

If you find anything missing or damaged, contact the service provider.

# 2 Product Overview

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Product	Function
HG8145X6	<ul style="list-style-type: none"><li>• 4 Gigabit Ethernet ports</li><li>• 1 POTS port</li><li>• 1 USB port</li><li>• 2.4G(2*2MIMO)+5G(2*2MIMO)</li></ul>

# 3 Technical Specifications

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- Power adapter input: See the nameplate on the adapter.
- System power supply: See the nameplate on the device.
- Ambient temperature: 0°C to +40°C
- Ambient humidity: 5%–95% (non-condensing)

For other technical specifications, see the following table.

GPON Terminal	Weight (Including the Power Adapter)	Maximum System Power Consumption
HG8145X6	About 450 g	≤ 18 W

## 4 Hardware Installations

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Step 1 Use an **optical fiber** to connect the **optical port** on the ONT.



- The fiber connector connected to the optical port depending on actual conditions.
- To ensure normal use of fibers, make sure that the fiber bend radius is larger than 30 mm.

Step 2 Use a network cable to connect the **LAN** port to a PC or the Ethernet port on the IP STB.

Step 3 Use a phone line to connect the **TEL** port to a phone or fax machine.

Step 4 Use a power adapter to connect the **POWER** port to the power socket.



Do not use any power adapters that are not in the standard configuration. Otherwise, the device may be abnormal or unsafe.

Step 5 Use a USB data cable to connect the **USB** port to the USB storage device.

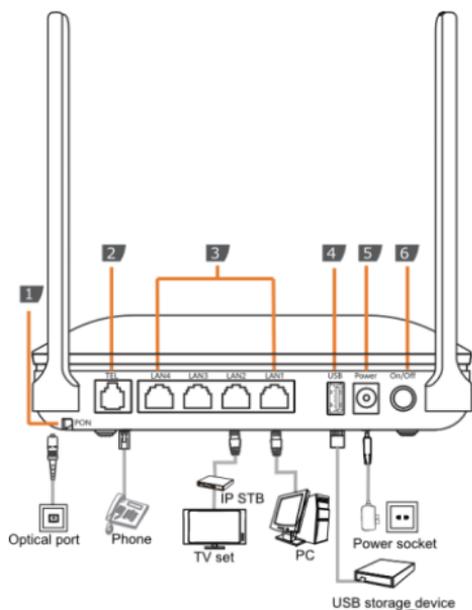
Step 6 Press the **ON/OFF** power switch.

Step 7 Press the **WLAN** switch to enable the WLAN function.

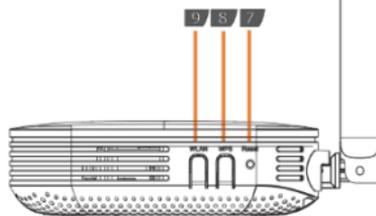
- When the WLAN is off, press the WLAN button (> 3s) and release the button to open the WLAN.
- When the WLAN is on, press the WLAN button (> 3s) and release the button to close the WLAN.

Step 8 When the WLAN is on, press the **WPS** button (> 3s) and release the button to start Wi-Fi protected setup (WPS) negotiation.

The connections between the HG8145X6 and other devices are shown as follows.



- 1** Optical port
- 2** POTS port
- 3** Ethernet port
- 4** USB port
- 5** Power port
- 6** Power switch



- 7** Reset
- 8** WPS switch
- 9** WLAN switch

The following table describes the interface of the device:

Port/Button	Description
TEL	Indicates VoIP telephone ports (RJ-11), used to connecting to the ports on telephone sets.
LAN	Ethernet RJ-45 interface connecting to an Access Point.
USB	USB host port, used to connect to USB storage devices.
POWER	Interface connecting to the power adapter.
ON/OFF	Push to power on/off the device.
Reset	Press the button for a short time to reset the device; press the button for a long time (longer than 10s) to restore the device to the default settings and reset the device.
WPS	The WPS button, used to enable or disable the Wi-Fi Protected Setup switch. Ensure that the function is set in the system software in advance. After successful setting, press the WPS switch for the settings to take effect.
WLAN	The WLAN button, used to enable or disable the WLAN function. By default, this function is enabled.
OPTICAL	The optical port is equipped with a rubber plug and is connected to an optical fiber for transmission.

## 5 Web configuration

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### 5.1 Configure IP Address of Network Card

Configure TCP/IP properties of your network card to **Obtain an IP address automatically** from ONT, or set the IP address of the computer with the same network mask of the ONT.

#### NOTE

The default management IP address and subnet mask of the GPON terminal are as follows:

-IP address: 192.168.1.1

-Subnet mask: 255.255.255.0

### 5.2 Internet Settings

Step 1 Open the Internet Explorer (IE) browser and enter **http://192.168.1.1/3bb**.

Step 2 In the Quick Configuration page that is displayed, enter the user name, password (for surf internet) and validate code.



3BB BROADBAND

Enter your user name and password for Internet access.

User Name :

Password :

Validate Code :

a p J n S

After finishing, click **Save** to apply the internet settings.

Step 3 In the Quick Configuration page appears pop-up "Save Completed", click **OK** to close this page.



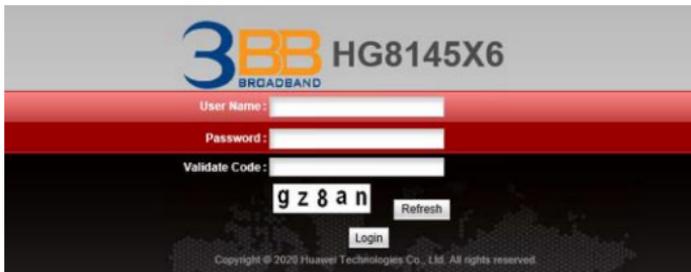
Step 4 In the Quick Configuration page that is displayed, click Close to close this page.



## 5.3 Wireless Settings

**Step 1** Open the Internet Explorer (IE) browser and enter **http://192.168.1.1**.

**Step 2** In the login window, enter the user name, password (see the device nameplate for the default user name and password) and validate code.



**Step 3** Click **Login**. After the password is authenticated, the Web configuration window is displayed.

### NOTE

-If you do not perform any operations after logging in to the system for five minutes, you will exit the system and the system automatically returns to the login interface.

-The system will be locked if you input incorrect user name and password three consecutive times. One minute later, it will be unlocked.

**Step 4** In the navigation tree, choose **WLAN > 2.4G Basic Network Settings** or **WLAN > 5G Basic Network Settings**.

**Step 5** In the pane, select the **Enable WLAN** (2.4 GHz or 5 GHz) option box. In the dialog box that is displayed, set the basic Wi-Fi parameters, including the SSID, authentication mode, and encryption mode.

### NOTE

-SSID: SSID indicates the name of a wireless network searched by the Wi-Fi terminal (see the device nameplate for the default SSID).

-WPA PreSharedKey: WPA PreSharedKey indicates the authentication password for the Wi-Fi terminal to access a wireless network (see the device nameplate for the default WLAN Key).

## 2.4G Basic Network Settings:

3BB HG8145X6  
Broadband Status WAN LAN IPv6 **WLAN** Security Route Forward Rules Network Application Voice System Tools Logout

2.4G Basic Network Settings WLAN > 2.4G Basic Network Settings

2.4G Advanced Network Settings  
5G Basic Network Settings  
5G Advanced Network Settings  
Automatic Wi-Fi Shutdown  
Wi-Fi Coverage Management

On this page, you can set the basic parameters of 2.4 GHz wireless network. (When the 2.4 GHz wireless network is disabled, this page is blank).  
Caution  
1. Wireless network services may be interrupted temporarily after you modify wireless network parameters.  
2. It is recommended that you use the WPA3 or WPA2/WPA3 authentication mode for security purposes.

Enable WLAN New Delete

SSID Index	SSID Name	SSID Status	Number of Associated Devices	Broadcast SSID	Security Configuration
1	3bb-wlan	Enabled	32	Enabled	Configured

SSID Configuration Details

SSID Name: 3bb-wlan \* (1-32 characters)  
Enable SSID:   
Number of Associated Devices: 32 \* (1-32)  
Broadcast SSID:   
Enable WMM:   
Authentication Mode: WPA/WPA2 PreSharedKey  
Encryption Mode: AES  
WPA PreSharedKey: \*\*\*\*\*  Hide \* (8-63 characters or 64 hexadecimal characters)  
WPA Group Key: 00400  \* (000-00400s)  
Regeneration Interval:   
Enable WPS:   
WPS Mode: PBC  
PBC: Start WPS  
Apply Cancel

## 5G Basic Network Settings:

3BB HG8145X6  
Broadband Status WAN LAN IPv6 **WLAN** Security Route Forward Rules Network Application Voice System Tools Logout

2.4G Basic Network Settings WLAN > 5G Basic Network Settings

2.4G Advanced Network Settings  
5G Basic Network Settings  
5G Advanced Network Settings  
Automatic Wi-Fi Shutdown  
Wi-Fi Coverage Management

On this page, you can set the basic parameters of 5 GHz wireless network. (When the 5 GHz wireless network is disabled, this page is blank).  
Caution  
1. Wireless network services may be interrupted temporarily after you modify wireless network parameters.  
2. It is recommended that you use the WPA3 or WPA2/WPA3 authentication mode for security purposes.

Enable WLAN New Delete

SSID Index	SSID Name	SSID Status	Number of Associated Devices	Broadcast SSID	Security Configuration
5	00sec3bb-5G-wlan-Z	Enabled	32	Enabled	Configured

SSID Configuration Details

SSID Name: 3bb-5G-wlan \* (1-32 characters)  
Enable SSID:   
Number of Associated Devices: 32 \* (1-32)  
Broadcast SSID:   
Enable WMM:   
Authentication Mode: WPA/WPA2 PreSharedKey  
Encryption Mode: AES  
WPA PreSharedKey: \*\*\*\*\*  Hide \* (8-63 characters or 64 hexadecimal characters)  
WPA Group Key: 00400  \* (000-00400s)  
Regeneration Interval:   
Enable WPS:   
WPS Mode: PBC  
PBC: Start WPS  
Apply Cancel

Step 6 Click **Apply**.

## 6 Indicator Descriptions

Table 1 Indicator status description 1

Indicator	Status	Description
WPS	Steady on	The WPS function is enabled.
	Blinking	A Wi-Fi terminal is accessing the system.
	Off	The WPS function is disabled.
WLAN	Steady on	The WLAN function is enabled.
	Blinking	Data is being transmitted on the WLAN port.
	Off	The WLAN function is disabled.
USB	Steady on	The USB port is connected and is working in the host mode, but no data is transmitted.
	Blinking	Data is being transmitted on the USB port.
	Off	The USB port is not connected.
TEL	Steady on	The terminal is registered with the softswitch but no service flows are transmitted.
	Blinking	Service flows are transmitted.
	Off	The terminal is not powered on or fails to be registered to the softswitch.
LAN	Steady on	The Ethernet connection is in the normal state.
	Blinking	Data is being transmitted on the Ethernet port.
	Off	The Ethernet connection is not set up.
LOS/PON	See Table 2.	
POWER	Steady on	The ONT is powered on.
	Off	The power supply is cut off.

Table 2 Indicator status description 2

Status No.	Status		Description
	PON	LOS	
1	Off	Off	The ONT is prohibited by the upper-layer device, contact the service provider for help.
2	Blinks twice a second	Off	The ONT attempts to set up a connection with its upper-layer device.
3	Steady on	Off	A connection is set up between the ONT and its upper-layer device.
4	Off	Blinks once two seconds	The ONT is not connected to optical fibers or does not receive optical signals.
5	Blinks twice a second	Blinks twice a second	The ONT is a rogue terminal, contact the service provider for help.
6	Blinks once two seconds	Blinks once two seconds	The hardware is faulty.

**NOTE**

If the ONT is not powered on, all indicators are off.