

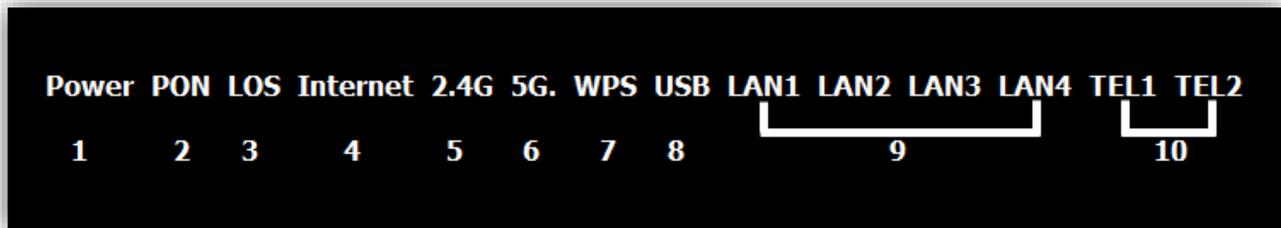
FiberHome HG6245N



Instruction

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1. HG6245N Router power status



Status No.	Indicator	Status	Description
1	POWER	Steady green	The terminal is powered on.
		Steady orange	The device is powered by a backup battery.
		Off	The power supply is cut off.
2 - 3	PON	LOS	
	Off	Off	The GPON terminal is prohibited by the upper-layer device, contact the service provider for help.
	Blinks twice a second	Off	The GPON terminal attempts to set up a connection with its upper-layer device.
	Steady on	Off	A connection is set up between the GPON terminal and its upper-layer device.
	Off	Blinks once two seconds	The GPON terminal is not connected to optical fibers or does not receive optical signals.
	Blinks twice a second	Blinks twice a second	The GPON terminal is a rogue terminal, contact the service provider for help.
	Blinks once two seconds	Blinks once two seconds	The hardware is faulty.
4	Internet	Steady on	Able to connect to the Internet
		Off	Unable to connect to the Internet
		Blinking	The device is in the process of receiving / sending Internet data.
5	2.4G	Wireless connection indicator light if transmitting / receiving is active, blinking green.	
6	5G	Wireless connection indicator light if transmitting / receiving is active, blinking green.	
7	WPS	Steady on	The WPS function is enabled.
		Blinking	A Wi-Fi terminal is accessing the system
		Off	The WPS function is disabled.
8	USB	USB connection status indicator	

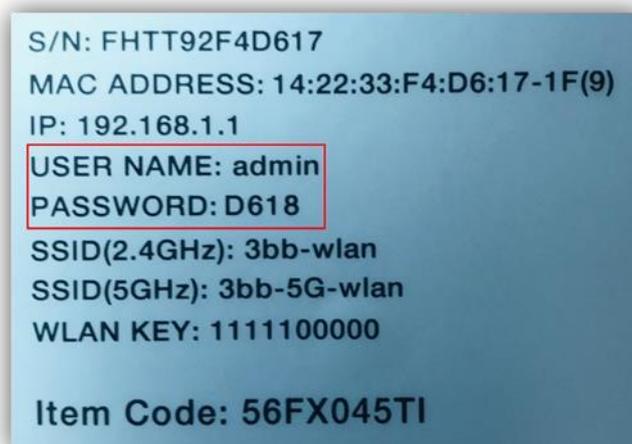
9	LAN1 - LAN4	Steady on	The Ethernet connection is in the normal state.
		Blinking	Data is being transmitted on the Ethernet port.
		Off	The Ethernet connection is not set up.
10	Tel1 - Tel2	Indicator light for connection with VoIP line	

2. Internet connection Settings

- Open the browser and enter 192.168.1.1
- In the login window, enter the username, password (They are located on the sticker attached to the bottom of the router)
- Enter the Validate Code as shown.
- Click Login to enter the WAN, Wireless settings



Sample picture: The username and password are located on the sticker attached to the bottom of the router.



3. WAN, Wireless Settings

3.1 WAN settings

When you login to the system, you will see various menu.

Follow these steps:

- Click **Network (1)** --> Click Broadband Settings (2) Screen showing Internet Settings

Follow these settings (3)

- **Service Type** ; Choose **INTERNET**
- **Connection Type** ; **Route**
- **VLAN ID** ; **33**
- **Priority** ; **0**
- **MTU** ; **1492** (set between 1280-1492)
- **IP Mode (4); IPv4** (Choose by device's capacity that you use for example IPv4, IPV6 or IPV4&IPV6)
- **WAN IP Mode (5);** Choose PPPoE
- **Enter Username/Password (6)** You can check from installation report
- **Click Apply (7)**
- After finished, enter URL Website to access Internet

The screenshot shows the 3BB Broadband Settings interface. The 'Network' tab is selected, and the 'BroadBand Settings' sub-tab is active. The 'Internet Settings' section is expanded, showing a 'WAN List' table with one entry: 'INTERNET_R_VID_33' with 'VID/Priority' '33/0' and 'WAN IP Mode' 'PPPoE'. Below this, the 'Service Type' is set to 'INTERNET', 'Connection Type' to 'Route', 'VLAN ID' to '33', and 'Priority' to '0'. The 'IP Mode' is set to 'IPv4' and 'WAN IP Mode' to 'PPPoE'. The 'PPPoE Mode' section includes 'User Name' and 'Password' fields, both with a note: '(You can input 1-31 characters)'. The 'Apply' button is highlighted with a red box.

WAN Name	VID/Priority	WAN IP Mode
INTERNET_R_VID_33	33/0	PPPoE

Service Type	INTERNET	3
Connection Type	Route	
VLAN ID	33	
Priority	0	
NAT	Enable	
DNS Relay	Enable	
MTU	1492	*(1280-1492)
LAN Binding	LAN 1 <input checked="" type="checkbox"/> LAN 2 <input checked="" type="checkbox"/> LAN 3 <input checked="" type="checkbox"/> LAN 4 <input checked="" type="checkbox"/>	
SSID Binding	SSID 1 <input checked="" type="checkbox"/> SSID 2 <input type="checkbox"/> SSID 3 <input type="checkbox"/> SSID 4 <input type="checkbox"/>	
5G SSID Binding	SSID 1 <input checked="" type="checkbox"/> SSID 2 <input type="checkbox"/> SSID 3 <input type="checkbox"/> SSID 4 <input type="checkbox"/>	
IP Mode	IPv4	4
WAN IP Mode	PPPoE	5
PPPoE Mode		
User Name		6
Password		
Operation Mode	Keep Alive	
State		
IP Address		
Subnet Mask		
Default Gateway		
Primary DNS Server		
Secondary DNS Server		

3.2 Wireless Settings

There are 2 step to set wireless connection

Step 1: Set all for Wireless 2.4G or Wireless 5G

- Click **Network (1)** --> Click **Wlan Settings (2)**
- Click **Basic (3)** for Wireless 2.4G or **5G Basic (4)** for Wireless 5G (You can choose to set both or just one signal)

Follow these settings (5)

- **Radio ON/Off**; Choose **RADIO ON** to open Wi-Fi signal
- **Network Mode**; **802.11 b/g/n** (Choose the signal channel that you want)
- **Frequency Bandwidth**; **40 MHz** (Choose the signal's broadness that you want)
- **Frequency (Channel)**; **Auto Select** (Choose the signal that you want)
- **Guard interval**; Set usage time and signal quality that you want
(Short; to use near device / Long; to use far from device)
- Click **Apply (6)** after that go to step 2 to set password

Step 2: SSID Settings for Wireless 2.4G or Wireless 5G

- Click **Advanced (7)** for Wireless 2.4G or 5G Advanced **(8)** for Wireless 5G (You can choose to set both or just one signal)
- **SSID Choice (9)**; 1 (Choose the required number of signals)
; Choose Enable to open the signal
- **SSID Name (10)**; Named that you want (not more than 32 characters)
- **Passphrase (11)**; Enter the required password (8-63 characters can enter both letters and numbers depend on Security Mode)
- Click **Apply (12)** to record Wireless settings
- After finished, enter URL Website to access the internet

4. DHCP Settings

DHCP Settings and IP Address management is IP management and distribution that do not give duplicate IP to protect the problem when you using

4.1 IP LAN Router Fixing

- Click **Network (1)** --> Click **LAN Setting (2)** --> Screen showing LAN Setup

Follow these settings (3)

- **LAN Interface;** Specify the IP Address as you want to use.
- **Subnet Mask; 255.255.255.0** (You can change various values or use it as your Default value.)

The screenshot shows the 3BB HG6245N router web interface. The 'Network' menu is selected (1). The 'LAN Settings' option is highlighted (2). The 'LAN Setup' section is shown with the following settings (3):

LAN Setup	
Lan Interface	192.168.1.1
Subnet Mask	255.255.255.0

Below the LAN Setup section, the IPv6 Config section is visible with the following settings:

IPv6 Config	
IPv6/Prefix	fe80::1/64 (For example, fe80::1/64)
Managed Flag	<input type="checkbox"/>
Other Config Flag	<input checked="" type="checkbox"/>
Max RA Interval	600 Seconds (4-1800)
Min RA Interval	200 Seconds (3-1350)
DNS Source	Network Connection
Prefix Mode	Network Connection
Enable DHCPv6 Service	<input checked="" type="checkbox"/>
Start IPv6 Address	0000:0000:0000:0002
End IPv6 Address	0000:0000:0000:0064

4.2 DHCP Settings and IP Address Management

- Click **Network (1)** --> Click **LAN Setting (2)** --> Follow these settings (3)
- **Type** ; Choose **Server**
- **DHCP Start IP;** Specify the beginning IP Address that you want to use.
- **DHCP End IP;** Specify the ending IP address that you want to use.
- **DHCP Subnet Mask; 255.255.255.0** you can change or use as Default
- Click **Apply (4)**
- DHCP Settings finished

3BB BROADBAND HG6245N Logo

Status **Network** ¹ Security Application Management

WLAN Settings
LAN Settings
LAN Settings ²
 DHCP Static IP Settings
 BroadBand Settings
 Authentication
 VoIP Settings
 Route Settings

Network » LAN Settings » LAN Settings

Enter Config Page

Max RA Interval	600	Seconds (4-1800)
Min RA Interval	200	Seconds (3-1350)
DNS Source	Network Connection	
Prefix Mode	Network Connection	
Enable DHCPv6 Service	<input checked="" type="checkbox"/>	
Start IPv6 Address	0000:0000:0000:0002	
End IPv6 Address	0000:0000:0000:0064	

DHCP Service

Type	Server	
DHCP Start IP	192.168.1.2	
DHCP End IP	192.168.1.254	
DHCP Subnet Mask	255.255.255.0	
DHCP Primary DNS	192.168.1.1	
DHCP Secondary DNS		
DHCP Default Gateway	192.168.1.1	
DHCP Lease Time	3 Hour 0 Min (1 min - 99 hours)	

Apply ⁴ Cancel

5. Bridge Mode Settings

- Click **Network** (1) --> Click **Broadband Settings** (2) Screen showing Internet Settings
- Follow these settings (3)
- **Service Type** ; Choose INTERNET
- **Connection Type** ; Choose Bridge
- **VLAN ID** ; Enter the VLAN ID of NODE
- **Priority** ; 0
- Click **Apply** (4)
- Set up the router that you want to connect to Internet, then connect both device by connecting LAN cable to the Prepared WAN
- Bridge Mode Settings finish, you can access the internet

3BB HG6245N

Status **Network** Security Application Management

WLAN Settings
LAN Settings
BroadBand Settings
Internet Settings
IPTV Settings
Authentication
VoIP Settings
Route Settings

Network » BroadBand Settings » Internet Settings

You may choose different connection type suitable for your environment. Besides, you may also configure parameters according to the selected connection type.

Add Delete

ID	WAN Name	Priority/VID	WAN IP Mode
1	1_TR069_INTERNET_R_VID_2098	0/2098	IPv4

Service Type: INTERNET
Connection Type: Bridge
VLAN ID: 2098 *(1-4094)
Priority: 0 *(0-7)

LAN Binding: LAN 1 LAN 2 LAN 3 LAN 4
2.4G SSID Binding: SSID1 SSID2 SSID3 SSID4
5G SSID Binding: SSID1 SSID2 SSID3 SSID4

Apply Cancel

6. Forward Port Settings

Forward Port Settings is Port setting for IP Address to use with other device required internal LAN to connect from external LAN such as Mobile phone, Notebook or Computer etc.

- Click **Application (1)** --> Click **Port Forwarding (2)** --> Screen showing **Port Forwarding**
- Click Add **(3)** to set other settings to Forward Port

The system will show screen to set other settings as follows **(4)**

- **WAN;** Choose **INTERNET_R_VID_33**
- **Description;** **CCTV** (Named that you want)
- **Protocol** ; Choose **TCP/UDP** (Named that you want)
- **Public Port** ; **90** (It is the inside Port number that use to view camera)
- **IP** ; **192.168.1.200** (It is the inside IP number that use to view camera)
- **Private Port;** **90** (It is the outside Port number that use to view camera)
- **Enable** ; Set to be **Enable**
- Click **Apply (5)**

3BB BROADBAND HG6245N Logout

Status Network Security **Application** Management ¹

Application » Port Forwarding » Port Forwarding

On this page, you could configure port forwarding.

Port Forwarding ² Add ³ Delete Delete All

Port forwarding Rules List

ID	Wan	Description	Protocol	Public IP	Public Port	Private IP	Private Port	Enable
1	1_TR069_INTERNET_R_VID_33	CCTV	TCP/UDP		90-90	192.168.1.200	90-90	Enable <input type="checkbox"/>

Wan: 1_TR069_INTERNET_R_VID_33

Description: CCTV (0-31 characters, including alphanumeric, '-' and '_')

Protocol: TCP/UDP

Public IP:

Public Port: 90 -- 90 * (1-65535)

Private IP: 192.168.1.200 *

Private Port: 90 -- 90 * (1-65535)

Enable: Enable

Apply ⁵ Cancel

- When done, the setting's information will show above (6)
- You can use CCTV after Forward Port settings finish
- In case if you want to set more Port numbers click **Add** (7) to add additional port numbers and the information provided will show more results

3BB BROADBAND HG6245N Logout

Status Network Security **Application** Management

Application » Port Forwarding » Port Forwarding

On this page, you could configure port forwarding.

Port Forwarding Add ⁷ Delete Delete All

Port forwarding Rules List

ID	Wan	Description	Protocol	Public IP	Public Port	Private IP	Private Port	Enable
1	1_TR069_INTERNET_R_VID_33	CCTV	TCP/UDP		90-90	192.168.1.200	90-90	Enable <input type="checkbox"/>

Wan: 1_TR069_INTERNET_R_VID_33

7. Dynamic DNS

Example : You apply DynDNS's Host by use "contact2nma.dyndns.org" name, that is a domain that you can use to view the camera from any point that no need to remember IP's received from service providers.

- Click **Application** (1) --> Click **DDNS** (2) --> Screen showing DDNS Settings
- The system will show the screen to fill in as follows (3)
- **WAN Interface** ; **INTERNET_R_VID_33** (Choose the required WAN Name)
- **Username/Password**; as customer defined on the web of DDNS service provider (not more than 32 characters)
- **Host** ; **contact2nma.dyndns.org** (The name given on the web of DDNS service provider.)
- **DDNS Provider** ; **www.dyndns.org** (Choose a registered DDNS provider)
- Click **Apply** (4)
- DDNS settings step finished

3BB BROADBAND HG6245N Logout

Status **Application** ¹ Management

VPN
DDNS ²
 Port Forwarding
 NAT
 UPNP
 DMZ
 Diagnosis

Application » DDNS » DDNS

You could configure DDNS here.

Add Delete Delete All

ID	Enable	Wan	Username	DDNS Provider	Host
--	--	--	--	--	--

Enable Enable Disable *
 Wan Interface
 Username *(1-32 Characters) ³
 Password *(1-32 Characters)
 Host *(eg. abc.dyndns.co.za)
 DDNS Provider

⁴

8. Power Checking

To check Optical Power when customer have internet problem such as low speed or unstable that Optical Power not more than -28 (If more than that please sent report to technician to check)

- Click **Status** (1) --> Click **Optical Info** (2) --> Screen showing Optical Power
- **Received Power** (3) ; Check Received Power not more than -28
- Power checking finished

3BB BROADBAND Logout

Status ¹ Network Security Application Management

Device Information
 Wireless Status
 Wan Status
 Lan Status
Optical Info ²
 Optical Info
 VoIP Call History

Status » Optical Info » Optical Info

On this page, you can query state of optical power.

Optical Info	
Transmitted Power	-40.00 dBm
Received Power	-40.00 dBm ³
Operating Temperature	42.10 °C
Supply Voltage	3.30 V
Bias Current	0.00 mA

9. Product version, Hardware and software Checking

- Click **Status** (1) --> **Device Information** (2) Product version, Hardware and software Checking (3)

3BB BROADBAND HG6245N Logout

1 Status Network Security Application Management

Device Information » Status » Device Information » Device Information

On this page, you can query device information.

Device Information	
Software Version	RP2820
Hardware Version	WKE2.094.347A02
Device Model	HG6245N
Device Description	GPON
Serial Number	FHTT92F4D617
ONU State	O1(STATE_INIT1)
ONU Regist State	INIT
LOID	fiberhome
CPU Usage	3%
Memory Usage	54.03%
Flash Usage	54%
Web Server port	80
System UpTime	0 d 1 h 38 m 52 s

10. Ping and Traceroute

10.1 How to Ping Test

It is used in the case of testing the connection between ONT and the destination website to check whether the website can be used normally or not.

- Click **Application**(1) --> Click **Diagnosis**(2) -->Click **Ping Diagnosis**(3)
- **Interface**(4) select 1_TRO69_INTERNET_R_VID_2099
- **Destination Address** (5) ; Enter IP, Host Name or Website.
- Click **Diagnosis** (6) to start the connection test.

3BB BROADBAND HG6245N Logout

Status Network Security **1** Application Management

Application » Diagnosis » Ping Diagnosis

On this page, you could do ping diagnosis.

4 Interface 1_TRO69_INTERNET F

IP Version IPv4

Repeated Times 4 * (1-10)

5 Destination Address

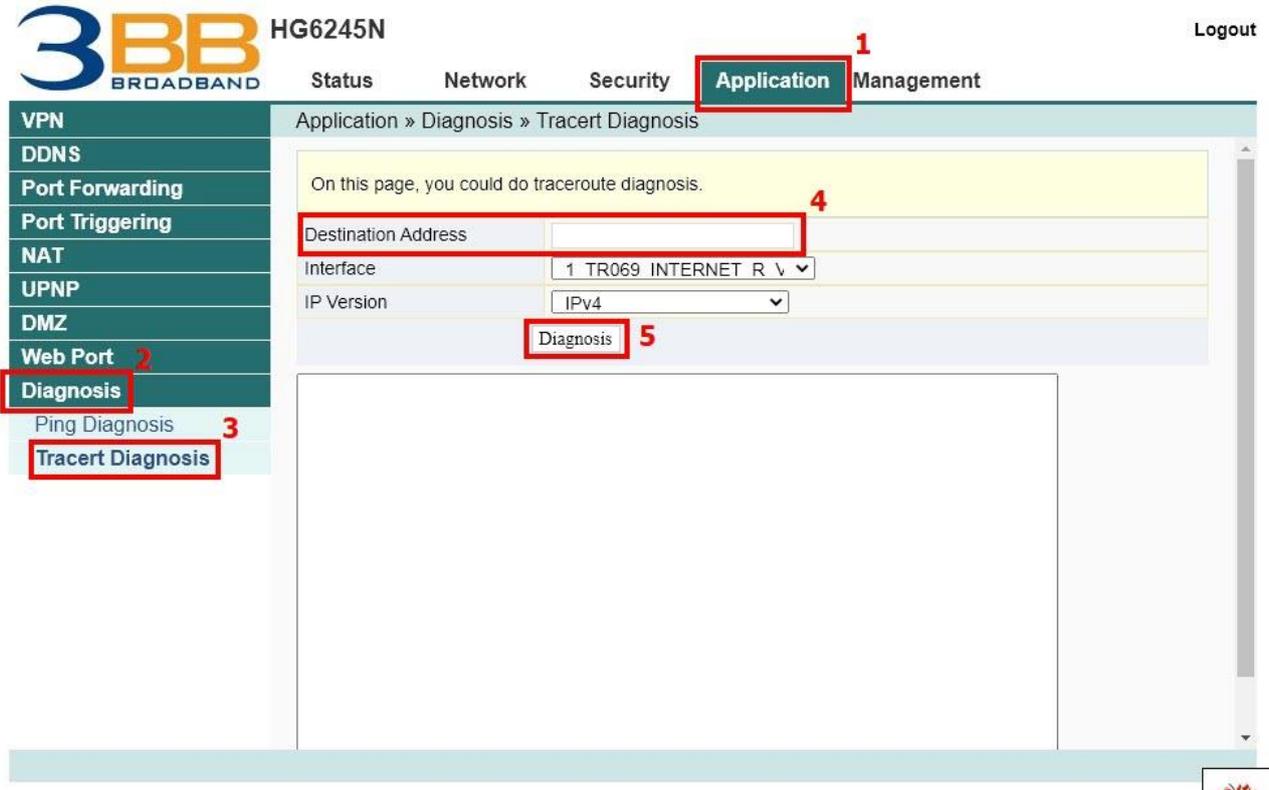
6 Diagnosis

VPN
DDNS
Port Forwarding
Port Triggering
NAT
UPNP
DMZ
Web Port **2**
3 Diagnosis
Ping Diagnosis
Tracert Diagnosis

10.2 How to Traceroute Test

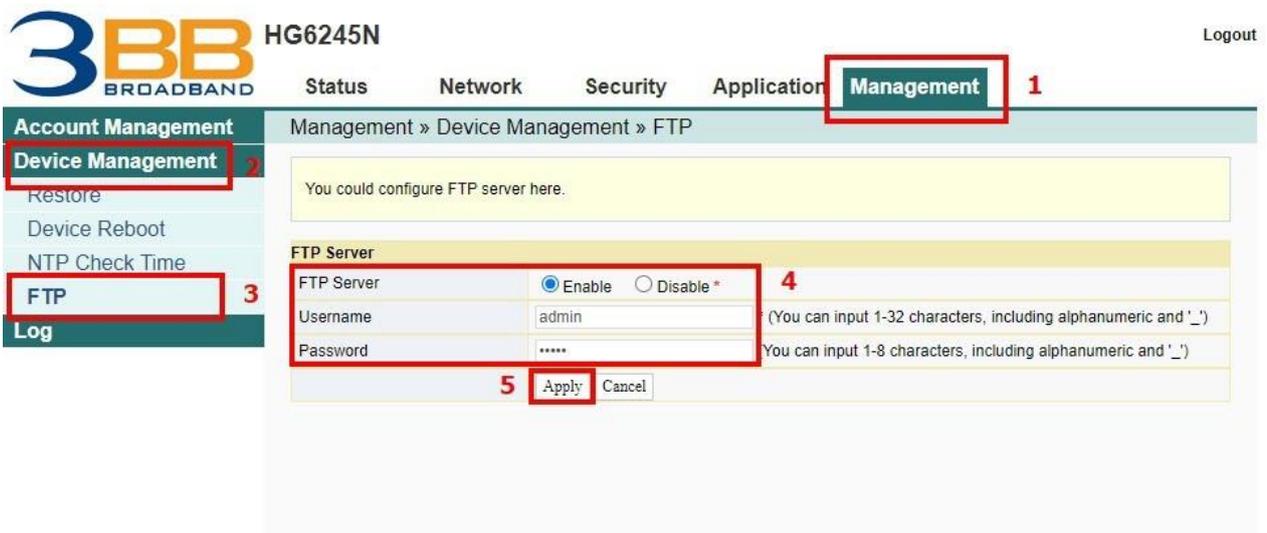
Traceroute can be used to check server route connection, used in case of ping not found (unable to reach destination).

- Click **Application**(1) --> Click **Diagnosis**(2) --> Click **Tracert Diagnosis**(3)
- **Destination Address**(4) ; Enter **IP, Host Name** or **Website**
- Click **Diagnosis**(5)



11. Share USB Flash Drive (FTP) files via USB Port

- Click **Management** (1) --> Click **Device Management** (2) **FTP** (3)
- Enter the following information: (4)
- **FTP Server** ; Click **Enable**
- **User Name** ; as you set
- **Password** ; as you set
- กดปุ่ม **Apply** (5) finish the steps



12. Restore to Default

There are 2 steps to restore to Default

Step 1 Hardware (Device reset)

- Press the Router Hardware(Reset) button and hold for 10 seconds, after that the router will restart to be default



Step 2 Software (System Reset)

- Click **Management (1)** --> **Device Management (2)** --> Click **Restore (3)**
- Click **Restore (4)**
- Restore Default steps finished



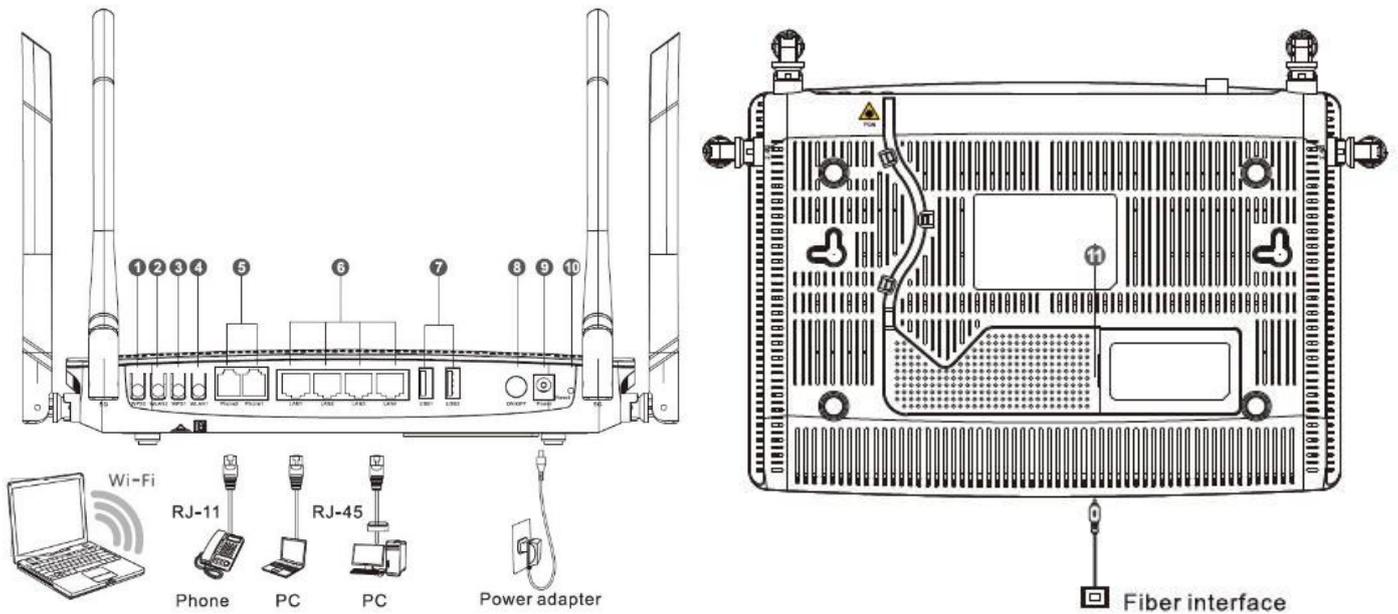
13. Hardware Installation

Step 1: Connect the optical fiber cable to the PON port of the GPON Terminal.

Step 2: Connect LAN cable from Port Lan of GPON Terminal to LAN Port of Computer.

Step 3: Connect the AC Adapter to the Power Port. (DC-IN)

Step 4: Press the **ON/OFF** button to turn on the device.



Equipment details table

No.	Port/Button		Description
1	WPS Button	WPS	To enable Wi-Fi Protected Setup, Wi-Fi setting is required. Protected Setup software first, then press the WPS button to launch it.
2	WLAN Button	WLAN	To enable or disable the WLAN. The default will be enabled
3	Tel Port	Phone1, Phone 2	For connecting to a phone
4	Port Network	LAN1 ถึง LAN4	For connecting to the computer's Ethernet port.
5	USB Port	USB	For connecting to USB
6	Power Port	Power	For connecting to Power Adapter
7	Power Button	ON/OFF	For connecting to Power Adapter
8	Reset Button	Reset	For resetting the device by pressing the button for 10 seconds.

14. Technical Specification

Type	Item	Description
Mechanical parameter	Dimension	37 mmx252mmx178mm(HxWxD)
	Weight	660 g approximately
Power supply parameter	Power Adapter Input	DC 12V/2A
Power consumption parameter	Power consumption	<19.1W
Environmental parameter	Operating temperature	-5°C to - 45°C
	Storage temperature	-40°C to -70°C
	Environmental humidity	10% to 90% , non-condensing

15. Product Overview

product	Function
AN5506-04-FA	- 4 GE Interfaces
	- 2 Phone Interfaces
	- USB Interfaces
	- Wi-Fi Interfaces (2.4GHz, 5GHz)

16. Packing List

Item	Quantity
GPON Terminal HG245N	1
Power Adapter	1
Ethernet Cable	1
Phone Cable	1
Quick Start	1