

# User Manual

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**AN5506-04-B**

## **GPON Optical Network Unit**

**Version: B**

**Code: MN000000742**

**Date: 2011-12**

## Version

Version	Description
A	Initial version.
B	Adds new product types: AN5506-04-B3N and AN5506-04-B2GN. Adds a new chapter: "Configuration Guide".



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# Operation Safety Rules



High optical power can cause bodily harm, especially to eyes. Never look directly into the end of the optical transmitter fiber jumper or the end of its active connector.



Exercise care if you must bend fibers. If bends are necessary, the fiber bending radius should never be less than 38mm.



Power socket overload, broken cables or broken plugs may cause electric shock or fire. Regular check-ups on power supply wires and cables are essential. If any appears damaged, replace at once.



Use the power supply adapter provided in the package only. Using other adapters may cause equipment damage or operation failures.



Install the equipment in a well ventilated environment without high temperatures or direct sunlight to protect the equipment and its components from overheating, which can result in damage.



Avoid moisture, dampness and water damage. Equipment exposed to water cannot work normally and can be extremely hazardous due to shorting.



Do not lay this equipment on an unsteady base.

# Packing List

After opening the carton of the AN5506-04-B, refer to the following packing list to check whether the items in the carton are complete:

Item	Quantity	Remarks
AN5506-04-B	1	—
Conformity certificate	1	—
Document bag	1	Contains an <i>AN5506-04-B GPON Optical Network Unit User Manual</i> .
DC power adapter	1	The DC power adapter is provided for the AN5506-04-B.
RJ45 crystal head	5	—
Mount-to-wall screw	2	For securing the equipment on the wall.

# Contents

<b>1 Product Introduction.....</b>	<b>1</b>
1.1 Brief Introduction to AN5506-04-B.....	1
1.2 Network Application.....	2
1.3 Product Type.....	3
1.4 Technical Specification.....	3
<b>2 Equipment Housing Description.....</b>	<b>6</b>
2.1 Appearance.....	6
2.2 Indicator LED Description.....	7
2.3 Interface and Button Description.....	9
<b>3 Product Installation.....</b>	<b>11</b>
3.1 Preparation.....	11
3.2 Equipment Mounting.....	11
3.3 Cable and Wire Connection.....	13
3.3.1 Connecting Optical Fiber Jumper.....	13
3.3.2 Connecting Network Cable.....	15
3.3.3 Connecting Twisted-pair Cable.....	16
3.3.4 Connecting Power Cable.....	17
3.4 Inspection after Installation.....	18
<b>4 Configuration Guide.....</b>	<b>20</b>
4.1 Preparation before Configuration.....	20
4.1.1 User's Computer Requirement.....	20
4.1.2 Configuring Correct Network Parameter.....	20
4.1.3 Disabling Proxy Server.....	22



4.2 Logging in Web Configuration GUI.....	23
4.3 Web GUI Layout.....	25
4.4 User Management.....	26
4.5 Configuring Internet Access Service .....	28
4.6 Configuring LAN Service.....	30
4.7 Configuring ONU Authorization .....	32
<b>5 FAQs.....</b>	<b>34</b>

# 1 Product Introduction

## 1.1 Brief Introduction to AN5506-04-B

The AN5506-04-B is an FTTH GPON optical network unit. It provides communication and entertainment service in multiple modes such as data and voice to meet integrated access requirement of families or small enterprises.

The AN5506-04-B supports the following functions:

- ◆ Uses GPON uplink that is compliant with ITU-T G.984 series of standards;
- ◆ Supports the configuration of Ethernet interface rates, working modes, MDI / MDIX auto-negotiation mode and PAUSE flow control;
- ◆ Supports various voice protocols including H.248 and SIP protocols; supports the VBD mode / T.38 mode / MODEM for the fax services; supports multiple speech encoding modes;
- ◆ Supports packet filtering and DoS attack protection, to suppress unknown unicast, broadcast, and multicast packets;
- ◆ Provides performance statistics on all Ethernet lines;
- ◆ Supports reporting the physical position information of Ethernet interfaces through DHCP Option82;
- ◆ Supports the PPPoE+ function for accurate user identification;
- ◆ Supports IGMP snooping protocol;
- ◆ Supports the L2 / L3 wire speed forwarding;
- ◆ Supports the NAT function;
- ◆ Supports the WEB configuration function;

- ◆ Supports the AES-128 algorithm for data encryption of downlink data;
- ◆ Performs various QoS functions: supporting global configuration of queue priority and flexible mapping of 802.1p value of packets and supporting the PQ queue scheduling mode.

## 1.2 Network Application

Figure 1.1 shows the network application of the AN5506-04-B.

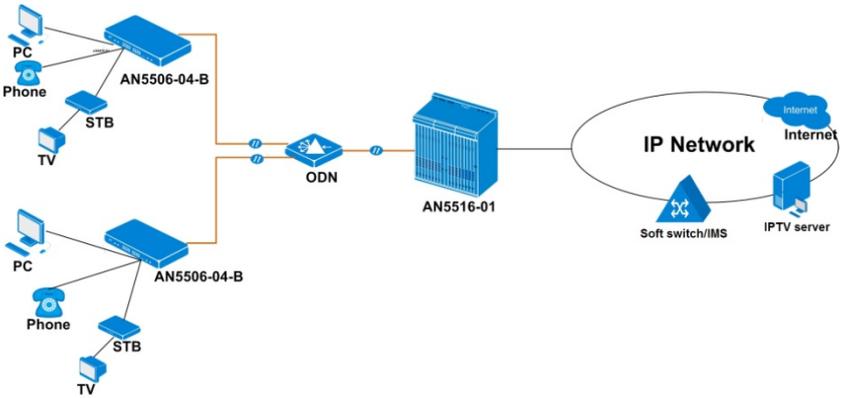


Figure 1.1 The AN5506-04-B application in a network

The AN5506-04-B is used together with the AN5516-01 (OLT). They together make up a GPON system that provides a large-capacity, high-reliability multi-service access network.

## 1.3 Product Type

The AN5506-04-B is divided into four types according to the different interfaces that are used. You can choose the proper type based on your demand. Table 1.1 lists the four types of the AN5506-04-B, the type and number of the interfaces supported by them respectively.

Table 1.1 Product types and interfaces supported by each type

Product Type	Ethernet FE Interface	Ethernet GE Interface	Telephone Interface	NAT Function	WEB Configuration
AN5506-04-B3	4	—	2	Not supported	Not supported
AN5506-04-B2G	—	4	2	Not supported	Not supported
AN5506-04-B3N	4	—	2	Supported	Supported
AN5506-04-B2GN	—	4	2	Supported	Supported

## 1.4 Technical Specification

Table 1.2 lists the technical specifications of the AN5506-04-B.

Table 1.2 Technical specifications of the AN5506-04-B

Type	Item	Description
Service parameter	VLAN	Supports the IEEE 802.1Q VLAN standard; Supports adding 802.1Q VLAN in tag or untag mode; The full 4096 VLAN address space is supported.
	MAC address	The MAC address table size of the AN5506-04-B3 is 256; The MAC address table size of the AN5506-04-B3G is 2048; The MAC address table size of the AN5506-04-B3N is 256; The MAC address table size of the AN5506-04-B3GN is 2048.
	Multicast	Supports the IGMP Snooping protocol; Supports IGMP v1 / v2 / v3.
	Wire speed L2 / L3 switching	Supports the wire speed forwarding.
	QoS	Supports the IEEE 802.1p standard; supports the QoS classification policy based on interface, MAC address and VLAN ID; Supports priority re-tag.
Network side interface	GPON interface	One, compliant with the ITU-T G.984 series of standards. The longest transmission distance is 20 kilometer.
Client side interface	LAN interface	AN5506-04-B3: Four RJ-45 interfaces that support full duplex or half duplex and 10 / 100 Mbit/s self-adaption. AN5506-04-B3G: Four RJ-45 interfaces that support full duplex or half duplex and 10 / 100 / 1000 Mbit/s self-adaption. AN5506-04-B3N: Four RJ-45 interfaces that support full duplex or

Type	Item	Description
		half duplex, 10 / 100 Mbit/s self-adaption and the NAT function. AN5506-04-B3GN: Four RJ-45 interfaces that support full duplex or half duplex, 10 / 100 / 1000 Mbit/s self-adaption and the NAT function.
	Phone interface	Two RJ-11 interfaces.
Mechanical parameters	Dimension	32mm × 170mm × 130mm (height × width × depth)
	Weight	267g
Power supply parameter	DC	DC 12V
Power consumption parameter	—	<9W
Environmental parameter	Operating temperature	0°C to 50°C
	Storage temperature	-30°C to 60°C
	Environmental humidity	10% to 90%, non-condensing

# 2 Equipment Housing Description

## 2.1 Appearance

The AN5506-04-B has a streamline design with novel and fashionable appearance. The LED indicators on the front panel show the operating status of the equipment, thereby the users can learn about the status directly.

Figure 2.1 shows the front panel of the AN5506-04-B.

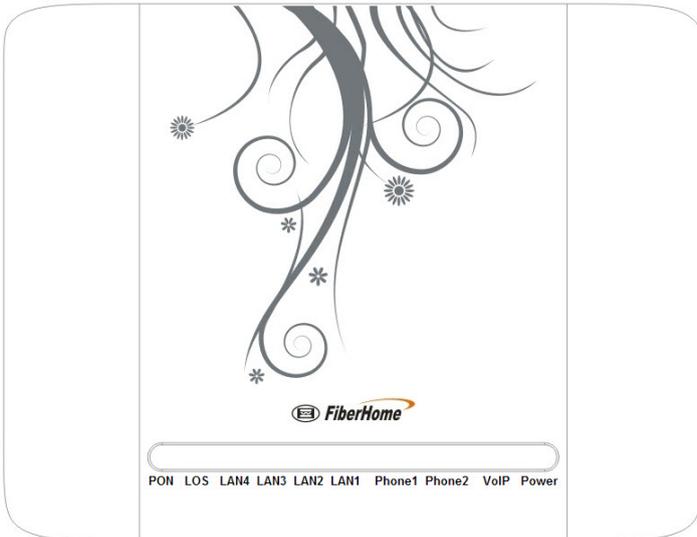


Figure 2.1 Front view of the AN5506-04-B front panel

## 2.2 Indicator LED Description

The AN5506-04-B shows the operating status of the equipment with various indicator LEDs, thereby the users can learn about the status directly. Table 2.1 shows the description of the indicator LEDs.

Table 2.1 Indicator LED description for the AN5506-04-B

Name	Meaning	Color	Status	Description
PON	Registration status indicator LED	Green	ON	The ONU is activated.
			Blinking	The ONU is being activated.
			OFF	The ONU has not initiated its activation process.
LOS	Optical signal status indicator LED	Red	Blinking	The equipment receives no optical signal.
			OFF	The equipment receives optical signals.
Power	Power status indicator LED	Green	ON	The equipment is powered on via the 3-conductor DC power supply.
			OFF	The equipment is not powered on.
VoIP	VoIP status indicator LED	Green	ON	The equipment registers to the

## 2 Equipment Housing Description

Name	Meaning	Color	Status	Description
				softswitch system successfully.
			OFF	The equipment does not register to the softswitch system.
Phone1 to Phone2	Telephone interface indicator LED	Green	ON	The user picks up the telephone or the user is in a call.
			OFF	The user hooks on or the user telephone is not connected to the equipment.
LAN1 to LAN4	Ethernet interface status indicator LED	Green	ON	The interface is connected to the user terminal without data transmission.
			Blinking	The interface is transmitting and receiving data.
			OFF	The interface is not connected to the user terminal.

## 2.3 Interface and Button Description

With all interfaces and buttons distributed on the rear panel, the AN5506-04-B has a simple model and is convenient for use. As shown in Figure 2.2, the interfaces and buttons from left to right are: power switch, power interface, telephone interfaces ( $\times 2$ ), Ethernet interfaces ( $\times 4$ ) and PON interface.

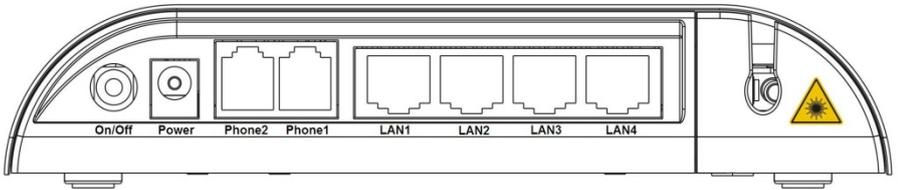


Figure 2.2 Front view of the AN5506-04-B rear panel

The interface and button distribution of the AN5506-04-B facilitates the cable and wire connection. See Table 2.2 for the interface and button description.

Table 2.2 Description for the AN5506-04-B interfaces and buttons

Button / Interface	Meaning	Type	Description
On/Off	Power switch	Button	Turns on or off the power.
DC 12V	Power interface	3-conductor power interface	Connects to the DC power adapter.
Phone1 to Phone2	Telephone interface	RJ-11	Connects to the user's telephone.
LAN 1 to LAN	Ethernet	RJ-45	Connects to the user's

## 2 Equipment Housing Description

<b>Button Interface</b> /	<b>Meaning</b>	<b>Type</b>	<b>Description</b>
4	interface		computer, router, etc.
	PON interface	SC / PC	Connects to the optical splitter.

# 3 Product Installation

## 3.1 Preparation

When unpacking the AN5506-04-B, please check that all items on the parts list are present and not damaged. If any item is missing or has been damaged, please contact local agencies of FiberHome immediately.

Before installing the AN5506-04-B, please read the following thoroughly.

- ◆ The installation location must be free of excessive moisture and must be properly grounded for lightning protection.
- ◆ The selected installation position enables the connection between the AN5506-04-B and the outside. For example, there should be sufficient outlet space for power cables and network cables.
- ◆ The installation position guarantees adequate air flow to facilitate heat dissipation.
- ◆ The installation position provides good earth grounding conditions.

## 3.2 Equipment Mounting

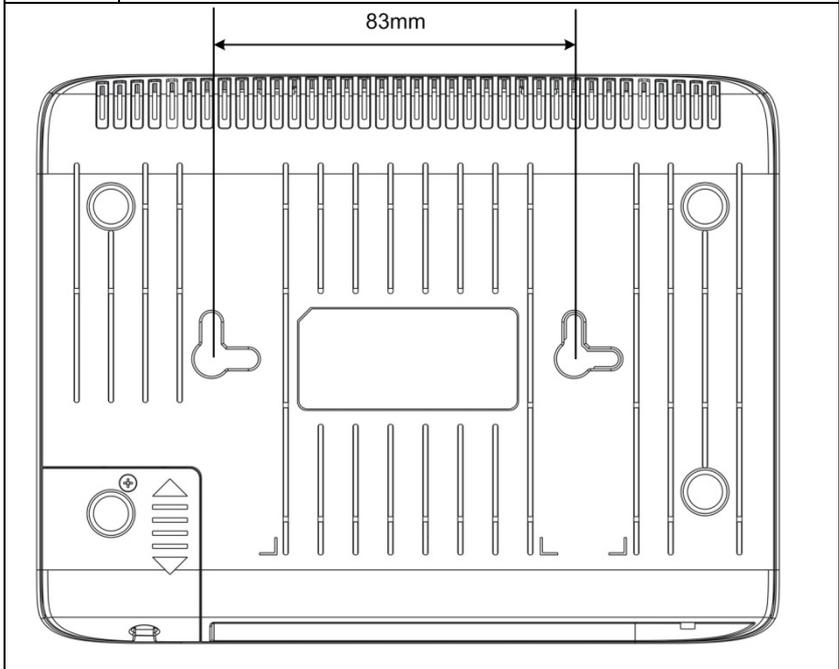
The AN5506-04-B can be either secured on a stable plane like an office desk, or hung vertically against the wall. The two mounting methods are introduced below:

### Desk top mounting

Step 1	Take out the AN5506-04-B from the carton. Before delivery, four self-adhesive pads are pasted to the four corners on the bottom of the device.
Step 2	Gently place the AN5506-04-B on a stable surface that guarantees ventilation on both the left and right sides.

### Wall mounting

Step 1	According to the recesses distance of the AN5506-04-B, drive the two mount-to-wall screws into the wall.
Step 2	Align the recesses on the bottom of the AN5506-04-B with the screws on the wall and fix them up gently.
Step 3	Take your hands off the AN5506-04-B slowly and make sure the equipment is mounted on the wall with the support of the screws.



## 3.3 Cable and Wire Connection

### 3.3.1 Connecting Optical Fiber Jumper

#### Cable introduction

The GPON interface of the AN5506-04-B can be uplinked to the central office end OLT equipment via the optical fiber.

#### Connection procedure

Step 1	Plan the layout of the optical fiber jumper. Measure the distance from the PON interface of the AN5506-04-B to the ODF and choose the optical fiber jumper with an appropriate length for connection.
Step 2	Remove the anti-dust caps of the optical fiber jumper and connects one end of the fiber to the ODF.
Step 3	Loosen the screws on the fiber cover that is at the bottom panel of the equipment, and remove the fiber cover.
Step 4	Take off the anti-dust caps of the PON interface of the AN5506-04-B.
Step 5	Insert the other end of the optical fiber jumper to the PON interface at the bottom panel of the AN5506-04-B.
Step 6	Fit on the fiber cover and fasten the screws.

	<p><b>Caution :</b></p> <ol style="list-style-type: none"><li>1. When the optical fiber jumper is not used, cover the AN5506-04-B's optical interfaces and fiber jumpers with anti-dust caps to protect them from the dust and moisture, which may damage the AN5506-04-B's optical interfaces and fiber jumpers and cause them fail to function.</li><li>2. The optical fiber jumpers should be arranged last to prevent them from being kinked, bent excessively or pressed.</li></ol>
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### Connecting diagram

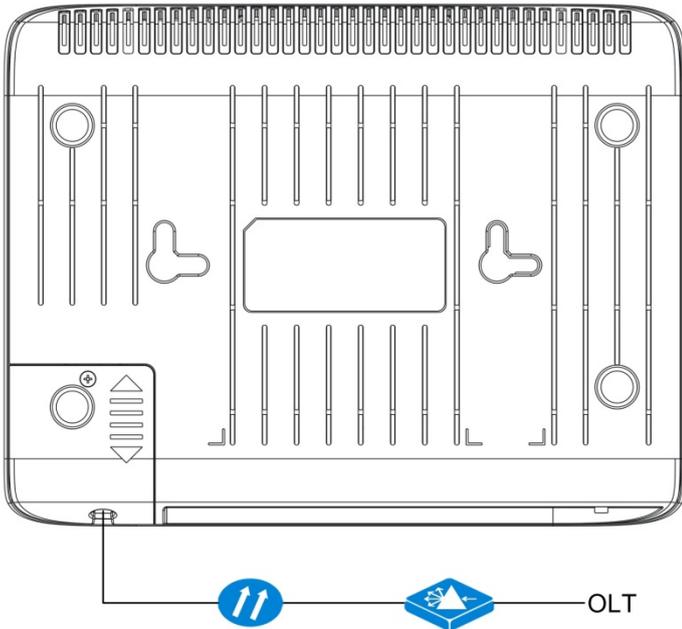


Figure 3.1 Connection diagram for the optical fiber of the AN5506-04-B

## 3.3.2 Connecting Network Cable

### Cable introduction

The Ethernet interface of the AN5506-04-B is connected to the user's computer and the switch via network cables to access data service.

### Connection procedure

Step 1	Plan the layout of the network cable. Measure the distance from the LAN interface of the AN5506-04-B to the user terminal and choose the network cable with an appropriate length for connection.
Step 2	Secure the network cable and make the RJ-45 crystal head connectors at both ends of the cable.
Step 3	Insert one end of the network cable to a LAN interface of the AN5506-04-B.
Step 4	Insert the other end of the network cable to the Ethernet interface of the user's computer or the switch.

	<p><b>Note :</b></p> <ol style="list-style-type: none"> <li>1. Transmission distance of the network cable is shorter than 100m. Therefore, the network cable you prepare should not exceed 100m.</li> <li>2. The Ethernet interfaces of the AN5506-04-B support the MDI / MDIX self-adaption. You can use the straight-through or cross-over network cable for connection.</li> </ol>
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### Connecting diagram

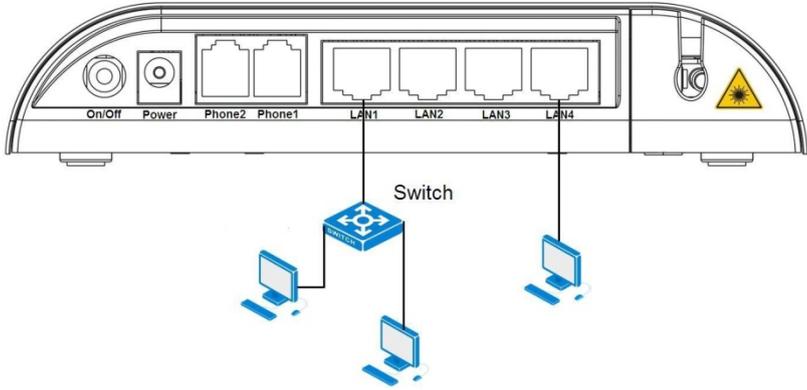


Figure 3.2 Connection diagram for the network cable of the AN5506-04-B

### 3.3.3 Connecting Twisted-pair Cable

The AN5506-04-B provides the telephone interface and supports the voice service.

#### Connection procedure

Step 1	Plan the layout of the twisted-pair cable. Measure the distance from the Phone interface of the AN5506-04-B to the subscriber telephone and choose the twisted-pair cable with an appropriate length for connection.
Step 2	Secure the twisted-pair cable and make the RJ-11 crystal head connectors at both ends of the cable.
Step 3	Insert one end of the twisted-pair cable into a Phone interface of the AN5506-04-B.
Step 4	Connect the other end of the twisted-pair cable to the subscriber telephone.

## Connecting diagram

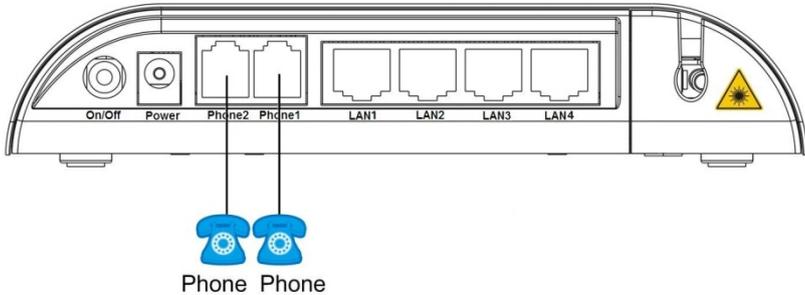


Figure 3.3 Connection diagram for the twisted-pair cable of the AN5506-04-B

### 3.3.4 Connecting Power Cable

The AN5506-04-B is connected to the power supply via the 3-conductor power adapter.

#### Connection procedure

Step 1	Take out the 3-conductor DC power adapter provided in the AN5506-04-B package.
Step 2	Insert the plug at one end of the adapter into the Power interface of the AN5506-04-B.
Step 3	Insert the other end of the adapter into the mains supply socket.

### Connecting diagram

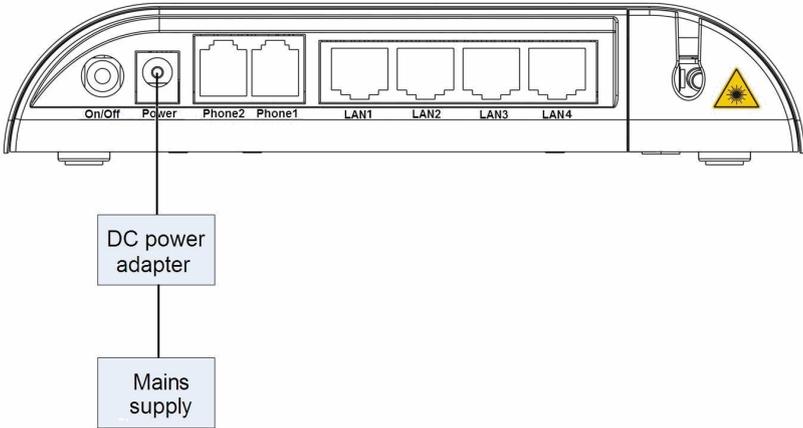


Figure 3.4 Connection diagram for the power cable of the AN5506-04-B

	<p><b>Note:</b> This power adapter can convert 220V AC into 12V DC input to provide power supply for the AN5506-04-B.</p>
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## 3.4 Inspection after Installation

After you have completed the wire and cable connection and subscribed the relevant services, it is necessary to power on and check the AN5506-04-B as below:

Step 1	Turn on the power supply.
Step 2	Observe the status of the Power indicator LED. If the Power indicator LED is illuminated, the equipment is normally powered on. Otherwise, check whether the power cable connection is correct.

Step 3	Observe the status of the LOS indicator LED. If the LOS indicator LED is extinguished, the optical fiber connection is normal. Otherwise, check whether the optical fiber is correctly connected.
Step 4	Observe the status of the PON indicator LED. If the PON indicator LED is illuminated, the equipment registers to the GPON system normally. Otherwise, check the ONU authentication status at the OLT side.
Step 5	Observe the status of the LAN indicator LED. If the LAN indicator LED is illuminated or blinking, the network cable connection is normal. Otherwise, check whether the network cable is correctly connected.
Step 6	Observe the status of the Phone indicator LED. If the Phone indicator LED is extinguished before off-hook and becomes illuminated after off-hook, the twisted-pair cable connection is normal. Otherwise, check whether the twisted-pair cable is correctly connected.
Step 7	During operation of the equipment, ensure the ventilation to avoid abnormal events caused by overheating. When any abnormality occurs, contact the local office of FiberHome for replacement.

# 4 Configuration Guide

## 4.1 Preparation before Configuration

### 4.1.1 User's Computer Requirement

Step 1	Make sure the computer has installed the Ethernet card.
Step 2	Make sure the computer has installed the Web browser (version: Microsoft IE 5.0 or higher).
Step 3	Make sure the computer has installed and enabled the TCP / IP.

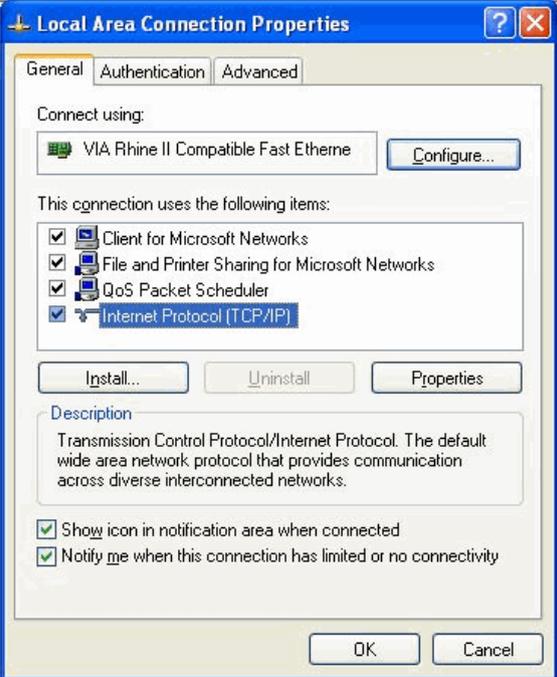
### 4.1.2 Configuring Correct Network Parameter

#### Local configuration

Before visiting the Web configuration page, you should set the IP address of the computer and that of the ONU into the same subnet.

Below are the detailed operation steps:

Step 1	In the Windows taskbar, click <b>Start</b> → <b>Control Panel</b> . In the <b>Control Panel</b> window that appears, double-click the <b>Network Connections</b> icon.
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Step 2	<p>In the <b>Network Connections</b> window, right-click the <b>Local Area Connection</b> icon and select <b>Properties</b> from the shortcut menu. The <b>Local Area Connection Properties</b> dialog box appears.</p> 
Step 3	<p>In the <b>Local Area Connection Properties</b> dialog box, click <b>Internet Protocol (TCP/IP)</b> and then click the <b>Properties</b> button. The <b>Internet Protocol (TCP/IP) Properties</b> dialog box appears.</p>

Step 4	<p>In the <b>Internet Protocol (TCP/IP) Properties</b> dialog box, configure the IP address and subnet mask of the computer.</p> <ul style="list-style-type: none"> <li>◆ Select the <b>Obtain an IP address automatically</b> mode (recommended).</li> <li>◆ Configure the static IP: The configured IP address should be in the same network segment as the AN5506-04-B. <ul style="list-style-type: none"> <li>▶ <b>IP address:</b> 192.168.1.X (X is a decimal integer between 2 and 253)</li> <li>▶ <b>Subnet mask:</b> 255.255.255.0</li> </ul> </li> </ul>
Step 5	Click <b>OK</b> to save the configuration.

### Remote configuration

To configure the ONU remotely via the computer, the reachability of the route between the computer and the ONU should be ensured.

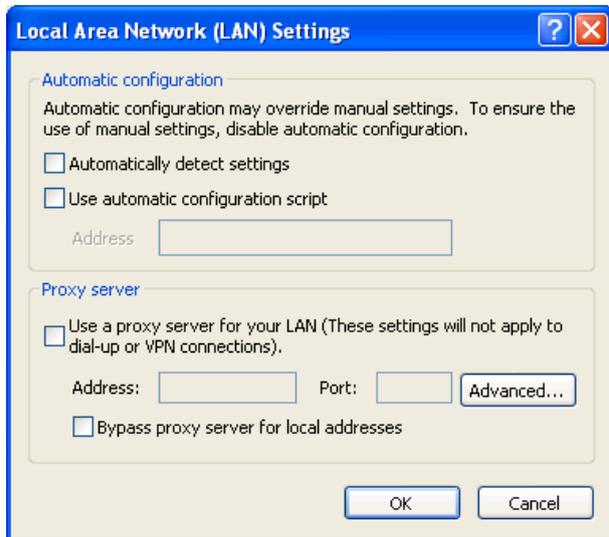
#### 4.1.3 Disabling Proxy Server

If the current computer visits Internet via a proxy server, you should disable the proxy server at first. The following table uses the IE 9.0 as an example to introduce the disabling procedure.

Step 1	Open the browser window and select <b>Tools</b> → <b>Internet options</b> . The <b>Internet Options</b> dialog box appears.
Step 2	In the <b>Internet Options</b> dialog box, select the <b>Connections</b> tab and click the <b>LAN settings</b> button.

Step 3

In the **Proxy server** pane, make sure the check box of the **Use a proxy server for you LAN (These settings will not apply to dial-up or VPN connections)** item is not selected.



## 4.2 Logging in Web Configuration GUI

### Purpose

Log in the Web configuration GUI to configure and manage the AN5506-04-B.

### Prerequisite

- ◆ The AN5506-04-B is correctly connected to the user's computer.
- ◆ The user's computer is normally started.
- ◆ The AN5506-04-B is normally started.

## Planning data

Table 4.1 shows the data to be prepared for the configuration GUI login.

Table 4.1 Planning data for logging in the configuration GUI

Configuration Item	Instruction
User name and password	Compulsory ◆ <b>User name:</b> admin ◆ <b>Password:</b> admin
IP address and subnet mask of the AN5506-04-B	Default value ◆ <b>IP address:</b> 192.168.1.1 ◆ <b>Subnet mask:</b> 255.255.255.0
IP address and subnet mask of the user's computer	◆ Select the <b>Obtain an IP address automatically</b> mode (recommended). ◆ Configure the static IP: The IP address of the user's computer should be in the same network segment as the AN5506-04-B. ▶ <b>IP address:</b> 192.168.1.X (X is a decimal integer between 2 and 253) ▶ <b>Subnet mask:</b> 255.255.255.0

## Procedure

Enter the user name and password to access the Web configuration GUI of the AN5506-04-B.

Step 1	Enter <b>http://192.168.1.1</b> in the address bar of the browser and press <b>Enter</b> . The user login dialog box appears.
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Step 2

According to the planning data in Table 4.1, enter the user name and password in the login dialog box. After being verified, you can access the Web configuration GUI.



## 4.3 Web GUI Layout

The Web configuration GUI of the AN5506-04-B mainly consists of the following four parts, as shown in Figure 4.1.

- ◆ Navigation bar: Click the link to access the corresponding configuration management page.
- ◆ Link bar: Click the link to access the corresponding configuration management subpage.
- ◆ Configuration management pane: The contents displayed on the pane are determined by the items selected in the navigation bar and the link bar.
- ◆ Prompt information pane: indicates the functions of the configuration item.

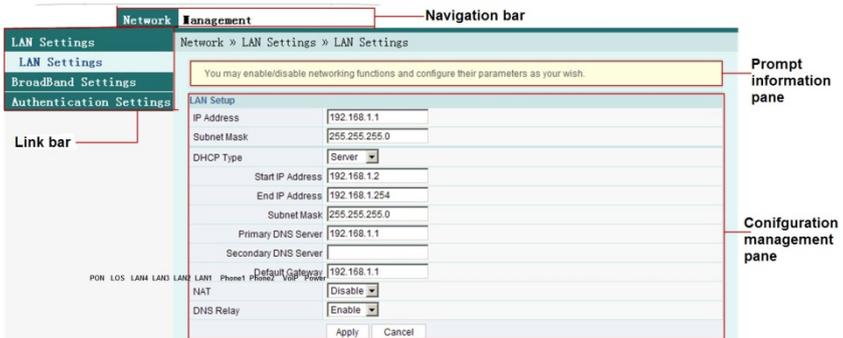


Figure 4.1 Web configuration GUI

## 4.4 User Management

<p>Step 1</p>	<p>Select <b>Management</b> in the navigation bar. In the GUI that is opened, configure the user account and password of the AN5506-04-B.</p>
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Step 2

Click the **Apply** button to save the new password configuration. The next time you log in with this account, you should enter the new user name and new password.



Table 4.2 lists the description for the configuration parameters.

Table 4.2 Description of the user management configuration parameters

Configuration Item	Description
Account	The user name used before the update. You can enter the new user name.
Password	Enter the new password.
Verify Password	Enter the new password again to verify whether the passwords entered at the two times are the same.



Configuration Item	Description
	<ul style="list-style-type: none"> <li>◆ <b>Secondary DNS Server:</b> Enter the secondary DNS server IP address provided by the ISP.</li> </ul> <p>If you select the <b>DHCP</b> mode, the equipment will automatically obtain the above parameters.</p>
PPPoE Mode	<ul style="list-style-type: none"> <li>◆ <b>User Name:</b> Enter the user name provided by the ISP.</li> <li>◆ <b>Password:</b> Enter the password provided by the ISP.</li> <li>◆ <b>Verify Password:</b> Enter the new password again to verify whether the passwords entered at the two times are the same.</li> <li>◆ <b>Operation Mode:</b> Select either the <b>Keep Alive</b> mode or the <b>Manual</b> mode in the pulldown menu.</li> <li>◆ <b>State:</b> displays the status of the WAN connection.</li> </ul>

## 4.6 Configuring LAN Service

Step 1	<p>Select <b>Network</b> → <b>LAN Settings</b> in the navigation bar. In the GUI that is opened, configure the Internet access service.</p> <p>Network » LAN Settings » LAN Settings</p> <p>You may enable/disable networking functions and configure their parameters as your wish.</p> <p><b>LAN Setup</b></p> <table border="1"> <tr> <td>IP Address</td> <td>192.168.1.1</td> </tr> <tr> <td>Subnet Mask</td> <td>255.255.255.0</td> </tr> <tr> <td>DHCP Type</td> <td>Server</td> </tr> <tr> <td>Start IP Address</td> <td>192.168.1.2</td> </tr> <tr> <td>End IP Address</td> <td>192.168.1.253</td> </tr> <tr> <td>Subnet Mask</td> <td>255.255.255.0</td> </tr> <tr> <td>Primary DNS Server</td> <td>192.168.1.1</td> </tr> <tr> <td>Secondary DNS Server</td> <td></td> </tr> <tr> <td>Default Gateway</td> <td>192.168.1.1</td> </tr> <tr> <td>NAT</td> <td>Disable</td> </tr> <tr> <td>DNS Relay</td> <td>Enable</td> </tr> </table> <p>Apply Cancel</p>	IP Address	192.168.1.1	Subnet Mask	255.255.255.0	DHCP Type	Server	Start IP Address	192.168.1.2	End IP Address	192.168.1.253	Subnet Mask	255.255.255.0	Primary DNS Server	192.168.1.1	Secondary DNS Server		Default Gateway	192.168.1.1	NAT	Disable	DNS Relay	Enable
IP Address	192.168.1.1																						
Subnet Mask	255.255.255.0																						
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Subnet Mask	255.255.255.0																						
Primary DNS Server	192.168.1.1																						
Secondary DNS Server																							
Default Gateway	192.168.1.1																						
NAT	Disable																						
DNS Relay	Enable																						
Step 2	Configure the LAN service parameters according to Table 4.4.																						
Step 3	Click <b>Apply</b> to save the configured data.																						

Table 4.4 lists the descriptions for the configuration parameters.

Table 4.4 Description of the LAN service configuration parameters

Configuration Item	Description
IP Address	Enter the LAN-side IP address of the AN5506-04-B, which is 192.168.1.1 by default.
Subnet Mask	Enter the LAN-side subnet mask of the AN5506-04-B, which is 255.255.255.0 by default.
DHCP Type	<ul style="list-style-type: none"> <li>◆ <b>Disable:</b> Disables the DHCP server. The user terminal connected to the AN5506-04-B cannot obtain the private</li> </ul>

Configuration Item	Description
	<p>network IP address automatically via the DHCP server.</p> <p>◆ <b>Enable:</b> Enables the DHCP server. The user terminal connected to the AN5506-04-B can obtain the private network IP address automatically via the DHCP server. The default setting is <b>Enable</b>.</p> <p>Server:</p> <ul style="list-style-type: none"> <li>▶ <b>Start IP Address:</b> Enter the starting value of the IP address automatically allocated by the DHCP server, which is 192.168.1.2 by default.</li> <li>▶ <b>End IP Address:</b> Enter the ending value of the IP address automatically allocated by the DHCP server, which is 192.168.1.253 by default.</li> <li>▶ <b>Subnet Mask:</b> Enter the subnet mask designated by the DHCP server, which is 255.255.255.0 by default.</li> <li>▶ <b>Primary DNS Server:</b> Enter the IP address of the primary DNS server of the DHCP, which is 192.168.1.1 by default.</li> <li>▶ <b>Secondary DNS Server:</b> Enter the IP address of the primary DNS</li> </ul>

Configuration Item	Description
	<p>server of the DHCP.</p> <ul style="list-style-type: none"> <li>▶ <b>Default Gateway:</b> Enter the default gateway IP address of the DHCP, which is 192.168.1.1.</li> </ul>
NAT	<ul style="list-style-type: none"> <li>◆ <b>Disable:</b> Disables the network address conversion function. The default setting is <b>Disable</b>.</li> <li>◆ <b>Enable:</b> Enables the network address conversion function.</li> </ul>
DNS Relay	<ul style="list-style-type: none"> <li>◆ <b>Disable:</b> Disables the DNS Relay function.</li> <li>◆ <b>Enable:</b> Enables the DNS Relay function. The default setting is <b>Enable</b>.</li> </ul>

## 4.7 Configuring ONU Authorization

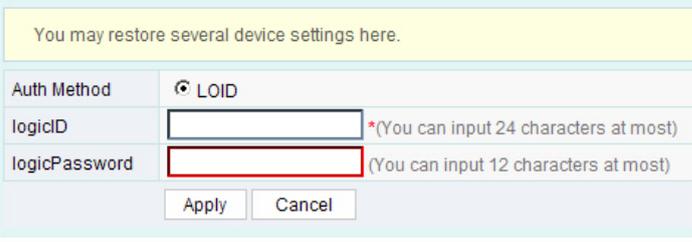
Step 1	<p>Select <b>Network</b> in the navigation bar and then click <b>Authentication Settings</b> in the link bar to open the ONU authorization service configuration GUI.</p> 
Step 2	Configure the ONU authorization parameters according to Table 4.5.
Step 3	Click <b>Apply</b> to save the configured data.

Table 4.5 lists the descriptions for the configuration parameters.

Table 4.5 Description of the ONU authorization configuration parameters

<b>Configuration Item</b>	<b>Description</b>
Auth Method	This item is read-only. The authorization mode is <b>LOID</b> .
logicID	Enter the ONU logical ID (24 characters at most).
logicPassword	Enter the ONU logical password (12 characters at most).

## 5 FAQs

**Q: All indicator LEDs are extinguished after power-on.**

- A:**
1. Check whether the power cable is correctly connected;
  2. Check whether the power switch on the equipment's rear panel is in the ON position.

**Q: The equipment fails to work.**

- A:**
1. If the equipment works abnormally, check whether the power is connected normally or the voltage is not within specifications;
  2. If the equipment is overheated, check the ventilation. Make sure the equipment is not exposed to direct sunshine or is near the heat source.

**Q: The LOS indicator LED blinks.**

- A:**
1. Check the received optical power levels with an optical power meter. Excessively low receive optical power may indicate the fiber is faulty;
  2. Check whether the optical fiber is connected normally to the appropriate interface;
  3. Check whether the Rx optical power of the ONU crosses the normal optical power range (overflow or overhigh);
  4. Check whether the ONU module is aged or damaged;
  5. Check whether the equipment at the central office end is operating normally.

**Q: The LAN indicator LED is extinguished.**

- A:**
1. Check if the network cable is damaged or incorrectly connected;
  2. Check if the wiring color-coding scheme of the network cable is incorrect. If incorrect, replace the original network cable with a standard CAT-5 twisted-pair network cable.
  3. Check if the network cable crosses the allowed range.

**Q: Fail to log in the Web page.**

- A:**
1. Check the network card configuration, browser version of the user's computer;
  2. Check whether the IP address of the user's computer is correctly configured.





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