TP-LINK®

User Guide

TX-6610

1-Port Gigabit GPON Terminal



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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.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CE Mark Warning

CE

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.



Продукт сертифіковано згідно с правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.

Safety Information

- When product has power button, the power button is one of the way to shut off the product; when there is no power button, the only way to completely shut off power is to disconnect the product or the power adapter from the power source.
- Don't disassemble the product, or make repairs yourself. You run the risk of electric shock and voiding the limited warranty. If you need service, please contact us.

• Avoid water and wet locations.

AT	BG	BY	CA	CZ	DE	DK	EE
ES	FI	FR	GB	GR	HU	IE	IT
LT	LV	MT	NL	NO	PL	PT	RO
RU	SE	SK	TR	UA			

This product can be used in the following countries:

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: 1-Port Gigabit GPON Terminal

Model No.: TX-6610

Trademark: TP-LINK

We declare under our own responsibility that the above products satisfy all the technical regulations applicable to the product within the scope of Council Directives:

Directives 2004 / 108 / EC, Directives 2006 / 95 / EC, Directives 2011/65/EU

The above product is in conformity with the following standards or other normative documents:

EN 55022:2010 EN 55024:2010 EN 61000-3-2:2006+A1:2009+A2:2009 EN 61000-3-3:2008 EN 60950-1:2006+A11; 2009+A1:2010+A12:2011

The product carries the CE Mark:

CE

Person responsible for marking this declaration:

Yang Hongliang Product Manager of International Business

Date of issue: 2013

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Package Contents

The following contents should be found in your package:

- > One TX-6610 1-Port Gigabit GPON Terminal
- > One Power Adapter for TX-6610 1-Port Gigabit GPON Terminal
- Quick Installation Guide
- > One RJ45 cable
- > One Resource CD for TX-6610 1-Port Gigabit GPON Terminal, including this User Guide

PNote:

Make sure that the package contains the above items. If any of the listed items are damaged or missing, please contact your distributor.

Chapter 1. Product Overview

Thank you for choosing the TX-6610 1-Port Gigabit GPON Terminal.

1.1 Product Overview

TP-LINK's TX-6610 is a next-generation Gigabit Passive Optical Network (GPON) terminal, ideal for Fiber to The Home solution. It's an incredibly robust device allowing users to access high-speed internet connections via its GPON port and share it with a Gigabit Ethernet port. With the transmission rates of up to 2.488Gbps, one GPON port and one Gigabit Ethernet port, the TX-6610 provides high-performance forwarding capabilities to ensure smooth VoIP, HD video streaming experiences.

1.2 Main Features

- Complies with ITU G.984.1, ITU G.984.2, ITU G.984.3 and ITU G.984.4 provides users comprehensive GPON network compatibility
- > Downstream rates of up to 2.488Gbps and upstream rates up to 1.244Gbps
- > Gigabit port ensures rapid transfer speeds
- > Quality of Service control for traffic prioritization and bandwidth management
- > Quick and hassle-free installation
- Intelligent power-saving method

1.3 Panel Layout

1.3.1 The Front Panel





The GPON Terminal's LEDs are located on the front panel. They indicate the device's working status. For details, please refer to LED Explanation.

LED Explanation:

Name	Status	Indication	
Power	On	The ONT is powered on.	
	Off	The ONT is off.	
On		The ONT has connected to the OLT.	
GPON	Flash	The ONT is trying to set up a connection to OLT.	
	Off	The ONT fails to connect to the OLT.	
LOS	Flash	The Rx optical power of the ONT is lower than the optical receiver sensitivity.	
	Off	The Rx optical power of the ONT is normal.	
On T		There is a device connected to this LAN port.	
LAN	Flash	The ONT is sending or receiving data over this LAN port.	
	Off	There is no device connected to this LAN port.	

1.3.2 The Back Panel



Figure 1-2

- LAN: Through the port, you can connect the ONT to your PC or the other Ethernet network devices.
- > **OPTICAL:** The OPTICAL is where you will connect the fiber.
- > **RESET**: There are two ways to reset the ONT's factory defaults.

Method one: With the ONT powered on, use a pin to press and hold the Reset button for at least 5 seconds. And the ONT will reboot to its factory default settings.

Method two: Restore the default setting from "Maintenance-SysRestart" of the ONT's Web-based Utility.

- > **POWER**: The Power plug is where you will connect the power adapter.
- > **ON/OFF**: The switch for the power.

Chapter 2. Connecting the ONT

2.1 System Requirements

- Broadband Internet Access Service (GPON).
- > PCs with a working Ethernet Adapter and an Ethernet cable with RJ45 connectors.
- > TCP/IP protocol on each PC.
- > Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari.

2.2 Installation Environment Requirements

- > The Product should not be located where it will be exposed to moisture or excessive heat.
- Place the ONT in a location where it can be connected to the various devices as well as to a power source.
- Make sure the cables and power cord are safely placed out of the way so they do not create a tripping hazard.
- > The ONT can be placed on a shelf or desktop.
- Keep away from the strong electromagnetic radiation and the device of electromagnetic sensitive.

2.3 Connecting the ONT

Before installing the device, please make sure your broadband service provided by your ISP is available. If there is any problem, please contact your ISP. Before cable connection, cut off the power supply and keep your hands dry. You can follow the steps below to install it.

- **Step 1:** Connect the fiber. Plug one end of the fiber into the OPTICAL port on the rear panel of TX-6610, and insert the other end into the wall socket.
- **Step 2:** Connect the Ethernet cable. Attach one end of a network cable to your computer's Ethernet port or a regular hub/switch port, and the other end to the LAN port on the TX-6610.
- Step 3: Power on the computers and LAN devices.
- **Step 4:** Attach the power adapter. Connect the power adapter to the power connector on the rear of the device and plug in the adapter to an electrical outlet or power extension. The electrical outlet shall be installed near the device and shall be easily accessible.



Figure 2-1

Chapter 3. Quick Installation Guide

3.1 Configuring PC

After you directly connect your PC to the ONT TX-6610 or connect your adapter to a Hub/Switch which has connected to the ONT, you need to configure your PC's IP address. Follow the steps below to configure it.

Step 1: Click the Start menu on your desktop, right click My Network Places, and then select Properties (shown in Figure 3-1).



Figure 3-1

Step 2: Right click Local Area Connection (LAN), and then select Properties.

S Network Connections	
File Edit View Favorites Tools Advanced Help	<i>R</i>
🔇 Back 🔹 🌍 🚽 🏂 Search 🎼 Folders 🔛 -	
Address 🔕 Network Connections	💌 🛃 Go
Network Tasks Image: Create a new connection Image: Create a new connection Image: Create a new connection Image: Set up a home or small office network Image: Create Short cut Image: Change Windows Firewall settings Image: Create Short cut Image: Change Set up a home connection Image: Create Short cut Image: Rename this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut Image: Change settings of this connection Image: Create Short cut	
Other Places	
Control Panel My Network Places My Documents My Computer	



Step 3: Select General tab, highlight Internet Protocol (TCP/IP), and then click the Properties button.

🕹 Local Area Connection Properties 🛛 🛛 🛛 🔀
General Authentication Advanced
Connect using:
Realtek RTL8139 Family PCI Fast Etr <u>Configure</u>
This connection uses the following items:
Elient for Microsoft Networks
File and Printer Sharing for Microsoft Networks
✓ Teleformet Protocol (TCP/IP)
Install Uninstall Properties
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected Notify me when this connection has limited or no connectivity
OK Cancel



Step 4: Configure the IP address as Figure 3-4 shows. After that, click **OK**.

Internet Protocol (TCP/IP) Properties				
General				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatically				
Old the following IP address:				
IP address:	192.168.1.2			
S <u>u</u> bnet mask:	255.255.255.0			
<u>D</u> efault gateway:	192.168.1.1			
O Obtain DNS server address automatically				
O Use the following DNS server addresses:				
Preferred DNS server:	192.168.1.1			
Alternate DNS server:	· · ·			
	Ad <u>v</u> anced			
	OK Cancel			

Figure 3-4

Now, you can run the Ping command in the command prompt to verify the network connection. Please click the **Start** menu on your desktop, select **run** tab, type **cmd or command** in the field and press **Enter**. Type **ping 192.168.1.1** on the next screen, and then press **Enter**.

If the result displayed is similar to the screen below, the connection between your PC and the ONT has been established.

Pinging 192.168.1.1 with 32 bytes of data:	:
Reply from 192.168.1.1: bytes=32 time<1ms	TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms	TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms	TTL=64
Reply from 192.168.1.1: bytes=32 time<1ms	TTL=64
Ping statistics for 192.168.1.1:	
Packets: Sent = 4, Received = 4, Lost	= 0 (0% loss),
Approximate round trip times in milli-seco	onds:
Minimum = Oms, Maximum = Oms, Average	= Øms

Figure 3-5

If the result displayed is similar to the screen shown below, it means that your PC has not connected to the ONT.

```
Pinging 192.168.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.1.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Figure 3-6

You can check it following the steps below:

1) Is the connection between your PC and the ONT correct?

The LEDs of LAN port which you link to the device and the LEDs on your PC's adapter should be lit.

2) Is the TCP/IP configuration for your PC correct?

If the Router's IP address is 192.168.1.1, your PC's IP address must be within the range of 192.168.1.2 ~ 192.168.1.254.

3.2 Quick Installation Guide

With a Web-based utility, it is easy to configure and manage the TX-6610 1-Port Gigabit GPON Terminal. The Web-based utility can be used on any Windows, Macintosh or UNIX OS with a Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari.

1. To access the configuration utility, open a web-browser and type the default address http://192.168.1.1 in the address field of the browser.

Address http://192.168.1.1

Figure 3-7

After a moment, a login window will appear, similar to the Figure 3-8. Enter admin for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.



Figure 3-8

P Note:

- 1) Do not mix up the user name and password with your ONT account user name and password which are needed for PPP connections.
- If the above screen does not pop up, it means that your Web-browser has been set to a proxy. Go to Tools menu→Internet Options→Connections→LAN Settings, in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.
- After your successful login, you will see the Login screen as shown in Figure 3-9. Click "Network"→"PON" to complete the PON setting. You are required to enter GPON SN or GPON Password or both provided by your ISP to pass the OLT authentication. For details, please consult your ISP. Click Save to make your settings take effect.

PON Setting		
GPON Password		
GPON Password(Notice: Maximum 10 ASCII characters)		
Old Password:		(0)characters
New Password:		
	Save	
GPON SN		
GPON SN(Notice: Must be 16 Hexadecimal Numbers)		
Old SN:	4154485201020304	
New SN:		
	Save	

Figure 3-9

3. Run the dialing software to connect to the Internet. For details, please refer to <u>T1</u> in **Troubleshooting**.

Chapter 4. Configuring the ONT

This chapter will show each Web page's key function and the configuration way.

4.1 Login

After your successful login, you will see the four main menus on the left of the Web-based utility. On the right, there are the corresponding explanations and instructions.

Status
Statistics
Network
Management

The detailed explanations for each Web page's key function are listed below.

4.2 Status

Choose "**Status**", there are three submenus under the main menu. Click any one of them, and you will see the corresponding information.

4.2.1 System Status

Choose "Status" \rightarrow "System Status", you can see the corresponding information about System Status, LAN and PON.

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System Status	
System Status	
ONU Type:	1-Port Gigabit GPON Terminal
System UP Time:	0:0:4:16(dd:hh:mm:ss)
Firmware Version:	9.1.1.1 build 130319 Rel.59056n
Hardware Version:	2.1.0.1
LAN	
IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
MAC Address:	6C:FD:B9:79:7F:73
PON	
Access Mode:	GPON
ONU ID:	6CFDB9797F73
Authentication:	Unregistered
Upstream FEC:	Off
Downstream FEC:	Off
	Refresh

Figure 4-1

4.2.2 Optical Module Status

Choose "Status" \rightarrow "Optical Module Status", and you will see the ONT's current optical module information.

Optical Status	
Temperature:	49.22 °C
Voltage:	3259.90 mV
Bias Current:	9.86 mA
TX Power:	- dBm
RX Power:	- dBm
	Refresh

Figure 4-2

4.2.3 Port Status

Choose "Status" \rightarrow "Port Status", and you will see the ONT's current port status.

UNI Status	
Link Status:	Connected
Link Mode:	100Mbps Full
Flow Control:	Off
	Refresh

Figure 4-3

4.3 Statistics

Choose menu "**Statistics**", and then you can view the statistics of the ONT as shown in Figure 4-4.

Statistics	
PON	
Tx Packets-	Π
Dy Deskete	- -
RX Packets:	U
OMCI	
OMCI	
Tx Packets:	0
Rx Packets:	0
UNI	
Tx Packets:	849
Rx Packets=	1369
Dropped Packets:	0
Error Packets:	0
	Defeat
_	Ketresh

Figure 4-4

4.4 Network

Choose "**Network**", there are two submenus under the main menu. Click any one of them, and you will be able to configure the corresponding function.

4.4.1 LAN

Choose "**Network**" \rightarrow "LAN" menu and you will see the LAN screen as shown in Figure 4-5. You can change the LAN IP address on this page.

LAN Setting	
LAN IP Address and Mask	
IP Address:	192.168.1.1
Mask:	255.255.255.0
	Save

Figure 4-5

- **IP Address:** Enter the ONT's local IP Address, then you can access to the Web-based Utility via the IP Address, the default value is 192.168.1.1.
- Subnet Mask: Enter the ONT's Subnet Mask, the default value is 255.255.255.0.

P Note:

If you change the IP Address of LAN, you must use the new IP Address to log in the ONT.

4.4.2 PON

Choose "**Network**" \rightarrow "**PON**" menu and you will see the PON Settings screen as shown in Figure 4-6. You are required to enter the **GPON SN** or **GPON Password** or **both** to pass the OLT authentication before you connect to the Internet. For details, please consult your ISP.

PON Setting		
GPON Password		
GPON Password(Notice: Maximum 10 ASCII characters)		
Old Password:		(0)characters
New Password:		
	Save	
GPON SN		
GPON SN(Notice: Must be 16 Hexadecimal Numbers)		
Old SN:	4154485201020304	
New SN:		
	Save	

Figure 4-6

GPON Password

- > Old Password: Displays the factory default password.
- > **New Password:** Enter the password provided by your ISP.

Click **Save** to make the settings take effect.

GPON SN

- > Old SN: Displays the factory default SN.
- > New SN: Enter the SN provided by your ISP.

Click **Save** to make the settings take effect.

4.5 Management

Choose menu "Management", and you will see the submenus under the main menu: User management, Firmware Upgrade, Factory Defaults and Reboot. Click any one of them, and you will be able to configure the corresponding function. The detailed explanations for each submenu are provided below.

4.5.1 User Management

Choose menu "**Management**" \rightarrow "User **Management**", and then you can change the factory default user name and password of the ONT in the next screen as shown in Figure 4-7. TX-6610 provides two users: admin/admin and user/user. Both can be used to log in the management page.

User Management	
Username	admin 💌
Old Password:	
New Password:	
Confige Password:	
	Save

Figure 4-7

It is strongly recommended that you should change the factory default user name and password of the ONT, because all users who try to access the ONT's Web-based utility will be prompted for the ONT's default user name and password.

Note:

- 1) The new user name and password cannot exceed 14 characters in length and not include any spaces. Enter the new Password twice to confirm it.
- 2) If you use the "user" to log in the ONT's management page, only the Status and Statistics page will you see, as shown in Figure 4-8.

Status	System Status		
Statistics	System Status		
		ONU Type:	1GE SFU GPON
	Sys	stem UP Time:	0:0:1:53(dd:hh:mm:ss)
	Firm	ware Version:	9.1.1.1 build 130218 Rel.34581n
	Hard	ware Version:	9.1.0.1
	LAN		
		IP Address:	192.168.1.1
		Subnet Mask:	255.255.255.0
	,	MAC Address:	A0:F3:C1:7D:01:DC
	PON		
	4	Access Mode:	GPON
		ONU ID:	A0F3C17D01DC
	A	uthentication:	Unregistered
	U	pstream FEC:	Off
	Dow	nstream FEC:	Off
		l	Refresh

Figure 4-8

4.5.2 Firmware Upgrade

Choose menu "**Management**" \rightarrow "**Firmware Upgrade**", and then you can update the latest version of firmware for the ONT on the following screen.

Firmware Upgrade			
Upgrade to new firmware to get more functions.			
	File Path:		Browse
		Upgrade	
			6

Figure 4-9

To upgrade the ONT's firmware, follow the instructions below:

- 1) Download a most recent firmware upgrade file from our website (www.tp-link.com).
- 2) Type the path and file name of the update file into the "File Path" field. Or click the **Browse** button to locate the update file.
- 3) Click the **Upgrade** button.
- 4) The ONT will reboot while the upgrading has been completed.

Note:

1) New firmware versions are posted at http://www.tp-link.com and can be downloaded for free.

There is no need to upgrade the firmware unless the new firmware has a new feature you want to use. However, when experiencing problems caused by the ONT rather than the configuration, you can try to upgrade the firmware.

- 2) When you upgrade the ONT's firmware, you may lose its current configurations, so before upgrading the firmware please write down some of your customized settings to avoid losing important settings.
- 3) Do not turn off the ONT or press the Reset button while the firmware is being upgraded. Loss of power during the upgrade could damage the ONT.
- 4) The firmware version must correspond to the hardware.
- 5) The upgrade process takes a few moments and the ONT restarts automatically when the upgrade is completed.

4.5.3 Factory Defaults

Choose menu "Management" \rightarrow "Factory Defaults" and then and you can restore the configurations of the ONT to its factory defaults on the following screen.

Factory Defaults	
Click this button below to restore factory defaults.	
	Restore

Figure 4-10

Click the **Restore** button to reset all configuration settings to their default values.

- The default User Name: admin
- The default **Password**: admin

Note:

All changed settings will be lost when defaults are restored.

4.5.4 Reboot

Choose menu "**Management**" \rightarrow "**Reboot**" and then you can click the **Reboot** button to reboot the ONT via the next screen.

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System Reboot	
Click this button below to reboot ONU.	
	Reboot

Figure 4-11

Appendix A: Specifications

General				
Standards and Protocols	802.3, 802.3u, 802.3ab, 802.1p, 802.1q, ITU-T G.984.1, G.984.2, G.984.3, G.984.4			
Safety & Emission	FCC, CE	FCC, CE		
Ports	One 10/100/1000M Auto-Negotiation RJ45 port (Auto MDI/MDIX) One SC/UPC (GPON) port			
LEDs	Power, GPON, LC	DS, LAN		
		UTP category 3, 4, 5 cable (maximum 100m)		
	TUBASE-T	EIA/TIA-568 100Ω STP	(maximum 100m)	
	100P222 TV	UTP category 5, 5e cabl	e (maximum 100m)	
Network Medium	100Dase-1X	EIA/TIA-568 100Ω STP	(maximum 100m)	
	1000Base-TX	UTP category 5e, 6 cabl	e (maximum 100m)	
		EIA/TIA-568 100Ω STP (maximum 100m)		
	GPON Class B+	G.652 single mode fiber (maximum 20km)		
	Interface	SC/UPC		
Distance 20km				
	Data Pata	Downstream	2.488Gbps/s	
	Dale Rale	Upstream	1.244Gbps/s	
	Wayolongth	Тх	1310nm	
Optical Parameter	wavelength	Rx	1490nm	
Transmitter Receiver		DFB Laser		
		APD-TIA		
	Tx Power	0.5dBm~5dBm		
Rx Sensitivity		<-27dBm		
System Requirement	Internet Explorer 5.0 or later, Netscape Navigator 6.0 or later Win 9x/ ME/ 2000/ XP/ Vista/ 7/8			

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Physical and Environment		
Working Temperature	0°C ~40°C	
Working Humidity	10% ~ 90% RH (non-condensing)	
Storage Temperature	-40℃ ~70℃	
Storage Humidity	5% ~ 95% RH (non-condensing)	

Appendix B: Troubleshooting

T1. How to connect to the Internet?

To connect to the Internet, please run the dialing software such as WinPoet or EnterNet to do the virtual dialing as the following described.

For Mac OS X

- Click the Apple icon on the upper left corner of the screen.
- Go to "System Preferences -> Internet & Wireless -> Network" and then select Ethernet.
- In the Con-figure IPv4 box, select Create PPPoE Service.
- Type a Service Name to identify your connection.
- Enter the User name and Password given by your ISP and then click Apply and Connect.

For Windows 7

- Click Start -> Control Panel.
- Click Network and Sharing Center.
- Click Set up a new connection or network.
- Click Connect to the Internet and then click Next.
- Click Broadband (PPPoE).
- Enter the **User name** and **Password** given by your ISP, and type a **Connection name** to identify your connection, and then click **Connect**.

For Windows XP

- Click "Start → All Programs → Accessories → Communications → New connection wizard" to launch the wizard. Then click Next.
- Select Connect to the Internet and then click Next.
- Select Set up my connection manually and then click Next.
- Select **Connect using a broadband connection that requires user name and password** and then click **Next**.
- Type an **ISP Name** to identify your connection and then click **Next**.
- Enter the User name and Password given by your ISP and then click Next.
- Select Add a shortcut to this connection to my desktop for convenience and then click Finish.
- The shortcut icon is of this connection will appear on your desktop. Double-click the icon to run the dialing software and then click **Connect**.

For Windows 8

- Move your mouse to the lower right corner and you will see the **Search** icon in the Popups.
- Go to Apps, type Control Panel in the search box and press Enter.
- Go to "Control Panel -> Network and Internet -> Connect to the Internet".

• Click Broadband (PPPoE).

• Enter the **User name** and **Password** given by your ISP, and type a **Connection name** to identify your connection, and then click **Connect**.

T2. How can I restore my ONT's configuration to its factory default settings?

Once the ONT is reset, the current settings will be lost and you will need to reconfigure it. We strongly suggest you back up the current settings before resetting the ONT.

With the ONT powered on, use a pin to press and hold the RESET button on the rear panel for 5 seconds before releasing it.

T3. What can I do if I forget my ONT's password?

Reset the ONT first and then use the default user name and password: admin/admin.

T4. How can I assign an IP address to my computer?

For Mac OS X

- Click the **Apple** icon on the upper left corner of the screen.
- Go to "System Preferences -> Network".
- Select **Airport** on the left menu bar, and then click **Advanced** or wireless configuration; or select **Ethernet** for wired configuration.
- In the **Con-figure IPv4** box under **TCP/IP**, select **Manually** and then enter 192.168.1.x into the IP Address field, 255.255.255.0 into the Subnet mask filed.
- Click Apply to save the settings.

For Windows 7

- Click "Start -> Control Panel -> Network and Internet -> View network status -> Change adapter settings".
- Right-click Wireless Network Connection (or Local Area Connection), and then click **Properties**.
- Select Internet Protocol Version 4 (TCP/IPv4), and then click Properties.
- Select **Use the following IP address** and then enter 192.168.1.x into the IP address field, 255.255.255.0 into the Subnet mask filed. Then click **OK**.

For Windows XP

- Click "Start -> Control Panel -> Network and Internet Connections -> Network Connections".
- Right-click Wireless Network Connection (or Local Area Connection), and then click **Properties**.
- Select Internet Protocol (TCP/IP), and then click Properties.
- Select **Use the following IP address** and then enter 192.168.1.x into the IP address field, 255.255.255.0 into the Subnet mask filed. Then click **OK**.

For Windows 8

- Move your mouse to the lower right corner and you will see the **Search** icon in the Popups.
- Go to Apps, type Control Panel in the search box and press Enter.
- Go to "Control Panel -> View network status and tasks -> Change adapter settings".
- Right-click Ethernet, select Properties. Then double-click Internet Protocol Version 4 (TCP/IPv4).
- Select **Use the following IP address** and then enter 192.168.1.x into the IP address field, 255.255.255.0 into the Subnet mask filed. Then click **OK**.

T5. What can I do if I cannot access the Internet?

- 1) Check to see if all the connectors are connected well, including the Fiber line, Ethernet cables and power adapter, based on the LEDs described previously.
- 2) Check to see if the ONT is registered correctly based on the GPON LED described previously and Authentication status in System Status page. If not, please enter the GPON SN or GPON Password described in step 2 again and wait for approximately 2 minutes or try to unplug the fiber and then connect it again. If the problem still exists, please consult your ISP to make sure if you have entered the correct GPON SN or GPON Password.
- 3) Check to see if the dialing software used in step 3 is installed correctly and make sure the account username and password are correct.
- 4) If you still cannot access the Internet, please restore your ONT to its factory default settings and reconfigure it by following the instructions in this QIG.
- 5) Please feel free to contact our Technical Support if the problem still exists.

P Note:

For more details about Troubleshooting and Technical Support contact information, please log on to our Technical Support website:

http://www.tp-link.com/en/support



Appendix C: Technical Support

Technical Support

- For more troubleshooting help, go to:
 - http://www.tp-link.com/en/support/faq
- To download the latest Firmware, Driver, Utility and User Guide, go to: http://www.tp-link.com/en/support/download
- For all other technical support, please contact us by using the following details:

Global

Tel: +86 755 26504400 E-mail: support@tp-link.com Service time: 24hrs, 7 days a week <u>UK</u>

Tel: +44 (0) 845 147 0017 E-mail: support.uk@tp-link.com Service time: 24hrs, 7 days a week

<u>Turkey</u>

Tel: 0850 7244 488 (Turkish Service) E-mail: support.tr@tp-link.com Service time: 9:00 AM to 9:00 PM 7 days a week

<u>Ukraine</u>

Tel: 0-800-505-508 E-mail: support.ua@tp-link.com Service time: Monday to Friday 14:00 PM to 22:00 PM

<u>Brazil</u>

Toll Free: 0800-770-4337 (Portuguese Service) E-mail: suporte.br@tp-link.com Service time: Monday to Saturday 08:00 AM to 08:00 PM

France

Tel: +33 (0) 820 800 860 (French service) Email: support.fr@tp-link.com Fee: 0.118 EUR/min from France Service time: Monday to Friday 9:00 AM to 6:00 PM (Except French Bank holidays)

Russian Federation

Tel: 8 (499) 754-55-60 8 (800) 250-55-60 (toll-free call from any RF region) E-mail: support.ru@tp-link.com Service time: From 10:00 to 18:00 (Moscow time) *Except weekends and holidays in Russian Federation

Switzerland

Tel: +41 (0) 848 800998 (German Service) E-mail: support.ch@tp-link.com Fee: 4-8 Rp/min, depending on rate of different time Service time: Monday to Friday 9:00 AM to 6:00 PM. GMT+ 1 or GMT+ 2 (Daylight Saving Time)

Singapore 3 1

Tel: +65 62840493 E-mail: support.sg@tp-link.com Service time: 24hrs, 7 days a week

<u>USA / Canada</u>

Toll Free: +1 866 225 8139 E-mail: support.usa@tp-link.com Service time: 24hrs, 7 days a week

Australia / New Zealand

Tel: AU 1300 87 5465 NZ 0800 87 5465 E-mail: support.au@tp-link.com (Australia) support.nz@tp-link.com (New Zealand) Service time: 24hrs, 7 days a week

Italy

Tel: +39 0230519020 E-mail: support.it@tp-link.com Service time: Monday to Friday 9:00 AM to1:00 PM, 2:00 PM to 6:00 PM

Indonesia

Tel: (+62) 021 6259 135 E-mail : support.id@tp-link.com Service time : Monday to Friday 9:00 -12:00; 13:00 -18:00 *Except public holidays

Malaysia

Tel: 1300 88 875465 Email: support.my@tp-link.com Service time: 24hrs, 7 days a week

Poland

Tel: +48 (0) 801 080 618 / +48 22 7217563 (if calls from mobile phone) E-mail: support.pl@tp-link.com Service time: Monday to Friday 9:00 AM to 5:00 PM. GMT+1 or GMT+2 (Daylight Saving Time)

Germany / Austria

Tel: +49 1805 875465 (German Service) +49 1805 TPLINK E-mail: support.de@tp-link.com Fee: 0.14 EUR/min from the German fixed phone network and up to 0.42 EUR/min from mobile phone Service time: Monday to Friday 9:00 AM to 6:00 PM. GMT+ 1 or GMT+ 2 (Daylight Saving Time in Germany) *Except bank holidays in Hesse