

# **User Guide**

# TD-8610/TD-8610B

# **External ADSL2+ MODEM**



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### FCC STATEMENT

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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**

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.

# **Package Contents**

The following contents should be found in your package:

- > One TD-8610/TD-8610B External ADSL2+ MODEM
- > One AC power Adapter for TD-8610/TD-8610B External ADSL2+ MODEM
- One RJ45 cable
- Two RJ11 cable
- > One ADSL splitter (only available for TD-8610)
- > One Resource CD for TD-8610/TD-8610B External ADSL2+ MODEM, including:
  - This User Guide
  - Other Helpful Information

#### P Note:

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

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## Chapter 1. Product Overview

With the excellent design of circuit and high quality production, we guarantee ADSL2+ MODEM a high performance, very good stability and easy to use.

TD-8610/TD-8610B is a complete plug-and-play solution. With standard Ethernet interface, it can be directly connected to any 10M/100M Ethernet devices, support Auto-MDIX.

TD-8610/TD-8610B not only use html (web mode through Ethernet port) to configure the MODEM but also use external utility software too. You can download it from our website (<u>http://www.tp-link.com</u>).

### 1.1 Product main specification

- > High speed and asymmetry data transmit mode, adapt to wide-band internet access
- > Point to point connection, provide safe and exclusive bandwidth
- Support All ADSL industrial standards
- > Advanced DMT modulation and demodulation
- Firmware upgradeable
- Compatible with all mainstream DSLAM (CO)
- Real-time Configuration and device monitoring
- Quick response semi-conductive surge protect circuit, provides reliable ESD and surge-protect function

### **1.2 Supporting protocol**

- G.992.1 (G.dmt) Annex A/B
- G.992.2 (G.lite) Annex A/B
- ANSI T1.413
- G.992.3 (ADSL2) Annex A/B compliant
- G.992.5 (ADSL2+) Annex A/B compliant
- ADSL dual latency (fast path and interleaved path)
- I.432 ATM physical layer compliant
- -Supports RFC2516 (PPPoE) \*
- Supports RFC1483 (EoA) (Bridged)

#### P Note:

"\*"Need third-party software.

#### 1.3 Transmit data-rate

Max download data-rate: 24Mbps

- Max upload data-rate: 1Mbps
- Max line length: 6Km

### 1.4 ATM property

- > AAL0, AAL5, OAM, RM, and raw cell types supported
- Direct hardware support for 4 Receive VCs, with additional RX VCs and TX VCs supported in software
- > Full 24-bit Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI)

#### 1.5 System support

- Support PVC
- Support IEEE 802.3、IEEE 802.3u
- Support 10Base-T/100BASE-TX full-duplex or half duplex Ethernet
- Support Auto-MDIX

#### **1.6 Working environment**

- ➢ Operating temperature: 0°℃~40 °C
- ➤ Storage temperature: -40°C~70 °C
- ➢ Humidity: 10%∼90%

#### 1.7 Electric parameter

- > Adaptor power Output: 9VAC/0.8A, 50Hz or 60 Hz
- Power consumption: 4W Maximum

# Chapter 2. Hardware Installation Guide

### 2.1 System requirement

Confirm your computer has been installed with networking interface card (NIC) before connecting ADSL MODEM to your computer, with operating system supporting the TCP/IP protocol.

### 2.2 LED explanation



The panel of ADSL MODEM includes one power button, one power indicator (RED) and four function indicators (GREEN), and these five indicators are explained as chart 1-1:

Name	Status	Indication
Power	On	Power OK
Power	Off	Power fail
	On	There is data transmitting or receiving on WAN
Act	Off	port
		No data transmitting or receiving on WAN port
	On	There is a mistake when ADSL is transmitting
Alarm		data or receiving data
	Off	ADSL normal
	Slow flash	Self-detecting when power up
ADSI	Quick flash	The LINE port is sending or receiving ADSL data
ADSL	On	The LINE port has connected to ISP's network
	Off	The LINE port is disconnected
	On	LAN port is normal
LAN	Off	Connection on LAN port is abnormal
	Flash	Data is transmitting or receiving on LAN port

Chart 1-1

### 2.3 Rear-panel



- > **ON/OFF:** Turn on/off the ADSL modem's power.
- Power (9VAC/0.8A input): please do not use any unknown power adaptor, otherwise that may cause damage to your ADSL MODEM.
- RESET (reset default): When the device is working, please press the reset button of the Modem, keep the reset button pressed down for more than five seconds and then wait for the router to reboot.
- > LAN: Connect with your computer's NIC.
- > LINE (WAN): Connect to the MODEM of Splitter or connect to the telephone line.

#### 2.4 Hardware installation procedures

**First Step**: Connect the MODEM of Splitter with the LINE port of the TD-8610/TD-8610B ADSL2+ MODEM by telephone line. While you need to use a telephone, please attach telephone line into the phone of Splitter.

**Second Step**: Connect category 5 cable with RJ45 jacks to ADSL MODEM's LAN port and your computer's NIC.

**Third Step**: Link power adapter into the power jack of ADSL MODEM. Please note the range of voltage of power adapter should be within AC  $220 \sim 230V$ , 50Hz, which will make the MODEM under normal operation.

Last Step: Check the line connection to see if everything is ready. Then power up.





Figure 2-1

# Chapter 3. How to use

### 3.1 Computer Configuration

- 1. Connect the cable according to Chapter 2, and then turn on the power.
- Change the IP address of your PC (Figure 3-1) : Open TCP/IP Properties of the LAN card in your PC, enter the IP address as 192.168.1.\* (\* is any value between 2 to 254, Subnet mask is 255.255.255.0, Gateway is 192.168.1.1, DNS address is the value provided by ISP).

Internet Protocol (TCP/IP) Propertie	es <b>? X</b>					
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 automatical	ly 🔤					
$\frown \odot$ Use the following IP address: —						
<u>I</u> P address:	192.168.1.168					
S <u>u</u> bnet mask:	255.255.255.0					
<u>D</u> efault gateway:	192.168.1.1					
C Obtain DNS server address autor	natically					
☐ Use the following DNS server add	dresses:					
Preferred DNS server:	202 . 96 . 128 . 133					
<u>A</u> lternate DNS server:	202 . 96 . 128 . 188					
	Ad <u>v</u> anced					
	OK Cancel					

Figure 3-1

#### P Note:

- The users of Windows 98 can open TCP/IP Properties according to the following: Right-press (Mouse) Network Neighbor -> Choose Properties -> Double-press TCP/IP. PCI Fast Ethernet Adapter.
- 2) The users of Windows 2000/NT/XP can do the following: Right-press Network Neighbor ->

Choose **Properties** -> Right-click **Local Connection** -> Choose **Properties** -> Double-press **Internet Protocol (TCP/IP).** 

3) The words in fact maybe are different with this guide.

You can check whether your configuration is successful through **PING** command. Enter **Ping 192.168.1.1** 

If the screen likes the following, your configuration is successful.

Pinging 192.168.1.1 with 32 bytes of data: Reply from 192.168.1.1: bytes=32 time=1ms TTL=254 Ping statistics for 192.168.1.1: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 1ms, Average = 0ms

Figure 3-2

If the screen likes the following, your configuration is unsuccessful. Please repeat the previous steps again.

```
C:\Documents and Settings\Administrator>ping 192.168.1.1
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 3-3

#### 3.2 Login

Startup Internet Explorer, and enter 192.168.1.1; then enter user name (admin), password (admin), you will see the page (Figure 3-4). When ADSL connection is OK, you will see some information such as link rate.

		TP-Link TD-863	10			
Device Info	Version:	BCM6338 2.04B.	02-A2p	B019b8.d16n	1	
WAN Setup	Firmware:	bcm96338_tinyb	1.W			
LAN Setup	Hardware:	system/hw versi	on			
Management	Serial Number:					
management	MAC address:	02:10:18:01:00:	01			
	Status: Channel: Mode:	ADSL Statistic		Idle		
	Data (Khua)		ream	Upstream		
	Rate (Kbps): SNR Margin (					
	Attenuation					
	Attendation	(ub).		<u> </u>		
	Super Frame	s:				
	Super Frame			<u> </u>		
	_ ·	i				

#### Figure 3-4

The default user name and its password is admin; if you want to change it, please go to "Management→Password". (Figure 3-5)

Hos.	TP-Link TD-8610
Device Info	Set Password
WAN Setup	Name: admin
LAN Setup Management	New Password:
Diagnose	Confirm Password:
Password	Cuniir m Passworu:
Upgrade	
	Apply

Figure 3-5

#### 3.3 Setup

- 1) Choose ATM PVCs Configuration (See Figure 3-6)
- Enter the VPI/VCI value which is provided by your ISP, click Save to finish the configuration.
   You can press Next to add VPI/VCI value.

	TP-Link TD-8610
Device Info WAN Setup ADSL Modulation ATM PVCs LAN Setup Management	I-8         VPI       VCI         0       32         1       33         0       35         0       100         8       31         0       200         0       0         Back       Apply         Next         Save       Reset

Figure 3-6

#### 3.4 Software Dial

TD-8610/TD-8610B works in bridged (RFC 1483 Bridged) mode to connect to the Internet. You need to install dial software on your PC. There is some software working on WINDOWS in market, example for EnterNet3000, RASPPOE and WinPeET.

# Appendix A: Default Configuration

USER NAME	admin
PASSWORD	admin
IP ADDRESS	192.168.1.1
VPI/VCI	0/32,1/33,0/35,0/100,0/200,8/35,8/81