TP-LINK®

User Guide

TG-3468

Gigabit PCI Express Network Adapter



COPYRIGHT & TRADEMARKS



registered trademark of TP-LINK TECHNOLOGIES CO., LTD. Other brands and product names are trademarks or registered trademarks of their respective holders.

No part of the specifications may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from TP-LINK TECHNOLOGIES CO., LTD. Copyright © 2012 TP-LINK TECHNOLOGIES CO., LTD. All rights reserved.

http://www.tp-link.com

FCC STATEMENT

FC

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

(F

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.

TP-LINK TP-LINK TECHNOLOGIES CO., LTD

DECLARATION OF CONFORMITY

For the following equipment:

Product Description: Gigabit PCI Express Network Adapter

Model No.: TG-3468

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 55022:2006+A1:2007

EN 55024:1998+A1:2001+A2:2003

EN 61000-3-2:2006+A1:2009+A2:2009

EN 61000-3-3:2008

EN 60950-1:2006+A11:2009+A1:2010

The product carries the CE Mark



Person is responsible for marking this declaration:

Yang Hongliang

Product Manager of International Business

Date of Issue: 2012

TP-LINK TECHNOLOGIES CO., LTD.

Building 24 (floors 1, 3, 4, 5), and 28 (floors 1-4) Central Science and Technology Park,

Shennan Rd, Nanshan, Shenzhen, China

CONTENTS

Package Contents	1
Chapter 1. Introduction	
1.1 Overview of the product	2
1.2 Features	2
1.3 LED Status	2
Chapter 2. Installation Guide	
2.1 Hardware Installation	
2.2 Software Installation	
2.2.1 For Windows XP	4
2.2.2 For Windows 7	
2.2.3 For Windows Vista	
Appendix A: Specifications	
Appendix B: Troubleshooting	

Package Contents

The following contents should be found in your box:

- > One TG-3468 Gigabit PCI Express Network Adapter
- > Quick Installation Guide
- > One Resource CD for TG-3468, including:
 - Drivers
 - User Guide
 - Other Helpful Information

Note:

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

Conventions

The "Adapter" mentioned in this user guide stands for TG-3468 Gigabit PCI Express Network Adapter without any explanations.

Chapter 1. Introduction

1.1 Overview of the product

The TG-3468 10/100/1000Mbps PCI EXPRESS Gigabit Network Adapter is a highly integrated and cost-effective Gigabit Ethernet Adapter which is fully compliant with IEEE 802.3, IEEE 802.3u and IEEE 802.3ab specifications.

TG-3468 keeps low cost and eliminates usage barriers. It is the easiest way to upgrade a network from 10/100Mbps to 1000 Mbps. It supports 10/100Mbps network speed automatically both in Half-Duplex and Full-Duplex transfer modes, and 1000Mbps in Full-Duplex transfer mode, using Auto-Negotiation technology to detect the network speed.

1.2 Features

- > Integrated 10/100/1000Mbps transceiver
- Support PCI Express 1.1
- ➢ Fully compliant with IEEE 802.3, IEEE 802.3u, IEEE802.3ab
- Auto-Negotiation with Next Page capability
- Support pair swap/polarity/skew correction
- Crossover Detection & Auto-Correction
- Wake-on-LAN and remote wake-up support
- Microsoft NDIS5, NDIS6 Checksum Offload (IPv4, IPv6, TCP, UDP) and Segmentation Task-offload (Large send v1 and Large send v2) support
- Support Full Duplex flow control (IEEE802.3X)
- Support IEEE 802.1p Layer 2 Priority Encoding and IEEE802.1Q VLAN tagging
- Support power down/link down power saving
- Support drivers for Windows XP (32bit/ 64bit), Windows Vista (32bit/ 64bit), and Windows 7 (32bit/ 64bit)

1.3 LED Status

There are three LEDs, including a 10Mbps Link/Act LED, a 100Mbps Link/Act LED, a 1000Mbps Link/Act LED.

The Link/Act LEDs of TG-3468 PCI EXPRESS 10/100/1000M LAN Card indicates Link/Act status. They will light when connection has been built, and glitter when the adapter transmits or receives data.

Chapter 2. Installation Guide

2.1 Hardware Installation

To install the adapter, please follow these steps listed below:

- 1. Turn off your computer and unplug the power cord and all cables.
- 2. Remove your computer's case cover.
- 3. Locate an available PCI Express slot.
- 4. Remove the screw that secures the back plate (the small piece of metal that covers the opening for PCI Express card on the back panel of your computer), then remove the back plate.
- 5. Carefully insert the adapter into the PCI Express slot. Do not touch the metal connector on the adapter.
- 6. Secure the adapter to the case using the screw you removed from the back plate.
- 7. Reinstall your computer's case cover.
- 8. Plug in the power cord and other cables, and then turn on your computer.

Note:

When the hardware has been successfully installed on your computer, you will be prompted **'Found New Hardware Wizard'** (as shown in Figure 2-1 and Figure 2-2); please click **Cancel**, and then follow the **Software Installation** steps to install driver for your adapter.



Figure 2-1 Found New Hardware Wizard in Windows XP



Figure 2-2 Found New Hardware Wizard in Windows Vista

2.2 Software Installation

The section will guide you through the installation procedures for Windows XP, Windows 7, and Windows Vista. Please carefully follow the steps.

2.2.1 For Windows XP

- 1. Insert the TP-LINK Resource CD into the CD-ROM drive.
- 2. Right-click the icon **My Computer** on the desktop, and then click **Manage**.



Figure 2-3

3. The **Computer Management** screen will appear as shown in Figure 2-4. Click **Device Manager**, and then you will see the various options on the right. Click **Other devices**, and then from the drop-down list please find **Ethernet Controller**. Right-click it, and then select **Update Driver...**



Figure 2-4

4. The **Hardware Update Wizard** window will show up as in Figure 2-5. Select **No, not this time**, and then click **Next**.



Figure 2-5

5. Select Install from a list or specific location [Advanced], and then click Next.



Figure 2-6

6. Select **Don't search. I will choose the driver to install**, and then click **Next**.

Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM)
Include this location in the search:
C:\Documents and Settings\English\Desktop\11053 V Browse
On't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back Next > Cancel

Figure 2-7

7. Select Network adapters, and then click Next.

Hardware Update Wizard	
Hardware Type.	
Select a hardware type, and then click Next. Common hardware types:	
Modems Monitors Multifunction adapters Multi-port serial adapters Multi-port serial adapters Network adapters Network adapters Network Client Network Protocol Network Service Mon-Plug and Play Drivers	
K B	ack Next > Cancel

Figure 2-8

8. Click Have Disk....

Note: Please do not select any network adapter which is listed in the window.

Hardware Update Wizard	
Select Network Adapter Which network adapter do you want to insta	all?
Click the Network Adapter that matches y installation disk for this component, click I	your hardware, then click OK. If you have an Have Disk.
Network Adapter:	
This driver is digitally signed. <u>Tell me why driver signing is important</u>	Have Disk
	<pre></pre>

Figure 2-9

9. Click Browse....



Figure 2-10

10. Find the right product model (**TG-3468**) and operation system (**Windows XP**) in the resource CD directory and choose the **.inf** file, and then click **Open**.

Locate File							? 🗙
Look in:	눹 Windows XP		*	G	ø	P 🛄	•
My Recent Documents Desktop	Nettple						
My Documents							
My Computer							
	File name:	Nettple				*	Open
My Network	Files of type:	Setup Information (*.inf)				~	Cancel

Figure 2-11

11. Back to the Install From Disk screen, click OK.



Figure 2-12

12. Click Next.

Hardware Update Wizard
Select Network Adapter Which network adapter do you want to install?
Click the Network Adapter that matches your hardware, then click OK. If you have an installation disk for this component, click Have Disk.
Network Adapter:
Gigabit PCI Express Network Adapter
Image: This driver is not digitally signed! Have Disk Tell me why driver signing is important Have Disk
< <u>B</u> ack <u>N</u> ext > Cancel

Figure 2-13

13. There will pop up Figure 2-14; select Continue Anyway.



Figure 2-14

14. Wait a few seconds for the installation.

Hardware Up	odate Wizard
Please wai	it while the wizard installs the software
H	Gigabit PCI Express Network Adapter
	Image: Second system 32
	< <u>B</u> ack <u>N</u> ext > Cancel

Figure 2-15

15. Click **Finish** to complete the installation.



Figure 2-16

2.2.2 For Windows 7

- 1. Insert the TP-LINK Resource CD into the CD-ROM drive.
- 2. Right-click the icon **Computer** on the desktop, and then click **Manage**.



Figure 2-17

3. The **Computer Management** screen will appear as shown in Figure 2-18. Click **Device Manager**, and then you will see the various options on the right. Click **Other devices**, and then from the drop-down list please find **Ethernet Controller**. Right-click it, and then select **Update Driver Software...**

🌆 Computer Management				X
File Action View Help				
	N			
Computer Management (Local System Tools Carl Task Scheduler Exercision (Carl Users and Groups Carl Users and Groups Carl Users and Groups Carl Users and Applications Disk Management Services and Applications Carl Users (Carl Users and Carl Users) Carl Users (Carl Users and Carl Users and Carl Users (Carl Users and Carl	Jish-PC Computer Disk drives Display adapters IDE ATA/ATAPI controllers Keyboards Mice and other pointing de Monitors Network adapters Other devices Other devices Universal Serial Bus cor		Actions Device Manager More Actions	•
Launches the Update Driver Software Wizard for	the selected device.			

Figure 2-18

4. The next screen will appear as shown in Figure 2-19. Select **Browse my computer for driver software**.



Figure 2-19

5. Select Let me pick from a list of device drivers on my computer, and then click Next.

	×
🚱 🧕 Update Driver Software - Ethernet Controller	
Browse for driver software on your computer	
Search for driver software in this location:	
C:\Users\english\Documents Browse	
✓ Include subfolders	
Let me pick from a list of device drivers on my computer	
This list will show installed driver software compatible with the device, and all driver software in the same category as the device.	
Next	ancel

Figure 2-20

6. Select Show All Devices, and then Click Next.

	×
🌍 🗕 Update Driver Software - Ethernet Controller	
Select your device's type from the list below.	
Show All Devices 61883 Device Class AVC Devices Biometric Devices Biometric Devices Bluetooth Radios Computer Disk drives Disk drives DyD/CD-ROM drives Floppy disk drives Floppy drive controllers	
	Next Cancel

Figure 2-21

7. Click **Have Disk...** in the screen as shown in Figure 2-22.

🚱 🗕 Update Driver Software - Ethernet Controller	
Select the device driver you want to install for this hardware. Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.	
(Retrieving a list of all devices)	
This driver is digitally signed. Tell me why driver signing is important	Disk
Next	Cancel

Figure 2-22

8. Click **Browse...** in the **Install From Disk** window as shown in Figure 2-23.



Figure 2-23

 Find the right product model (TG-3468) and operation system (Windows 7 32 bits or Windows 7 64 bits) in the resource CD directory and choose the .inf file, and then click Open.

🜆 Locate File				X
Look <u>i</u> n:	\mu Windows 7 32	bit 👻	G 🤌 📂 🛄 🗸	
e	Name	*	Date modified	Туре
Recent Places	tpg86win7		11/15/2011 3:44 PM	Setup Infc
Desktop				
Libraries				
Computer				
	4			
Network	-			
	File <u>n</u> ame:	tpg86win7		Open
	Files of type:	Setup Information (*.inf)	· · ·	Cancel

Figure 2-24

Note:

1 iguro = = 1

If you have no idea about your operating system being **Windows 7 32 bits** or **Windows 7 64 bits**, please refer to **Appendix B: Troubleshooting- T3**.

10. Back to the Install From Disk window as shown in Figure 2-25, click OK.



Figure 2-25

11. Click **Next** in the next screen as shown in Figure 2-26.

🚱 🗕 Update Driver Software - Ethernet Controller	×
Select the device driver you want to install for this hardware.	
disk that contains the driver you want to install, click Have Disk.	
Model	
This driver has an Authenticode(tm) signature. <u>Tell me why driver signing is important</u>	Have Disk
	Next Cancel

Figure 2-26

12. There will appear Figure 2-27 indicating the installation process.

	23
😡 🗕 Update Driver Software - Ethernet Controller	
Installing driver software	

Figure 2-27

13. During the above installation process, you will be prompted Figure 2-28. Select **Install** to continue with the above installation process.

Windows Security
Would you like to install this device software?
Always trust software from "Realtek Semiconductor Install Don't Install Corp".
You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

Figure 2-28

14. A few moments later, Figure 2-29 will appear showing your successful installation of the driver software. Click **Close** to complete it.



Figure 2-29

2.2.3 For Windows Vista

- 1. Insert the TP-LINK Resource CD into the CD-ROM drive.
- 2. Right-click the icon Computer on the desktop, and then click Manage.



Figure 2-30

3. The **Computer Management** screen will appear as shown in Figure 2-31. Click **Device Manager**, and then you will see the various options on the right. Click **Other devices**, and then from the drop-down list please find **Ethernet Controller**. Right-click it, and then select **Update Driver Software...**.



Figure 2-31

4. The next screen will appear as shown in Figure 2-32. Select **Browse my computer for driver software**.



Figure 2-32

5. Select Let me pick from a list of device drivers on my computer, and then click Next.

	×
😋 🧵 Update Driver Software - Ethernet Controller	
Browse for driver software on your computer	
Search for driver software in this location:	
C:\Users\english\Desktop Browse	
✓ Include subfolders	
Let me pick from a list of device drivers on my computer This list will show installed driver software compatible with the device, and all driver software in the same category as the device.	
Next Car	ncel

Figure 2-33

6. Select Show All Devices, and then Click Next.

				×
🙆 🧻 Update Driver :	Software - Ethernet Contr	oller		
Soloct your davi	ce's type from the I	ict bolow		
Select your devi	te s type nom the i	IST DEIOW.		
Common hardware ty	/pes:			
Show All Device				
🖋 61883 Device Cla				
AVC Device Clas	5		=	
Katteries				
🛞 Bluetooth Radio	5			
🕵 Computer				
Isk drives				
Sisplay adapters 📲				
IVD/CD-ROM d	rives			
Floppy disk drive	S			
Floppy drive con	trollers			
🔩 Human Interface	Devices			
SIDE ATA/ATAPI 🕯	ontrollers		-	
			Next Can	cel

Figure 2-34

7. Click Have Disk... in the screen as shown in Figure 2-35.

V) 🗓 U	Jpdate Driver Software - Ethernet Controller
	Select	t the device driver you want to install for this hardware.
	1	Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
	(Retriev	ving a list of all devices)
		Have Disk
		Next Cancel

Figure 2-35

8. Click **Browse...** in the **Install From Disk** window as shown in Figure 2-36.



Figure 2-36

 Find the right product model (TG-3468) and operation system (Window Vista 32 bits or Windows Vista 64 bits) in the resource CD directory and choose the .inf file, and then click Open.

🚣 Locate File							
Look in:	👢 Windows Vi	sta 32bit		•	G 🤌 🖻	▼	
Recent Places Desktop english Computer	Name nettpx32	Date modif	Type •	Size			
Network	File name: Files of type:	nettpx32 Setup Inform	nation (*.inf)			▼ ▼	Open Cancel

Figure 2-37

P Note:

If you have no idea about your operating system being **Windows Vista 32 bits** or **Windows Vista 64 bits**, please refer to <u>Appendix B: Troubleshooting- T3</u>.

10. Back to the Install From Disk window as shown in Figure 2-38, click OK.

Install From	n Disk	
	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from: H:\ TG-3468\ Drivers\ Windows Vista 32bit 🔹	Browse

Figure 2-38

11. Click Next in the next screen as shown in Figure 2-39.

🚱 🧵 Update Driver Software - TP-LINK Gigabit PCI-E Network Adapter	
Select Network Adapter	
Click the Network Adapter that matches your hardware, then click OK. If you have an installation disk for this feature, click Have Disk.	
Show compatible hardware	
Network Adapter:	
This driver has an Authenticode(tm) signature. Have Disk Tell me why driver signing is important	
Next Cancel	

Figure 2-39

12. There will appear Figure 2-40 indicating the installation process.



Figure 2-40

13. During the above installation process, you will be prompted Figure 2-41. Select **Install** to continue with the above installation process.



Figure 2-41

14. After a few moments, Figure 2-42 will appear showing your successful installation of the driver software. Click **Close** to complete it.

🕞 🧊 Update Driver Software - Gigabit PCI Express Network Adapter	
Windows has successfully updated your driver software	
Windows has finished installing the driver software for this device:	
Gigabit PCI Express Network Adapter	
	Close

Figure 2-42

Appendix A: Specifications

Normal	
Interface	Support PCI Express 1.1
Buffer Size	Transmit/Receive On Chip Buffer(48K)support
Standards	IEEE802.3ab 1000Base-T, IEEE802.3x,
	IEEE802.1q, IEEE802.1p
Transmission Rate	10/100/1000Mbps
Connector supported	one 10/100/1000M Auto-Negotiation RJ45 port
Software	Support drivers for Windows 7 (32bit / 64bit), Windows Vista (32bit / 64bit), Windows XP
LEDs	one 10M Link/Act LED, one 100M Link/Act LED, one 1000M Link/Act LED
Safety & Emission	FCC,CE

Environmental and Physical	
Operating Temperature	0℃ ~ 40℃
Storage Temperature	-20 °€ 70 °C
Working Humidity	10% ~ 90%
Storage Humidity	5% ~ 90%

Appendix B: Troubleshooting

T1. What should I do if PC cannot find the new hardware?

Check to see if the network adapter is inserted in the PCI Express slot properly; otherwise, please reinsert the adapter.

If the problem remains, please try to change another PCI Express slot.

T2. What should I do if I could not find "Ethernet Controller" under "(My) Computer >Device Manager >Other Devices"?

In such circumstance, you are recommended to go to "(My) Computer >Device Manager >Network adapters" to find "Realtek PCIe GBE Family Controller" instead, and continue with the rest steps of installation.



Figure B-1

T3. How could I know whether the operating system of my computer is 32-bit or 64-bit?

 Right-click Computer on the desktop, and then select Properties, as shown in Figure B-2 (for OS Windows 7) and Figure B-3 (for OS Windows Vista) below.

Computer		Open
	۲	Manage
		Map network drive
		Disconnect network drive
		Create shortcut
		Delete
		Rename
		Properties



Computer	Open Explore Manage
	Map Network Drive Disconnect Network Drive
	Create Shortcut Delete Rename
	Properties

Figure B-3 (for Windows Vista)

2) You can find out whether your operating system is 32-bit or 64-bit, as shown below.



Figure B-4 (for Windows 7)



Figure B-5 (for Windows Vista)