

Hard-to-find made easy®

PCI Express 10GBase-LR/SR/LRM Fiber Network Card with Open SFP Slot

PEX10000SFP



*actual product may vary from photos

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FCC Compliance 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

Industry Canada Statement

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (B)/NMB-3(B)

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Introduction Packaging Contents

- 1x 1 Port PCI Express 10GBase-LR/SR/LRM Fiber Network Card
- 1x Low-Profile Bracket
- 1x Driver CD
- 1x Instruction Manual

System Requirements

- PCI Express enabled computer with an available PCI Express x4 slot
- 10G SFP+ transceiver module as desired
- Windows[®] 8 / 8.1 (32/64bit), 7 (32/64), Windows Server[®] 2012, 2008 R2, Linux 2.6.24 and up (Tested up to 3.5), VMWare[®] ESXi 5.0/5.1, Microsoft Hyper-V[®]



Product Diagram



Installation

Hardware Installation

WARNING!

PCI Express cards, like all computer equipment, can be severely damaged by static electricity. Be sure that you are properly grounded before opening your computer case or touching your PCI Express card. StarTech.com recommends that you wear an anti-static strap when installing any computer component. If an anti-static strap is unavailable, discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds. Also be careful to handle the PCI Express card by its edges and not the gold connectors.

- Turn your computer off and any peripherals connected to the computer (i.e. Printers, external hard drives, etc.). Unplug the power cable from the rear of the power supply on the back of the computer and disconnect all peripheral devices.
- Remove the cover from the computer case. (See documentation for your computer system for details).
- 3. Locate an open PCI Express x4 slot and remove the metal cover plate on the rear of the computer case (See documentation for your computer system for details).



Note: This card will work in PCI Express slots of additional lanes (i.e. x8, or x16 slots).

4. Gently insert the card into the open PCI Express slot and fasten the bracket to the rear of the case.

Note: If installing the card into a small form-factor/low-profile desktop system, replacing the pre-installed standard-profile bracket with the included low-profile (half-height) installation bracket may be necessary.

- 5. Place the cover back onto the computer case.
- 6. Insert the 10G SFP+ transceiver module of your choice, compatible to your network, into the SFP+ slot on the card.
- 7. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

Note: The 10G fiber card is compatible with 10G SFP+ transceiver modules only.

Driver Installation

Windows®

- 1. Upon starting Windows, if the Found New Hardware dialog appears on the screen, cancel/close the window.
- Download the latest drivers from the www.startech.com website (recommended), applicable to the Operating System on the host computer that you are installing the card to, or insert the provided Driver CD into your computers DVD/CD drive.
- 3. From the main desktop or start menu, right-click on **Computer**, then selecting **Manage**. In the Computer Management window, select **Device Manager** from the left window panel. (Windows 8.1 users can right-click on the **Start** button and click **Device Manager**)



 Expand the Other Devices section, and right-click on the newly detected "Ethernet Controller" device and select Update Driver Software, which will start the Update Driver Software Wizard.

Þ	•	Network adapters			
4		Other devices			
		hernet Controller			
		herial Port		Update Driver Software	
\triangleright	Ţ	Ports (COM & LPT)		Disable	
\triangleright	÷	Print queues		U. testell	
Þ		Processors		Uninstall	
Þ		Software devices		Scan for hardware change	es
\triangleright	4	Sound, video and gam			
⊳	¢	Storage controllers		Properties	
\triangleright	j,	System devices	_		
⊳	Ū.	Universal Serial Bus con	trolle	rs	

On the How do you want to search for driver software Window, click Browse my computer for driver software, then Let me pick from a list of device drivers on my computer.





- From the next screen labeled Select your device's type from the list below, select Show All Devices (should be highlighted by default), and then click Next. Note: This screen does not appear on all systems, move on to the next step if this does not apply.
- 7. On the Select the Device Driver you want to install for this hardware screen, click the **Have Disk** button.

2 Update Driver Softwar Select the device driver Select the manufactu disk that contains the	e - El /OU V rer and driver	hemet Controller vant to install for this hardware. Inded ef your hardware device and then click Next. If you have a you want to install, click Have Dick.
Manufacturer (Generic USB Audio) (Generic USB Hub) (IEEE 1667 Compatible ACTs) (IEEE 1667 Compatible Silor)	^ ~ ~	Model
This driver is digitally sign Tell me why driver signing	ed. is imp	Have Disk

- 8. Click Browse from the Install from Disk dialog box that pops up.
- From the Locate File dialog window that opens, navigate to where you extracted the downloaded driver package, and open the PEX10000SFP\Windows folder location.

Note: If you are using the Driver CD method, navigate to your DVD/CD drive and open the **PEX10000SFP\Windows** folder location.

10. Select the TN40xxmp_.inf file, and then click the **Open** button.

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Look in: 🔋	Windows	v 🗿 🎓 I	🤊 🛄 🔻	
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And a second				
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< File name:	TN4Doomp_inf	~	Open	>

- 11. Click the **OK** button on the *Install From Disk* dialog box which will close the window.
- 12. Once back at the *Select the Device Driver you want to install for this hardware screen*, click **Next** and then **Close** once the driver has installed.

Update Driver Software - Ethernet Controller Select the device driver you want to install for this hardware. Select the manufacture and model of your hardware device and then click Heat IP Select the manufacture and model of your hardware device and then click Heat IP Select the manufacture and model of your hardware device and then click Heat IP Select the manufacture and model of your hardware device and then click Heat IP This driver is digitally signed. Inter the manufacture is provided in the model of your hardware is the driver is provided in the driver is provided in the driver is the dri	
Select the device driver you want to install for this hardware.	
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Update Driver Software - Tehuti Networks 10GbE Adapter Windows has successfully updated your driver software Windows has finished initialing the driver software for this device Tehuti Networks 10GBE Adapter	Cancel
Windows has finished installing the driver software for this device:	
Tehuti Networks 100bE Adapter	
	Clase

13. At this point of the install, you may receive a message pop-up stating *Windows* can't verify the publisher of this driver software, click **Install this driver software anyway**.



Verifying Installation

Windows

- 1. From the main desktop or start menu, right-click on "Computer" then select "Manage."
- 2. In the *Computer Management* window, select **Device Manager** from the left window panel. Windows 8.1 users can right click on the **Start** button and click **Device Manager**.
- Under the Network Adapters category should be a "Tehuti Networks 10GbE Adapter" device. Right-click on the device and select Properties to make sure it is installed and working correctly.





Connecting to a Network

- With the power to your computer disconnected, and the computer off, if not already completed, insert the 10G SFP+ transceiver module of your choice, compatible to your network, into the SFP+ slot on the card.
- Prepare a fiber network cable with corresponding connectors for the two end devices. One end will connect to the 10G fiber card, while the other end will connect to a 10G fiber port on your network switch/device.
- 3. Connect the fiber network cable to the proper connector on your SFP+ transceiver module on the 10G fiber card.
- Connect the other end of the fiber network cable to your 10GBase-LR/SR/LRM switch.
- 5. When the fiber network cable is properly connected, reconnect the power and turn your computer on.
- 6. Check the LED on the 10G fiber card to ensure a connection is established.

Link: Solid, green

Activity: Flashing, green



Specifications

Ports	1
Interface	Fiber Ethernet
Bus Type	PCI Express
Card Type	Standard Profile (LP bracket incl.)
Industry Standards	IEE 802.3ae (10GBase-LR/SR only), IEEE 802.3aq (10GBASE-LRM)
	PCI Express Rev 2.0
Chipset ID	Tehuti - TN4010
• • • • • • • • • • • • • • • • • • • •	AMCC - QT2025
Connector Type(s)	1 - PCI Express x4 Male
External Ports	1 - SFP+ Slot Female
Maximum Data Transfer Rate	20000 Mbps (20 Gbps) - Full-Duplex
Compatible Networks	10 Gbps
Full Duplex Support	Yes
Jumbo Frame Support	16K max.
Supported Protocols	IEEE 802.3ad (Link Aggregation), IEEE 802.1Q (VLAN Tagging), RFC 2819 (RMON MIB Statistics), IEEE 802.1P (Layer 2 Priority Encoding), IEEE 802.3x (2005 Flow Control Support)
	Windows [®] 8 / 8.1 (32/64bit), 7 (32/64)
	Windows Server [®] 2012, 2008 R2
OS Compatibility	Linux 2.6.24 and up (Tested up to 3.5)
	VMWare® ESXi 5.0/5.1
	Microsoft Hyper-V®
	Available PCI Express x4 slot
System and Cable Requirements	Not compatible with 10/100/1000 Mbps SFP transceivers, a 10 Gigabit SFP+ transceiver module is required



Note	Fiber data transfer speeds and distances are dependent on the SFP+ transceiver module used (sold separately)
Dimensions (LxWxH)	83mm x 19mm x 120mm
Product Weight	1.52 oz [43 g]
LED Indicators	1 - Link/Activity (Green)
Power Consumption	4.12W Max
Operating Temperature	0°C to 70°C (32°F to 158°F)
Storage Temperature	-20°C to 85°C (-4°F to 185°F)
Humidity	20~80% RH (Non-Condensing)



Technical Support

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit **www.startech.com/support** and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit www.startech.com/downloads

Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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