

## PCI Express Gigabit Ethernet Multi Mode SC Fiber Network Card



*Actual product may vary from photos*

### User Manual

SKU#: PEX1000MMSC2

# Compliance Statements

## 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

## 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).

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) L'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## For the State of California

**⚠ WARNING:** Cancer and Reproductive Harm [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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## Safety Measures

- Wiring terminations should not be made with the product and/or electric lines under power.
- Product installation and/or mounting should be completed by a certified professional as per the local safety and building code guidelines.
- Cables (including power and charging cables) should be placed and routed to avoid creating electric, tripping or safety hazards.

## Mesures de sécurité

- Les terminaisons de câblage ne doivent pas être effectuées lorsque le produit et/ou les câbles électriques sont sous tension.
- L'installation et/ou le montage du produit doit être réalisé par un professionnel certifié et dans le respect des normes locales et du code de construction local.
- Les câbles (y compris les câbles d'alimentation et de chargement) doivent être placés et acheminés de façon à éviter tout risque électrique, de chute ou de sécurité

## 安全対策

- 電源が入っている状態の製品または電線の終端処理を行わないでください。
- 製品の設置やマウントは、使用地域の安全ガイドラインおよび建築基準に従い、有資格の専門業者が行うようにしてください。
- ケーブル(電源ケーブルと充電ケーブルを含む)は、適切な配置と引き回しを行い、電気障害やつまづきの危険性など、安全上のリスクを回避するよう

にしてください。

## Misure di sicurezza

- I terminali dei fili elettrici non devono essere realizzate con il prodotto e/o le linee elettriche sotto tensione.
- L'installazione e/o il montaggio dei prodotti devono essere eseguiti da un tecnico professionale certificato che conosca le linee guida locali sulle norme edilizie e sulla sicurezza.
- I cavi (inclusi i cavi di alimentazione e di ricarica) devono essere posizionati e stesi in modo da evitare pericoli di inciampo, rischi di scosse elettriche o pericoli per la sicurezza.

## Säkerhetsåtgärder

- Montering av kabelavslutningar får inte göras när produkten och/eller elledningarna är strömförda.
- Installation och/eller montering får endast göras av behöriga yrkespersoner och enligt gällande lokala förordningar för säkerhet och byggnormer.
- Kablar (inklusive elkablar och laddningskablar) ska dras och placeras på så sätt att risk för snubblingsolyckor och andra olyckor kan undvikas.

## Warning Statements

Make sure to assemble this product according to the instructions. Failure to do so might result in personal injury or property damage.

Never use this product if parts are missing or damaged.

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## Product Information

### Packaging Contents

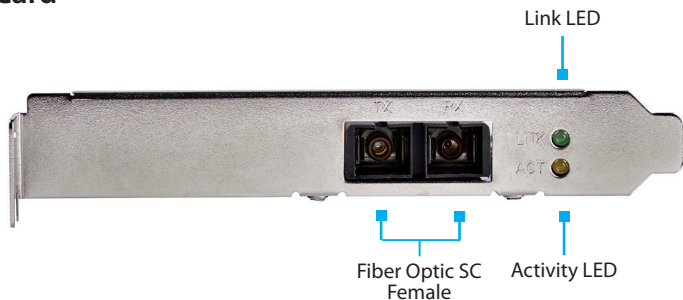
- Port PCI Express Gigabit Fiber Network Card x 1
- Low Profile Bracket x 1
- Instruction Manual x 1

### System Requirements

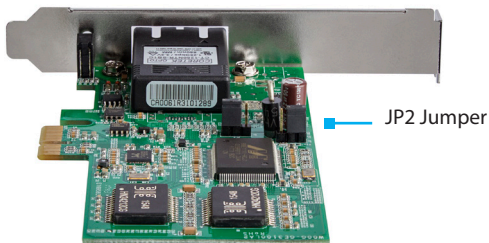
- Computer with an available PCI Express Slot (x1, x4, x8, or x16)

## Product Diagram

### Card



### Jumper



# 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.

1. 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.
2. Remove the cover from the computer case. See documentation for your computer system for details.
3. Locate an open PCI Express slot and remove the metal cover plate on the rear of the computer case (Refer to documentation for your computer system for details).

**Note:** This card will work in PCI Express slots of additional lanes (i.e. x4, 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 system, replacing the pre-installed full profile bracket with the included low profile installation bracket may be necessary.*

5. Place the cover back onto the computer case.
6. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

## Driver Installation

**Note:** *The card may auto-install using native drivers; however, it is recommended to use the latest drivers version provided on StarTech.com's website.*

1. **Navigate** to [www.startech.com/PEX1000MMSC2](http://www.startech.com/PEX1000MMSC2)
2. **Click** the **Drivers & Downloads** tab.
3. Under **Driver(s)**, download the **Driver** corresponding to the **Operating System**.
4. **Extract** the contents of the **Driver Package**.
5. **Open** the corresponding folder that matches the **Operating System Version**.
6. For Windows and macOS systems, **Execute** the **Installer** to finish installing the driver. For Linux systems, follow the instructions on the accompanying **README.txt** file to finish installing the driver.

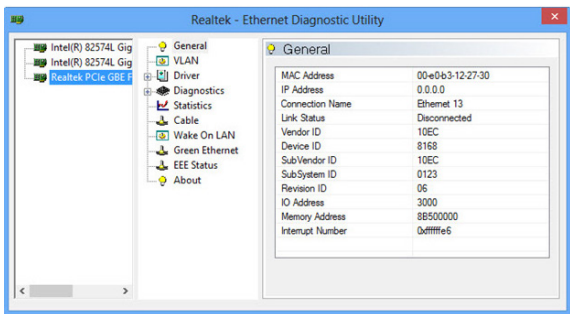
## Software Utility

For Windows systems, the PCI Express Fiber Gigabit Ethernet Adapter also includes an optional monitoring and maintenance software utility that provides access to configuration settings, testing, and reporting statistics.

To download the software, follow the instructions from the **Driver Installation** section.

To install the software, follow these steps:

1. **Navigate** to the extracted **Windows Drivers Folder** from the **Driver Installation** section.
2. **Open** the **Diagnostic Tools** folder.
3. **Open** the corresponding folder that matches the **Operating System Version**.
4. **Execute** the **setup.exe** to finish the installation.



*Ethernet Diagnostic Utility screen*

# Connecting to a Network

## Network Configuration

For connector type, cabling requirements, and maximum segment distance when connecting the PCI Express Gigabit Ethernet Adapter to your network, please refer to the following table:

Speed	Connector	Port Speed Half/Full Duplex	Cable	Max. Distance
1000Base-SX	SC	2000 Mbps	MMF (62.5µm)	220 m
1000Base-SX	SC	2000 Mbps	MMF (50µm)	550 m

1. Remove the protective covers from the PCI Express Fiber Gigabit Ethernet Adapter's connector.
2. Prepare a network cable with the corresponding "SC" connectors for the two end devices. One end to the PCI Express Fiber Gigabit Ethernet Adapter and the other to a 1000Mbps fiber port on the network switch.
3. Connect the network cable to the connector on the PCI Express Fiber Gigabit Ethernet Adapter. This network cable consists of two individual cables: one for "transmission (TX)", and the other for "reception (RX)".
4. Connect the other end of the network cable to a 1000BASE-SX switch.

5. Insert the cable that is connected to the transmit (TX) connector on the PCI Express Fiber Gigabit Ethernet Adapter into the receive (RX) connector on the network switch.
6. Insert the cable that is connected to the receive (RX) connector on the PCI Express Fiber Gigabit Ethernet Adapter into the transmit (TX) connector on the network switch
7. When the cable is properly connected to two end devices, turn on the power to the PC.
8. Check the LNK (Link) LED. The LED will come on when the PCI Express Fiber Gigabit Ethernet Adapter is receiving a good link signal from the connected device, or switch.

## Card to Card Direct Configuration

The PCI Express Fiber Gigabit Ethernet Adapter allows for a card-to-card direct fiber connection. One adapter should be set to "auto negotiation mode" while the other should be set to "1000 Mbps full duplex mode" when two card adapters are connected to each other via fiber connectors.

Follow the below jumper settings to create a direct configuration:

1. **Auto negotiation (default setting):** Set the **JP2** jumper configuration for "**Card A**" to jumper position "**2 and 3.**"
2. **1000Mbps full duplex:** Set the **JP2** jumper configuration for "**Card B**" to jumper position "**1 and 2.**"

## LEDs

LED	Status	Indication
LNK (Link) (Green)	Steady	A valid network connection established
	Off	No network connection
ACT (Activity) (Yellow)	Flashing	Transmitting or receiving data
	Off	No activity

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## Technical Support

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For the latest drivers/software, please visit [www.startech.com/downloads](http://www.startech.com/downloads)

## Warranty Information

This product is backed by a two-year warranty.

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