

# PRESTO™ 10GbE SFP+

Dual-Port 10 Gigabit Ethernet PCI Express® 2.0 Card

## Quick Start Guide

### You Should Have

The following items should be included in your product package:

- Presto 10GbE SFP+ adapter card  
(your card may appear different from the one pictured here)
- Low-profile PCI mounting bracket
- QSG

The following items may be required for installation:

- Medium Phillips screwdriver

### Computer Compatibility

- Mac Pro®, PC desktop, or server with full-height or low-profile PCIe card slots

### OS Compatibility

- OS X® 10.8.5 – 10.11.6  
  macOS® 10.12+  
  macOS Mojave compatible
- 64-bit editions of Windows® 10, 8, 7; Server 2016, 2012, 2008
- Linux®

### Thunderbolt™ Compatibility

- Mac®, Windows, or Linux computer with a Thunderbolt port via a Thunderbolt-to-PCIe Card Expansion System

### System Requirements

The Presto 10GbE SFP+ card requires the following to operate:

- One or two short-range or long-range SFP+ transceivers plus LC/LC fiber optic cables, or, one or two 10GBASE-T transceivers plus CAT 6A cables, or, one or two SFP+ terminated Twinax copper cables

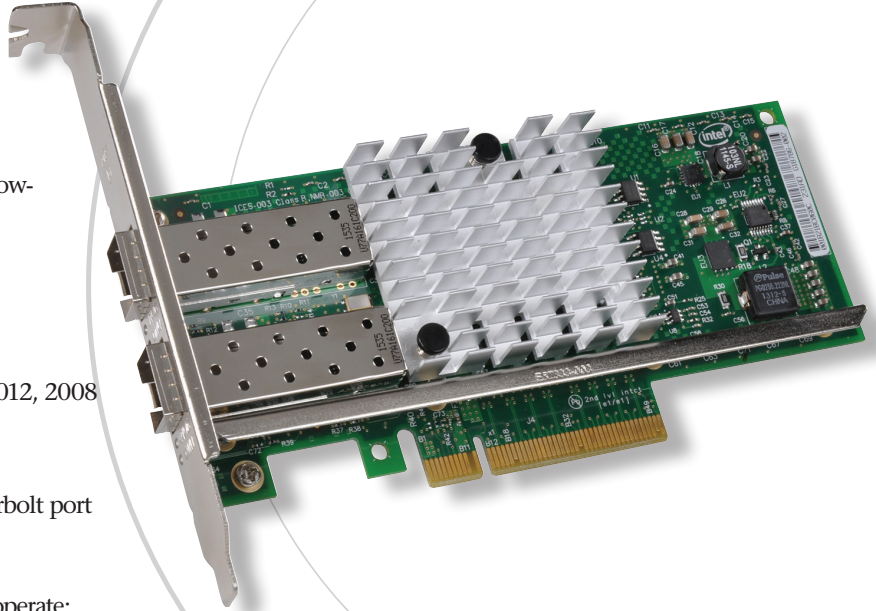
### Driver Information—Mac and Windows

The drivers that enable the Presto 10GbE SFP+ card to work with Mac and Windows computers must be downloaded from Sonnet's Website; instructions follow.

### Driver and Configuration Information—Linux

The drivers that enable the Presto card to work with Linux are installed as part of the Linux Kernel 5.0 and later. For earlier versions, please go to [www.sonnettech.com/support/kb/kb.php](http://www.sonnettech.com/support/kb/kb.php), click the Computer Cards link, and then the PCIe Cards link. Locate and click the Presto 10GbE SFP+ link, and then click the Driver link. Locate, download, and install the appropriate drivers.

The steps necessary to configure the Sonnet card with your computer may vary based on the version of Linux running. Sonnet recommends using whatever method or tools you would normally use for configuring any onboard ports.



**Support Notes:** We recommend you make a backup of important information on your system's current hard drive(s) prior to installing new hardware or software.

When handling computer products, take care to prevent components from being damaged by static electricity; avoid working in carpeted areas. Handle expansion cards only by their edges and avoid touching connector traces and component pins. Also, avoid touching components inside your computer.



**Support Note:** This document was up to date at the time of printing. However, changes to the hardware or software may have occurred since then. Please check the Sonnet website for the latest documentation.

1. Go to [www.sonnettech.com/support/kb/kb.php](http://www.sonnettech.com/support/kb/kb.php)
2. Click the Computer Cards link.
3. Click the PCIe Cards link.
4. Click the Presto 10GbE SFP+ link, and then click the Manual link.
5. Click the Presto 10GbE SFP+ Quick Start Guide [English] link, and then check the Document Version information. If the version listed is later than this document (**revision E**), click the Download Now button for the latest version.



Remember to register your product online at <https://registration.sonnettech.com> to be informed of future upgrades and product releases.

Software updates and links are available from the Sonnet web site at <https://www.sonnettech.com/support/index.html>.

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## Installation Steps for Mac Users

This section covers card installation and configuration steps in a Mac computer or Thunderbolt-to-PCIe card expansion system connected to a Mac. If you are installing the card into a Windows PC, skip to the next page.

### Card Installation Steps

1. Shut down your computer or Thunderbolt-to-PCIe card expansion system and disconnect it from its power source, and then open it to access the expansion card area (PCIe slots); refer to the user's manual for specific information.
2. Locate an available x8 (8-lane) or x16 (16-lane) PCI Express slot and remove its access cover.
3. Remove the Sonnet card from its packaging, and then install it into the PCI Express slot; **make sure the card is firmly seated and secured.**
4. Close your computer or expansion system, and then reconnect it to its power source. If the card is installed in an expansion system, also connect the Thunderbolt cable between the Thunderbolt ports on the system and computer.



**Support Note:** Unless your setup requires connection redundancy or link aggregation (and your switch or storage system supports those features), connecting the Presto 10GbE SFP+ card to a switch or storage system requires only a single SFP+ transceiver plus appropriate cable (or single Twinax copper cable).

5. If you are using SFP+ terminated Twinax copper cables to connect the Sonnet card, connect them now, and then go to step 7. Otherwise, read the documentation included with the SFP+ transceivers you purchased, and then install them into the Sonnet card.
6. Connect cables between the transceivers in the Sonnet card and in the switch or device.
7. Turn on your computer; depending on the computer and operating system used:
  - If you installed the card into a Mac Pro (Mid 2012), Mac Pro (Mid 2010), Mac Pro (Early 2009), or Mac Pro (Early 2008), or, into a Thunderbolt-to-PCIe card expansion system, proceed to Driver Download and Installation.
  - If you installed the card into a pre-2008 Mac Pro, Expansion Slot Utility should open automatically. If it does not open by itself, you must do so manually (Expansion Slot Utility is located in the /System/Library/CoreServices folder). Select the configuration appropriate for your setup (your Sonnet card is an x8 card, and should be assigned at least an x8 slot), and then click Quit if the default configuration was appropriate, or click Save and Restart if you changed the configuration. Proceed to the next section.

### Driver Download and Installation Steps

1. Launch a Web browser and go to [www.sonnettech.com/support](http://www.sonnettech.com/support), and then click the Downloads, Manuals, & Knowledgebase link.
2. On the Support Categories page, click the Computer Cards link, and then click the PCIe Cards link. On the PCIe Cards page, click the Presto 10GbE SFP+ link.
3. On the Presto 10GbE SFP+ page, click the Driver link, and then click the Download Now button next to driver software for macOS; the software will be downloaded.
4. Double-click the .dmg file; the file will expand and a new window will open.
5. Double-click the Sonnet Twin-10G.pkg file to launch the driver installer. Follow the on-screen instructions, and then click Restart to restart your system and finish the driver installation.

### Basic Card Configuration Information

Configure the Presto 10GbE card in the System Preferences Network preferences panel; the card will be identified as a PCI Ethernet card.

### Performance Tuning Steps

Listed below are steps required to configure the Presto card for maximum performance. Please note that to take advantage of these settings, the switch or router to which the card is connected must also support these features.

1. Open System Preferences, and then click Network. In the Network System Preferences panel, click one of the Presto card's ports in the left panel, and then click Advanced; a new panel appears.
3. In the Advanced panel, click Hardware. From the Configure drop-down menu, select "Manually". In the Speed drop-down menu, leave the setting at 10G... In the Duplex drop-down menu, select "full-duplex" (*not* "full duplex, flow-control"). In the MTU drop-down menu, select "Custom," and then enter "9000" in the box below.
3. When you've completed changing the settings, click OK.
4. Repeat steps 1-3 for the other port, if necessary.
5. Back in the main Network window, click Apply after you've completed changing the settings.
6. If you used existing settings and do not need to combine Ethernet ports (link aggregation), your installation is complete. For additional information on combining Ethernet ports, open a browser and go to [support.apple.com](http://support.apple.com); type "network, Ethernet" and "Manage Virtual interfaces" to display various articles.

## Installation Steps for Windows Users

The following section covers installation and configuration steps for the Presto card in a Windows computer or a Thunderbolt-to-PCIe card expansion system connected to a Windows PC.

### Card Installation Steps

1. Shut down your computer or Thunderbolt-to-PCIe card expansion system and disconnect it from its power source, and then open it to access the expansion card area (PCIe slots); refer to the user's manual for specific information.
2. Locate an available x8 (8-lane) or x16 (16-lane) PCI Express slot and remove its access cover.
3. Remove the Sonnet card from its packaging, and then install it into the PCI Express slot; **make sure the card is firmly seated and secured.**
4. Close your computer or expansion system, and then reconnect it to its power source. If the card is installed in an expansion system, also connect the Thunderbolt cable between the Thunderbolt ports on the system and computer.



**Support Note:** Unless your setup requires connection redundancy or link aggregation (and your switch or storage system supports those features), connecting the Presto 10GbE SFP+ card to a switch or storage system requires only a single SFP+ transceiver plus appropriate cable (or single Twinax copper cable).

5. If you are using SFP+ terminated Twinax copper cables to connect the Sonnet card, connect them now, and proceed to the next section. Otherwise, read the documentation included with the SFP+ transceivers you purchased, and then install them into the Sonnet card.
6. Connect cables between the transceivers in the Sonnet card and in the switch or device.

### Driver Download and Installation

This section describes the download and installation of the drivers required to support the Presto 10GbE SFP+ adapter card installed in your Windows computer or Thunderbolt-to-PCIe card expansion system connected to a PC with Thunderbolt ports.

1. Launch a Web browser and go to [www.sonnettech.com/support](http://www.sonnettech.com/support), and then click the Downloads, Manuals, & Knowledgebase link.
2. On the Support Categories page, click the Computer Cards link, and then the PCIe Cards link, and then click the Presto 10GbE SFP+ link.
3. On the Presto 10GbE SFP+ page, click the Driver link, and then click the Download Now button next to driver software for Windows link; a new window or tab will open.

4. On the *Intel® Network Adapter Driver* page, locate and click the PROWin64.exe button; an *Intel Software License Agreement* window will open.
5. Read the license agreement, and then click the "I accept the terms in this license agreement" button; the *Opening PROWin64.exe* window will open.
6. In the *Opening PROWin64.exe* window, click Save File; the file will be saved.
7. Locate and double-click the PROWin64 application file to launch the installer. If you haven't disabled User Access Control (UAC) on your computer, another window will appear asking you to allow the program to run; click Allow; the installer will launch.
8. Follow the on-screen instructions to complete the driver installation.

### Basic Card Configuration Information

You may configure the Presto 10GbE SFP+ card's settings using Windows Device Manager. You may locate the device's ports in the Network adapters category, listed as Intel 82599 10 Gigabit dual port network connections.

## Presto 10GbE SFP+ Card Description

### Ports and Indicators Information (Card Version 1)

#### 1, 4 – SFP+ Sockets

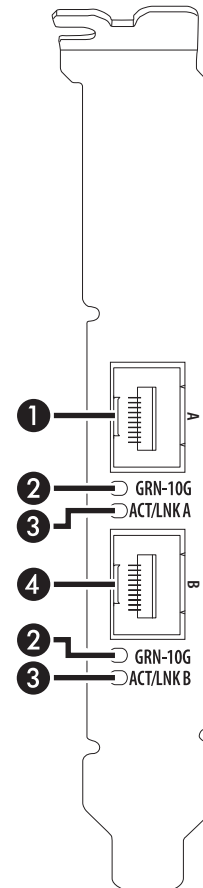
When connecting to a switch or storage system via LC optical cables, insert short-range or long-range SFP+ optical transceivers (sold separately) into the sockets, making sure they are firmly seated and secured. Alternatively, you can install RJ45 SFP+ copper transceivers and connect via CAT 6A cables at distances of up to 30 meters; you may even use direct-attached SFP+-terminated copper cables up to 10 meters long (sold separately) to connect to a switch or storage system.

#### 2 – GRN-10G Indicators

When a link is established between the Presto card and the switch, these LEDs light green to indicate the link to the switch is active, and remain off when there is no link.

#### 3 – ACT/LINK Indicators

These LEDs flash green when there is activity between the Presto card and the switch or device, and remain off when there is no link.



### Ports and Indicators Information (Card Version 2)

#### 1, 4 – ACT/LINK Indicators

There are two LEDs visible through each opening in the bracket. When a link is established between the Presto card and the switch, the top LEDs light yellow to indicate the link to the switch is active. When there is activity between the Presto card and the switch or device, the bottom LEDs flash green.

#### 2, 3 – SFP+ Sockets

When connecting to a switch or storage system via LC optical cables, insert short-range or long-range SFP+ optical transceivers (sold separately) into the sockets, making sure they are firmly seated and secured. Alternatively, you can install RJ45 SFP+ copper transceivers and connect via CAT 6A cables at distances of up to 30 meters; you may even use direct-attached SFP+-terminated copper cables up to 10 meters long (sold separately) to connect to a switch or storage system.

