

Twin10G™ PCIe® Card*

Quick Start Guide

You Should Have

The following items should be included in your product package:

- Twin10G (Presto 10GBASE-T) PCIe Card
- Low-profile PCIe bracket
- Quick start guide

The following item may be required for installation:

- Medium Phillips screwdriver

Computer Compatibility

- Mac Pro® 3,1, 4,1, 5,1, 7,1 (2019), or 8,1 (2023)
- PC desktop or server

OS Compatibility

- OS X®/macOS® 10.8.5+
- 64-bit editions of Windows® 11, 10; Server 2022, 2019, 2016
- Linux® RHEL 8.5/8.4; SLES 15 SP3, 12 SP5; Ubuntu 20.04 LTS, 18.04 LTS
- FreeBSD 13.0/12.3
- VMWare, ESXi 8, 7

Thunderbolt™ Compatibility

- Mac (Intel® or M series) or PC via a Thunderbolt-to-PCIe Card Expansion System

System Requirements

The Twin10G (Presto 10GBASE-T) PCIe Card requires the following to operate:

- One or two Cat 6 or Cat 6A cables

Driver Information—macOS and Windows

The drivers that enable the Twin10G 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 Twin10G card to work with Linux are installed as part of the Linux Kernel 5.4 and later. For earlier versions, please go to <https://www.sonnettech.com/support/kb/kb.php>, navigate to and click the Twin10G (Presto 10GBASE-T) PCIe Card link. Locate and click the Driver category link, and then locate, click, 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 Note: For Windows and Linux link aggregation (teaming) support, the switch or router to which the Twin10G is connected must also support link aggregation, and ports must be configured for link aggregation. Windows 10 teaming is supported with the installation of Intel Advanced Network Services (ANS).



Support Note: We recommend you make a backup of important information on your system's current storage 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. Please check the Sonnet website for the latest documentation.

1. Go to www.sonnettech.com/support/kb/kb.php
2. Navigate to and click the Twin10G (Presto 10GBASE-T) PCIe Card link.
3. Click the Manual link.
4. Click the Twin10G (Presto 10GBASE-T) PCIe Card Quick Start Guide [English] link, and then check the Document Version information. If the version listed is later than this document (**revision H**), click the Download Now button for the latest version.

*Formerly named Presto 10GbE 10GBASE-T PCIe Card



For
Windows



Installation and Configuration Steps for Mac Users

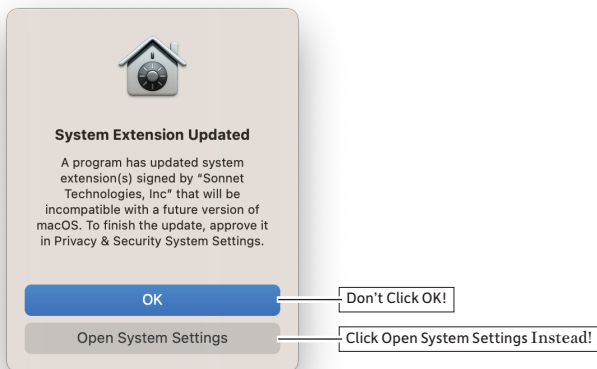


WARNING: Do NOT install the Twin10G card into your computer until *after* you install the Sonnet drivers! Installing the card before the drivers allows an incorrect Apple driver to load, resulting in poor performance.

Driver Download and Installation Steps

This section describes the download and installation of the drivers required to support the Twin10G PCIe Card in your Mac computer. Windows users should skip to the page 4.

1. Launch a web browser and go to <https://www.sonnettech.com/support/kb/kb.php>.
2. Navigate to and click the Twin10G (Presto 10GBASE-T) PCIe Card link.
3. On the Twin10G (Presto 10GBASE-T) PCIe Card page, click the Driver link, and then click the arrow next to driver software for your computer's macOS version to display important information. After reading the information, click the Download Now button; the software will be downloaded.
4. Double-click the .dmg you downloaded; the file will expand and a new window will open.
5. Double-click the SonnetEthernet-10GE.pkg file to launch the driver installer. Follow the on-screen instructions to install the software.
6. For OS X 10.8.5 through macOS 10.12.6 (Sierra) users, skip to step 8. Otherwise, after you click Install Software, an alert will appear; click Open System Settings, NOT the highlighted OK button; this will open Privacy & Security (or Security & Privacy) in System Settings.



7. In the *Privacy & Security* window, find the statement that *System software from developer "Sonnet Technologies, Inc." has been updated*, and then click the Allow button next to it; another alert will appear.

8. For OS X 10.8.5 through macOS 10.12.6 (Sierra) Users
When the window appears indicating the software installation is complete, click Restart to restart your system and finish the driver installation.

For macOS 10.13 (High Sierra) and Later Users

In the Privacy & Security alert, enter your password and then click Modify Settings. Another alert will appear instructing you to restart your computer; click Restart to restart your system and finish the driver installation.

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 PCIe card slot and remove its access cover.
3. Remove the Sonnet card from its packaging, and then install it into the card 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.
5. Connect Cat 6 or Cat 6A cables between the ports on the Twin10G card and the ports on the switch or device.



Support Note: Unless your setup requires connection redundancy or link aggregation (and your switch or storage system supports those features), connecting the Twin10G card to a switch or storage system requires only a single cable.

6. 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 Basic Card Configuration Information on the next page.
 - 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 x4 card, and should be assigned to at least an x4 slot), and then click Quit if the default configuration was appropriate, or click Save and Restart if you changed the configuration. Proceed to Card Configuration Information on the next page.

Installation and Configuration Steps for Mac Users

Basic Card Configuration Information

Configure the Twin10G 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 Twin10G card for maximum performance.



Support Note: In order to realize any performance increases, the network switches and server to which the Twin10G card is connected must all be configured to have jumbo frames enabled.

1. Open System Preferences, and then click Network. In the Network System Preferences panel, click one of the Twin10G card's ports in the left panel, and then click Advanced; a new panel appears.
2. 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.

Installation and Basic Configuration Steps for Windows Users

The following section covers installation and configuration steps for the Twin10G card in a Windows computer or a Thunderbolt-to-PCIe card expansion system connected to a PC.

Driver Download and Installation

This section describes the download and installation of the drivers required to support the Twin10G 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/kb/kb.php
2. Navigate to and click the Twin10G (Presto 10GBASE-T) PCIe Card link.
3. On the Twin10G (Presto 10GBASE-T) PCIe Card page, click the Driver link, and then click the Download Now button next to the driver software for Windows link; a new window or tab will open.
4. On the *Intel® Ethernet Adapter Complete Driver Pack* page, locate and click the Download button; an *Intel Software License Agreement window* will open.
5. Read the license agreement, and then click the “I accept the terms in the license agreement” button; the file will start downloading.
6. Locate the .zip file you downloaded, right-click it and select Extract All, and then follow the instructions; the file will expand and a new window will appear.
7. In the folder that opened in the new window, locate and double-click Autorun; an *Intel Network Connections* window will open.
8. In the *Intel Network Connections* window, click Install Drivers and Software; a pop-up window will appear asking for your permission for the application to make changes to your device. Click Yes; the installer will launch.
9. Follow the on-screen instructions to complete the driver installation.

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 PCI Express (PCIe) 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.

5. Connect Cat 6 or Cat 6A cables between the ports on the Twin10G card and the ports on the switch or device.



Support Note: Unless your setup requires connection redundancy or link aggregation (and your switch or storage system supports those features), connecting the Twin10G card to a switch or storage system requires only a single cable.

Basic Card Configuration Information

You may configure the Twin10G card’s settings using Windows Device Manager. You may locate the device’s ports in the Network adapters category, listed as either an Intel Ethernet Controller X540 or X550.

Ports and Indicators Information



Support Note: Sonnet has sold two versions of the Twin10G (Presto 10GBASE-T) PCIe Card. The ports are the same on both versions, but the activity and link indicators differ as designated.

Card Version 1

1 – RJ45 (10GBASE-T) Ports

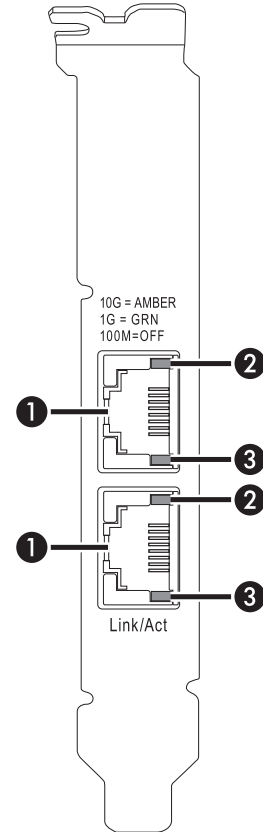
Connect Cat 6 or Cat 6A cables between these ports and the switch's or device's RJ45 ports.

2 – Link Speed Indicators

When a link is established between the Twin10G card and the switch, these LEDs light to indicate the link speed to the switch: yellow = 10Gb, green = 1Gb, off = 100Mb.

3 – Link/Activity Indicators

These LEDs light up green to indicate a link is established between the Twin10G card and the switch, and flash green when there is activity between the two.



Card Version 2

1 – RJ45 (10GBASE-T) Ports

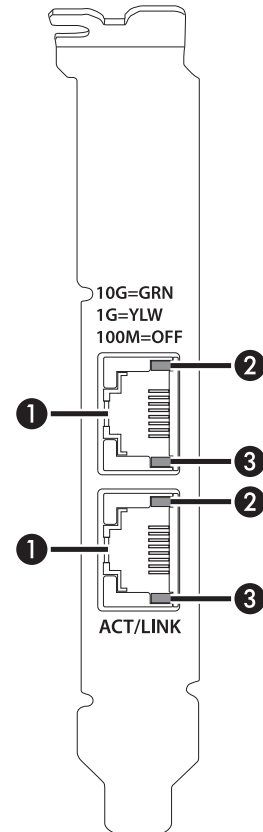
Connect Cat 6 or Cat 6A cables between these ports and the switch's or device's RJ45 ports.

2 – Link Speed Indicators

When a link is established between the Twin10G card and the switch, these LEDs light to indicate the link speed to the switch: green = 10Gb, yellow = 1Gb, off = 100Mb.

3 – Link/Activity Indicators

These LEDs light up green to indicate a link is established between the Twin10G card and the switch, and flash green when there is activity between the two.



Support Information

Contacting Customer Service

Before contacting Customer Service, please check the Sonnet Web site (www.sonnettech.com) for the latest updates and files. Email requests generally receive the fastest responses, and are usually processed within a 24-hour period during normal business hours, excluding holidays. When you contact Customer Service, please have the following information available:

- Product name
- Computer model
- OS version
- Driver software version
- A System Report (macOS) or a Microsoft System Information MSINFO32 (Windows) report (Windows), along with a description of the issue(s) you are encountering with your device

If further assistance is needed, please contact **Sonnet Customer Service** at:

E-mail: support@sonnettech.com

Tel: 1-949-472-2772

(Monday–Friday, 9 a.m.–5 p.m. Pacific Time, excluding holidays)

Japan Customers

Contact Sonnet Customer Service Japan at:

E-mail: jp.support@sonnettech.com