



Sonnet McFiver PCIe Card

ProdCode: SONG10EUSBCM2E

Multifunction Adapter Card with Dual M.2 NVMe SSD Slots, 10Gb Ethernet, and Two 10Gbps USB-C Ports



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Features

- Multifunction Adapter Card with Dual M.2 NVMe SSD Slots, 10Gb Ethernet, and Two 10Gbps USB-C Ports
- **Multiple Functions, One Card**
Provides NVMe storage, 10Gb Ethernet, and 10Gbps USB-C connections on one PCIe 3.0 card
- **Two High Performance M.2 NVMe SSD Slots**
Add up to 16TB of storage inside (SSDs sold separately); four lanes of PCIe 3.0 bandwidth available to each installed SSD achieve data transfer speeds up to 6600 MB/s (SSDs configured as RAID 0 set)
- **No SSD Thermal Throttling**
An efficient integrated heat sink enables installed SSDs to maintain high performance during very large file transfer operations
- **One 10GBASE-T Ethernet Port**
Adds an RJ45 10GbE port to your computer with PCIe slots or Thunderbolt expansion system
- **Supports NBASE-T Ethernet Technology**
5 Gb/s and 2.5 Gb/s speeds supported over existing Cat 5e (or better) cabling at distances up to 100 meters
- **AVB-Compliant Ethernet**

Audio Video Bridging (IEEE802.1Qav, AVB) over Ethernet supported with Mac computers

- **Two 10Gbps USB-C Ports**

Adds two USB-C 10Gbps ports to your computer or Thunderbolt to PCIe card expansion system

- **Advanced USB 3.2 Gen 2 Controller, Full 10Gbps Per Port**

USB 3.2 controller enables each port to support data transfers at up to 1000 MB/s, even while transferring files from two drives concurrently

- **Advanced USB Data Traffic Management**

Supports “Multiple Ins” feature to enable multiple data transactions to take place simultaneously and eliminate bandwidth congestion

- **Powered USB Ports**

7.5W power is available per USB-C port, supporting bus-powered SSD, SSD RAID, and hub devices

- **Protected USB Power Delivery**

Independent port power regulation isolates each one to prevent cross-coupled power glitches that may cause accidental disconnects; resettable device overcurrent fuses protect the card and computer and may be reset by a simple shutdown

- **Great for Use in Thunderbolt Expansion Systems**

Use in a Sonnet Echo Thunderbolt expansion system with an available x8 PCIe slot to add NVMe storage, 10Gb Ethernet, and 10Gbps USB-C connections to your computer without expansion card slots; see Tech Specs for important details

Mac Compatibility

- Mac Pro® 7,1 (2019)
- macOS 12+
- macOS Monterey compatible

Windows Compatibility

- Computer with available x8 PCIe slot
- Windows 11, 10
- Windows Server 2022, 2019

Linux Compatibility

- Computer with available x8 PCIe slot
- Linux Kernel 5.4+

Only multifunction PCIe adapter card with M.2 NVMe storage, 10Gb Ethernet, and 10Gbps USB-C connectivity

Are you looking to add SSD storage, ultra-high-speed Ethernet connectivity, or high-performance USB-C® ports to your setup? Or all three? Even in computers with multiple expansion card slots, installing three adapter cards to get the interfaces you need may not be feasible. Sonnet's engineers designed a truly unique solution — the McFiver™ PCIe® Card. Mac, Windows, and Linux compatible, this professional, multifunction adapter includes five interfaces — this is the only adapter card to feature dual M.2 NVMe SSD slots, one RJ45 10Gb Ethernet port, and two 10Gbps USB-C ports, fitting them all on a standard full-height PCIe card.

Two M.2 NVMe Slots

Add up to 16TB of storage with your own high performance M.2 NVMe SSDs

One 10GBASE-T 10GbE Port

RJ45 port connects your computer to 10GbE infrastructure via inexpensive copper cabling

Two 10Gbps USB-C Ports

Adds two USB-C ports with full 10Gbps bandwidth per port

One PCIe x8 Slot is all You Need

Install the McFiver PCIe Card into an available x8 PCIe 3.0 or 4.0 slot to obtain maximum performance in your computer. No PCIe card slots in your computer, but Thunderbolt ports outside? The McFiver provides great performance, a lot of connectivity, and is ideal for use in an Echo™ Thunderbolt™ to PCIe card expansion system with an available full-height x8 card slot. The combo enables you to take advantage of all that the McFiver has to offer with any compatible Mac (M1, M1 Pro, M1 Max, M1 Ultra, Intel®), Windows, or Linux computer with Thunderbolt ports.

Dual M.2 NVMe SSD Slots

Add Up to 16TB of SSD Storage

McFiver PCIe Card provides mass SSD storage capability on a PCIe card. Dual M.2 NVMe PCIe SSD slots support up to 16TB internal high performance storage

expansion (SSDs sold separately), enabling you to save and access your data fast, and effortlessly store large files and media libraries.

Super High-Speed Data Transfers

If super high-speed data transfers are critical to your work, you need an NVMe SSD-based upgrade. Installed on the McFiver PCIe Card, a single NVMe PCIe SSD can deliver tremendous performance — up to 3400 MB/s read and write sustained data transfers — but the McFiver enables you to mount two of them. Formatted as a RAID 0 set, two SSDs can achieve sustained transfers up to 6600 MB/s read and write. No matter how you use it, you'll love the speed.

Silent SSD Cooling

No Thermal Throttling. No Slowdowns. SSDs heat up significantly when performing very large file transfers and will protect themselves from overheating by “thermal throttling” — a feature that drastically cuts SSDs' performance while allowing them to cool. The McFiver PCIe Card's silent SSD cooling solution works to eliminate the need for thermal throttling and enables your SSDs to always maintain their highest performance.

SSD SMART

Installing your M.2 SSDs on the McFiver PCIe Card is a simple task, and the card uses your computer's operating system's built-in drive utilities to format them. SSD health monitoring is supported through S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) data reporting. **Are you a Mac user?** You can install macOS® on one SSD to create a very fast boot volume, and then use the other installed SSD for file storage; as a super-fast plug-in, media storage, or scratch disk; or for Time Machine® backups.

Blazing-Fast 10GBASE-T Connectivity

The increasing demand for wired network bandwidth has pushed 10Gb Ethernet (10GbE) into the mainstream. It's not just for use in software development, postproduction, and shared storage workflows where speed is critical — there's increasing need for it in workflows of all kinds and businesses of all sizes. Very affordable 10GbE switches have reduced the cost of upgrading, but many computers don't natively support 10GbE — the McFiver PCIe Card can get you connected. The McFiver is equipped with one RJ45 port that enables you to connect your computer to 10GbE infrastructure via Cat 6A cabling at up to 100 meters.

Multi-Gigabit Ethernet Support for Faster Transfers Across Existing Cabling

If your facility already has Cat 5e wiring installed, you can still get an amazing performance gain — from 250 to 500 percent over Gigabit Ethernet speed — without rewiring! The McFiver PCIe Card supports the NBASE-T™ industry-standard (multi-Gigabit Ethernet) of 2.5Gb and 5Gb link speeds to enable greater than Gigabit Ethernet speed over Cat 5e (or better) cabling when used with a multi-Gigabit compatible switch or router. You can utilize the same adapter card across your organization for users supported by different Ethernet cabling infrastructures to obtain the best possible performance.

macOS AVB Support

The McFiver PCIe Card supports Audio Video Bridging (IEEE 802.1Qav, AVB) under macOS. When used with a switch or router (plus infrastructure) with AVB support, the card is perfect for use in pro audio and video applications where synchronization of data streams is critical.

High Performance USB 3.2 Gen 2 Controller

10Gbps USB 3.2 controller can concurrently deliver full 10Gbps bandwidth through both ports.

Intelligent Power Delivery and Management

Independent, per-port power regulation – prevents power glitches that cause auto-disconnects of already-connected drives.

10Gbps USB Performance Bliss

The fastest USB 3.2 Gen 2 drives available — equipped with NVMe SSDs — can transfer data at incredible speeds. Can your computer support their full performance? Upgrading your workflow with Sonnet's McFiver PCIe Card ensures 10Gbps USB SSDs can operate at their peak performance.

High Speed Simultaneous Transfers

Many multi-port USB cards split their USB controller's total bandwidth between all their ports, which limits performance when two or more devices are connected and operating. The McFiver PCIe Card features an advanced USB 3.2 Gen 2 controller that delivers full 10Gbps bandwidth per port and implements advanced data traffic management to eliminate bandwidth congestion. When installed in a computer's PCIe 3.0 or 4.0 slot, the McFiver PCIe Card supports two simultaneous 10Gbps transfers, enabling it to transfer data from two drives to the computer (and from drive

to drive) at maximum speeds of 1000 MB/s per drive.

Sonnet Port Power Advantages

Sonnet designed the McFiver PCIe Card with a focus on intelligent power delivery and management for attached SSDs powered through its ports — unlike ordinary USB adapter cards designed without attention to detail.

Super-powered USB Ports

The McFiver card provide 7.5W of power through each of its USB ports, supporting USB bus-powered SSDs and hubs without the need to connect an additional AC power adapter to the device.

No Auxiliary Power Required

Ordinary USB cards need a separate power connection. Sonnet's McFiver card draws all the power necessary to operate connected drives from the slot it's installed in. This enables you to install the Sonnet card in any compatible computer or Thunderbolt expansion system regardless of it having extra power connectors available.

Independent, Per-Port Power Regulation

The McFiver card regulates power to each port independently, providing each one protection from power glitches on the adjacent port. Ordinary USB cards can provide poor power regulation, allowing a connected drive to be forced off (auto-disconnected) when an additional drive is connected or disconnected.

Resettable Fuses

Unlike ordinary USB cards, the McFiver card features a resettable fuse on each port that protects both the card and computer should a cable or peripheral fail. Resetting a tripped fuse is simple — just shut down and then restart your computer.

In the box:

- McFiver PCIe Card
- Documentation

