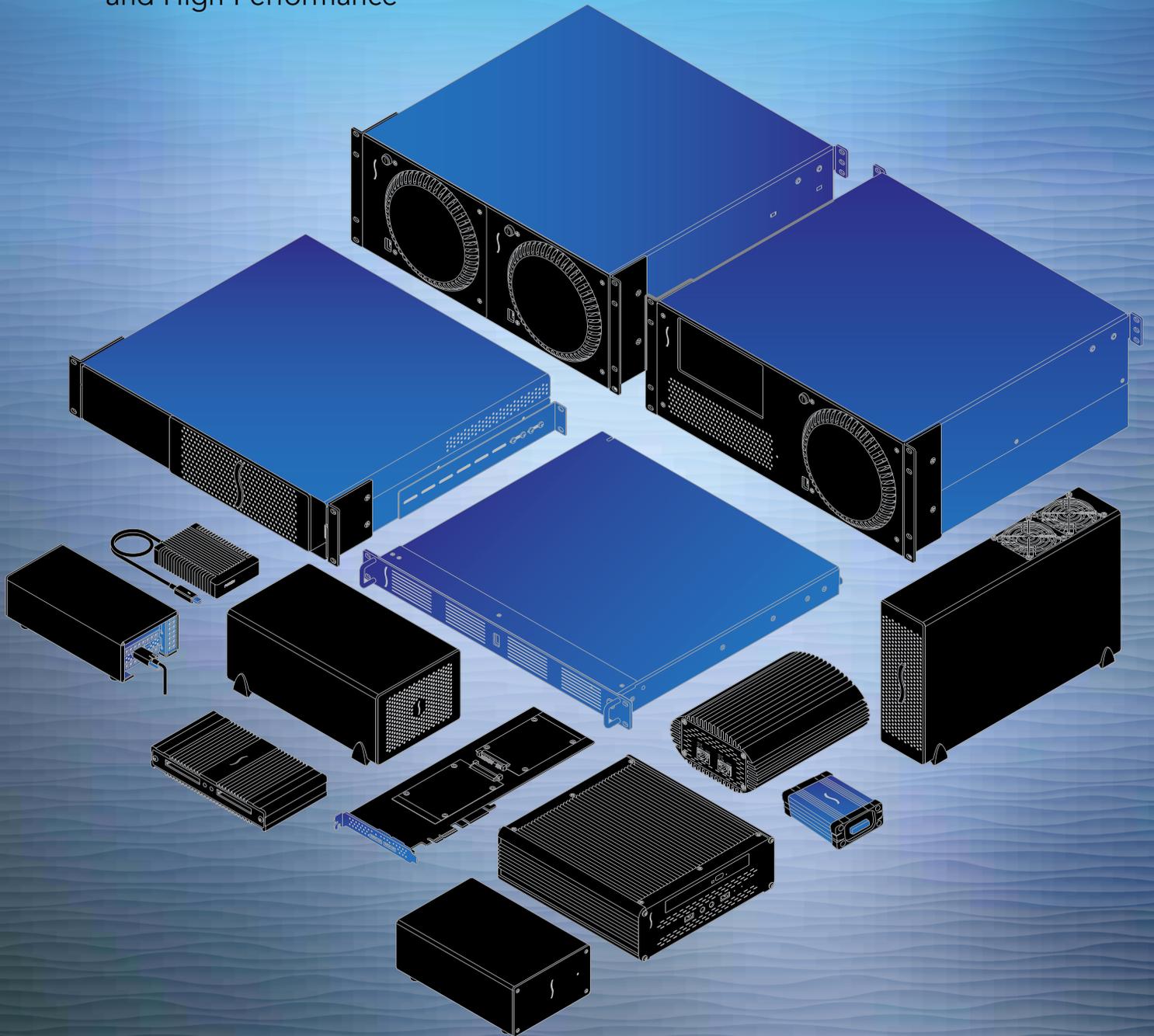


PRODUCT CATALOG

SONNET™
SIMPLY FAST™

Enabling Expansion
and High Performance

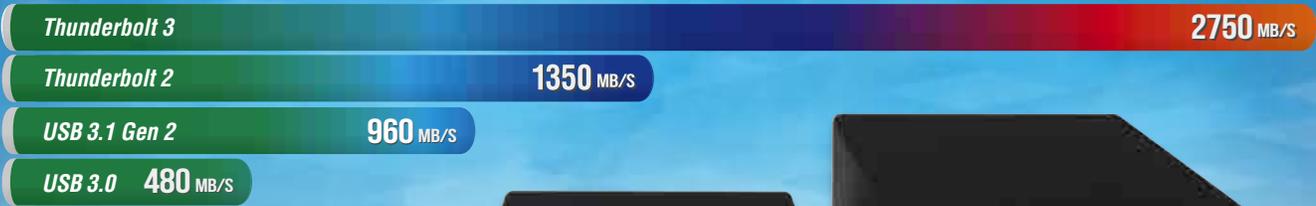


THUNDERBOLT™

WINTER 2016

Echo Express – Thunderbolt 3 Editions

THUNDERBOLT 3-TO-PCIe CARD EXPANSION CHASSIS



The Fastest Way to Add PCIe Cards to Your Computer Without Slots

Sonnet's Thunderbolt-to-PCIe card expansion systems have expanded and enhanced countless pro video and audio workflows on-set, on-site, in the edit bay, and in the studio, fundamentally changing how and where work can be performed. Enabling the use of high-performance PCIe cards with computers lacking card slots, Sonnet's latest expansion systems offer even greater performance



than before to support one or more bandwidth-hungry cards, are available in various sizes for the desktop as well as a 2U rackmount option, and include two Thunderbolt 3 ports to support daisy chaining of up to six devices to a single port on your computer. Whatever your needs, there's an Echo Express Thunderbolt 3 Edition system that will best suit your needs.

Thunderbolt 2, enabling them to support 4K video I/O cards at high frame rates, and 16Gb FC cards and dual-port 10GbE cards at full performance. With support for the most demanding, highest performance PCIe cards, support for connecting two 4K displays @ 60Hz or one 5K display @ 60Hz⁽¹⁾, and support for a vast array of Thunderbolt⁽²⁾ AND USB⁽³⁾ devices, Thunderbolt 3 technology is a leap forward in every way.

40Gbps Thunderbolt 3

These systems feature Thunderbolt 3 technology, which offers double the bandwidth and connectivity of



The Smallest One

The **Echo Express SEL - Thunderbolt 3 Edition** is the smallest, quietest Thunderbolt 3-to-PCIe card expansion system available. This model supports a single low-profile PCIe card and is a perfect match for many Thunderbolt-compatible 16Gb and 8Gb Fibre Channel, 10 Gigabit Ethernet, video capture and processing, SAS and SATA host bus adapters, and RAID controller cards.



One Low-Profile Card



- PCIe 3.0 x8 slot; supports one low-profile card

More Room to Expand

The **Echo Express SE I - Thunderbolt 3 Edition** is a bit larger than the SEL, but is able to support one half-length+ (up to 7.75 inches long), full-height PCIe card, and includes an additional slot space to mount an adjacent daughter card. The extra space within enables this model to support nearly every Thunderbolt-compatible card available, making this Echo system perfect for users needing only to connect a single card.



One Full-Height Card



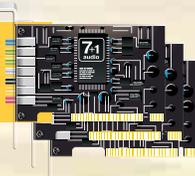
- PCIe 3.0 x8 slot; supports one half-length+ (up to 7.75 inches long), full-height card
- Supports one daughter card installation

Compact 3-Slot System

Measuring just 6.5 inches wide x 4.6 inches high x 11 inches deep, the **Echo Express SE III - Thunderbolt 3 Edition** supports three half-length+ (up to 7.75 inches long), full-height PCIe cards, yet it takes up little space wherever you work, be it in the studio, on location, at your desk, or in the edit suite. For users who need to use two or three adapter cards, the SE III is Sonnet's most compact 3-slot expansion system ever. If you need to install cards longer than 7.75 inches, or cards that require auxiliary power, take a look at the Echo Express III-D and III-R Thunderbolt 3 Edition systems.



Three Full-Height Cards



- Three PCIe 3.0 x8 slots; support three half-length+ (up to 7.75 inches long), full-height cards
- Supports one daughter card installation

Features
40Gbps Thunderbolt™ 3



40Gbps Features
Thunderbolt™ 3



New, and Improved

The Echo Express SE III is new for 2016. The rest of the Echo Express Thunderbolt 3 Edition family; SEL, SE I, III-D, and III-R, expansion systems feature the same great designs and qualities as their Thunderbolt 2 counterparts. For more detailed information on their shared specifications, please take a look at pages 4-6 in this brochure.



Cool Design Outside and In

The rugged shell of each Echo Express - Thunderbolt 3 expansion system securely protects the cards inside and helps radiate heat away from them. The airflow



path within each system was specially designed to enable the temperature-controlled fan or fans to quietly and efficiently cool the installed card or cards, which automatically speeds up and slows down smoothly as needed.

ThunderLok 3 Included

Sonnet includes a ThunderLok 3 Thunderbolt connector retainer clip, which slides onto the included Thunderbolt cable, and screws into the Echo chassis to prevent accidental cable disconnections.



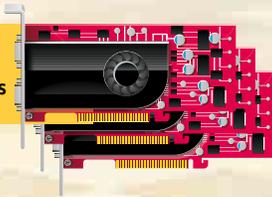
No Compromises 3-Slot Desktop System

The **Echo Express III-D - Thunderbolt 3 Edition** system supports three full-length (up to 12.28 inches long), full-height, single-width cards, or one double-width card plus one single-width card.

Featuring one x16 plus two x8 PCIe 3.0 slots, and a built-in 300W universal power supply with 75W auxiliary power connector for cards requiring extra power, this Sonnet solution is perfect for power users who need their expansion system to support every size of Thunderbolt-compatible cards available, and be rugged and transportable.



3 Full-Height, Full-Length Cards



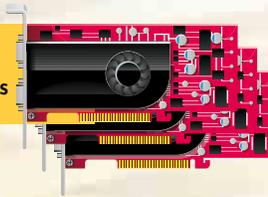
- One x16 plus two x8 PCIe 3.0 slots; support three full-length (up to 12.28 inches long), full-height, single-width cards, or one double-width card plus one single-width card
- Built-in 300W power supply with 75W auxiliary power connector

No Compromises 3-Slot Rackmount System



Except for its enclosure, the **Echo Express III-R - Thunderbolt 3 Edition** rackmount system is nearly identical to the Echo Express III-D - Thunderbolt 3 Edition desktop system. With the same slots, card support, and power specs, the III-R is perfect for users needing to rackmount their gear. Plus, it offers the mounting space for additional devices when installed in one of Sonnet's Mobile Rack Device Mounting Kits.

3 Full-Height, Full-Length Cards



- One x16 plus two x8 PCIe 3.0 slots; support three full-length (up to 12.28 inches long), full-height, single-width cards, or one double-width card plus one single-width card
- Built-in 300W power supply with 75W auxiliary power connector
- Supports Mobile Rack Device Mounting Kit installation

Thunderbolt 3 Editions' Shared Features

- Enables use of high-performance PCIe cards with computers lacking slots
- 40Gbps Thunderbolt 3 interface offers double the bandwidth and double the connectivity of Thunderbolt 2
- PCIe 3.0 slots enable high-bandwidth cards to perform better
- Temperature-controlled fans automatically operate slower and quieter with cooler cards; provide better cooling for hotter cards
- Includes second Thunderbolt 3 port for daisy chaining devices, including Thunderbolt⁽²⁾ and USB⁽³⁾ devices, and/or connecting up to two 4K displays or one 5K display⁽¹⁾
- Includes 0.5-meter Thunderbolt 3 (40Gbps) cable and ThunderLok 3 Thunderbolt connector retainer clip

1. One 4K monitor directly supported. Two 4K monitors requires either a 4K monitor with multi-stream transport support (DP out), or a Thunderbolt 3-to-Dual DisplayPort adapter. 5K monitor requires a Thunderbolt 3-to-Dual DisplayPort adapter.
2. Second Thunderbolt 3 port supports Thunderbolt and Thunderbolt 2 devices when used with an adapter, sold separately.
3. Second Thunderbolt 3 port supports USB devices when connected with proper cable (sold separately).

PCIe cards not included

Echo 15+ Thunderbolt 2 Dock

16-PORT DOCKING STATION WITH OPTICAL DRIVE AND INTERNAL DRIVE BAYS

ECHO-DK-0TB
without optical drive

ECHO-DK-DVD-0TB
with DVD±RW drive

ECHO-DK-BD-0TB
with Blu-ray player

ECHO-DK-PRO-0TB
with Blu-ray burner



Optical Drive Options

Choose between DVD burner, Blu-ray player, Blu-ray burner, or without optical drive (with extra 2.5-inch drive bay)

Drive Bays

Install two 2.5-inch SSDs or HDDs, or one 3.5-inch HDD

Two Thunderbolt 2 Ports

Connect your computer to one port; daisy-chain additional Thunderbolt devices or connect an external display to the other

Gigabit Ethernet Port

Connect a network router, switch, or modem

Two Rear Panel USB 3.0 Ports

Support charging even when computer is off



Two Front Panel USB 3.0 Ports
Connect and charge devices such as iPads, iPhones, and iPods, even when computer is off



Audio Ports
Easily connect headphones or digital amp and a microphone



Audio In and Speaker Ports
Connect a line-level input and speakers



FireWire® 800 Port
Connect FireWire drives and other peripherals



Two 6Gb/s eSATA Ports
Connect single- and multi-drive storage systems with eSATA interfaces



Connect To Your Peripherals with One Cable

Sonnet's Echo 15+ Thunderbolt 2 Dock enables you to connect any Mac with a Thunderbolt port to your peripherals through a single Thunderbolt cable. Simply plug in your printer, keyboard, mouse, cable modem, cell phone, headphones, speakers, microphone, and other devices to the Echo dock and connect your computer to the dock with a Thunderbolt cable. An Echo dock gives you plenty of ports to choose from, including USB 3.0, 6Gb/s eSATA, FireWire 800, Gigabit Ethernet, headphone/digital audio jack, microphone jack, stereo speakers jack, line level audio input jack, and Thunderbolt 2. For your convenience, two USB 3.0, headphone and microphone ports are placed on the front of the enclosure.



Storage Space Perfect for a Time Machine® (Drive)

Sonnet designed the Echo dock with the extra space, mounting hardware, and connectors for you to install a 3.5-inch HDD (hard disk drive) or a pair of 2.5-inch HDDs or SSDs (solid state drives). The fast 6Gb/s SATA interface supports an HDD at its maximum speeds, and a pair of SSDs at up to 750 MB/s. Add a high-capacity drive to use as your Mac's Time Machine drive, to back up its data, or to store your ever growing media library; or, you can install one or two high-performance SSDs for blazing-fast access to applications and files. Best of all, the drives are installed inside the Echo dock, so you can expand your storage without the fuss of adding another drive chassis, power brick, and cable clutter.

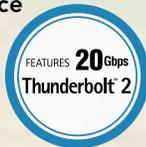
ThunderLok-Ready

The Echo dock supports the **ThunderLok** Thunderbolt connector retainer clip. The ThunderLok slides over a standard copper Thunderbolt cable (sold separately) and screws into the back of the dock to prevent accidental disconnects. When not in use, the ThunderLok remains on the cable so it won't get lost.



Thunderbolt 2 Interface

The Echo dock features a 20Gbps Thunderbolt 2 interface, offering greater bandwidth for moving files at high speed between connected devices and the host computer. It supports the DisplayPort 1.2 protocol to enable streaming to a single 4K monitor.



Optical Drive Included

Choose from a DVD/CD±RW drive, a drive that adds the capability to play Blu-ray Disc™ movies, or a Blu-ray burner that reads and writes Blu-ray, DVD, and CD discs.

	DVD Burner	Blu-ray Player	Blu-ray Burner
CD Read/Write	✓	✓	✓
DVD Read/Write	✓	✓	✓
Blu-ray Movie Play		✓	✓ (2)
Blu-ray Disc Read		✓	✓
Blu-ray Disc Write			✓ (2)

Optical Drive Capabilities

- Connect your computer to and disconnect it from the dock with one Thunderbolt cable; leave your peripherals connected to the Echo dock
- Provides Multiple Ports—Thunderbolt 2, USB 3.0, 6Gb/s SATA and eSATA, FireWire 800, Gigabit Ethernet, and audio
- Thunderbolt 2 interface offers great bandwidth for moving files between connected devices; backward-compatible with Thunderbolt hosts and devices
- Choose between a DVD±RW drive, a Blu-ray disc player (BD-ROM/8x DVD±RW), a Blu-ray burner (BD-R/8x DVD±RW), or no optical drive⁽¹⁾
- Supports Internal Hard Drives or SSDs—Install one 3.5-inch or two 2.5-inch 6Gb/s SATA drives inside the dock
- Four USB 3.0 Ports—Connect any devices; charge iOS devices even when computer is off
- Compatible with OS X 10.9.5+

1. Dock model ECHO-DK-0TB sold without optical drive; includes additional 2.5-inch drive bay instead
2. Software sold separately

... I can honestly say that it's the best dock we've seen for a professional environment. **Want to keep it!**
- Kitplus TV-Bay

We originally started by deploying the Echo 15 Thunderbolt Dock on the carts out in the field, but we've had such good success with them in the field that we started moving them into the facility.
- RikB, Encore Hollywood

Sonnet's Echo 15 might be the most unique storage docking station design ever, with onboard storage and Blu-ray capabilities... Overall, this is probably one of the best all-around docking stations you can buy...
- TweakTown

Sonnet's Echo 15+ is undoubtedly the king where the number of ports is concerned. There's even room inside for two SSDs!
- MacFormat



HDD, SSDs, and other equipment shown not included

Echo™ Express SEL

DESKTOP THUNDERBOLT™ 2-TO
-PCIe CARD EXPANSION CHASSIS

Echo Express SE I

DESKTOP THUNDERBOLT 2-TO
-PCIe CARD EXPANSION CHASSIS

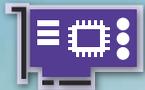
Mac & Windows
Compatible



Upgradable to
40Gbps Thunderbolt™ 3

FEATURES **20 Gbps**
Thunderbolt 2

UPGRADABLE TO
THUNDERBOLT 3



Use One PCIe Card With Computers Lacking Slots

Sonnet's **Echo Express SEL** and **Echo Express SE I** enable you to connect one high-performance PCIe card to any Mac or PC with a Thunderbolt 2 or Thunderbolt port. Differing only in size, these compact Thunderbolt 2-



to-PCIe card expansion chassis each feature a PCIe 2.0 x8 slot, and include two Thunderbolt 2 ports to support daisy chaining of up to six devices to a single port on your computer.

20Gbps Thunderbolt 2, Upgradable To 40Gbps Thunderbolt 3

UPGRADABLE



The SEL and SE I each feature a Thunderbolt 2 interface, which provides ample bandwidth for many of the most demanding, highest performance PCIe cards, and supports the DisplayPort 1.2 protocol to enable streaming to a 4K monitor. They are also backward compatible with 10Gbps Thunderbolt hosts and devices.

20 Gbps
UPGRADABLE
Thunderbolt 2 interface backward compatible with 10Gbps Thunderbolt technology hosts and devices, **upgradable to 40Gbps Thunderbolt 3**

+ Enables use of high-performance PCIe cards with Thunderbolt-equipped computers

Temperature-controlled fan automatically operates slower and quieter with cooler cards; provides better cooling for hotter cards

Includes two Thunderbolt 2 ports for daisy chaining devices

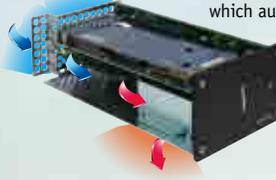
80W power supply provides plenty of power for card and downstream Thunderbolt devices

Includes Thunderbolt cable and ThunderLok Thunderbolt connector retainer clip

PCIe cards not included

Cool Design Outside and In

The rugged, lightweight aluminum shell of each SEL and SE I chassis securely protects the card inside and helps radiate heat away from it. The airflow path within each was specially designed to enable the temperature-controlled fan to quietly and efficiently cool the installed card, which automatically speeds up and slows down smoothly as needed.

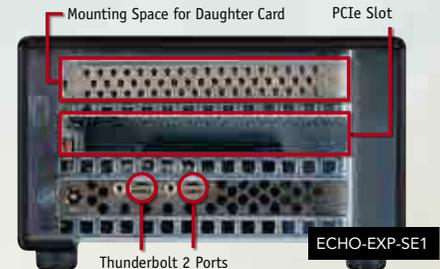
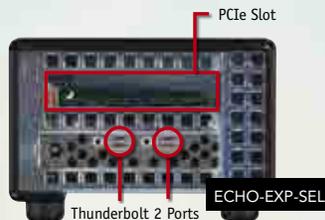


ThunderLok Included

Sonnet includes a **ThunderLok** Thunderbolt connector retainer clip, which slides onto the included Thunderbolt cable, and screws into the Echo chassis to prevent accidental cable disconnections.



Thunderbolt-compatible cards? Do you have a card in mind but are not sure if it's Thunderbolt compatible? Check out our **PCIe Card Thunderbolt Compatibility Chart** to learn more.



SEL: The Smallest One

The Echo Express SEL is the smallest, quietest Thunderbolt 2-to-PCIe card expansion system available. Sonnet designed the SEL specifically to house a single low-profile PCIe card, allowing us to reduce the enclosure to a scant 4 inches wide x 2.8 inches high x 8.4 inches deep, making it great for travel, and enabling maximum flexibility of placement in your workspace. A perfect match for many Thunderbolt-compatible 16Gb and 8Gb Fibre Channel, 10 Gigabit Ethernet, video capture and processing like the Bluefish 444 Epoch 4K Neutron, SAS and SATA host bus adapters, RAID controller cards; the SEL enables you to connect one of these cards to any computer with a Thunderbolt 2 or Thunderbolt port.

Low-Profile Cards



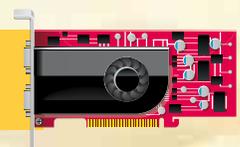
- PCIe 2.0 x8 slot supports one low-profile card

SE I: More Room to Expand

At 5.6 inches wide x 3.5 inches high x 8.6 inches deep, the Echo Express SE I is a bit larger than the SEL, but supports one half-length+ (up to 7.75 inches long), full-height card such as such as the AJA KONA 3G, BlackMagic Decklink, Avid Pro Tools|HD Native, and any of the Universal Audio UAD-2 line of DSP accelerators. The added space within enables the SE I to support nearly every Thunderbolt 2-compatible card available, even double-width cards!

Specialty cards such as RME's HDSPe MADI FX card, Blackmagic Design's DeckLink Studio 4K Extreme, and the Lynx AES16e-50, include a daughter card (a.k.a. extension board or I/O bracket) that mates with and provides additional external connections to the main card, but doesn't require a PCIe slot's electrical connections. The daughter card occupies the space adjacent to the PCIe card within the SE I without filling a slot.

Full-Height Cards



- PCIe 2.0 x8 slot supports one half-length+ (up to 7.75 inches long), full-height card
- Supports daughter card installation

Echo Express SE II

DESKTOP THUNDERBOLT 2-TO-PCIe CARD EXPANSION CHASSIS

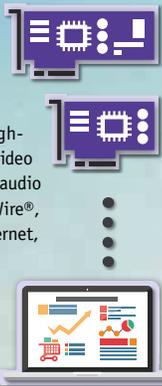


Upgradable to 40Gbps Thunderbolt™ 3



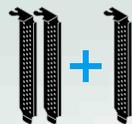
Use Two PCIe Cards With Computers Lacking Slots

Sonnet's **Echo Express SE II** enables you to connect two high-performance, professional pro video capture and processing, digital audio interface, DSP accelerator, FireWire®, RAID controller, 10 Gigabit Ethernet, eSATA, and other PCIe cards to any Mac or Windows PC with a Thunderbolt 2 or Thunderbolt port. Accommodating cards up to 7.75 inches long, this compact Thunderbolt 2-to-PCIe card expansion chassis supports nearly every Thunderbolt 2-compatible PCIe card on the market, including double-width (PCIe card + daughter card) cards. Measuring just 6.5 inches wide x 4.6 inches high x 11 inches deep, the Echo Express SE II takes up little space wherever you work, be it in the studio, on location, at your desk, or in the edit suite. Two Thunderbolt 2 ports support daisy chaining of up to six devices to a single port on your computer.



Two PCIe 2.0 Slots Plus Space for a Daughter Card

The Echo Express SE II's PCIe 2.0 slots (one x16, one x8) support two half-length+ (up to 7.75 inches long), full-height, single-width PCIe cards, or one single-width card plus one double-width card. Some specialty cards, such as RME's HDSpe MADI FX card, Blackmagic Design's DeckLink 4K Extreme, and the Lynx AES16e-50, include a daughter card that mates with and provides additional external connections to the main card. The Echo Express SE II accommodates a daughter card's installation without wasting a slot.



20Gbps Thunderbolt 2 Interface Built for Speed, Upgradable to 40Gbps Thunderbolt 3



The original Thunderbolt interface provided breakthrough bandwidth for external expansion, supporting the maximum performance of most PCIe cards. However, some bandwidth-hungry cards such as 16Gb Fibre Channel, 10 Gigabit Ethernet, and some storage interface cards are performance-limited by 10Gbps Thunderbolt. Thunderbolt 2 technology was developed to open up the bottleneck by providing even more bandwidth to enable greater performance. Featuring a 20Gbps Thunderbolt 2 interface, the Echo Express SE II provides ample bandwidth for many of the most demanding, highest performance PCIe cards, and supports the DisplayPort 1.2 protocol to enable streaming to a 4K monitor. It is also backward compatible with 10Gbps Thunderbolt hosts and devices.

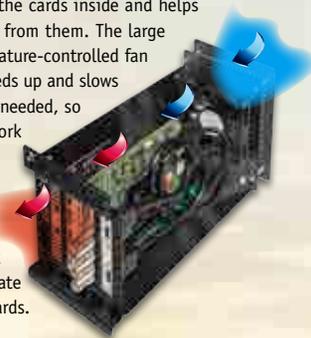
ThunderLock Included

Sonnet includes a ThunderLock Thunderbolt connector retainer clip, which slides onto the included Thunderbolt cable, and screws into the Echo chassis to prevent accidental cable disconnections.



Cool Design Outside and In

The Echo Express SE II's aluminum outer shell securely protects the cards inside and helps radiate heat away from them. The large and quiet, temperature-controlled fan automatically speeds up and slows down smoothly as needed, so there's no guesswork in deciding which switch position to select. The enclosure is ventilated in front and back to facilitate airflow over the cards.



Add Storage Inside the Expansion Chassis

Install a **Tempo™ SSD** card (with your own 2.5-inch SSD attached) or the



1350 MB/s **Tempo PCIe SSD** card into the Echo Express SE II for super fast access to your data. For more info, visit sonnettech.com/product/computercards



Thunderbolt 2 interface backward compatible with 10Gbps Thunderbolt technology hosts and devices, **upgradable to 40Gbps Thunderbolt 3**



Enables use of high-performance PCIe cards with Thunderbolt-equipped computers



Includes two Thunderbolt 2 ports for daisy chaining devices



Two PCIe 2.0 slots (one x16, one x8) support two half-length+ (up to 7.75 inches long), full-height, single-width cards



Supports daughter card installation without sacrificing a PCIe slot



Large, temperature-controlled fan automatically operates slower and quieter with cooler cards; provides better cooling for hot cards



80W power supply handles any combination of cards plus power for a downstream device



Includes Thunderbolt cable and ThunderLock Thunderbolt connector retainer clip

PCIe cards shown not included



Echo Express III-D/Echo Express III-R

DESKTOP OR RACKMOUNT THUNDERBOLT 2-TO-PCIe CARD EXPANSION CHASSIS

ECHO-EXP3FD Desktop chassis

ECHO-EXP3FR Rackmount chassis



Upgradable to 40Gbps Thunderbolt™ 3



Connect three of your favorite pro PCIe cards to any computer with a Thunderbolt 2 or Thunderbolt port. Supports every Thunderbolt 2-compatible card, regardless of size.

Included ThunderLok secures Thunderbolt connector to prevent accidental cable disconnection

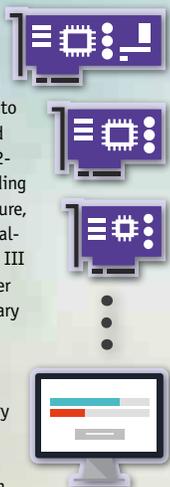


Install an optional Mobile Rack Device Mounting Kit here for storage and media expansion



Three Slots, No Compromises

Sonnet's Echo Express III-D and III-R enable you to connect up to three full length PCIe cards, and will support every Thunderbolt 2-compatible card available; including full-size professional video capture, audio interface, and other special-purpose cards. The Echo Express III integrates a universal 300W power supply and includes a 75W auxiliary power connector for cards that require supplementary power. Featuring 20Gbps Thunderbolt 2, these Echo chassis squeeze every bit of performance out of the most demanding PCIe cards and ensure optimum performance with every compatible computer. Two Thunderbolt 2 ports support daisy chaining of up to six devices to a single port on your computer, while the included ThunderLok secures a Thunderbolt cable to the back of the Echo chassis to prevent accidental disconnections.



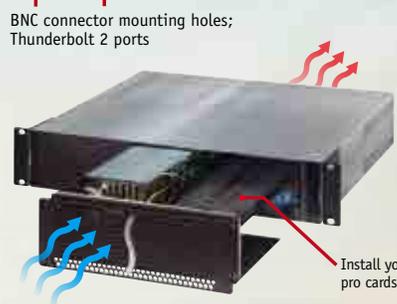
Desktop, or Rackmount+

The Echo Express III is available in two versions, the III-D (desktop) and III-R (rackmount), to suit your workflow needs. The III-D's form factor makes it easy to transport. The III-R mounts in a rack space 2U tall, and it is just 16 inches deep, perfect for mounting in a wide range of portable racks, carts, cases, and in server racks, too. The III-R even provides space for other equipment—with an optional Mobile Rack Device Mounting Kit, you can install one or two mobile rack devices inside the III-R and connect them to the cards you installed. Sonnet also offers preconfigured packages, simplifying your equipment choices and installation steps. Take a look at the next page to see the options.



Support for BNC Cable Connector Installation

Echo Express III's back panel has two mounting holes for BNC connectors, allowing the use of a RED ROCKET card without the need for the BNC connector bracket that would normally occupy a valuable PCIe slot.



Managed Air Flow for Optimized Cooling and Quiet Operation

Computer-modeled airflow management and temperature-controlled fans enable efficient and quiet cooling of the PCIe cards.



Thunderbolt 2 interface backward compatible with 10Gbps Thunderbolt hosts and devices; **upgradable to 40Gbps Thunderbolt 3**



Use PCIe expansion cards with computers lacking slots



Supports three full-length (up to 12.28 inches long), full-height PCIe cards



Available as desktop model or 2U rackmount model



Optional Mobile Rack Device Mounting Kits support installation of one or two mobile rack peripherals; add hard drives, SSDs, LTO tape drive, and more inside the Echo Express III-R



Integrated 300W power supply; 75W auxiliary PCIe power connector for PCIe cards



Large, temperature-controlled fans automatically operate slower and quieter with cooler cards, and provide better cooling for hot cards



Includes two Thunderbolt 2 ports for daisy chaining devices



Includes Thunderbolt cable and ThunderLok Thunderbolt connector retainer clip

“

Add Storage Inside the Expansion Module



Install a high-performance Tempo PCIe SSD storage card into an Echo Express III for super fast access, up to 1350 MB/s, to your data. For more info, visit sonnettech.com/product/computercards

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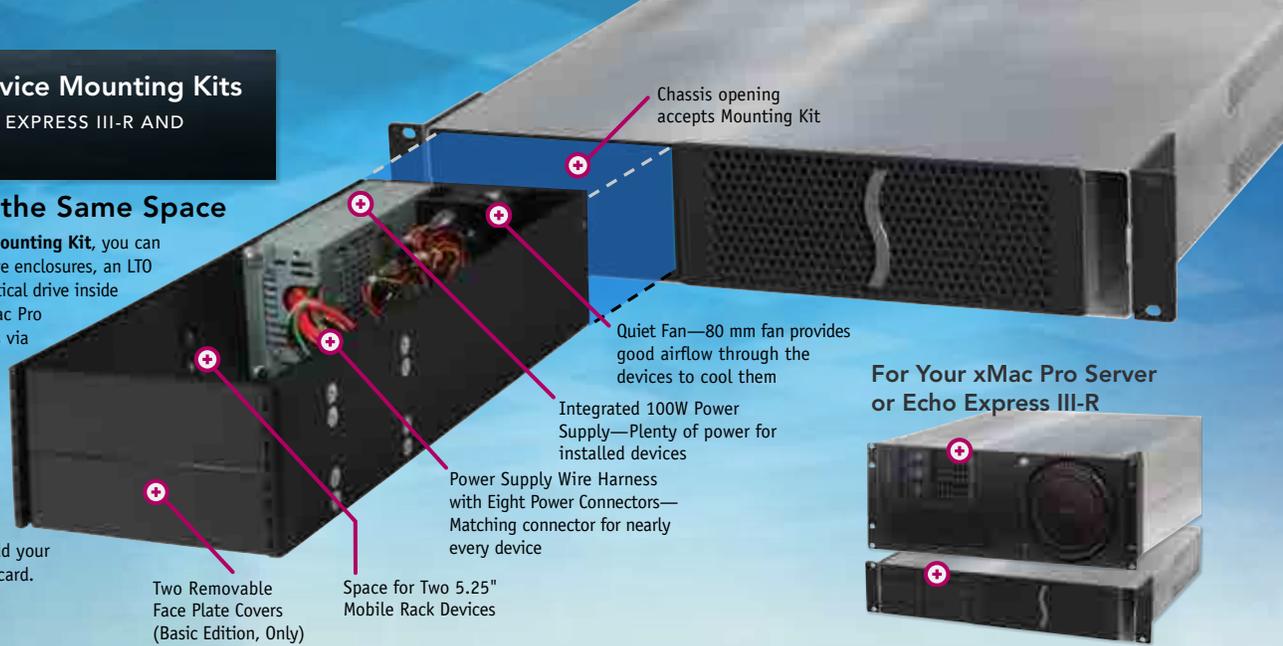
Computers, PCIe cards, and other equipment shown not included

Mobile Rack Device Mounting Kits

FOR USE WITH ECHO EXPRESS III-R AND XMAC PRO SERVER

Expand More In the Same Space

Using a **Mobile Rack Device Mounting Kit**, you can install devices such as SSD drive enclosures, an LTO tape drive, a card reader, or optical drive inside your Echo Express III-R or xMac Pro Server, connecting the devices via Thunderbolt or an installed PCIe card. The mounting bracket secures the devices, while the included 100W power supply inside powers them, and the attached internal fan keeps things cool. Choose a pre-configured kit or the basic edition and add your own devices, cables and PCIe card.



For Your xMac Pro Server or Echo Express III-R



BASIC EDITION

EXP3FR-MRM
Mobile Rack Device Mounting Kit

With the Basic Edition, you provide the mobile rack devices, cables, and PCIe cards. The mounting kit includes the screws necessary to secure the devices, and eight power connectors from which to choose to connect them.

Add Your Own

Mobile rack devices (such as drive cages), drives, PCIe card, and cables to complete your package.

MAC PRO MIGRATION EDITION

MR-MPM-X3HD
Mobile Rack Device Mounting Kit

Three 3.5" 6Gb/s SATA trayless hot-swap drive cages

Tempo SATA Pro 6Gb 4-Port 6Gb/s eSATA PCIe 2.0 card

Three eSATA-to-internal SATA cables

Add Your Own

3.5" hard drives to complete your package.

STORAGE EXPANSION x8 EDITION

MR-STO-X8SSD
Mobile Rack Device Mounting Kit

Two 4x2.5" 6Gb/s SATA hot-swap drive cages

Two mini-SAS-to-4x internal SATA cables

8-external port 6Gb/s SAS/SATA PCIe 2.0 card

Add Your Own

Eight 2.5" HDDs or SSDs to complete your package.

BLU-RAY MASTERING EDITION

MR-BRM-X2S1H
Mobile Rack Device Mounting Kit

4x BD-R/8x DVD±RW Blu-ray burner; two 2.5" 6Gb/s SATA hot-swap drive cages

One 3.5" 6Gb/s SATA trayless hot-swap drive cage

Three eSATA-to-internal SATA cables

Tempo SATA Pro 6Gb 4-Port 6Gb/s eSATA PCIe 2.0 card

Add Your Own

Two 2.5" HDDs or SSDs plus one 3.5" HDD to complete your package.

Mobile rack devices, HDDs, SSDs, Echo Express III-R, and xMac Pro Server shown not included



xMac™ Pro Server

PCIe 2.0 EXPANSION SYSTEM/4U RACKMOUNT ENCLOSURE FOR MAC PRO WITH THUNDERBOLT 2 PORTS

XM-AC-PS

Upgradable to 40Gbps Thunderbolt™ 3

1 2 3



Connect three of your favorite pro PCIe cards to a Mac Pro with Thunderbolt 2 ports. Supports every Thunderbolt-compatible card.

Space for More Equipment
Optional Mobile Rack Device Mounting Kits enable installation of HDDs, SSDs, a tape or optical drive, and more

Front Panel Power Button
Power button engages Mac Pro's power switch

Unrestricted Airflow
Full, independent airflow through the Mac Pro is maintained according to Apple guidelines



Locking HDMI Cable
2-meter HDMI cable with thumb-screw fastener to prevent accidental disconnection included

Clean Label
Includes a clean Lexan label that covers unsightly regulatory printing

4U Rack Enclosure
Modular design allows you to work with computer, PCIe cards, and mobile rack devices separately

AVID® QUALIFIED

- Media Composer
- Pro Tools

Air Flow Management for Optimized Cooling
Variable-speed fans cool the PCIe card expansion system separately



Modular Design

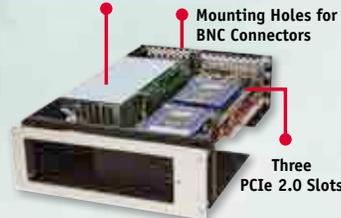
A Mobile Rack Device Mounting Kit (Optional)

Optional Mobile Rack Device Mounting Kits
Basic kit includes mounting bracket with 100W power supply and fan. Pre-configured kits include PCIe adapter card, plus cables and devices.



B PCIe Card Expansion Module

Universal 300W Power Supply
With 75W auxiliary power connector allows use of cards that require supplementary power



Mounting Holes for BNC Connectors

Three PCIe 2.0 Slots

C Computer Mounting Module

Protective Steel Cocoon
Covered with soft touch padding, holds the Mac Pro firmly in place while protecting its mirror finish



Panel-Mount Cables
Panel-mount cables (HDMI, two Gigabit Ethernet, three USB, and power) connect the Mac Pro to the back of the xMac Pro Server for convenient external connection. One Thunderbolt cable included.



Honorable Mention

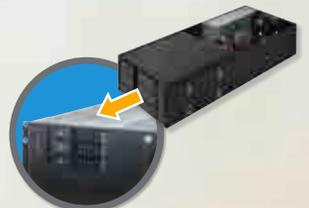
UPGRADABLE

If you're a pro user in the video or audio industries, the latest Mac Pro may be the answer to your dreams, with a twist—it offers the power you need, but lacks the built-in expandability you count on.

The xMac Pro Server was designed exclusively for the latest Mac Pro, housing the computer, a Thunderbolt 2-to-PCIe card expansion system, and optional equipment in a modular, rugged, 4U steel enclosure. The steel computer mounting module is lined with soft-touch padding, which firmly holds the Mac Pro in place while protecting its mirror finish. The expansion system module supports three high-performance PCIe cards and connects them to the Mac Pro via an included Thunderbolt cable. Using an optional Mobile Rack Device Mounting Kit, you can mount and connect additional equipment such as storage expansion and an optical drive inside the xMac Pro Server. You can even install an LTO tape drive to add data archiving capabilities to your setup. At just 16 inches deep, the xMac Pro Server supports a wide range of popular mobile racks, carts and portable rack cases, and its modular design simplifies set up and maintenance. Featuring a 20Gbps Thunderbolt 2 interface, the xMac Pro Server is upgradable to Thunderbolt 3.

Configuration Ideas

Take a look at the previous page to see some of the **Mobile Rack Device Mounting Kits** we've come up with to expand a Mac Pro's capabilities!



Support For BNC Cable Connector Installation

xMac Pro Server's back panel has two mounting holes for BNC connectors, allowing the use of a RED ROCKET-X card without the need to install BNC connector bracket that would normally occupy a valuable PCIe slot.



Thunderbolt 2 interface backward compatible with 10Gbps Thunderbolt technology hosts and devices, **upgradable to 40Gbps Thunderbolt 3**



Remarkably quiet operation—cards cooled by two large, temperature-controlled, variable-speed fans



Provides PCIe card expansion for Mac Pro, connecting PCIe slots to the computer via Thunderbolt 2 technology



Auto-power on/off for PCIe cards when the Mac Pro powers on/off or sleeps



Makes the Mac Pro road-ready, securely holding the computer, PCIe cards and expansion equipment in place in a sturdy 4U rackmount enclosure



Includes Thunderbolt cable and ThunderLock Thunderbolt connector retainer clip



Supports three full-length, single-width cards, or one double-width card plus one single-width card

Mac Pro, PCIe cards, Mobile Rack Device Mounting Kit, and mobile rack devices not included.

“

Add Storage Inside the Expansion Module



Install a high-performance **Tempo** PCIe SSD storage card into an xMac Pro Server for super fast access, up to 1350 MB/s, to your data. For more info, visit sonnettech.com/product/computercards

”

Rackmount Enclosures for Mac Pro & Mac mini



RackMac™ Pro RACKMOUNT ENCLOSURE FOR ONE OR TWO MAC PRO COMPUTERS

NEW

RACK-PRO-1X

RACK-PRO-2X

Models configured with one or two Computer Mounting Modules; or add the 2nd Computer Mounting Module later.

4U height, standard mounting holes, and extension rails enable easy installation into racks from 16 to 32.5 inches deep⁽¹⁾

Supports full airflow through each computer

Front panel USB 3.0 ports support connection of a peripheral (keyboard, flash drive, etc.) to each computer



Front panel buttons operate the computers' power switches

Attractive Label
Includes clean Lexan label that covers unsightly regulatory printing



Strong, secure padded brackets envelop the Mac Pros to protect the computers' finish and hold them firmly in place during transport and use



Captive thumbscrews secure Computer Mounting Modules from the back, enabling easy computer installation, access to Mac Pro's cables



Panel-mount cables (HDMI, two Gigabit Ethernet, three USB 3.0, and power) connect the Mac Pros' ports to ports on the back of the RackMac Pro for convenient external cable connection



Includes mounting support for Sonnet's Twin 10G Dual-Port Copper 10GBase-T Thunderbolt 2 Adapter (optional mounting kit required)

TWIN10G-TB2



Modular Design

Purchase a second Computer Mounting Module for your RackMac Pro 1X to install another Mac Pro.

RACK-PRO-MM



Locking HDMI Cable Ready

Supports Sonnet HDMI cable with thumbscrew fastener that prevents accidental disconnection

Pro Rackmount Solution

RackMac Pro makes Mac Pro rack integration simple. Securely enclosing one or two Mac Pros side-by-side in 4U of rack space, the Pro's design enables the computers to keep cool even when installed in a fully-loaded rack, consistent with Apple's guidelines. The RackMac Pro includes a heavy-duty steel outer enclosure and is available with either one or two Computer Mounting Modules preinstalled, with an optional second module (for RackMac Pro 1X) available for purchase separately.

Travel- and Server Room-Ready

Padded mounting brackets hold your computers firmly in place while protecting the mirror finish, even during transport—RackMac Pros are trusted by pro users

worldwide, logging tens of thousands of miles of travel per year in mobile recording trucks and supporting touring rock bands. Installed in the server room, the RackMac Pro's included rackmount extension rails allow easy and secure mounting in racks from 16 to 26 inches deep (optional rails extend to 32.5 inches).

Mounting Support for 10GbE Adapter

RackMac Pro provides mounting support for one or two Twin 10G Dual-Port 10 Gigabit Ethernet Thunderbolt Adapters, Sonnet's cost-effective solution for adding 10GBase-T 10GbE connectivity to your Mac Pro. With an adapter added, your Pro setup can even serve as a powerful host for VMWare's VSphere!

1. Optional Slide Kit required to support racks deeper than 26 inches

PRO-RSS-L



RackMac mini RACKMOUNT ENCLOSURE FOR ONE OR TWO MAC MINI COMPUTERS

RACK-MIN-2X

Allows insertion of optical discs into computers with optical drives, a SuperDrive (with optional Sonnet bracket), or optional Blu-ray burner/bracket combo from Sonnet

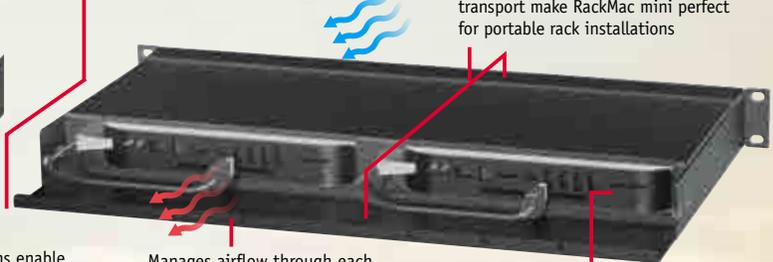


Front panel openings allow use of the IR receivers and viewing of power indicator LEDs

Front panel USB 3.0 ports support connection of a USB peripheral (keyboard, flash drive, etc.) to each computer

Front panel buttons enable operation of the computers' rear-mounted power switches

Provides open access to back of the computers for cable connection/disconnection



Manages airflow through each computer from front to back, even when mounted between two other rackmount components

11-inch mounting depth and firm rubber cushions that hold the computers firmly in place during transport make RackMac mini perfect for portable rack installations

1U height and standard mounting holes allow easy installation into any standard equipment rack

Blu-ray Burner with Bracket for RackMac mini

RACK-MIN-BDRW

- **Adds a Blu-ray Burner to Your Mac mini**—Installed next to your Mac mini in a RackMac mini enclosure, this slot-loading optical drive provides read/write support for Blu-ray, DVD, and CD discs
- **Supports Most Optical Disc Formats**—Supports single- and multi-layer media
- **Easy Installation**—Installs next to computer inside RackMac mini with provided mounting hardware



SuperDrive™ Bracket for RackMac mini

RACK-MIN-SDBK

- **Adds support to install an Apple SuperDrive into your RackMac mini**—Utilize CD and DVD media with your Mac mini
- **Easy Installation**—Installs next to computer inside RackMac mini with provided mounting hardware



Mac Pros, Twin 10G, Mac minis, and SuperDrive shown not included

xMac mini Server

THUNDERBOLT 2-TO-PCI-E CARD EXPANSION SYSTEM FOR MAC MINI WITH THUNDERBOLT 2 OR THUNDERBOLT PORTS

XMAC-MS-A

FEATURES **20 Gbps**
Thunderbolt 2
UPGRADABLE TO THUNDERBOLT 3

WINNER
PRO PICKS
This Computer Case



Upgradable to **40Gbps Thunderbolt™ 3**



Enables use of pro video capture, audio interface, 8Gb Fibre Channel, 10 Gigabit Ethernet, and RAID controller cards with a Mac mini with Thunderbolt ports

User-replaceable, variable-speed fans



Thunderbolt 2 interface backward compatible with 10Gbps Thunderbolt hosts and devices, **upgradable to 40Gbps Thunderbolt 3**



1U rackmount enclosure houses Mac mini, PCIe slots, and integrated power supply



Two PCIe 2.0 slots connect two PCIe cards to the Mac mini through Thunderbolt expansion

Mounting holes for optional rack slides

Mounting holes for BNC connectors



User-replaceable power supply

Panel-mount cables

Thunderbolt cable and ThunderLok

Thunderbolt 2 ports

Air Flow Management for Optimized Cooling



Front panel USB 3.0 port

Front panel power button; auto-power On/Off



150W universal power supply with auxiliary power connector enables use of power-hungry cards such as the Avid Pro Tools|HDX PCIe card



Variable-speed, temperature-controlled fans cool installed cards, power supply and Mac mini; now with quiet mode



Front panel power button and USB 3.0 port allow operation without access to the back of the computer



Auto-power on/off for PCIe cards when the Mac mini powers on/off or sleeps



Panel-mount cables connect the Mac mini's ports to ports on the back of the xMac mini Server for convenient external connection



Two Thunderbolt 2 ports support daisy chaining of Thunderbolt peripherals



Includes Thunderbolt cable to connect PCIe slots to Mac mini, and ThunderLok Thunderbolt connector retainer clip to secure Thunderbolt cable



Rack slides available to support installation into any depth rack



Air-flow management for optimized cooling; variable-speed fans cool the cards and power supply

Sonnet's **xMac mini Server** transforms a Mac mini with Thunderbolt ports from a simple server to something much more. It securely mounts a Mac mini inside a custom 1U enclosure and connects two PCIe 2.0 slots to enable you to plug in and harness the power of full-size pro video capture, audio interface, 8Gb Fibre Channel, 10 Gigabit Ethernet, and RAID controller cards, and more! Temperature-controlled fans deliver strategic airflow to cool the enclosure. Two Thunderbolt 2 ports—one to connect the PCIe slots to the Mac mini, the second for daisy chaining other Thunderbolt devices—are included. A USB 3.0 port and a power button on the front panel allow operation of the system without requiring access to the back of the computer. xMac mini Server expands a Mac mini's potential in a big way!

Built to Serve

With its 1U rack height and 17.75-inch depth, the xMac mini Server is perfect for use in a wide range of popular mobile racks, carts and rack cases, and server rooms as well. The top cover is easily removed to provide access to the PCIe slots, the Mac mini, and the user-replaceable fans and power supply. Panel-mount cables (HDMI, Gigabit Ethernet, and 2x USB 3.0) are included to connect the ports on the back of the Mac mini to ports on the back of the xMac mini Server for convenient external connection. One Thunderbolt cable is also included. The built-in power hub connects to the

Mac mini and to the xMac mini Server's power supply to allow a single power cable to support the entire server. No power bricks hanging off the back of your rack with this system!



FULL + HALF + DAUGHTER CARD



Add Professional PCIe Cards to Your Mac mini

xMac mini Server supports one full-length PCIe card, and one half-length PCIe card (up to 6.6 inches long) plus a daughter card.

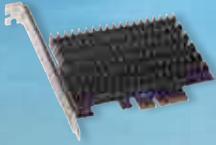
With the included daughter card mounting bracket, you can install cards like RME's HDSpe MADI FX, Blackmagic Design's DeckLink 4K Extreme, or the Lynx AES16e-50! You can also install panel-mount BNC connectors to support HD/SDI output from a RED ROCKET, or word clock I/O from cards like the HDSpe MADI FX. Scan here to discover some of the many ideas people have come up to expand their Mac mini's potential.

Mac mini, PCIe cards not included.



Widest Selection of Thunderbolt-Compatible Interface Cards

SSD



Tempo™ PCIe 3.0 SSD

SSD



Tempo SSD Pro Plus

SSD



Tempo SSD

eSATA



Tempo SATA Pro 6Gb 4-Port

eSATA



Tempo SATA Pro 6Gb PCIe 2.0

FireWire® 800



Allegro™ FW 800 PCIe

Combo Card



Tango™ 3.0 PCIe (FireWire 800/USB 3.0)

Combo Card



Tango Duo PCIe (eSATA/USB 3.0)

USB 3.0



Allegro Pro USB 3.0 PCIe 4-Port

USB 3.0



Allegro USB 3.0 PCIe 4-Port

10 Gigabit Ethernet



Presto™ 10GbE SFP+ (dual port)

10 Gigabit Ethernet



Presto 10GbE 10GBase-T (dual port)

Gigabit Ethernet



Presto Gigabit Pro PCIe

16Gb Fibre Channel



16Gb Single-Channel Fibre PCIe 3.0 Host Adapter

16Gb Fibre Channel



16Gb Dual-Channel Fibre PCIe 3.0 Host Adapter

RAID



Fusion™ DX8/RX16 6Gb PCIe 2.0 RAID Controller



World's Fastest Bus-Powered Storage Devices

Sonnet's Fusion PCIe Flash Drive and Fusion Thunderbolt 3 PCIe Flash Drive leverage the latest advancements in PCIe SSD design and Thunderbolt technology to create storage devices that fit neatly in the palm of your hand, yet deliver the blazing-fast performance of multi-drive RAID storage systems many times their size. These rugged, bus-powered devices significantly outperform 6Gb/s SATA SSDs and USB 3.0 flash drives, delivering file transfer speeds of up to 1350 MB/s or 2100 MB/s, respectively.

Fusion PCIe Flash Drive

Portable PCIe Gen 3 SSD Storage Device With Thunderbolt 2 Interface. With 256 GB SSD

FUS-TB2-256GB

Thunderbolt 2 interface; user-replaceable captive 0.5-meter Thunderbolt 2 cable



Supports 4K workflows with data transfer rates up to 1350 MB/s



OS X and Windows compatible. Supports booting OS X 10.9.5+.



Rugged aluminum enclosure



Fits in the palm of your hand; pocketable



Bus-powered via user-replaceable captive Thunderbolt cable



Fusion Thunderbolt 3 PCIe Flash Drive - Windows Edition

Portable PCIe Gen 3 SSD Storage Device With Thunderbolt 3 Interface, With 512 GB SSD

NEW FUS-TB3-512GB-W

Thunderbolt 3 interface; user-replaceable captive 0.5-meter Thunderbolt 3 cable

Supports 4K workflows with data transfer rates up to 2100 MB/s

Windows 10 compatible

Rugged aluminum enclosure

Fits in the palm of your hand; pocketable

Bus-powered via user-replaceable captive Thunderbolt cable



Coming Soon

CFAST SF3™ Series - CFAST™ 2.0 Pro Card Reader

SF3-2CFST

- 40Gbps Thunderbolt 3 interface
- Dual slots enable simultaneous ingest of files from two cards
- Supports ingest of files from both cards at maximum speeds
- Bus-powered; no power adapter required
- Thunderbolt 3 (40Gbps) cable included



P2 Thunderbolt Pro P2 Card Reader

TB-P2

- Read speeds up to 70 MB/s; supports all P2 memory cards and frame rates
- Fastest, most cost-effective single-slot P2 memory card reader available
- Thunderbolt technology
- Reads microP2 cards*
- Thunderbolt cable included
- OS X compatible



Sonnet DX Thunderbolt Adapter

DX-TB



- Adds Thunderbolt connectivity for Avid Mojo DX and Nitris DX, connecting to any Avid-qualified, Thunderbolt 2- or Thunderbolt-equipped computer
- Enables easier editing, with ultra-low latency and high sync accuracy
- Enables smooth, highly-responsive video performance
- Lightweight yet rugged aluminum enclosure

USB 3.0+Gigabit Ethernet Thunderbolt Adapter

TB-USB3GE



- Adds one 5.0 Gb/s USB 3.0 port plus one Gigabit Ethernet port
- Thunderbolt interface; attached Thunderbolt cable
- Bus-powered; no power adapter required
- Gigabit Ethernet port supports 1000/100/10Base-T auto-negotiation
- USB 3.0 port supports storage, hubs, and other devices
- OS X and Windows compatible

SxS Thunderbolt Pro SxS™ Card Reader

ECHOPRO-E34



- Fastest, least-expensive SxS memory card reader available
- Thunderbolt technology
- Reads SxS memory cards at full speed, up to 400 MB/s
- Supports all SxS media, including SxS PRO+ C Series
- Reads XQD* and SD* cards
- OS X and Windows compatible

* Requires adapter, sold separately



Twin 10G™ NEW
 DUAL-PORT 10GBASE-T 10 GIGABIT
 ETHERNET THUNDERBOLT ADAPTERS

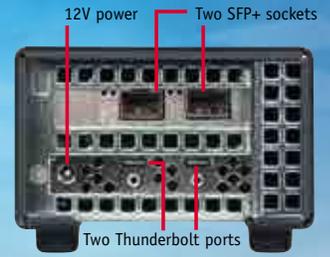


Twin 10G models connects to 10GbE infrastructure via inexpensive CAT-6 or CAT-6A cables

Twin 10G SFP+ NEW
 DUAL-PORT SFP+ 10 GIGABIT
 ETHERNET THUNDERBOLT ADAPTERS



Twin 10G SFP+ models connect to 10GbE infrastructure via LC fiber optical cables⁽¹⁾



Sonnet's Twin 10G™ Dual-Port 10 Gigabit Ethernet to Thunderbolt Adapters add lightning fast 10 Gigabit Ethernet (10GbE) network connectivity to any computer with Thunderbolt ports. Available with 20Gbps Thunderbolt 2 or 40Gbps Thunderbolt 3 interfaces, choose between a **Twin 10G**, featuring two RJ-45 ports for 10GBase-T (copper) connectivity, or a **Twin 10G SFP+**, with sockets for SFP+ transceivers (sold separately) enabling 10GBase-SR or 10GBase-LR connectivity.

The Twin 10G connects to 10GbE infrastructure via CAT-6 (55m) or CAT-6A (100m) cabling, while the Twin 10G SFP+ connects to 10GbE infrastructure through short-range (up to 300 meters) or long-range (up to 10 kilometers) SFP+ transceivers plus LC fiber optic cabling. All four adapters feature dual Thunderbolt ports, and connect to your computer through an included Thunderbolt cable; their second Thunderbolt ports support daisy chaining up to six devices. The Twin 10G models offer Wake-on-LAN support, while all Twin 10G and Twin 10G SFP+ models offer additional advanced features including link aggregation (teaming) and transparent failover. Offering easy setup and configuration, Twin 10G and Twin 10G SFP+ are OS X and Windows compatible.

	Coming Soon	NEW	Coming Soon
	Twin 10G Thunderbolt 2	Twin 10G Thunderbolt 3	Twin 10G SFP+ Thunderbolt 2
Part number	TWIN10G-TB2	TWIN10G-TB3	TWIN10G-SFP-TB2
Adds 10GbE Connectivity to Thunderbolt-Enabled Computers	✓	✓	✓
Two RJ-45 Ports (10GBase-T)	✓	✓	
Two SFP+ Sockets ⁽¹⁾ (10GBase-SR or 10GBase-LR)			✓
Two Thunderbolt Ports	✓	✓	✓
Transparent Failover Between 10GbE Ports	✓	✓	✓
Link Aggregation (Teaming) Support ⁽²⁾	✓	✓	✓
Wake-on-LAN Support	✓	✓	
Easy Setup And Configuration	✓	✓	✓
OS X And Windows Compatible	✓	✓	✓
Thunderbolt Cable Included	✓	✓	✓

RACK-PRO-10G-KT



xMac Pro Server

RackMac Pro

Optional Twin 10G Mounting Kit secures the Twin 10G adapter next to each Mac Pro inside RackMac Pro, or xMac Pro Server. Not compatible with Twin 10G SFP+. For use in xMac Pro Server, requires xMac Pro Server with Twin 10G mounting support; see Sonnet Website for details.

Presto™ 10GbE SFP+ NEW
 DUAL-PORT 10 GIGABIT
 ETHERNET PCI
 EXPRESS® 2.0 CARD



G10E-SFP-2X-E2A

Sonnet's **Presto™ 10GbE SFP+** and **Presto 10GbE 10GBase-T** dual-port 10 Gigabit Ethernet PCI Express 2.0 adapter cards enable you to connect your computer to high-speed infrastructure and storage without stepping down in speed. Setup is simple—install the low-profile card into an available x8 PCIe slot in your computer, install a driver, connect via LC fiber optic (Presto 10GbE SFP+)⁽¹⁾ or copper CAT-6 or CAT-6A cabling (Presto 10GbE 10GBase-T), and then configure

Presto 10GbE 10GBase-T NEW
 DUAL-PORT 10GBASE-T
 10 GIGABIT ETHERNET PCI
 EXPRESS 2.0 CARD



G10E-RJ45-2X-E

the card through the OS X Network control panel or Windows Device Manager. These Sonnet solutions are perfect for high-performance computing where low latency, high bandwidth, and low CPU overhead are required. These cards are also ideal for use in one of Sonnet's Thunderbolt-to-PCIe card expansion systems—the combo enables you to add an ultra-fast 10GbE network connection to Macs and Windows PCs with Thunderbolt ports.

- Provides 10GbE Connectivity to Mac Pro Towers and Windows PCs
- Supports transparent failover between 10GbE ports
- Supports link aggregation (teaming)⁽²⁾
- Supports Wake-on-LAN
- Easy setup and configuration; OS X and Windows compatible
- Optimized for Thunderbolt—Use with Sonnet's Echo Express and xMac PCIe card expansion systems

Sonnet offers two SFP+ transceiver options (sold separately)—a short-range module (up to 300 meters, part number G10E-SFP-SR), and a long-range module (up to 10 kilometers, part number G10E-SFP-LR)—that connect the Twin 10G SFP+ or Presto 10GbE SFP+ via LC fiber optical cables (sold separately) to a network switch or storage.



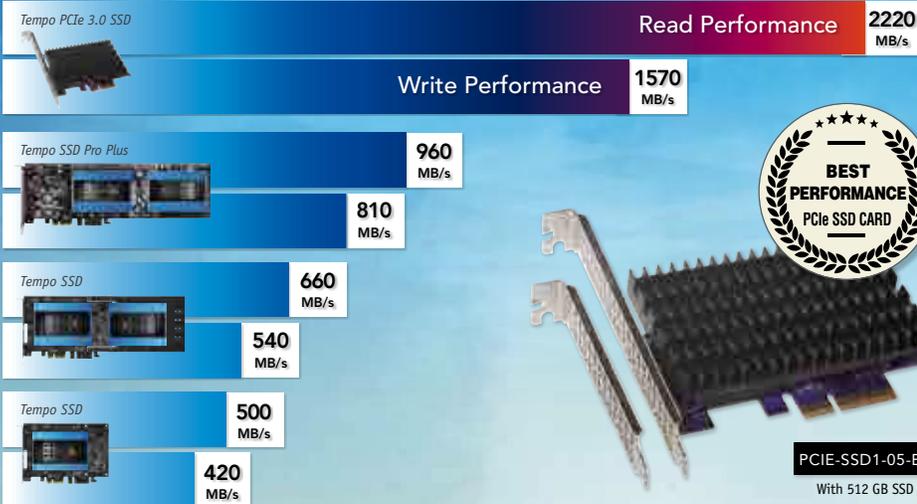
1. Short-range or long-range SFP+ transceivers required, sold separately.
2. Creating Intel ANS teams and VLANs on Windows 10 is not currently supported.

Computers, RackMac Pro, xMac Pro Server, and transceivers not included.



Tempo™ PCIe 3.0 SSD

PCI EXPRESS 3.0 SSD CARD WITH GEN 3 PCIe SSD



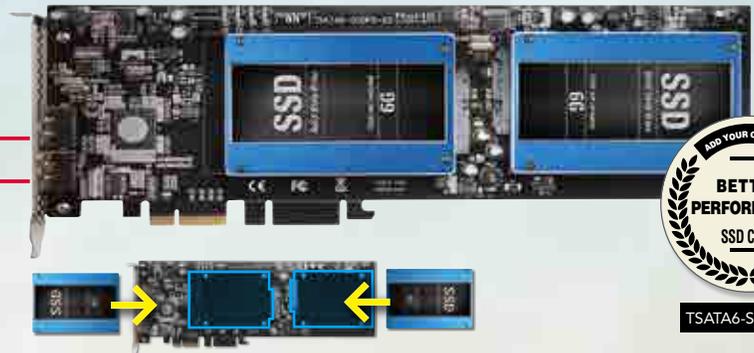
The **Tempo PCIe 3.0 SSD** is Sonnet's fastest, smallest PCIe SSD card solution ever, and it can transform the way you work. With its blistering-fast data transfer speeds of up to 2220 MB/s (without the need for RAID 0!), this SSD-on-a-card boasts performance once exclusive to multi-drive storage systems with eight or more hard drives plus a high-end RAID controller card. This low-profile x4 PCIe 3.0 card adds 512 GB of high-performance, low-latency storage to your computer, and installs easily into any x4 mechanical or larger PCIe slot. Optimized for Thunderbolt, this card is also perfect for adding more high-speed storage in any Thunderbolt-to-PCIe expansion system. For convenience sake, you can even boot from an installed OS X operating system!

- High performance; up to 2220 MB/s read, 1570 MB/s write
- Low-profile x4 PCIe 3.0 card with Gen 3 PCIe SSD
- Optimized for use over Thunderbolt
- Supports booting under OS X 10.8.5+

Tempo SSD Pro Plus

6Gb/s SATA DUAL 2.5-INCH SSD PCIe CARD WITH eSATA PORTS

Plus eSATA Connections—Connect one or two external storage systems or media readers with eSATA interfaces to the Tempo SSD Pro Plus. This card also supports Sonnet's exclusive eSATA data cables with locking connectors that provide secure connections at both ends.

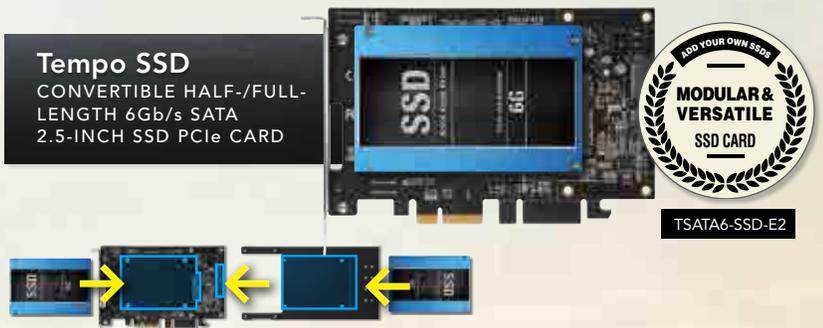


Simple SSD Upgrade Solutions, Plus More

If you've been thinking about storage, you know that SSDs are a hot option. Offering performance that easily outperforms hard disk drives, they are also more reliable, and their prices keep dropping so you can get more capacity than ever. If you've got a Mac Pro tower or Windows desktop computer, you *could* get a couple of 2.5-inch SATA SSDs (plus necessary adapters) and install them in empty drive bays (if there are any), *but* the 3Gb/s SATA interface in your computer won't support fast 6Gb/s SSDs at full speed. Sonnet engineered a couple of great alternatives—**Tempo SSD Pro Plus** and **Tempo SSD**. Tempo SSD Pro Plus and Tempo SSD are fast 6Gb/s SATA PCI Express adapter cards that enable you to attach 2.5-inch SATA SSDs and install the assembly neatly into a single PCIe slot, no cables or drivers necessary.

These Tempo cards use widely-available, standard 2.5-inch SSDs that you choose and install. This allows you to select from the widest variety of SSDs, and buy the ones that best suit your capacity and performance needs while working within your budget. Installation is simple—attach your SSDs with provided screws, mount the card in an available PCIe slot, and turn on your computer—the necessary drivers are installed automatically. You can even install operating system software and boot directly from an SSD! If you need to add more storage, the Tempo SSD Pro Plus also sports two eSATA ports, making it easy for you to connect additional external storage systems with eSATA interfaces like Sonnet's Fusion QR.

Tempo SSD
CONVERTIBLE HALF-/FULL-LENGTH 6Gb/s SATA 2.5-INCH SSD PCIe CARD



- PCIe cards with high-performance SATA controllers
- Support standard 2.5-inch SSDs—add your own SSDs
- Read speeds up to 960 MB/s (Tempo SSD Pro Plus) or 660 MB/s (Tempo SSD)
- Optimized for maximum performance over Thunderbolt
- Tempo SSD Pro Plus supports connection of two external storage systems with eSATA interfaces
- Tempo SSD features unique modular design; may be used as half- or full-length card
- Supports OS X and Windows RAID features
- Drive health monitoring with S.M.A.R.T. data reporting

Thunderbolt Port? Instant SSD Solutions

Got a Thunderbolt connection, but no PCIe slot? Tempo SSD cards are optimized for use in Sonnet's xMac mini Server; xMac Pro Server; and Echo Express SE I, SE II, SE III, III-D and III-R Thunderbolt-to-PCIe card expansion systems. These Sonnet SSD cards are perfect companions for your pro video capture and processing, digital audio interface, or DSP accelerator card, providing blazing fast storage in the same box!



Thunderbolt Expansion Systems

	Slots	PCIe Connector	Cards Supported	Thunderbolt Type	Upgradable to Thunderbolt 3	Thunderbolt Ports	Universal Power Supply	PCIe Auxiliary Power	Desktop	Rackmount
Echo Express SEL	1	x8	Low-Profile	Thunderbolt 2	✓	2	80W External		✓	
Echo Express SE I	1	x8	Half-Length+	Thunderbolt 2	✓	2	80W External		✓	
Echo Express SE II	2	x16/x8	Half-Length+	Thunderbolt 2	✓	2	80W External		✓	
Echo Express III-D	3	x8/x16/x8	Full-Length	Thunderbolt 2	✓	2	300W Internal	✓	✓	
Echo Express III-R	3	x8/x16/x8	Full-Length	Thunderbolt 2	✓	2	300W Internal	✓		✓
xMac Pro Server	3	x8/x16/x8	Full-Length	Thunderbolt 2	✓	2	300W Internal	✓		✓
xMac mini Server	2	x16	Full-Length	Thunderbolt 2	✓	2	150W Internal	✓		✓
		x8	Half-Length							
Echo Express SEL Thunderbolt 3 Edition	1	x8	Low-Profile	Thunderbolt 3		2	80W External		✓	
Echo Express SE I Thunderbolt 3 Edition	1	x8	Half-Length+	Thunderbolt 3		2	80W External		✓	
Echo Express SE III Thunderbolt 3 Edition	3	x8/x8/x8	Half-Length+	Thunderbolt 3		2	120W External		✓	
Echo Express III-D Thunderbolt 3 Edition	3	x8/x16/x8	Full-Length	Thunderbolt 3		2	300W Internal	✓	✓	
Echo Express III-R Thunderbolt 3 Edition	3	x8/x16/x8	Full-Length	Thunderbolt 3		2	300W Internal	✓		✓



Sonnet Optical Thunderbolt 2 Cable (10M)

Fiber Optic Thunderbolt 2 Cables For Longer Distance Connections

TCN-TB-OPT-10M



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