



Sonnet Echo Express SE I - Thunderbolt 3 Edition

ProdCode: SONECHOEXPSE1TB

Thunderbolt 3 Edition PCIe Card Expansion System



[\[Download Images\]](#) (.zip file)

Features

- **Connects a PCIe Expansion Card to Computers Without Slots**
Use high-performance PCIe cards with any Mac or Windows PC with a Thunderbolt 3 port
- **One PCIe 3.0 x8 Slot**
Supports one half-length+ (up to 7.75 inches long), full-height, single-width PCIe card (plus one daughter card)
- **40Gbps Thunderbolt 3 Interface**
Offers 2750 MB/s of PCIe bandwidth, doubling the performance of Thunderbolt 2
- **Full Performance In a Small and Light Design**
Takes up little space on the desktop, but large enough to support nearly every Thunderbolt-compatible PCIe card, at full performance
- **Two Thunderbolt 3 (USB-C) Ports**
One port reserved for connection to the computer; second port supports daisy-chaining of up to five additional Thunderbolt(5) devices to your computer, attaching a single USB(6) peripheral device, or connecting up to two 4K displays or one 5K display(4)
- **Remarkably Quiet**
Temperature-controlled, variable-speed fan automatically and quietly cools the card

- **Energy Saver Mode**
Powers on/off automatically with the computer
- **Rugged Aluminum Housing**
Provides robust and secure protection
- **Power for Peripherals**
Provides up to 15W of power to connected peripheral or host(7)
- **Thunderbolt Cable & ThunderLok Included**
Includes 0.5-meter Thunderbolt 3 (40Gbps) cable and ThunderLok 3 Thunderbolt connector retainer clip to secure cable from accidental disconnections

Mac Compatibility

- Mac with Thunderbolt 3 ports
- Mac with a Thunderbolt 2 or Thunderbolt port with an Apple Thunderbolt 3 (USB C) to Thunderbolt 2 Adapter
- macOS® 10.12.6+
- macOS Catalina Compatible

PC Compatibility

- PC with Thunderbolt 3 ports
- Windows 10 (64-bit Edition Version 1703 or greater)(1)

Important Note: Windows computers require the latest BIOS and Thunderbolt drivers to support this product. Check with your computer manufacturer for update information.

Technical Notes

1. Windows computers require the latest firmware (BIOS) and Thunderbolt drivers to support this product. Check with your computer manufacturer for update information. Not all Mac-compatible PCIe cards are also compatible with Windows. See the PCIe Card Thunderbolt Compatibility Chart for details.
2. While the Echo Express SE I - Thunderbolt 3 Edition features a 40 Gbps Thunderbolt 3 interface, some computers equipped with Thunderbolt 3 use an implementation of Thunderbolt 3 technology that limits PCIe performance to 20 Gbps. The MacBook Pro (13-inch, Late 2016, Four Thunderbolt 3 Ports) has this limitation in the two right-hand Thunderbolt 3 ports, while offering full performance from the left-hand ports.
3. Full performance requires the use of the included Thunderbolt 3 (40Gbps) cable, or other Thunderbolt 3 (40Gbps) cables; look for the Thunderbolt icon AND the number 3 on the connector housings to identify these cables.

4. 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. All Thunderbolt 3 Macs support two 4K monitors. Most Thunderbolt PCs support two 4K monitors.
5. Second Thunderbolt 3 port supports Thunderbolt and Thunderbolt 2 peripheral devices on Macs used with the Apple Thunderbolt 3 (USB-C) to Thunderbolt 2 Adapter, sold separately.
6. Second Thunderbolt 3 port supports USB 3.1 Gen 1 (5Gb) or Gen 2 (10Gb) devices when connected with proper cable or adapter (sold separately).
7. PCIe cards sold separately.
8. ThunderLok 3 compatible with Sonnet 0.5 meter Thunderbolt 3 cables, but not with Sonnet 1-meter Thunderbolt 3 cables.

Connect a Full-Height, Half-Length+ PCIe Card to Computers Without Expansion Slots

Are you in the market for a new computer? It's amazing how much processing power the latest ultra-light notebooks, small form factor computers, and all-in-one desktop computers pack in such small and thin enclosures. But, thinness comes with a cost—there's nowhere for you to install PCIe cards for the additional connectivity and processing capabilities beyond what's offered by a computer's standard ports. Although thin Mac® and Windows® computers with Thunderbolt™ 3 ports offer processing power to spare, for many, such as pros in the creative fields, onboard processing power alone is not enough. Fortunately, your choices are not limited to desktop workstations—think external. With the Echo Express SE I - Thunderbolt 3 Edition, Sonnet has created a solution that enables you to connect a single PCIe card outside of your computer. This compact desktop Thunderbolt 3-to-PCIe card expansion system supports one professional video capture, audio interface, 6Gb or 12Gb SAS or SATA host bus adapter, 8Gb or 16Gb Fibre Channel, 10Gb or 40Gb Ethernet, or RAID controller PCIe card, and connects it to your computer through a thin cable.

The Echo Express SE I - Thunderbolt 3 Edition features 40Gbps Thunderbolt 3, which offers double the PCIe bandwidth and connectivity of Thunderbolt 2, and yields up to 2750 MB/s of bandwidth, enabling it to support 4K video capture and processing cards at high frame rates, and 16Gb FC cards and dual-port 10GbE cards at full performance(2)(3). With the ability to handle the most demanding, highest performance PCIe cards, support for connecting two 4K displays @ 60Hz or one 5K display @ 60Hz(4), and support for a vast array of Thunderbolt(5) and USB(6) devices, Thunderbolt 3 is a leap forward in every way.

One PCIe 3.0 Slot and Space for a Daughter Card

The Echo Express SE I - Thunderbolt 3 Edition features an x8 PCIe slot, and supports one half-length+, full-height, single- or double-width PCIe card. Double-width? Some pro video and audio interface cards, such as Blackmagic Design's DeckLink 4K Extreme, and RME's HDSPE MADI FX card, include a daughter card that mates with and provides additional external connections to the main card. The daughter card occupies the adjacent space without filling a PCIe slot.

Thunderbolt 3 — The USB C That Does It All

The Echo Express SE I - Thunderbolt 3 Edition includes two Thunderbolt 3 (USB-C)

ports; the first connects it to your computer, while the second supports daisy chaining of up to five additional Thunderbolt peripheral devices to a single port on your computer. The SE I includes 10Gbps USB 3.1 Gen 2 support, meaning you can connect a USB device to the second port using the proper cable or adapter. The SE I also provides full support for connecting two 4K displays @ 60Hz or one 5K display @ 60Hz(4). For connected devices requiring extra power, 15 watts is provided to connected bus-powered devices(7).

Connect computer to one port on the Echo Express SE I – Thunderbolt 3 Edition and daisy chain up to 5 additional Thunderbolt devices (plus two 4K monitors, one 5K display, or one USB 3.0 device)

All-Around Smart Design

The Echo Express SE I - Thunderbolt 3 Edition's lightweight, yet rugged aluminum outer shell securely protects the installed PCIe card. Inside, the card is protected through the use of a variable-speed, temperature-controlled fan, which ensures that the card and chassis' components remain reliably cool. The Echo SE I's fan automatically speeds up as necessary to cool the installed card when it's hot, and slows down when it's cool. Since Echo Express products automatically power on and off with your computer, there is no power switch on the chassis, ensuring you don't waste energy by forgetting to turn it off.

Quiet, Please

The Echo Express SE I was designed to be ultra-quiet so that it can be comfortably used in noise-sensitive environments. The airflow path within the chassis has been specially designed to enable the temperature-controlled, variable speed fan to quietly and efficiently cool the installed card at all times, even during peak operation.

Nearly Every Thunderbolt 3-Compatible PCIe Card Supported

Designed to accommodate cards up to 7.75 inches long and measuring a compact 5.6 inches wide by 8.6 inches long by 3.5 inches tall, the Echo Express SE I - Thunderbolt 3 Edition has a small footprint, yet it is large enough to support nearly every Thunderbolt 3-compatible PCIe 3.0, PCIe 2.0, and PCIe 1.1 card available.

Do you have a card in mind but aren't sure it's compatible? Sonnet have worked closely with PCIe card manufacturers to provide a list of compatible cards on our supporting [PCIe Card Thunderbolt Compatibility Chart](#). The chart provides a list of cards that have been tested to be recognized over a Thunderbolt connection and compatible with Thunderbolt technology requirements.

Thunderbolt 3 (40Gbps) Cable and ThunderLok 3 Included

To connect the Echo Express SE I - Thunderbolt 3 Edition to your computer, Sonnet includes a 0.5-meter Thunderbolt 3 (40Gbps) cable, and a Sonnet ThunderLok 3 Thunderbolt connector retainer clip(8) to secure the cable to the Echo chassis. Accidental cable disconnection can lead to data loss. Sonnet's ThunderLok 3 is easy to install and use—just slide it over one end of the cable, and then plug in the connector and secure it to the chassis by turning a thumbscrew. Because of its unique design, ThunderLok remains on the cable so it won't get lost when not in use.

Technical Notes

1. Windows computers require the latest firmware (BIOS) and other drivers to support this product. Not all Mac-compatible PCIe cards are also compatible with Windows. See the PCIe Card Thunderbolt Compatibility Chart for details.
2. While the Echo Express SE I - Thunderbolt 3 Edition features a 40Gbps Thunderbolt 3 interface, some computers equipped with Thunderbolt 3, such as the Dell Precision 3510 and the Alienware 13 R2, use an implementation of Thunderbolt 3 technology that limits PCIe performance to 20Gbps. The MacBook Pro (13-inch, Late 2016, Four Thunderbolt 3 Ports) also has this limitation in the two right-hand Thunderbolt 3 ports, while offering full performance from the left-hand ports.
3. Full performance requires the use of the included Thunderbolt 3 (40Gbps) cable, or other Thunderbolt 3 (40Gbps) cables; look for the Thunderbolt icon AND the number 3 on the connector housings to identify these cables.
4. 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.
5. Second Thunderbolt 3 port supports Thunderbolt and Thunderbolt 2 devices on Macs used with the Apple Thunderbolt 3 (USB-C) to Thunderbolt 2 Adapter, sold separately.
6. Second Thunderbolt 3 port supports USB 3 Gen 1 (5Gb) or Gen 2 (10Gb) devices when connected with proper cable or adapter (sold separately).
7. The Echo Express SE I - Thunderbolt 3 Edition is designed to provide only 15 watts of upstream power, typically insufficient to charge a connected computer.
8. ThunderLok 3 compatible with all 0.5m Thunderbolt 3 cables, but with only 20Gbps 1-2 meter Thunderbolt 3 cables.
9. PCIe cards sold separately.
10. Compatibility requires the installation of Thunderbolt technology-aware drivers, available from the manufacturer. See our supporting PCIe Card Thunderbolt Compatibility Chart for a partial list of compatible PCIe cards. Check with card manufacturers for the latest Thunderbolt compatibility

information.

11. 1.0-meter Thunderbolt 3 (40Gbps) cable may slightly reduce performance of cards that depend on very high-bandwidth, and is not compatible with ThunderLok 3.

In the box:

- Echo Express SE I - Thunderbolt 3 Edition Thunderbolt 3-to-PCIe Card Expansion System(9)
- Universal power adapter
- Power cord
- 0.5-meter Thunderbolt 3 (40Gbps) cable
- ThunderLok 3 Thunderbolt Connector Retainer Clip(8)
- Documentation

Note: PCIe cards sold separately

