



Sonnet Thunderbolt 3 Upgrade Card for Echo Express SEL

ProdCode: SONBRDUPGRTB3SE

Thunderbolt 3 Upgrade Card for Echo Express SEL (Thunderbolt 2 Edition) and SEL-
ters



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Features

- **Easy to Install 40Gpbs Thunderbolt 3 Upgrade Card**
Replaces existing 20Gbps Thunderbolt interface board in your Thunderbolt 2-to-PCIe card expansion system(1)
- **Improved Performance with High-Bandwidth PCIe Cards**
Your upgraded expansion system will provide from 30% to 100% more bandwidth for installed PCIe cards
- **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(4) devices, attaching a single USB peripheral device(5), or connecting up to two 4K displays or one 5K display(6)
- **ThunderLok 3-Compatible**
Thunderbolt connector retainer clip secures cable from accidental disconnections

Step Up to 40Gbps Thunderbolt 3

Sonnet designed Echo Express Thunderbolt 2-to-PCIe card expansion systems (and select Thunderbolt 2 adapters) to be easily upgraded to 40Gbps Thunderbolt 3(1). Simply replace the existing Thunderbolt interface board with the upgrade board, and then your chassis will instantly support higher performance, and connect to your Thunderbolt 3-equipped computer(2) without needing an adapter.

Increased Bandwidth, Better Performance

With a Thunderbolt 3 interface card installed, your upgraded Echo Express Thunderbolt 2 system gains from 30% to 100% more bandwidth over the original system (see performance Tab for details). Installed in an upgraded system, PCIe cards with high bandwidth requirements, such as 16Gb Fibre Channel and 4K Video I/O cards supporting high frame rates, will be able to perform even better than before(3).

Upgrade Instead of Adapting

Why adapt when upgrading offers more? With the Thunderbolt 3 upgrade card installed you get:

Increased Bandwidth

The Thunderbolt 3 upgrade card provides increased bandwidth due to 40Gbps Thunderbolt 3. With an adapter you are limited to 20Gbps Thunderbolt 2 bandwidth.

Optimal Thunderbolt 3 Daisy Chaining

The upgrade card supports additional Thunderbolt 3 peripheral devices in the Thunderbolt chain with 40Gbps bandwidth. With an adapter all downstream devices in the Thunderbolt chain can only be Thunderbolt or Thunderbolt 2 devices.

Connect USB Devices

Sonnet's Thunderbolt 3 upgrade cards also include 10Gbps USB 3.1 Gen 2 support, meaning you can connect a USB device to the second port using the proper cable or adapter(5); they also provide full support for connecting two 4K displays @ 60Hz or one 5K display @ 60Hz(6).

ThunderLok™ 3-Compatible

Sonnet's Thunderbolt 3 upgrade cards support the ThunderLok 3 Thunderbolt connector retainer clip. The ThunderLok 3 (sold separately) secures the Thunderbolt cable (sold separately) to the chassis(7), and 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 3 remains on the cable so it won't get lost when not in use.

Technical Notes

1. Check compatibility listings on this page for currently supported systems. Other systems will be added once certified.
2. Connection to a computer with Thunderbolt 3 ports requires the use of a Thunderbolt 3 (40Gbps) cable (sold separately), like Sonnet's 0.5-meter Thunderbolt 3 cable, for full performance.
3. While each Thunderbolt 3 upgrade card features a 40Gbps 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.
4. Second Thunderbolt 3 port supports Thunderbolt and Thunderbolt 2 devices on Macs when used with the Apple Thunderbolt 3 (USB-C) to Thunderbolt 2 Adapter, sold separately.
5. Second Thunderbolt 3 port supports USB 3.1 Gen 1 (5Gbps) or Gen 2 (10Gbps) devices when connected with proper cable or adapter (sold separately).
6. 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 support requires a Thunderbolt 3-to-Dual DisplayPort adapter.
7. ThunderLok 3 compatible with all 0.5m Thunderbolt 3 cables, but only 20Gbps 1–2 meter Thunderbolt 3 cables.
8. 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.
9. 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.

In the box:

- Thunderbolt 3 upgrade card

- Documentation

