ECHO™ EXPRESSCARD THUNDERBOLT™ ADAPTER
ECHO™ EXPRESSCARD PRO THUNDERBOLT™ ADAPTER

Thunderbolt Port-Equipped Adapter for ExpressCard|34 Cards

User's Guide

SONNET™
SIMPLY FAST™

ExpressCard|34®

THUNDERBOLT™

You Should Have
The following items should be included in your product package:

• Echo ExpressCard Thunderbolt Adapter, or

• Echo ExpressCard Pro Thunderbolt Adapter

The following item is required (sold separately):

• Thunderbolt cable

System Requirements
At the time of this printing, the Echo ExpressCard Thunderbolt Adapter and Echo ExpressCard Pro Thunderbolt Adapter (hereafter referred to collectively as the Echo adapter) requires the following in order to operate in your system:

• iMac®, Mac® mini, MacBook® Air, or MacBook Pro computer with a Thunderbolt port

• OS X® 10.6.8 or later

Check the Sonnet Website for up-to-date system requirements and compatibility information.

About This Document
Check the Sonnet Website for the latest documentation. Visit www.sonnettech.com/support/kb/kb.php, click the link for Thunderbolt product, then click the Echo ExpressCard Thunderbolt Adapters link, and then click the Manual link.

Before Using the Echo Adapter
Prior to using the Echo adapter with your computer, familiarize yourself with the adapter and any cards you plan to use.

Figure 1 shows the Echo adapter's ExpressCard/34 slot. **Figure 2** shows the Thunderbolt port.
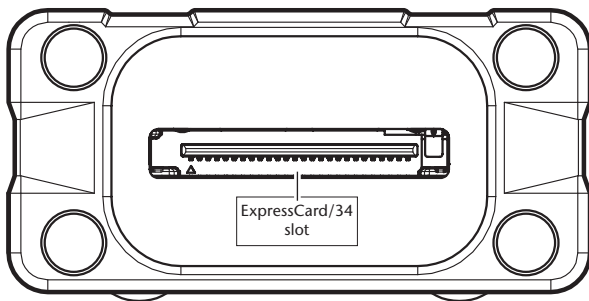

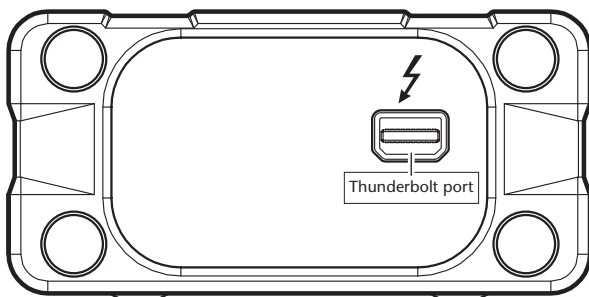ExpressCard/34 slot

Figure 1

Thunderbolt port

Figure 2

Connecting the Echo Adapter
• Connect the Echo adapter to your computer or another Thunderbolt device using only a Thunderbolt cable

• Connect the Echo adapter directly to your computer, or to another Thunderbolt-compatible device at the end of the Thunderbolt chain connected to your computer

• Hot-plugging is supported; you may connect the Echo adapter after turning on your computer

Inserting and Removing Cards
• Do not force a card into the slot, as you may damage the card or the slot connector

• Insert cards straight into the slots, parallel to the top cover of the Echo adapter

• If you are using an ExpressCard card to which you connect cables, always connect the cables to the adapter card before inserting it into the Echo adapter's slot

• To insert a card, push it into the slot until it "clicks" into place

• To remove a card, push it further into the slot until it "clicks" again; the card will be ejected

• Do not pull out a card without first pushing it in; the next card you insert into the slot will be ejected immediately and may cause a problem

Tips

Device Drivers

Many ExpressCard/34 cards require additional drivers and application software to operate or have full functionality. Software should be included with the device, or available to download from the manufacturer's web site. Check the peripheral's user's manual for information about necessary software.

Powering Devices Connected to Adapter Cards

Although some peripherals may draw power directly through adapter cards plugged into the Echo adapter, many devices may draw more power than the Sonnet device can provide from a Thunderbolt connection and require an external power source. Remember to use external power supplies when necessary.

Unsupported ExpressCard/34 Adapters

A computer's ExpressCard slot supports two bus standards, PCIe and USB. ExpressCard adapters fall into two basic categories: those that use the ExpressCard's PCIe interface, and those that use its USB interface. Upon inserting the ExpressCard card, a computer automatically senses which interface the adapter is using. Examples of PCIe-based adapters include the cards listed on the Echo adapters' product page (URL listed in the section to the right). Examples of USB-based adapters include USB 2.0 adapter cards and many multi-format memory card readers such as Sonnet's 21-in-1 Multimedia Memory Card Reader & Writer.

Thunderbolt technology natively supports the PCIe bus standard, but not USB, so the Echo adapter only interfaces with PCIe-based ExpressCard/34 adapters. As a result, **all USB-based ExpressCard/34 cards are unsupported**.

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Compatible ExpressCard/34 Cards

Sonnet currently maintains a list of cards compatible with the Echo adapters. Check for up-to-date compatibility information at www.sonnettech.com/product/echoexpresscard34thunderbolt.html.

Please note that ExpressCard/34 cards other than those listed on the Sonnet Website may be also be compatible, but Sonnet makes no representations regarding the accuracy or reliability of this statement, nor makes any guarantee of future compatibility.

SxS™ Memory Card Support

Echo adapters support SxS memory cards when the proper driver is installed on your computer. Go to sonnettech.com/support/kb/kb.php, click the link for Thunderbolt product, then click the Echo ExpressCard Thunderbolt Adapters, and then click the Driver link to access the latest Sony® driver.

Warnings

Always follow the basic warnings listed here to avoid the risk of serious injury or death from electrical shock, short-circuiting, fire, and other hazards. These warnings include, but are not limited to:

• Do not attempt to disassemble or modify the device. If this device appears to be malfunctioning, contact your reseller or local distributor.

• Do not drop the device; dropping or mishandling of the device card may result in a malfunction leaving the product inoperable.

• Do not insert foreign objects inside the device.

• Do not expose the device to rain, use it near water or containers that contain liquids which might spill into any openings, or in damp or wet conditions.

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Specifications

External Connectors	• Thunderbolt • ExpressCard/34
Data Transfer Speed – Echo ExpressCard Thunderbolt Adapter	Up to 200 MB/s
Data Transfer Speed – Echo ExpressCard Pro Thunderbolt Adapter	Up to 400 MB/s
Bus Interface – Echo ExpressCard Thunderbolt Adapter	PCI Express 1.0, x1
Bus Interface – Echo ExpressCard Pro Thunderbolt Adapter	PCI Express 2.0, x1
Supported ExpressCard/34 Adapter Types	PCIe-based with driver support for Thunderbolt technology
Dimensions	WxDxH: 2.7 x 4.0 x 1.3 in. (6.7 x 10.0 x 3.4 cm)
Weight	.4 lbs (0.18 kg)
RoHS Compliant	Yes

Limited Warranty

For complete warranty information regarding this Sonnet product, go to www.sonnettech.com support/warranty.html.

Contacting Customer Service

USA Customers
The Sonnet web site located at **www.sonnettech.com** has the most current support information and technical updates.

Before you call Sonnet Customer Service, please check our Website for the latest updates and online support files, and check this user's guide for helpful information. When you call Sonnet Customer Service, have the following information available so our customer service staff can better assist you:
• Product name • Date and place of purchase • Computer model
• Adapter card(s) used • OS version

If further assistance is needed, please contact us at:

Sonnet Customer Service:
Tel: 1-949-472-2772
(Monday–Friday, 7 a.m.–4 p.m. Pacific Time)
E-mail: support@sonnettech.com
Online Service Form: http://serviceform.sonnettech.com

For Customers Outside the USA
For support on this product, contact your reseller or local distributor.

Visit Our Web Site

For the most current product information and online support files, visit the Sonnet web site at www.sonnettech.com. Remember to register your product online at http://registration.sonnettech.com to be informed of future upgrades and product releases.

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