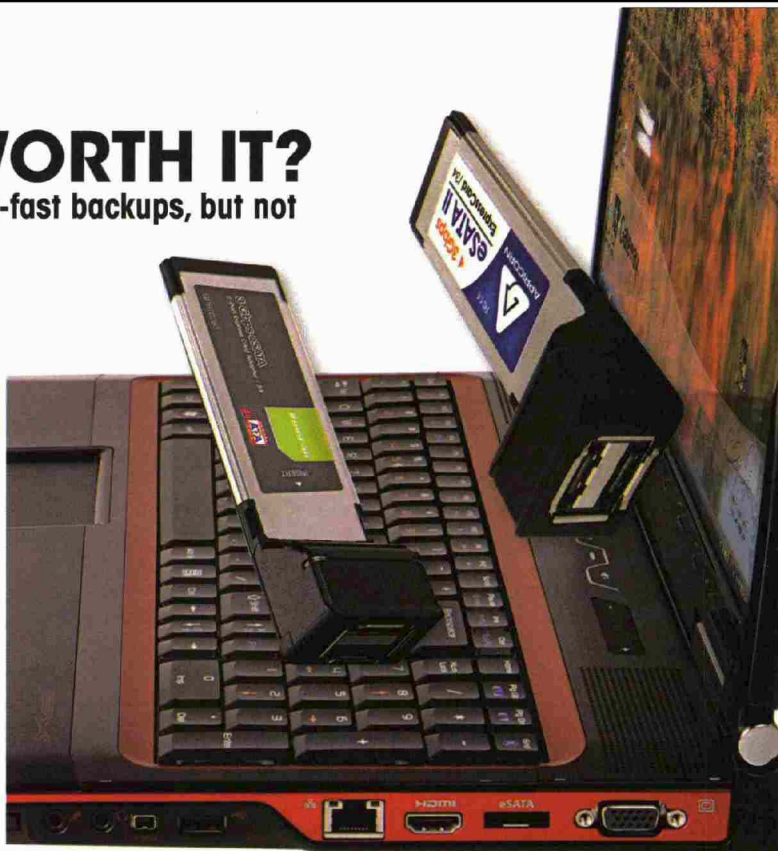


# IS eSATA WORTH IT?

## This port promises blazing-fast backups, but not without some tradeoffs.

by Jeffrey L. Wilson

Standardized by the Serial ATA International Organization (or SATA-IO) in 2004, eSATA (or External Serial ATA Attachment) was created to allow high-speed data transfers between computers and external devices. Despite being an integrated option for only 30 percent of notebooks currently sold, according to data storage consulting firm Coughlin Associates, eSATA is currently the premier notebook connection port for achieving lightning-fast transfers with its 3 Gbps speeds; FireWire 400, FireWire 800, and USB top out at 50 MBps, 100 MBps, and 60 MBps, respectively. It's also a relatively cheap addition for notebooks, costing manufacturers just \$5 to \$10, according to a source. That doesn't mean, however, that it's the perfect port.



### BRING YOUR OWN POWER (FOR NOW)

eSATA may run at a breakneck pace, but it isn't powered by a notebook's BUS, which means any external eSATA device (such as a portable hard drive, for example) requires its own power adapter. SATA-IO sought to jump this hurdle

with the Power Over eSATA Initiative, which the group started in 2008. But, as of press time, real-world products that are powered this way have been sparse. Prefec, a notebook components manufacturer, announced in March that its Cobra eSATA/USB combo flash stick would use Power Over eSATA, but until notebook motherboards ship with this technology built in, eSATA drive buyers will have to make due with the included power cable.

FireWire 800, and USB 2.0 ports. Then we performed the same test using two add-on devices—the Apricorn eSATA II ExpressCard/34 (\$39; [www.apricorn.com](http://www.apricorn.com)) and Iogear eSATA 3Gbps Dual Port ExpressCard/34 (\$39.95; [www.iogear.com](http://www.iogear.com))—to determine if the speeds are better or worse for an aftermarket accessory. We performed each test three times and took the averages.

### ESATA TEST RESULTS

Apricorn eSATA II ExpressCard/34	
Read Speed	61.3 MBps
Write Speed	46.6 MBps
Iogear 3Gbps 2-port ExpressCard/34	
Read Speed	52.4 MBps
Write Speed	50.3 MBps
Internal eSATA	
Read Speed	62.0 MBps
Write Speed	48.4 MBps
FireWire 800	
Read Speed	23.3 MBps
Write Speed	25.5 MBps
USB 2.0	
Read Speed	27.5 MBps
Write Speed	17.0 MBps

SATA-IO verified a number of aftermarket products that feature two-in-one connector solutions. One connector will plug into an eSATA port for fast data transfers, while the other will plug into a USB port for power. The group foresees eSATA and USB as coexisting technologies.

### VERDICT

eSATA outperformed FireWire 800 and USB 2.0 in every scenario. There's almost no performance difference between an integrated eSATA port versus an add-on, so you can count on top speeds even if your notebook didn't come with an eSATA port (if your laptop has an ExpressCard slot). For the short term, upgrading to eSATA is a wise investment if you don't mind using a drive that needs a separate power supply. USB 3.0 (or SuperSpeed USB), however, should arrive in notebooks in 2010 with speeds that reach upwards of 5 Gbps. Considering USB's deep penetration into the notebook space (100 percent), it's safe to assume that USB 3.0 will receive a similar mainstream push. Until then, eSATA is the speed demon connection to have for those who frequently move large volumes of data. ■

### THE TESTING

To determine if eSATA is worth configuring on your notebook (or buying as an aftermarket part), we started by testing the speed claims. We ran our LAPTOP Transfer Test, which moves a 4.97GB folder of mixed media (music, photos, and video) from one drive to another, on a Gateway P-7808u FX test bed and an Iomega 1TB UltraMax Plus Desktop Hard Drive (\$249; [www.iomega.com](http://www.iomega.com)) using its built-in eSATA,

