



ATTO Technology, Inc.

# Celerity FC-44ES



## Quad-channel 4-Gigabit Fibre Channel Host Adapter Featuring ADS™ Technology

### Product Features

#### Blazing Fast Performance

- Maximize data throughput with quad channel connectivity aggregating performance across multiple Fibre Channel ports
- Achieve the highest I/O and data throughput for advanced video (uncompressed HD and 2k film) and transactional database applications

#### Smooth Data Streaming

- Maintain accessibility to mission-critical data by transparently redirecting data requests through alternate channels
- Alleviate data transfer bottlenecks and move data more efficiently while managing latency with ATTO's exclusive ADS™ technology
- Maximize data flow using the fastest bus interconnect and bus management technology

#### One Click Installation

- Save time with factory preset configurations for plug and play operation
- Simplify installation, management and monitoring with a multi-platform Configuration Utility featuring an intuitive GUI

The fastest storage technology just got better! The Celerity FC-44ES leverages two next-generation storage technologies - PCI Express interconnect and 4-Gigabit Fibre Channel.

With 4-Gb FC speeds of up to 800 MB/sec. per channel, the FC-44ES supports the most demanding application requirements, including high-definition video, rich content databases and other high-bandwidth environments.

The FC-44ES takes advantage of the latest in host interconnect technology – PCI Express – a serial, high-speed connection that supports aggregate throughput up to 2 GB/sec. (x8 PCIe). Software compatible with existing PCI and PCI-X products, the FC-44ES uses the same device drivers as the other Celerity FC family products, simplifying user installation and support.

ATTO Celerity host adapters are an integrated family of advanced storage connectivity solutions that are designed to provide reliable connectivity, intelligence and scalability. Meeting tomorrow's connectivity needs today, Celerity FC host adapters extend the capabilities of software and hardware, increase overall system performance and drive intelligence all the way to the edge of the SAN. Celerity, a platform for advanced storage connectivity.

### Technical Highlights

- Quad-channel 4-Gigabit Fibre Channel Host Adapter
- 800 MB/sec. throughput per channel in full-duplex mode
- Features a 2 GB/second, high-performance x8 PCI Express (PCIe) host connection
- Exclusive Advanced Data Streaming (ADS™) Technology
- Proven industry interoperability with support for the SNIA HBA API
- Driver support for Windows®, Linux®, Mac®, OS X, VMware® ESX Server and more
- Backward compatible with 2-Gb and 1-Gb legacy Fibre Channel products
- RoHS Compliant
- 3-year standard product warranty

Technical Specification  
Celerity FC-44ES

## Host Adapter

For More Information:  
[www.ATTOTech.com](http://www.ATTOTech.com)  
or to Purchase:  
[www.ATTOSTore.com](http://www.ATTOSTore.com)  
(716) 691-1999

Hardware Specifications	
Fibre Channel Interface	<ul style="list-style-type: none"> <li>• Four independent FC ports</li> <li>• 4-Gigabit FC data-transfer rates</li> <li>• 800 MB/sec. maximum full-duplex throughput per channel</li> <li>• Supports all FC topologies: direct fabric, arbitrated loop and point-to-point</li> <li>• ANSI Fibre Channel: FC-PH, FC-FCP, FC-AL, FC-AL2, FC-PLDA, FC-FLA</li> <li>• Flash ROM for easy field upgrades</li> <li>• FC Class 3 Support</li> <li>• Local management and diagnostics</li> <li>• Buffer Credits: 8 @ 512 Bytes; 8 @ 2KB</li> <li>• Advanced Data Streaming (ADS™) Technology</li> </ul>
Advanced FC Capabilities	<ul style="list-style-type: none"> <li>• Supports SNIA HBA API</li> <li>• Supports Windows FDMI and WMI</li> <li>• Supports Target and Initiator modes</li> <li>• Backward compatible with 2-Gb and 1-Gb Fibre Channel</li> </ul>
Host Bus Specifications	<ul style="list-style-type: none"> <li>• x8 mechanical and x8 electrical PCI Express interconnect</li> <li>• Supports PCI Express Base Spec 1.0a</li> <li>• Supports PCI Express CEM Spec 1.0a</li> <li>• PCI Express to PCI/PCI-X Bridge spec 1.0</li> </ul>
External Connectivity	<ul style="list-style-type: none"> <li>• Easy-to-install full height connection bracket</li> <li>• External LEDs for on-line and speed status for each channel</li> <li>• Four (4) pluggable optical LC SFP connectors included</li> </ul>
Software Specifications	
Driver Support	<ul style="list-style-type: none"> <li>• Windows Server 2003, 2008, XP, Vista, 7</li> <li>• Red Hat Linux (2.4 and 2.6 kernel)</li> <li>• SUSE Linux (2.6 kernel)</li> <li>• Mac OS X (10.4.x - 10.6.x)</li> <li>• VMware ESX Server 3.5</li> <li>• Novell Netware 6.5</li> <li>• Solaris 9 &amp; 10</li> <li>• Free BSD</li> </ul>
Agency Approvals	
Safety and Environmental	<ul style="list-style-type: none"> <li>• FCC Rules, Part 15, Class B</li> <li>• CE Mark: CISPR 22:2002/EN55022:2002, Class B</li> </ul>
Environmental & Physical Specifications	
Dimensions	<ul style="list-style-type: none"> <li>• Length 6.600"</li> <li>• Height 3.987"</li> </ul>
Operating Environment	<ul style="list-style-type: none"> <li>• Temperature: 0-45° C (32°-113°F)</li> <li>• Humidity: 5 - 95% non-condensing</li> </ul>
Storage Environment	<ul style="list-style-type: none"> <li>• Temperature: -40° to 70°C (-40°-157°F)</li> <li>• Humidity: 5 to 95% non-condensing</li> </ul>
Power	<ul style="list-style-type: none"> <li>• 12V @ 2.1A max</li> <li>• 3.3V @ 3.0A max</li> </ul>
Airflow	<ul style="list-style-type: none"> <li>• 100 lf/m (min) recommended</li> </ul>
Optical Cabling	<ul style="list-style-type: none"> <li>• 50/125µm up to 150m @ 4-Gb</li> <li>• 50/125µm up to 300m @ 2-Gb</li> <li>• 50/125µm up to 500m @ 1-Gb</li> </ul>
RoHS Compliant	Yes
Ordering Information	
Model Number	<ul style="list-style-type: none"> <li>• CTFC-44ES-0R0 (RoHS)</li> </ul>