



4Gb/s PCIe Fibre Channel Host Bus Adapters

Celerity FC-44ES
Celerity FC-42ES
Celerity FC-41ES

ATTO's Celerity 4Gb/s Fibre Channel Host Bus Adapters provide efficient data transfers for editing and producing content in media and entertainment and general IT workflows.

Industry Proven Technology

ATTO has over 15 years of experience developing high performance and reliable Fibre Channel storage connectivity to deliver first-to-market solutions to customers. Celerity host bus adapters are consistently the highest performing HBAs for video editing, digital audio, video on demand, or database applications. The integrated family of Celerity 4Gb/s PCIe Fibre Channel host bus adapters boast an extensive list of design wins and certifications with respected industry partners.

Flexible Connectivity Solutions

With single-, dual- and quad-channel configurations, Celerity 4Gb/s PCIe Fibre Channel HBAs are an ideal solution for users looking to achieve the highest I/O and data throughput for high-bandwidth workflows. Celerity 4Gb/s PCIe host bus adapters offer driver support for Windows®, Linux, Mac® OS X and VMware®, providing a single connectivity solution for customers with heterogeneous operating system environments.

Performance Engineered

Celerity HBAs are designed to provide fast, redundant and highly available connectivity to storage, and are engineered to manage latency for real-time applications. ATTO's exclusive Advanced Data Streaming (ADS™) technology provides controlled acceleration of data to deliver the highest consistent performance and reliable data transfers. ATTO pays close attention to detail in board design and signal integrity to minimize transmission errors and data corruption. Specialized Fibre Channel drivers with support for multiple OS platforms and OEM-specific solutions such as target mode and multipathing, make ATTO the premier choice for high-performance Fibre Channel SAN connectivity.

Advanced Management Tools

ATTO's easy-to-use Configuration Tool features an intuitive GUI that simplifies the installation, management and monitoring of the host bus adapter. With advanced troubleshooting and performance tuning capabilities, Celerity HBAs provide users with sophisticated diagnostics and the flexibility to control settings for specific applications.

Technical Features

- Single-, Dual- and Quad-Channel configurations
- 800 MB/s per channel throughput in full-duplex mode
- Available in a low-profile form factor
- Driver support for Windows®, Linux, Mac® OS X, VMware® and more
- Exclusive Advanced Data Streaming (ADS™) Technology
- ATTO Configuration Tool for customized performance settings
- Proven interoperable with leading storage hardware and software vendors
- Complete SAN connectivity when combined with ATTO FibreConnect 8Gb/s Fibre Channel switches
- Target mode support
- Low power consumption
- 3-year standard product warranty

Technical Specifications

Applications

Celerity Fibre Channel host bus adapters deliver high-performance and reliable connectivity solutions for the most demanding storage environments, including digital content creation, tape streaming and backup, rich content delivery, server clustering, and complex databases. Celerity HBAs enable users to achieve the ultimate in I/O performance for real-time and transactional applications.

Advanced Data Streaming (ADS™)

Latency-management technology that controls the acceleration of data transfers to move large amounts of data faster and more efficiently.

Key Features

- Auto Negotiation to 4Gb, 2Gb and 1Gb devices
- Supports arbitrated loop, point-to-point and direct fabric/switch attach
- ANSI Fibre Channel: FC-PH, FC-FCP, FC-AL, FC-AL2, FC-PLDA, FC-FLA
- Flash ROM for easy field upgrades
- FC Class 3 Support
- Buffer Credits: 8 @ 512 Bytes; 8 @ 2KB
- Software RAID support with ATTO's Power Center software
- Initiator and target mode (OEM) support
- Supports Windows FDMI and WMI
- Local management and diagnostics

User Benefits

- High performance and scalable connectivity
- Optimized for video applications
- Low power consumption
- Seamless integration into existing FC SANs
- Support for virtualized server environments
- Ease of use and sophisticated management capabilities
- Extensive certifications with SAN infrastructure components

Management Tools

- ATTO Config Tool (w/GUI) BIOS-based management and configuration utility

Bus Specifications

- x8 (FC-44ES) and x4 (FC-42ES, FC-41ES) PCI Express host interface
- Supports PCI Express Base Spec 1.0a
- Supports PCI Express CEM Spec 1.0a
- PCI Express to PCI/PCI-X bridge Spec 1.0

External Connectivity

- Standard size brackets installed with spare low profile brackets for FC-42ES, FC-41ES
- Single (1), Dual (2) or Quad (4) pluggable 4Gb optical LC SFP modules included
- External LEDs for on-line and speed status for each port

Operating System Support

- Windows® Server 2003, 2008,
- Windows XP, Vista, 7
- SUSE Linux
- Red Hat Linux
- Mac OS X (10.4.x - 10.6.x)
- VMware® ESX Server 3.5
- Novell Netware
- Solaris 9 & 10

Agency Approvals

- FCC Part 15, Class B
- CISPR 22:2002
- EN55022: 2002, Class B

Compliance

- RoHS

Dimensions

- FC-44ES
 - Length 6.600", Height 3.987"
- FC-42ES, FC-41ES
 - Length 5.600", Height 2.712"

Operating Temperature

- Hardware Environment
 - Temperature: 0-45°C (32°-113°F)
 - Humidity: 5 - 95% non-condensing
- Storage Environment
 - Temperature: -40°-70°C (-40°-157°F)
 - Humidity: 5 - 95% non-condensing

Operating Voltage

- FC-44ES
 - 12V@2.1A max, 3.3V@3.0A max
- FC-42ES
 - 12V@0.4A max, 3.3V@1.5A max
- FC-41ES
 - 12V@0.4A max, 3.3V@1.0A max

Airflow

- 100 lf/m (min) recommended

Warranty

- 3 Year



ATTO Celerity FC-44ES

Ports	4
Bus Characteristics	x8 PCIe
Form Factor	Full Height
Max. Transfer Rate (Full duplex) (Half duplex)	3.2GB/s 1.6GB/s
Part Number	CTFC-44ES-000



ATTO Celerity FC-42ES

Ports	2
Bus Characteristics	x4 PCIe
Form Factor	Low Profile
Max. Transfer Rate (Full duplex) (Half duplex)	1.6GB/s 800MB/s
Part Number	CTFC-42ES-000



ATTO Celerity FC-41ES

Ports	1
Bus Characteristics	x4 PCIe
Form Factor	Low Profile
Max. Transfer Rate (Full duplex) (Half duplex)	800MB/s 400MB/s
Part Number	CTFC-41ES-000



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ATTO Technology, Inc.