



## 8Gb/s Fibre Channel Host Bus Adapters

Celerity FC-84EN  
Celerity FC-82EN  
Celerity FC-81EN

ATTO's Celerity 8Gb/s Fibre Channel Host Bus Adapters provide the highest performing SAN storage connectivity for 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 8Gb/s Fibre Channel host bus adapters boast an extensive list of customer design wins and certifications with respected industry partners.

### Flexible Connectivity Solutions

With single-, dual- and quad-channel configurations, Celerity 8Gb/s Fibre Channel HBAs are an ideal solution for users looking to achieve the highest I/O and data throughput for advanced video and enterprise-class IT applications. Celerity 8Gb/s 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 Fibre Channel 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
- 1600 MB/s per channel throughput in full-duplex mode
- Driver support for Windows®, Linux, Mac® OS X, VMware and more
- Exclusive Advanced Data Streaming (ADS™) Technology
- ATTO Config 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
- Support for N\_Port ID Virtualization and Virtual Fabric
- Target mode support
- Low power consumption
- 3-year standard product warranty

### MultiPath Director™

High-availability storage connectivity solution for Media and Entertainment

- Multiple paths to storage for improved data integrity and reliability
- High-performance shared storage for workgroups
- Load-balancing and failover in heterogeneous OS environments

### 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 8Gb, 4Gb and 2Gb devices
- Supports arbitrated loop, point-to-point and direct fabric/switch attach
- ANSI Fibre Channel: FC-FS, FCP, FC-AL, FC-AL2, FC-PLDA, FC-FLA
- Flash ROM for easy field upgrades
- FC Class 3 Support
- Buffer Credits: 41
- Software RAID support with ATTO's Power Center software
- Pluggable optical LC SFP+
- Initiator and target mode (OEM) support
- Supports Windows FDMI and WMI

#### User Benefits

- Superior performance for enterprise applications
- Low power consumption
- Quad port card maximizes usage of server slots
- Increased switch port availability
- Reduced cost per MB of data transferred
- Seamless integration into existing FC SANs
- Support for virtualized server environments
- Extensive certification with SAN infrastructure components

#### Management Tools

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

#### Bus Specifications

- x8 PCI Express 2.0 host interface
- Supports PCI Express Base Spec 2.0
- Supports PCI Express CEM Spec 2.0
- PCI Hot Plug spec 1.0

#### External Connectivity

- Standard size brackets installed with spare low profile brackets for FC-82EN, FC-81EN
- Single (1), Dual (2) or Quad (4) pluggable 8Gb 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 - 10.7.x
- VMware ESX Server® 3.5 - 4.x
- VMware ESXi Server® 4.x - 5.x

#### Agency Approvals

- FCC Part 15, Subpart B, Class A (FC-84EN), Class B (FC-82EN & FC-81EN)
- EN55024: 1998A + A1: 2001 & A2: 2003
- EN55022: 2006 + A1: 2007, Class A (FC-84EN), Class B (FC-82EN & FC-81EN)

#### Compliance

- EN60825-1
- EN60582-2
- EN60950-1
- EU RoHS (2002/95/EC)

#### Dimensions

- FC-84EN
  - Length 6.525", Height 3.987"
- FC-82EN, FC-81EN
  - Length 6.600", Height 2.731"

#### Operating Temperature

- Hardware Environment
  - Temperature: 0-40° C
  - Humidity: 10 - 90% non-condensing
- Storage Environment
  - Temperature: -40°-70°C (-40°-157°F)
  - Humidity: 5 - 95% non-condensing

#### Operating Voltage

- FC-84EN
  - 7.8W (typical)
- FC-82EN
  - 5.9W (typical)
- FC-81EN
  - 5.3W (typical)

#### Airflow

- 100 lf/m (min) recommended

#### Warranty

- 3 Year



ATTO Celerity FC-84EN	
Ports	4
Bus Characteristics	x8 PCIe 2.0
Form Factor	Full Height
Max. Transfer Rate (Full duplex)	6.4GB/s
(Half duplex)	3.2GB/s
Part Number	CTFC-84EN-000



ATTO Celerity FC-82EN	
Ports	2
Bus Characteristics	x8 PCIe 2.0
Form Factor	Low Profile
Max. Transfer Rate (Full duplex)	3.2GB/s
(Half duplex)	1.6GB/s
Part Number	CTFC-82EN-000



ATTO Celerity FC-81EN	
Ports	1
Bus Characteristics	x8 PCIe 2.0
Form Factor	Low Profile
Max. Transfer Rate (Full duplex)	1.6GB/s
(Half duplex)	800MB/s
Part Number	CTFC-81EN-000

