# TECH SPEC

ATTO

Celerity™ FC-82EN

## Technical Features

- Single-, dual- and quad-channel
- 1600 MB/s per channel throughput in full duplex mode
- Driver support for Windows®, Linux®, macOS® , VMware® and more
- Exclusive Advanced Data Streaming (ADS™) Technology
- ATTO ConfigTool™ for customized performance settings
- Proven interoperable with leading storage hardware and software vendorss
- Complete SAN connectivity when combined with Fibre Channel switches
- Support for N_Port ID Virtualization and Virtual Fabric
- Target Mode (Developer and SCST)

## MultiPath Director™

High-availability storage connectivity solution for media & entertainment

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

# ATTO Celerity™ 8Gb Fibre Channel HBA
## FC-84EN, FC-82EN, FC-81EN

### Industry Proven Technology

ATTO Technology Inc, has 30 years of experience developing high performance and reliable Fibre Channel storage connectivity to deliver first-to-market solutions to customers. Celerity™ host bus adapters (HBAs) 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 HBAs boast an extensive list of customer design wins and certifications with respected industry partners.

### Flexible Connectivity

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 HBAs offer driver support for Windows®, Linux®, macOS® 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 exclusive Advanced Data Streaming (ADS™) Technology provides controlled acceleration for 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 Managment Tools

Easy-to-use ATTO ConfigTool™ 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.

## About ATTO

For over 30 years, ATTO Technology, has been a global leader across the IT and media & entertainment markets, specializing in network and storage connectivity and infrastructure solutions for the most data-intensive computing environments. ATTO works with partners to deliver end-to-end solutions to better store, manage and deliver data.

The Power Behind the Storage

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## 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
- Fibre Channel Class 3 Support
- Buffer Credit: 41
- Software RAID support with ATTO PowerCenter Pro™ 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
- Increase switch port availability
- Reduced cost per MB of data transferred
- Seamless integration into existing fibre channel SANs Support for virtualized server environments
- Extensive certification with SAN infrastructure components

## Management Tools

- ATTO ConfigTool™ (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 LC SFP+ modules included
- External LEDs for on-line and speed status for each port

## Operating System Support

- Windows®
- Windows Server®
- Linux®
- macOS®

## 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)
- TAA Compliant - Country of Origin USA

## 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

- Three year

| ATTO Celerity™ | FC-84EN | FC-82EN | FC-81EN |
|---|---|---|---|
| Ports | 4 | 2 | 1 |
| Bus Characteristics | X8 PCIe 2.0 | X8 PCIe 2.0 | X8 PCIe 2.0 |
| Form Factor | Full Height | Low Profile | Low Profile |
| Max Transfer | 3200 MB/s | 1600 MB/s | 800 MB/s |
| Part Number | CTFC-84EN-000 | CTFC-82EN-000 | CTFC-81EN-000 |

*Celerity 81EN*

*Celerity 82EN*

*Celerity 84EN*