ATTO FibreBridge™ 6500
8Gb Fibre Channel to 6Gb SAS Storage Controller

Performance Engineered
ATTO FibreBridge™ products are engineered with an advanced architecture which provides high-performance by leveraging the latest hardware technology combined with ATTO’s intelligent controller architecture. ATTO FibreBridge products provide industry leading performance with value added features that have addressed customer connectivity needs for over 20 years.

Architect Flexible Storage Solutions
The FibreBridge enables users to manage storage infrastructures with features not found in direct connect technologies. Advanced read ahead and write cache algorithms in the FibreBridge give users the highest level of performance. Robust error processing enables the FibreBridge to manage disk and communication errors between targets and initiators. Email notification of errors and persistent error and trace logs assist troubleshooting in the field to minimize downtime.

Easy-to-use Management Tools
ExpressNAV™ System Manager is a remote management user interface for configuration, monitoring and management of ATTO storage controller products. Advanced tuning features include; performance monitoring, diagnostic and troubleshooting capabilities, and phone home email notification. Several management interfaces are available including GUI, CLI, Telnet, SNMP and FTP. Streamline storage management with the tools you need to confidently and efficiently manage your storage infrastructure.

Adds Enterprise Fibre Channel to SAS Storage
ATTO storage controllers provide the lowest cost per drive for Fibre Channel connectivity to SAS/SATA and HDD and SSD based storage and SAS tape devices. Adding Fibre Channel connectivity to your SAS/SATA devices gives this storage all the benefits of a SAN that SAS/SATA storage cannot natively provide. ATTO provides regular firmware updates and maintenance programs to keep the FibreBridge up to date with advances in technology.
# ATTO FibreBridge™ 6500

8Gb Fibre Channel to 6Gb SAS Storage Controller

## Technology
- FibreBridge™ products are based on the ATTO intelligent Controller Architecture which combines powerful hardware with an efficient software data engine to deliver high performance with valuable features and minimal overhead.

## Storage Controller Features
- The core control logic driving ATTO storage controller products is optimized to maintain priority for data transfers while providing memory management and cooperative multi-tasking.
- Patented Drive Map Director™ provides consistent drive, shelf and rack LUN mapping.
- Universal Virtual Device Architecture (UVDA) product which supports protocol conversion between hosts and targets and designed to move data quickly and efficiently.
- Virtual Device Manager (VDM) is a proprietary software architecture that assures the smooth flow of data. VDM minimizes overhead by creating a virtual link between initiators and targets on a per-command basis.
- The Data Routing Fabric topology incorporates advanced ASIC, firmware and interface technologies that enable users to configure bridges to specific operating environments.
- Virtual Drive Response™ (VDR) improves reliability by reducing failed or incomplete backups.
- Error Correcting Code (ECC) cache memory.
- Max login management capability.

## OEM Customization
- Hardware configuration options allow for unique board ID to define initialization and characteristics of the OEM product.
- Configuration able to interact with custom software packages to enhance the storage controller hardware.
- OEM configuration files store OEM specific parameters in NVRAM which enable features, characteristics of the OEM product.
- Product labeling will allow OEM logo and naming to appear on the front of the rack mount enclosure.

## Connectivity and Notification
- All connectors on rear side of storage controller.
- External LEDs for power, ready and alert status, Fibre Channel activity, link status and speed and SAS link status.
- Statistic reporting for all ports.

## Fibre Channel Connections:
- (2) 8Gb SFP+ Fibre Channel connectors
- Optical SFP+ modules included
- Auto negotiates to 8Gb/4Gb/2Gb
- Full support for FC-AL, FC-AL2, FC-FLA, FC-FS, FCP-3, FC-PLDA
- Private loop, public loop, point-to-point or fabric point-to-point with support for direct connection to F-port switches
- Fibre Channel retry logic for FLOGI, PLOGI

## SAS Connections:
- (2) 6Gb x4 mini-SAS QSFP SFF-8436 connectors
- Auto negotiates to 6Gb/3Gb/1.5Gb
- Supports passive and active copper
- Supports SAS and SATA disk devices
- Supports SAS tape devices
- Supports up to 10 levels of SAS expanders

## Management Interfaces
- Dual 100/1000 RJ-45 Ethernet ports
- Support for SNMP, SNMP, Telnet, FTP, ICMP

## Product Dimensions

<table>
<thead>
<tr>
<th>1U Rack mount models:</th>
<th>Height 1.69&quot; - Length 9.90&quot; - Width 17.31&quot;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Rack mount units have mounting hardware that will extend the width to fit a 19&quot; rack.</td>
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<td></td>
<td>Rack mount weighs 8.75 pounds (unboxed)</td>
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**Embedded models:**
- Length 9.80" - Width 7"
- Standard MicroATX Form Factor

## Management Tools
- User friendly web based ExpressNAV™ System Manager provides remote configuration, management and diagnostic capabilities.
- Local diagnostics supported via Command Line Interface (CLI) via RS-232 and Ethernet.
- SCSI Enclosure Services (SES) monitor critical components to provide system feedback.
- Persistent Event Log gathers over 40,000 hardware, software and network events to assist in overall system troubleshooting.
- Retrieve event logs through the Ethernet port.
- Dual firmware image support (Dual flash ROM).
- Performance monitoring and error logging.
- Temperature monitoring.
- Phone home email notification of errors.
- Real Time Clock (RTC).
- Audible Alarm.

## Operating Environment

### Storage Controller Operation:
- Temperature: 5-40°C at 10,000 feet
- Humidity: 10 - 90% non-condensing
- Thermal monitoring available.

### Storage Controller Storage:
- Temperature: -40°-70°C (-40°-157°F)
- Humidity: 5 - 95% non-condensing

### Power and Airflow (Rack mount)
- Input 85-264 VAC, 1A, 47-63 Hz
- 11 CFM (Ambient air not to exceed 40° C)
- Front to rear cooling
- Embedded model requires 24 pin ATX connector with available +12 VDC @ 35W

## Agency Approvals and Compliance

### (Rack mount models)
- EN 60950, CSA 60950, CB IEC 60950-1, UL 60950, IRAM, GOST-R, BSMI, C-TICK
- FCC Part 15 Class A, CE, VCCI, AS/NZS, CISPR 22, EN55022: 2006, Class A, EN55024, EN61000, CoC (South Africa)

## Electromagnetic Compatibility (EMC):
- RoHS Compliant 2002/95/EC
- Battery-free design