



ATTO Technology, Inc.

ExpressSAS H60F & H6F0 6-Gb SAS/SATA Host Adapters

16-port 6-Gb/sec. SAS/SATA Host Adapters Featuring ADS™ Technology



Product Features

Blazing Fast Performance

- Up to 6-Gb/sec per port transfer rates with SAS, SAS 2.0, SATA and SATA II attachment
- Advanced x8 PCIe 2.0 host interface
- Achieve I/O and data throughput necessary for advanced video (uncompressed HD, 2K and 4K film) and transactional database applications

Smooth Data Streaming

- Alleviate data transfer bottlenecks and move data more efficiently while managing latency with ATTO's exclusive ADS™ Technology
- Maximize data flow using the fastest available 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 via included multi-platform configuration utility featuring an intuitive GUI
- BIOS setup utility provides flexibility for custom applications

ATTO's line of ExpressSAS 6-Gb/sec. Host Adapters help users alleviate their performance-related concerns by providing the fastest available connections to SAS/SATA storage. With connectivity options including 16-external ports and 16-internal ports, ATTO ExpressSAS 6-Gb Host Adapters are ideal for a wide variety of IT and digital video environments requiring a high-level of performance, such as transactional databases, email servers, large server farms, uncompressed HD video, and 2K and 4K film.

Leveraging ATTO's 20 years of experience with SCSI hardware and utilizing the latest PCI Express 2.0 bus technology, ExpressSAS Host Adapters provide a blazing-fast storage connectivity solution with enhanced reliability and performance.

ExpressSAS Host Adapters are engineered for the most stringent IT server and digital media workgroup environments and are compatible with multiple operating systems, applications, and drives.

ATTO's user-friendly GUI utility simplifies management, monitoring, and configuration. ExpressSAS Host Adapters incorporate ATTO's time-tested and field-proven Advanced Data Streaming (ADS™) Technology to maximize data transfer rates. In addition, ATTO provides industry standard PCIe to SAS control using Serial SCSI Protocol (SSP), Serial ATA Tunneling Protocol (STP), and Serial Management Protocol (SMP).

Technical Highlights

- Connectivity options include:
 - 16 internal ports (H60F)
 - 16 external ports (H6F0)
- x8 PCIe 2.0 host interface
- Available in half-height form factor
- Advanced 6-Gb/sec. SAS/SATA throughput
- SAS, SAS 2.0, SATA and SATA II connectivity
- Supports a maximum 256 SAS/SATA drives
- Exclusive Advanced Data Streaming (ADS™) Technology
- User friendly configuration utility
- Driver support for Windows®, Linux and Mac® OS X
- RoHS Compliant
- 3-year standard product warranty

Technical Specification
ExpressSAS H60F & H6F0

Host Adapters

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



ExpressSAS H60F & H6F0

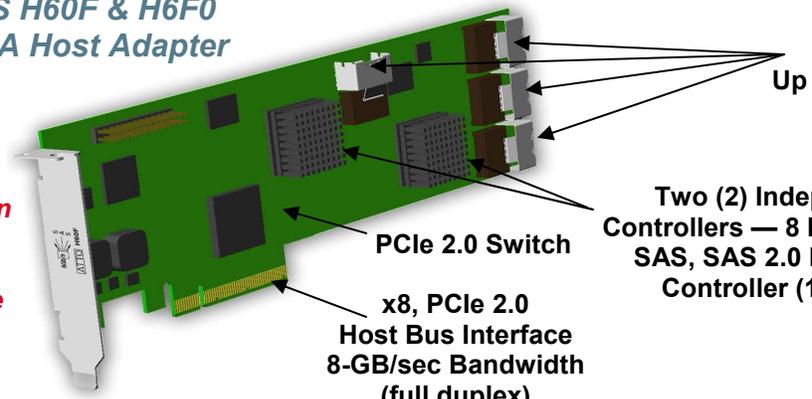
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Host Adapters

| Hardware Specifications | | | | | | | | | | | | | |
|---|--|--------|------|------|----------|--------|--------|----------|--------|--------|-----------------------|-----|-----|
| Applications | <ul style="list-style-type: none"> Support for IT server and digital media workgroup solutions requiring high-bandwidth and reliability. Applications include audio/video, VOD, fixed content, database and other data intensive environments. | | | | | | | | | | | | |
| Advanced Capabilities | <ul style="list-style-type: none"> Device support for SAS, SAS 2.0, SATA and SATA II User friendly GUI for quick and easy configuration Advanced management functions PC BIOS bootability | | | | | | | | | | | | |
| PCI Bus Specifications | <ul style="list-style-type: none"> x8 PCI Express 2.0 host interface | | | | | | | | | | | | |
| Connectors | <ul style="list-style-type: none"> Mini SAS connectors | | | | | | | | | | | | |
| Software Specifications | | | | | | | | | | | | | |
| Driver Support | <ul style="list-style-type: none"> Windows® Server 2003, 2008, XP, Vista Mac® OS X 10.4.x & 10.5.x Linux (Red Hat and SuSE) | | | | | | | | | | | | |
| Agency Approvals (Pending) | | | | | | | | | | | | | |
| Safety and Environmental | <ul style="list-style-type: none"> FCC Part 15, Subpart B, Class B EN55022: 2006, Class B EN55024: 1998A + A1: 2001 & A2: 2003 EN60950-1: 2001 EN60825-1: 1994-2: 2004 | | | | | | | | | | | | |
| Compliance | <ul style="list-style-type: none"> RoHS Compliant | | | | | | | | | | | | |
| Environmental & Physical Specifications | | | | | | | | | | | | | |
| Dimensions & Power | <table border="1"> <thead> <tr> <th></th> <th>H60F</th> <th>H6F0</th> </tr> </thead> <tbody> <tr> <td>• Length</td> <td>8.638"</td> <td>6.600"</td> </tr> <tr> <td>• Height</td> <td>2.846"</td> <td>4.376"</td> </tr> <tr> <td>• Power (W - typical)</td> <td>22W</td> <td>22W</td> </tr> </tbody> </table> | | H60F | H6F0 | • Length | 8.638" | 6.600" | • Height | 2.846" | 4.376" | • Power (W - typical) | 22W | 22W |
| | H60F | H6F0 | | | | | | | | | | | |
| • Length | 8.638" | 6.600" | | | | | | | | | | | |
| • Height | 2.846" | 4.376" | | | | | | | | | | | |
| • Power (W - typical) | 22W | 22W | | | | | | | | | | | |
| Operating Environment (Pending) | <ul style="list-style-type: none"> Temperature: 0-40° C (32°-104°F) Humidity: 5 - 95% non-condensing | | | | | | | | | | | | |
| Storage Environment (Pending) | <ul style="list-style-type: none"> Temperature: -40°-70°C (-40°-157°F) Humidity: 5 - 95% non-condensing | | | | | | | | | | | | |
| Airflow | <ul style="list-style-type: none"> 150 lf/m (min) recommended | | | | | | | | | | | | |
| Ordering Information | | | | | | | | | | | | | |
| Model Number | <ul style="list-style-type: none"> ESAS-H60F-000 (16 ports internal) ESAS-H6F0-000 (16 ports external) | | | | | | | | | | | | |

ATTO ExpressSAS H60F & H6F0
6-Gigabit SAS/SATA Host Adapter

ATTO's Unique Design Provides the Power of Two Independent Host Adapters in One Half-Height Card



16 independent SAS, SAS 2.0 Lanes
Up to 1.2-GB/sec per Lane (full duplex)

Two (2) Independent Controllers — 8 Independent SAS, SAS 2.0 Lanes per Controller (16 total)

PCIe 2.0 Switch

x8, PCIe 2.0 Host Bus Interface
8-GB/sec Bandwidth (full duplex)

Technical Specification
ExpressSAS H60F & H6F0



Power Behind the Storage

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