



ATTO Technology, Inc.

# ExpressSAS R380 Low-Profile SAS RAID Adapter



## 3-Gb SAS/SATA II Connectivity with Integrated RAID Support

### Product Features

#### Blazing Fast Performance

- Up to 3-Gb/sec per port transfer rates with SAS, SATA and SATA II attachment
- Increased bandwidth through x8 PCI Express host interface
- Point-to-point technology delivers full throughput to each connected storage device

#### Smooth Data Streaming

- Alleviate data transfer bottlenecks and move data more efficiently while managing latency with ATTO's exclusive ADS™ technology
- Improve I/O through optimized data movement

#### One Click Installation

- One-click installation allows for quick and easy set-up
- Simple GUI based utility for effortless adapter configuration
- BIOS setup utility provides flexibility for custom applications

ATTO introduces the ExpressSAS R380 Low-Profile RAID Adapter. Providing 3-Gb SAS/SATA II connectivity with integrated RAID support and eight external ports, the ATTO SAS RAID adapter is ideal for both IT and digital video environments that require a high level of data protection and performance.

The ATTO ExpressSAS host adapter product family provides enhanced reliability and performance thanks to more than 15 years of experience with SCSI hardware and storage connectivity solutions. Using the latest in PCI Express bus technology and an eight external port configuration, the ATTO ExpressSAS R380 RAID adapter delivers blazing fast performance with transfer rates of up to 3-Gb per second per port. With two external x4 Mini SAS connectors, the R380 provides connectivity of up to 32 SAS/SATA targets. The R380 also features 256MB of ECC-protected DDR2 DRAM to allow support for multiple RAID groups.

The ATTO ExpressSAS R380 RAID adapter is engineered for the most stringent IT server and digital media workgroup environments. To satisfy the data protection requirements of these environments, ATTO leverages it's time tested ATTO RAID Stack (ARS™) technology based on a proven RAID core that is compatible with multiple operating systems, applications, and drives.

The easy-to-use GUI utility enables RAID management, monitoring, and configuration. ATTO also incorporates it's field proven Advanced Data Streaming (ADS™) technology to meet the most demanding performance requirements of data intensive applications. 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

- x8 PCIe host interface
- True low-profile form factor
- 8 external ports
- Outstanding performance with up to 3-Gb/sec per port
- Highly configurable RAID (0, 1, 4, 5, 10, 50, JBOD and DVRAID™ support)
- SAS, SATA and SATA II connectivity
- Supports up to 128 virtual SAS/SATA drives
- Exclusive Advanced Data Streaming (ADS™) technology
- User friendly GUI configuration utility
- Driver support for Windows®, Linux and Mac® OS X
- RoHS Compliant
- 2-year standard product warranty

**Technical Specification**  
ExpressSAS R380 RAID Adapter

## RAID Adapter

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



# ExpressSAS Low-Profile RAID Adapter

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## 3-Gb SAS/SATA II Connectivity with Integrated RAID Support

Hardware Specifications	
Applications	<ul style="list-style-type: none"> <li>• Support for IT server and digital media workgroup solutions requiring high-bandwidth and data protection. Applications include audio/video, VOD, fixed content, database and other data intensive environments.</li> </ul>
Maximum Transfer Rate	<ul style="list-style-type: none"> <li>• Up to 3-Gb/sec per port</li> </ul>
Advanced Capabilities	<ul style="list-style-type: none"> <li>• Device support for SAS, SATA and SATA II</li> <li>• Support for RAID levels 0, 1, 4, 5, 10, 50, JBOD and DVRAID (future support for 6 and 60)</li> <li>• On-line capacity expansion</li> <li>• Hot spare, hot swap</li> <li>• Supports SM HBA API</li> <li>• Native Command Queuing</li> <li>• Cache memory—256MB ECC protected memory</li> <li>• Optional Battery Backup</li> <li>• User friendly GUI for RAID setup</li> <li>• External LEDs for on-line status</li> </ul>
PCI Bus Specifications	<ul style="list-style-type: none"> <li>• x8 PCI Express host interface</li> <li>• Supports PCI Express Base Spec 1.0a</li> </ul>
Connectivity	<ul style="list-style-type: none"> <li>• Easy-to-install full height connection bracket; low-profile bracket included in Finished Goods packaging</li> <li>• Two x4 External Mini SAS (SFF-8088) connectors</li> </ul>
Software Specifications	
Driver Support	<ul style="list-style-type: none"> <li>• Windows® Vista, Server 2003, XP, 2000</li> <li>• Mac® OS X (10.4.x)</li> <li>• Linux (Fedora, Red Hat and SuSE)</li> </ul>
Agency Approvals	
Safety and Environmental	<ul style="list-style-type: none"> <li>• FCC Rules, Part 15, Class B</li> <li>• CE Mark: CISPR 22:2002/EN55022:2002, Class B</li> </ul>
Compliance	<ul style="list-style-type: none"> <li>• RoHS Compliant</li> </ul>
Environmental & Physical Specifications	
Dimensions	<ul style="list-style-type: none"> <li>• Conforms to PCI low-profile form factor specifications</li> <li>• Length 6.600"</li> <li>• Height 2.713"</li> </ul>
Operating Environment	<ul style="list-style-type: none"> <li>• Temperature: 0-55° C (32°-113°F)</li> <li>• Humidity: 5 - 95% non-condensing</li> </ul>
Storage Environment	<ul style="list-style-type: none"> <li>• Temperature: -40°-70°C (-40°-157°F)</li> <li>• Humidity: 5 - 95% non-condensing</li> </ul>
Power	<ul style="list-style-type: none"> <li>• Conforms to PCIe spec 1.0a</li> </ul>
Airflow	<ul style="list-style-type: none"> <li>• 150 lf/m (min) recommended</li> </ul>
Ordering Information	
Model Number	<ul style="list-style-type: none"> <li>• ESAS-R380-000 (RoHS)</li> </ul>

