



ATTO Technology, Inc.

# ExpressPCI UL5D

## Dual-channel Ultra320 SCSI PCI Express Host Adapter



### Product Features

- Maximize data throughput with dual channel connectivity aggregating performance across multiple SCSI ports
- Leveraging the latest in SCSI storage connectivity, the UL5D delivers up to 640 MB/sec. data throughput, making it twice as fast as Ultra160 SCSI.

### Smooth Data Streaming

- Maintain accessibility to mission-critical data by transparently redirecting data requests through alternate channels.
- Alleviate data transfer bottlenecks and move data more efficiently while managing latency with ATTO's exclusive ADS™ technology.

### One Click Installation

- Save time with factory preset configuration for plug and play operation.
- Simplify installation, management and monitoring with a multi-platform Configuration Utility featuring an intuitive GUI.

The ATTO ExpressPCI UL5D, an ATTO Ultra320 SCSI host adapter, offers high-performance provided by Ultra320 and ATTO-designed performance enhancing technologies. The UL5D SCSI host adapter aids users dealing with the reality of today's data-intensive environments, including video-editing applications requiring support for multiple streams of 10-bit high-definition video.

Additionally, the ExpressPCI UL5D offers support for the next generation of PCI bus technology with a 4-lane PCI Express (PCIe) interconnect. The high-bandwidth provided by a PCI Express interconnect ensures the UL5D can operate at speeds up to 640 MB/sec. The combination of Ultra320 SCSI and PCI Express makes the UL5D ideal for high-end workstations running high-volume, mission critical applications such as messaging and databases.

ATTO host adapters offer ATTO's exclusive Advanced Data Streaming (ADS™) technology, and the ExpressPCI UL5D is no exception. By effectively managing latency and allowing for fast and efficient data movement, utilization of the CPU is reduced, freeing it up to perform other mission critical tasks.

The ExpressPCI UL5D is the industry's first choice for high-speed SCSI host adapters. By offering support for Ultra320 SCSI and PCI Express, in addition to ATTO-designed technologies such as ADS, the ExpressPCI UL5D offers both the performance and feature set necessary for data-intensive applications.

### Technical Highlights

- Ultra320 SCSI
- Up to 320 MB/sec. per channel data-transfer rates
- Dual independent SCSI channels (2 internal and 2 external connector availability)
- x4 PCI Express
- Driver support for Windows®, Linux, Novell Netware® and Mac® OS X
- Exclusive ADS™ technology
- Supports up to 30 SCSI bus IDs
- Up to 12 meter cable lengths
- RoHS Compliant
- 3-year standard product warranty

# ATTO ExpressPCI UL5D

ATTO Technology, Inc. Host Adapter

Hardware Specifications	
SCSI Interface	<ul style="list-style-type: none"> <li>• 320 MB/sec. per channel data-transfer rates</li> <li>• Two (2) external VHDCI and two (2) internal high-density connectors per channel</li> <li>• Low Voltage Differential (LVD) signaling</li> <li>• Support for tagged command queuing</li> <li>• Backward compatible with Ultra160, Ultra2, Ultra/WIDE, Fast/WIDE &amp; Narrow SCSI devices</li> </ul>
Advanced SCSI	<ul style="list-style-type: none"> <li>• Supports dynamic bus rescan (OS X)</li> <li>• Double transition clocking</li> <li>• Domain validation</li> <li>• Cyclical Redundancy Checking (CRC)</li> <li>• Packetization</li> <li>• Quick Arbitration Select (QAS)</li> <li>• ASPI compliant (for PC users)</li> <li>• Bootable from attached disks</li> <li>• Support for disconnect/reconnect</li> <li>• Support for multiple block sizes</li> </ul>
General Characteristics	<ul style="list-style-type: none"> <li>• Automatic termination</li> <li>• Upper-byte termination for Narrow devices</li> <li>• Flash ROM for easy field upgrades</li> <li>• Plug and play compatible</li> <li>• Includes ATTO ExpressPro-Tools™ &amp; ATTO Configuration Tool formatting &amp; utility software</li> </ul>
Software Specifications	
Driver Support	<ul style="list-style-type: none"> <li>• Windows® Server 2003, 2008, XP, Vista</li> <li>• Mac® OS X (v10.4.x &amp; 10.5.x)</li> <li>• Linux (Fedora, Red Hat and SuSE)</li> <li>• Novell Netware® v6.5</li> </ul>
Advanced Data Streaming (ADS™)	<ul style="list-style-type: none"> <li>• Improved PCI system bandwidth use</li> <li>• Optimized SCSI-3 algorithms</li> <li>• Tagged command queuing</li> <li>• Embedded RISC I/O processor</li> </ul>
Host Bus Specifications	<ul style="list-style-type: none"> <li>• x4 PCI Express interconnect</li> <li>• Supports PCI Express Base Spec 1.0a</li> <li>• Supports PCI Express CEM Spec 1.0a</li> <li>• PCI Express to PCI/PCI-X Bridge spec 1.0</li> </ul>
RAID Options	<ul style="list-style-type: none"> <li>• RAID 0 support with ATTO Express Power Center or ExpressStripe RAID software utilities</li> </ul>
Agency Approvals	
Safety and Environmental	<ul style="list-style-type: none"> <li>• FCC Rules, Part 15 Sub-Part B, Class A</li> <li>• CE Mark: CISPR 22 / EN 55022, Class A</li> </ul>
Environmental & Physical Specifications	
Dimensions	<ul style="list-style-type: none"> <li>• Length 7.5"</li> <li>• Height 4.376"</li> </ul>
Operating Environment	<ul style="list-style-type: none"> <li>• Temperature: 0-45° C</li> <li>• Humidity: 10-90% non-condensing</li> <li>• Airflow: 100 LFM (min)</li> </ul>
Reliability	<ul style="list-style-type: none"> <li>• MTBF = 675,000 hours</li> <li>• MTTR &lt; 15 Minutes</li> </ul>
Power	<ul style="list-style-type: none"> <li>• 1.61 typical/ 2.03 max. Amps @ + 3.3 VDC</li> <li>• 0.65 typical/ 1.46 Amps @ + 12.0 VDC</li> </ul>
RoHS Compliant	<ul style="list-style-type: none"> <li>• Yes</li> </ul>
Ordering Information	
Model Number	<ul style="list-style-type: none"> <li>• EPCI-UL5D-0R0 (RoHS)</li> </ul>

Technical Specification  
ExpressPCI UL5D



Power Behind the Storage

