

# ATTO ExpressPCI UL3D



## Dual-channel Ultra3 SCSI Host Adapter Featuring Advanced Data Streaming (ADS™) Technology

*With data-transfer rates of up to 160 MB/sec. per channel, the ATTO ExpressPCI UL3D Ultra3 SCSI dual-channel host adapter offers the ultimate in performance and scalability. With support for up to 30 devices, the UL3D, when used with ATTO ExpressRAID, is ideal for connecting external drive arrays for mirroring and striping multiple SCSI hard disk drives, delivering maximum performance in the most demanding environments.*

*ATTO's exclusive Advanced Data Streaming (ADS™) Technology ensures maximum I/O performance for data-intensive applications such as digital video, prepress, database, server and internet.*

## TECHNICAL HIGHLIGHTS

- Up to 160 MB/sec. per channel data-transfer rates
- 64/32-bit PCI interface
- 33 MHz compatible
- Cyclical redundancy checks
- Double transition clocking
- Exclusive ADS™ Technology
- Supports up to 30 SCSI device IDs
- Up to 12 meter cable lengths
- Dual independent SCSI channels

ATTO SCSI HBAS

ATTO

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## Hardware Specifications

### SCSI Interface:

- Up to 160 MB/sec. per channel data-transfer rates
- Two (2) external VHDCI and two (2) internal high-density connectors per channel
- Compatible with SCSI-3, SCSI-2 and SCSI-1 devices
- Low Voltage Differential (LVD) Single-Ended signaling
- Bus mastering capability
- Support for tagged command queuing
- Backward compatible with Ultra2, Ultra/WIDE, Fast/WIDE and Narrow SCSI devices

### Advanced SCSI:

- Supports dynamic bus rescan (OS X)
- Large command FIFO
- Asynchronous I/O support
- ASPI compliant (for PC users)
- Bootable from attached disks
- Support for disconnect/reconnect
- Support for multiple block sizes
- Legacy device support for Macintosh® users

### General Characteristics:

- Automatic termination
- Upper-byte termination for Narrow devices
- Flash ROM for easy field upgrades
- PCI 2.2 and PCI 99 compliant
- Plug and play compatible
- Includes ATTO ExpressPro-Tools™ and ATTO Configuration Tool formatting and utility software



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## Software Specifications

### Driver Support:

- Windows Server 2003
- Windows XP
- Windows® 2000
- Mac® OS X
- Mac OS 9
- Linux

### Advanced Data Streaming (ADS™):

- Improved PCI system bandwidth use
- Optimized SCSI-3 algorithms
- Tagged command queuing
- Embedded RISC I/O processor

### RAID kits available

## Environmental and Physical Characteristics

### Dimensions:

- Length 6.521"
- Height 4.450"

### Operating Environment:

- Temperature: 0-50° C
- Humidity: 10-90% non-condensing
- Airflow: 100 LFM (min)

### Reliability:

- MTBF = 150,000 hours
- MTTR < 15 Minutes

### Power:

- 0.75 typical/2.0 max. Amps @ + 5.0 VDC
- 0.05 Amps @ + 12.0 VDC

### PCI Signal Compatibility:

- 3.3 Volts/5 Volts universal

## SCSI Host Adapter Selection Chart

SCSI Host Bus Adapters	Ultra320 SCSI		Ultra3 SCSI	
	UL4D	UL4S	UL3D	UL3S
<b>FEATURES</b>				
Max. Transfer Rate (MB/sec.)	640	320	320	160
Low Voltage Differential	•	•	•	•
Single-Ended SCSI	•	•	•	•
Number of SCSI Channels	2	1	2	1
Number of SCSI IDs Supported	30	30	30	30
Large File Transfers	•	•	•	•
Cable Distances	12.5	12.5	12.5	12.5
Uncompressed Video	•	•	•	•
32-bit PCI Compatible	•	•	•	•
64-bit PCI Compatible	•	•	•	•
33 MHz PCI	•	•	•	•
66 MHz PCI	•	•		
133 MHz PCI-X	•	•		
Windows® 2000/XP/Server 2003	•	•	•	•
Linux	•	•	•	•
Mac® OS & Mac OS X Support	OS X	OS X	•	•