

# Ultra3 SCSI HBAs

## Technical Specifications



### ATTO ExpressPCI UL3S

Single Channel Ultra3 SCSI Host Adapter

#### Fast and Efficient Data Transfer

The ATTO ExpressPCI UL3S with Vpath™ Technology offers users a flexible, high-speed SCSI interconnect with data transfer rates of up to 160 MB/sec. With one external connector and one internal connector Vpath Technology allows ExpressPCI UL3S users to attach Ultra3 drives externally and slower Ultra2 or Ultra SCSI devices internally, or vice versa, without sacrificing the performance of the high speed devices. This allows users to take full advantage of Ultra3 speeds and legacy speeds simultaneously. Vpath Technology...giving users variable paths to achieve ultimate performance.

#### Technical Highlights

- Vpath™ Technology
- Data Transfer Rates Up to 160 MB/sec.
- Cyclical Redundancy Checks
- Double Transition Clocking
- Domain Validation
- Connect Legacy and Ultra3 Devices

ATTO

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[attotech.com](http://attotech.com)

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# ATTO

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## ATTO ExpressPCI UL3S

### Ultra3 SCSI Single Channel Host Adapter

- Data Transfer Rates Up to 160 MB/sec.
- Vpath™ Technology
- 64/32-bit PCI interface
- 66/33 MHz compatible
- Connect Ultra3 and legacy devices
- Exclusive ADS™ Technology
- Supports up to 15 SCSI device IDs

## Specifications:

### SCSI Bus

- Compatible with SCSI-3, SCSI-2 and SCSI-1 devices
- Low Voltage Differential/Single-Ended signaling
- Bus mastering capability
- Support for tagged command queuing
- Asynchronous I/O support
- Backward compatible with Ultra2, Ultra, Fast/WIDE and Narrow SCSI devices

### Advanced SCSI

- Bootable from attached disks
- Support for disconnect/reconnect
- Large command FIFO
- Support for multiple block sizes
- ASPI compliant (for PC users)
- Legacy device support for Macintosh® users

### General

- Compatible with PCI-based PCs and Macintosh straight out-of-the-box
- Automatic termination
- Upper-byte termination for Narrow devices
- Embedded RISC I/O processor
- Flash ROM for easy field upgrades
- PCI 2.2 compliant
- PC 99 compliant
- RAID ready
- Plug and play
- Includes ATTO ExpressPro-Tools formatting and utility software
- MTBF = 150,000 hours
- MTTR < 15 minutes

## Environmental and Physical

Dimensions:	Length	6.521"
	Height	4.2"
Operating Temperature:	0-50° Celsius	
Humidity:	10-90% non-condensing	
Power:	0.75 typical/2.0 max. Amps @ + 5.0 VDC 0.05 Amps @ +12.0 VDC	

## Operating Environments

Mac® OS 8.X, Mac OS 9.X, Windows® 2000,  
 Windows NT, Windows 95/98, Windows 3.x, MS-DOS

Which ExpressPCI Host Adapter Meets Your Needs?								
	UL3D	UL3S	UL2D	UL2S	DC	PSC	DCd	PSCd
Maximum Transfer Rate	320	160	160	80	80	40	80	40
Ultra3 SCSI	√	√						
Ultra2 SCSI (LVD)			√	√				
Ultra/WIDE SCSI					√	√	√	√
Low Voltage Differential SCSI	√	√	√	√				
High Voltage Differential SCSI							√	√
Single-Ended SCSI					√	√		
Dual Independent SCSI Channels	√		√		√		√	
Single SCSI Channels		√		√		√		√
32-bit PCI Compatible	√	√	√	√	√	√	√	√
64-bit PCI Compatible	√	√	√					
Support for up to 15 Bus IDs		√		√		√		√
Support for up to 30 Bus IDs	√		√		√		√	
Large File Transfers	√	√	√	√	√	√	√	√
Longer Cable Distances	√	√	√	√			√	√
Uncompressed Video	√	√	√	√	√		√	
33 MHz PCI Compatible	√	√	√	√	√	√	√	√
66 MHz PCI Compatible	√	√						