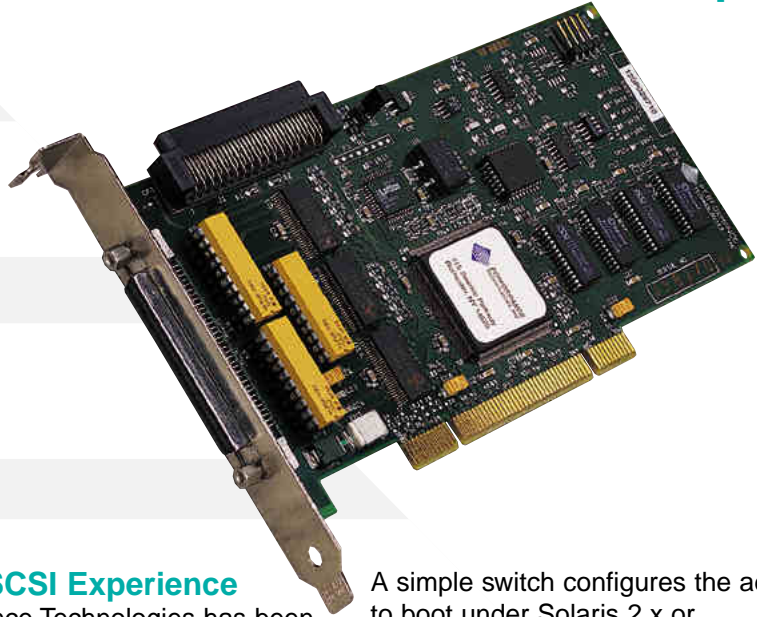


Features

-Benefits

- ◆ Ultra SCSI data rates of up to 40 MBytes/sec
For the highest ULTRA SCSI performance
- ◆ Solaris 2.x and Windows NT drivers included
For operation in all Sparc and Windows NT PCI Bus compatible workstations and servers
- ◆ On board RISC processor, SCSI controller, and high speed DMA
Reduces interrupt latency-capable of reducing four to five interrupts down to one
- ◆ Supports up to 15 target devices on one SCSI bus
Preserves valuable PCI slots
- ◆ Switch selectable Dual Mode BIOS
Allows booting from either Solaris or Windows NT environments
- ◆ Comprehensive SCSI feature set
 - Multi-threaded I/O
 - Scatter/gather
 - Disconnect/reconnect
 - Sync & async data transfer
 - Tagged command queuing
 - Extended LUN support (up to 32 logical units per target)
- ◆ SCSI Dynamic Fault Monitor
Diagnostic capabilities to quickly identify bus or device problems
- ◆ Differential or single-ended SCSI connections with active or Forced Perfect Termination (FPT)
For reliable performance in real world configurations

PT-PCI450 ULTRA WIDE SCSI PCI Host Adapter



Broad SCSI Experience

Performance Technologies has been supplying SCSI Host Adapter products since 1986 for a variety of computer bus standards. The PCI450, the latest generation of our SCSI product family, operates in all Sparc and Windows NT PCI Bus workstations and servers.

The PCI450 plays a significant role in making Performance Technologies a full-line supplier of quality, high performance data communications and connectivity solutions for the workstation, server, and embedded markets.

Software Support

The SCSI bus support software included with the PCI450 reflects PTI's background and expertise in supplying over six generations of SCSI Host Adapter products. We have now applied that knowledge base to products for the PCI bus architecture.

The PCI450 is delivered with complete plug-and-play drivers and installation software for Solaris 2.x and Windows NT. An innovative hardware design allows the product to automatically configure a variety of selectable options under software control at the time of installation.

The PCI450 is backward compatible with 16 bit Wide/Fast SCSI devices. This allows both 20 MByte/sec and 40 MByte/sec devices to be interconnected on the same SCSI bus.

A simple switch configures the adapter to boot under Solaris 2.x or Windows NT. The on-board PROM contains complete SCSI disk and tape device driver written to revision 3 Open Boot Specification as well as an Intel based BIOS. This feature allows boot support for either Solaris or NT workstations and servers. This PROM is field flashable to keep the initialization and configuration firmware current with the latest software revision.

The PCI450 drivers include the unique Adaptive Synchronous Negotiation (ASN) feature. In normal operation, ASN software negotiates the highest possible transfer rate (up to 40 MBytes/sec) with an ULTRA SCSI disk. If a predetermined number of errors occur during operation, intelligence in the driver uses various statistical techniques to interactively reduce the transfer rate on an incremental basis. The result is consistent reliability at the highest possible performance.

At system configuration, the adapter software determines the maximum allowable data burst transfer size for the specific platform. This provides maximum throughput regardless of overall cable length, number of devices on the SCSI bus, or the specific workstation or server being used.



**PERFORMANCE
TECHNOLOGIES, INC**

PT-PCI450 ULTRA WIDE SCSI PCI Host Adapter

Hardware Features

The PCI450 is built around a unique hardware architecture which includes: A high-speed embedded RISC processor to supervise operation and minimize host platform overhead; an embedded processor-based ULTRA SCSI controller for optimum SCSI bus operation; and a high-speed DMA for maximum PCI Bus transfer rates. This dual processor design dramatically reduces interrupt latency from an average of four to five interrupts for a typical host adapter, to one interrupt during a PCI450 ULTRA SCSI transfer.

128Kb of on-board SRAM allows more SCSI commands to be queued than with typical 64Kb configurations. This added memory provides the critical performance necessary for demanding RAID systems or other high transaction servers.

Single-Ended or Differential SCSI bus Options

When operating in the SCSI-3/ULTRA SCSI mode, integrity of the SCSI bus signals becomes critical. PTI has accumulated a wealth of controller knowledge, which assures robust, maximum SCSI performance in "less-than-perfect", real-life situations.

The single-ended version in this family includes both active and Forced Perfect Termination (FPT). The use of the FPT single-ended module provides an extra degree of reliability when operating ULTRA SCSI devices with single-ended interfaces. FPT is recognized as an effective termination technique, especially in stand-alone systems with one or two devices on the SCSI bus.

The differential PCI450 is ideal for all installations that have cable lengths between three to six meters or more than four disks (or other SCSI peripherals) on one bus. In these demanding situations, you'll find the PCI450 to be the perfect solution for reliable, worry-free operation.

The PCI450 series is available with single-ended or differential SCSI bus interface. Optional versions with provisions for internal connection are also available.

Specifications

SCSI Data Transfer Rate:	<i>Up to 40 MBytes/sec</i>
Host Transfer Rate:	<i>Up to 132 MBytes/sec (burst mode)</i>
SCSI Connection:	<i>External- 68-pin High Density Internal- 68-pin High Density</i>
SCSI Standard:	<i>SCSI-3 Compliant (X3T10/1071D)</i>
RAM:	<i>128Kb SRAM</i>
Driver Support:	<i>Solaris 2.x, Windows NT</i>
Operating Temperature:	<i>0 to +55 Degrees C</i>
Storage Temperature:	<i>-20 to +70 Degrees C</i>
Relative Humidity:	<i>10 to 90% (non-condensing)</i>
Storage Humidity:	<i>5 to 95% (non-condensing)</i>
Power Requirements:	<i>+5VDC @ 1.0 Amps (Single-ended) +5VDC @ 1.2 Amps (Differential)</i>
Form Factor:	<i>17cm x 11cm (7.0" x 4.0") Short Form</i>
MTBF:	<i>500,000 power-on-hours (POH)</i>

Specifications subject to change

Ordering Information

PT-PCI450-S-10747	Ultra Wide SCSI Host Adapter - Single Ended
PT-PCI450-D-10748	Ultra Wide SCSI Host Adapter - Differential



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