



# AVA~-2904/AVA-2904E

**Cost Effective PCI Connectivity for SCSI Peripherals** 



# **PRODUCT HIGHLIGHTS**

- Industry standard SCSI architecture for unmatched compatibility
- Plug-and-Play—no jumpers or switches to configure, lower technical support costs
- PCI-to-Fast SCSI-2 provides up to 10 MB/sec data transfer rate
- Bus Mastering DMA ensures low CPU utilization for highperformance multitasking

#### **APPLICATIONS**

- CD-Recordable
- PD/CD-ROM
- DVD
- · Removable drives
- · Magneto-Optical drives
- Scanners

#### Overview

The Adaptec® AVA-2904 host adapters are the optimal choice for SCSI peripherals such as CD-Recordable drives, removable drives, DVDs, scanners and magneto-optical drives.

Based on the industry-standard Adaptec AHA-2940 architecture, the AVA-2904 family of adapters provides the superior compatibility Adaptec is known for, resulting in fewer technical support calls and lower costs. In fact, these PCI-to-SCSI host adapters deliver the lowest total cost solution to the OEM.

#### **Key Benefits**

# **Unmatched Compatibility**

Adaptec has tested the AVA-2904 family with hundreds of systems, peripherals and software products. As the industry leader for SCSI host adapters, Adaptec enjoys extensive testing in the labs of virtually every SCSI peripheral vendor and PC OEM. As a result, the AVA-2904 host adapters deliver unmatched compatibility and painless installation.

Support for the AVA-2904 family is built into Windows®95 and Windows NT®. Support for Windows® 3.1 and DOS is available through drivers.

#### **Simple Installation**

With features such as Plug-and-Play and SCAM (SCSI Configured Automatically), the AVA-2904 family of host adapters are designed with everything needed for simple system installation and easy peripheral attachment.

#### **Built in SCSI Performance**

Advanced SCSI features such as scatter/gather, disconnect/reconnect and tagged command queuing, free the CPU to handle multitasking I/O more efficiently. The AVA-2904/2904E combines fast throughput with minimal demands on the CPU to speed the handling of large data formats such as video and 3-D images.

#### Low CPU Overhead

The AVA-2904/2904E adapters are designed to improve overall system performance. Bus Mastering DMA makes the AVA-2904/2904E ideal for multitasking environments by relieving the CPU from the overhead of I/O processing. The onboard, RISC-based, PhaseEngine® quickly processes the SCSI commands decreasing the load on the host system CPU.

## **Proven Quality and Reliability**

The AVA-2904/2904E host adapters have undergone thorough testing in Adaptec's Product Test Laboratory. Each board design is subjected to thousands of hours of functional, compatibility, and environmental tests to ensure the highest quality and reliability. Our commitment to quality has earned Adaptec's manufacturing facility ISO-9002 certification.

#### **EASE-OF-USE FEATURES**

- Auto termination feature will enable or disable onboard termination automatically
- Uses common Adaptec 7800 Managers SoftwareSet<sup>™</sup> for the highest compatibility
- Advanced SCSI Programming Interface (ASPI) compliant

## SOFTWARE SUPPORT

 Software drivers for virtually all SCSI devices including hard drives, CD-ROM, magneto-optical (MO), tape, removable disk, WORM, scanners, jukeboxes, and more

#### SCSI PERFORMANCE

- 10 MB/sec data transfer rate, 8-bit Fast SCSI-2
- Multithreading support up to 255 simultaneous I/O tasks
- Disconnect/Reconnect feature that frees the host to perform other tasks while a SCSI device is busy
- Connects up to 7 SCSI peripherals with a single cable

#### SYSTEM PERFORMANCE

- Tagged command queuing for peak performance in multitasking environments
- True 32-bit PCI bus master DMA implementation
- SCSI commands are stored on-chip for auto execution by the SCSI PhaseEngine, a 10-MIPS RISC I/O processor
- Scatter/Gather supported in hardware for faster performance
- 128 byte data FIFO buffer reduces system latencies and maximizes PCI bus utilization

## TECHNICAL SPECIFICATIONS

Computer Bus: PCI local bus

Host Data Transfer Modes:32-bit Bus Master DMAHost bus data transfer rate:Up to 133 MB /sec burst rateSCSI synchronous data rate:Up to 10 MB /sec burst rate

**Device protocol:** 8-bit, Fast SCSI-2

Advanced SCSI features: Scatter/Gather, disconnect/reconnect,

multitasking/multithreading, tagged queuing, SCSI termination power-down control, parity

handling, and active negation

**Electrical termination drivers:** Single-ended and active

**Device Support:** Up to 7 devices

**Operating System Support:** DOS, Windows 3.x, Windows 95, Windows NT

# PHYSICAL AND ENVIRONMENTAL SPECIFICATIONS

 Length:
 4.75 in

 Width:
 0.44 in

 Height:
 2.57 in

 Operating/Storage Temperature:
 0°C to 55°C

**Relative humidity:** 10% to 95% non-condensing **Power Requirements:** 5.0V +/-0.25 at 2.0A maximum

**MTBF:** 543,774 hours

**External Connector:** 50-pin high density (AVA-2904, AVA-2904E only)

**Internal Connector:** 50-pin flat ribbon (AVA-2904)



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