Model SDDS-02

PCMCIA SCSI Card Drive

Model SDDS-02

Model SDDS-01

FEATURES

- ***PCMCIA C.Card Drive with a SCSI-2 host interface***
  - ***Supports Type I, II and III PCMCIA cards with a full 16-bit card access: SRAM, Flash, ATA hard drives***
  - ***SCSI-2 Interface operates just like a hard disk interface using standard system SCSI drivers***
  - ***High speed data transfer up to 2.5 MBytes per second***
- ***SCSI Standard Protocols***
  - ***Standard data storage access***
  - ***SCSI extensions support binary data operations for reading and writing linear Flash and SRAM cards***
- ***Built-in Active SCSI Bus Terminations***
  - ***No external terminations are necessary***
  - ***Jumper selectable termination***
- ***All CMOS, low power design***
  - ***Ideal for Green PCs***
  - ***VCC and VPP power control allows hot swapping of PCMCIA cards***
- ***Made in the U.S.A. using the latest surface mount technology***

DESCRIPTION

Typical Applications

- Transfer data from PCMCIA cards used in PC and Mac notebook and laptop computers
- Removable data storage for high security applications
- IBM PC, Apple Macintosh, workstation and UNIX drivers supported
- Factory floor data storage for recipes and robotics

DESCRIPTION CONT.

Overview

This SCSI Card Drive brings performance and PCMCIA compatibility to desktop, work station and norebook computers which have a standard SCSI interface. This SCSI Card Drive supports all types of PCMCIA memory cards including SRAM, Flash, ATA Flash and hard drive cards.

Designed for commercial and industrial users, the SCSI Card Drive offers two fully independent PCMCIA compliant Type III sockets with all of the features required for reliable operation in desktop computers, work stations, high performance embedded systems and portable ruggedized computers.

The dual socket SCSI Card Drive connects to a SCSI interface and provides up to 2.5 MBytes/sec data transfer rates. With up to seven SCSI peripherals on the bus, installation of additional SCSI Card Drives allows up to fourteen PCMCIA sockets on one SCSI bus.

As a SCSI compliant drive it operates with standard SCSI drivers to provide system disk operation. Compatibility with these standard drivers allows direct access to the file system stored on PCMCIA cards, including file transfers and formatting of the cards.

Special features include card ejectors for each memory card socket, LEDs to indicate card activity, multi-layer printed circuit board for reliable operation, a full 16-bit PCMCIA interface and DMA transfers between the PCMCIA socket and the SCSI interface.

Card Drive

The SDDS Card Drive connects the SCSI bus to dual PCMCIA card slots. The SDDS design fully supports SRAM, Flash, ATA flash and hard drive PC Cards. Up to seven SDDS drives (fourteen PCMCIA sockets) can be installed on one SCSI bus.

This all-CMOS PCMCIA Card Drive provides the address translation logic and status and control logic necessary to use virtually all PCMCIA cards. Card power control includes independent VPP and VCC switches for each socket to remove power from an idle PCMCIA card. This feature supports the low power operation demanded for “Green PC” operation.

Each PC Card socket operates independently with individual power controls, f’ully buffered 26-bit address bus, full 16-bit data bus, status and control signals. Card control signals enable access to common memory, attribute memory and I/O addressing modes.

Software

Each SDDS Card Drive is compatible with standard PC, Macintosh and Unix SCSI drivers. Installation and configuration is easy because of the standard SCSI interface, allowing SRAM and ATA PC Cards to be used as system disk drives. Hot swap operation allows interchange and automatic recognition of PC Cards. To accommodate the wide range of memory and I/O configurations found in PC Cards, an extended SCSI command set allows direct host access to any PC Card memory or I/O location.

Installation

The SDDS connects to a standard SCSI interface and offers two configurations permitting the SDDS to meet a wide range of system installation requirements:

- 3.5" floppy drive bay open frame enclosure with two PCMCIA sockets
- A self-contained external SCSI drive with two PCMCIA sockets

The 3.5" open frame system offers internal mounting, PC Card access through the front of the computer and connection to an internal SCSI bus adapter.

For systems with an external SCSI connection, the desktop version provides mounting flexibility and a universal power supply.

SPECIFICATIONS

OEM Features

64 KBytes of Flash ROM firmware adds the ability to update/upgrade the system from a disk in the host computer. Initially programmed at the factory, the firmware can be reconfigured from the host computer for custom applications. The SDDS includes five memory mapped windows, two I/O windows and complete interrupt support for each PCMCIA socket. Status from the PC Card socket includes write protect, battery voltage detect, card detect, card changed and power on/off.

Environment:

Operating: 0 to +60'C, 90% RH non-condensing
Storage: -20 to +85'C, 90% RH non-condensing

Power supply requirements w/o card:

Active: 5 VDC + 5% 8 200 mA typical
Standby: 5 VDC + 5% @ 25 mA typical

Card slot power source:

VCC: 5 VDC @ 1000 mA max peak each slot
VPP: 5 VDC @ 120 mA max, 12 VDC @ 120 mA max

Drive addressing:

Drive: One SCSI peripheral address per drive

Transfer rate using an SRAM card:

2.5 MBytes per second maximum

Dimensions:

Open Frame Drive: 4.00"W x 6.00"L x 1.00" H
External Drive: 2.30 "W x 8.30" L x 6.35 "H

Card types:

Type I, II and III 68-pin PCMCIA/JEIDA
SRAM, Flash, ATA Flash and hard disks

Indicator LEDs:

Busy for each socket (card power and access)

Connectors:

50-pin IDC SCSI connector
4-pin power connector

Programming voltages:

Flash: VCC=5 VDC, VPP=5 or 12 VDC
SRAM: VCC=5 VDC, VPP=5

SYSTEM REQUIREMENTS:

Host Computer:

IBM PC/XT/AT/486/Pentium, Macintosh or Work Station with 8-bit SCSI or SCSI-2 controller

Operating System:

MS-DOS or Windows with SCSI driver
Macintosh
Unix
QNX

ORDERING GUIDE

Model SDDS-01

SCSI-2 Dual PCMCIA card drive in a 3.5" open frame

Model SDDS-02

SCSI-2 Dual PCMCIA card drive in an external enclosure

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