Chapter 1.

PRODUCT OVERVIEW

Introduction

Until recently, the use of PCMCIA cards has been restricted to portable computers. Desktop systems rarely included a PCMCIA interface.

If you use a portable computer with a PCMCIA slot, any programs or data you have on PCMCIA memory cards have to be copied to diskette before being transferred to your desktop PC, which can be both time consuming and inconvenient. You may also be using a PCMCIA modem card, network card and/or ATA hard disk drive with your portable computer, none of which can be used on a standard desktop system, resulting in wasted resources and additional inconvenience.

The PC/104 PCMCIA Module series of products is designed to provide a PCMCIA card interface for desktop PCs in order to facilitate the transfer of data and sharing of devices between portable computers and desktop PCs. PC/104 PCMCIA Module complies fully with PCMCIA v.2.10 and JEIDA v.4.1. specifications, which define the industry standard for PCMCIA cards. By installing a PC/104 PCMCIA Module on your desktop system, you will be able to make full use of all data stored on PCMCIA memory cards and PCMCIA devices on both your portable and desktop systems.

Product Models

There are six models in the PC/104 PCMCIA Module series and this manual refers to all models. The hardware configuration of the models is different and separate instructions for hardware installation are given for each model. Note that the instructions on software installation and usage refer to all models. The key features of each model in the PC/104 PCMCIA Module series are described below.

Common Specifications

Power consumption (typical)

- Voltage: 5 V
- Operating voltage: 350 mA
- Flash voltage: 450 mA

Environmental specifications

- Operating temperature: 0° C to 70° C
- Storage temperature: -20° C to 85° C
- Relative humidity: ≤ 90%

Dimensions

- PC-104 controller card: 96 (L) x 90 (W) x 15 (H) mm
- Internal drive: standard 3.5” FDD form factor

System requirements

- PC/AT compatible computer with minimum 640 KB RAM
- MS-DOS 5.0 or newer
- Microsoft Windows 3.0 or newer

Addressing

I/O address:	3E0 - 3E1H
ROM address:	C8000 - CFFFF (32 KB) D8000 - DFFFF (32 KB) E0000 - E7FFF (32 KB) E8000 - EFFFF (32 KB)

Memory address: software adjustable, 16 KB mapping for each socket from D0000 - DFFFF

PCM-3110

The PCM-3110 model consists of a PC/104 (16-bit) interface module with one built-in PCMCIA card slot. The PC/104 interface module can be stacked with other PC/104 modules, mounted on a custom carrier board or stacked directly on a CPU card. The PCMCIA slot is built into the interface board. The PCM-3110 model is ideal for users who require a PCMCIA interface where easy accessibility to the PCMCIA drive is not required. The PCMCIA slot on the PCM-3110 provides full support for all Type I, Type II and Type III PCMCIA memory, I/O and ATA hard disk cards.

PCM-3110 Specifications

- Complies with PCMCIA v. 2.10 and JEIDA v.4.1
- Accepts Type I/II/III PCMCIA cards
- 16-bit data bus
- Supports secondary PCMCIA drive PCM-3111 (optional, see below)
- Programmable 8 KB SMD-type boot Flash BIOS
- Busy and battery status LED
- Single +5 V (@ 70 mA) power supply
- Supports reading/writing Flash cards using FTL and TFFS
- Supports bootable function from linear Flash, ATA hard disk and ATA Flash cards and SRAM cards

PCM-3111 (to be used with PCM-3110)

The PCM-3111 model consists of a PC/104 (16-bit) interface module with one built-in PCMCIA card slot. It can be stacked with the PCM-3110, with connections being maintained with the 104-pin bus connector. It can also be mounted on a custom carrier board to form a separate stand-alone unit. The PCMCIA slot is built into the interface card. The PCMCIA slot on the PCM-3111 provides full support for all Type I, Type II and Type III PCMCIA memory, I/O and ATA hard disk cards.

PCM-3111 Specifications

- Complies with PCMCIA v. 2.10 and JEIDA v.4.1
- Accepts Type I/II/III PCMCIA cards
- 16-bit data bus
- 80-pin mini connector connects to PCM-3110
- Single +5 V (@ 70 mA) power supply
- Supports all the functions of the PCM-3110

PCM-3115B

The PCM-3115B model consists of a PC/104 (16-bit) interface module with two built-in PCMCIA card slots. The PC/104 interface module can be stacked with other PC/104 modules, mounted on a custom carrier board or stacked directly on a CPU card. Two PCMCIA slots are built into the interface board. The PCM-3115B is ideal for users who require two PCMCIA interface slots where easy accessibility to the PCMCIA slots is not required. The PCMCIA slots on the PCM-3115B provides full support for all Type I, Type II and Type III PCMCIA memory, I/O and ATA hard disk cards.

PCM-3115B Specifications

- Complies with PCMCIA v. 2.10 and JEIDA v.4.1
- Accepts Type I/II/III PCMCIA cards
- 16-bit data bus
- Features two PCMCIA drives
- Programmable 32 KB SMD-type boot EEPROM BIOS
- Bootable from linear Flash card or ATA Flash, ATA HDD and SRAM cards
- Busy status LED
- Single +5 V (@ 70 mA) power supply

PCM-3110B

The PCM-3110B model consists of a PC/104 (16-bit) interface module with one built-in PCMCIA card slot. The PC/104 interface module can be stacked with other PC/104 modules, mounted on a custom carrier board or stacked directly on a CPU card. The PCMCIA slot is built into the interface board. The PCM-3110B also features two 50-pin connectors to interface with optional PCMCIA drives that fit in a 3.5" FDD bay (see PCM-3113 and PCM-3114 below). The PCM-3110B model is ideal for users who require both an inaccessible PCMCIA drive and an interface with a second PCMCIA drive that is mounted in a computer's FDD bay. The PCMCIA slot on the PCM-3110B provides full support for all Type I, Type II and Type III PCMCIA memory, I/O and ATA hard disk cards.

PCM-3110B Specifications

- Complies with PCMCIA v. 2.10 and JEIDA v.4.1
- Accepts Type I/II/III PCMCIA cards
- 16-bit data bus
- Supports secondary PCMCIA drives PCM-3113 and PCM-3114 through two 50-pin connectors (optional, see below)
- Programmable 32 KB SMD-type boot Flash BIOS
- Busy status LED
- Single +5 V (@ 70 mA) power supply
- Supports reading/writing Flash cards using FTL and TFFS
- Supports bootable function from linear Flash, ATA hard disk drive, ATA Flash cards and SRAM cards

PCM-3113 (to be used with PCM-3110B)

The PCM-3113 is a PCMCIA reader/writer that fits in a 3.5" FDD bay and can be connected to the PCM-3110B with a 2 x 50-pin flat cable. It gives you a second PCMCIA slot with the convenience of mounting it on the front of your case for easy accessibility. All Type I SRAM and Flash memory cards, Type II I/O device cards and Type III ATA hard disk drive cards can be used in both slots.

PCM-3113 Specifications

- Same functions as PCM-3110B
- Fits in a 3.5" FDD bay in your computer case

PCM-3114 (to be used with PCM-3110B)

The PCM-3114 is a combination PCMCIA reader/writer and a 1.44 MB floppy disk drive that fits in your computer's 3.5" FDD bay. It connects with the PCM-3110B with a 2 x 50-pin flat cable. The PCM-3114 is ideal for users that require both a PCMCIA and 3.5" FDD interface to be mounted within their computer's 3.5" FDD bay.

PCM-3114 Specifications

- Complies with PCMCIA v. 2.10 and JEIDA v.4.1
- Accepts Type I/II/III PCMCIA cards
- Provides one 1.44 FDD drive and one PCMCIA slot within a housing that mounts in your computer's 3.5" FDD bay
- Supports SRAM, Flash, ATA Flash, ATA HDD and I/O cards
- Supports reading/writing Flash cards using FTL and TFFS

PC/104 PCMCIA Module Software

All of the above models are bundled with your choice of one of the following PCMCIA software packages from SystemSoft Corporation:

- **Cardsoft 3.1** for DOS 5.0 or higher
- **CardWizard** for Windows 3.1 or higher (default)
- **CardWorks** for Windows 95
- **CardWizard-NT** for Windows NT

Additional software is available for purchase separately.

SystemSoft **Cardsoft/CardWizard/CardWorks** software includes all the necessary drivers and utilities to enable you to take full advantage of the capabilities offered by all types of PCMCIA cards. The software comes with its own install program which automatically configures your computer to support all functions.