

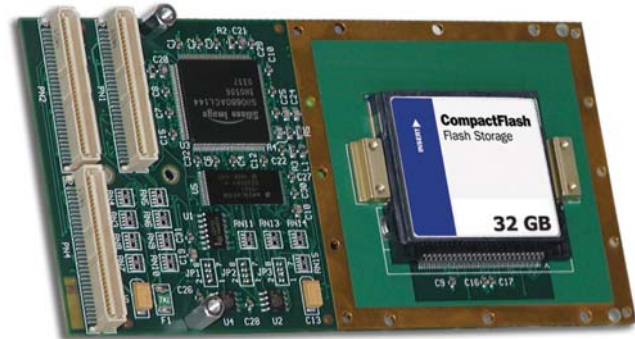
The ccPMCstor is a PMC form factor, conduction cooled mass storage device which provides a storage solution for both extended temperature and conduction cooled application environments.

The ccPMCstor is offered as an integrated and tested storage solution, where the memory media and the controller have been qualified with the offered operating systems.

The conduction cooled version, model number 9246 is available with and without conformal coating. The extended temperature version, model number 9245 is available as convection cooled version with front panel, supporting applications requiring extended temperature operation. The ccPMCstor will operate in environments where extended shock and vibration performance are required.

ccPMCstor Features

- Complete solution, with drive, interface and software provided
- Ultra ATA/133 mass storage solution using industry standard PMC form factor (IEEE P1386.1)
- Uses industrial temperature range components (-40°C to +85°C degrees operating)
- 32-Kbyte Flash memory provides storage for BIOS
- Supports CompactFlash drives allowing for enhanced environmental performance
- Model 924x-A supports DMA and 5V power supply voltage
- Each unit (including storage media) undergoes functional testing before, during, and after a 10-cycle environmental stress screen (ESS) to confirm reliable operation of the complete solution
- Available optionally with conformal coating when required



ccPMCstor with Solid State Flash. Available with 32 GB drives, consult Elma regarding higher capacities.

Benefits:

- Solves rugged embedded mass storage requirements
- Replaces external hard drives or Disk Modules that require external fixtures or system slots
- Solves the embedded designer's requirement for cost effective mass storage, eliminating cables and the need to use SCSI based storage solutions for applications requiring moderate storage capacities
- On-board support to bring standard ATA/IDE interface out the rear for external drives

CompactFlash Media

- Solid state storage capacity with rugged, enhanced duty CompactFlash drives
- 4 GB to 32 GB CompactFlash drives (consult factory as capacities increase)
- Extended operating temperature range (-40°C to +85°C)

With bootable device drivers for **Linux**, **VxWorks**, and **Windows**, the **Conduction Cooled PMCstor** is an ideal embedded storage solution.

ACT/Technico™ brand of Embedded Computing Products



Conduction Cooled PMCStor

Compatibility

Compliant with PCI Local Bus (v. 2.1), supporting boards that provide PMC sites designed to IEEE P1386.1. The disk controller is ATA/133 compliant. The ccPMCStor supports universal I/O signaling at 3.3 volts/ 5 volt tolerant. Model 924x-A (recommended) features an on-board linear regulator. It accepts 5V host supply voltages for legacy and current configurations. Model 924x accepts host voltages of only 3.3V.

Designed for operation on conduction cooled host platforms per the VITA 20 specification. Heat conduction areas are provided at the center and front of the board, as well as at the upper and lower edge of the board. The ccPMCStor may be used on any board supporting standard PMC sites such as CompactPCI and VMEbus SBCs, and expansion adapters.

The CompactFlash device is securely held in place by two screw-down dips at each edge of the CF site. The bottom surface of the CF device directly contacts a solid copper plane, thermally connected to the primary and secondary thermal sinks.

Software compatibility: VxWorks, Linux, and Windows.

Interface

Typically, no other cabling is required to use the PMCStor since the drive is on-board. Standard PMCStor versions are available supporting external storage media I/O from the front or from the rear of the PMC.

Environmental Specifications (board only)

DC Input Voltage with one CompactFlash card:

P/N 924x: 3.3V ±5% @ .5A typical
 P/N 924x-A: 5V ±5% @ .33A typical (recommended)

| | Operating | Non-operating |
|--------------------|--|----------------------------|
| Shock | 40 Gs ½ sine @ 11 msec | 60 Gs ½ sine @ 11 msec |
| Vibration | 2 G @ 15 to 2,000 Hz, sinusoidal input | TBD |
| Temperature | -40 C to + 85 C | -50 C to +95 C |
| Humidity: | | |
| Uncoated | 5% to 95%, non-condensing | 0% to 95%, condensing |
| Conformally coated | 5% to 95%, non-condensing | 0% to 100%, non-condensing |

Conformal coating is applied in accordance with MIL-I-46508, Type UR.

IDE/ATA Controller Specifications

- 2 independent ATA/133 Channels
- 48-bit sector addressing
- Dual independent DMA channels with 256K FIFO per channel (924x-A version)
- 128 Byte Buffer
- Supports multi-word and single-word DMA timing modes
- MDMA Mode 0, 1, 2 and Ultra 33, 66, 100 and 133
- Supports external BIOS and Flash
- 32-bit 33MHz PCI interface
- Supports bus master DMA at 133 MB/sec PCI burst rate
- Supports maximum bus master data transfer of 66 MB/sec
- Compatible with Microsoft IDE/ATA drivers
- Compliant with PCI 2.2
- 3.3V operating voltage with 5V tolerant I/O

CompactFlash Card Specifications

Capacities and manufacturer specs continually improve. Please consult factory for the most current information.

| | Industrial CompactFlash |
|--------------------------|-------------------------|
| Capacity - Type I | 4, 8, 16, 32 GB |
| Type II | 8, 16, 32 GB |

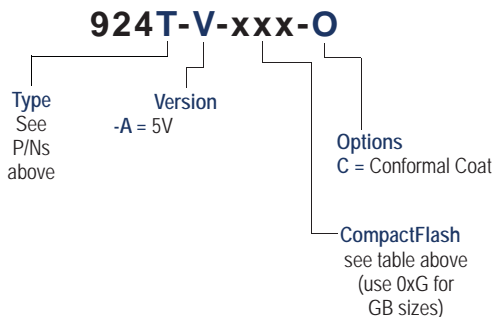
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ccPMCStor Part Numbers

| Version | Description / Function |
|-------------|---|
| 9245 | Convection cooled, extended temperature PMCStor, with solid front panel |
| 9246 | Conduction Cooled PMCStor, no front panel |

Ordering Information

Build an assembly that fits your requirements. Use the following part number to create your ccPMCStor module:



Examples
9246-04G-C

Conduction Cooled PMCStor, with 4 GB CF, no front panel, conformally coated.

9245-A-08G

Convection Cooled PMCStor, with 8 GB CF, with PMC solid front panel.

We offer a wide variety of configurations, and mass storage capacities are always changing. Call 800-445-6194 or visit our website for the most recent information.



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