# PMCStor-G
RoHS compliant embedded CompactFlash storage

PMCStor-G is a RoHS compliant - - zero slot mass storage solution on an industry standard PMC form factor. The PMCStor-G Module provides optimum flexibility and use of space without compromising functionality. CompactFlash cards may now be added to a carrier or processor board without requiring additional system slot space.

PMCStor Features:

- Compliant with Restrictions of Hazardous Substances (RoHS) 2002/95/EC

- Designed to support one or two rugged CompactFlash cards (CF) allowing for enhanced environmental performance in your application. MTTR is significantly reduced by using sockets that allow easy removal while clamps hold the CF cards in place during normal operation

- ATA/ATAPI mass storage solution implemented using the industry standard PMC form factor (IEEE P1386.1)

- Replaces external hard drives or Disk Modules that require external fixtures or system backplane slots

- SiI0680a chipset supports Ultra ATA / 133 MB burst PCI transfer rates (UDMA 6)

- Optional 40- or 44-pin connector brings standard ATA/IDE DMA interface out the front for external drives

- Consult factory for solutions requiring extended temperature ranges from -40° to +85°C
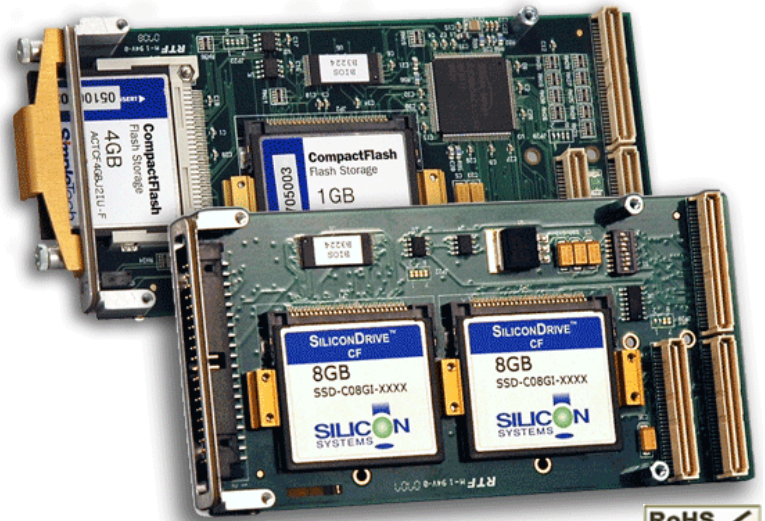
Benefits:

- Compact, removable storage
- Sockets are CF-I form factor
- Complete solution, with media, interface and software driver provided
- High quality, optimized multilayer design
- IDE interface out the rear PN4 connector of the PMC
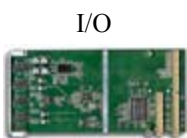- Up to 32 GB with two CF cards (commercial and industrial)

CompactFlash Cards

- 2 GB to 16 GB
- Extended temperature range
- Shock ratings up to 1,000G
- 16.3Gs vibration rating

With bootable device drivers for **Linux, VxWorks,** and **Windows**, the *PMCStor-G* is an ideal embedded CompactFlash storage solution.
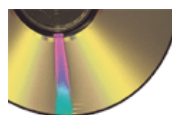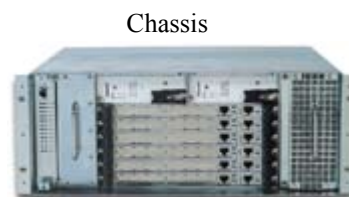
Embedded Systems By Design

I/O
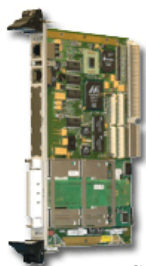
Chassis

Design & Documentation

Software

SBCs

Network

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Specifications

Physical Characteristics
- Standard PMC form factor, single wide per IEEE 1386.1
- Supports CFI form factor CompactFlash cards
- Universal I/O Voltage keying holes (both 3.3V & 5V)
- Gasketed front panel

Electrical Specifications
- ATA controller uses Silicon Image SiI0680a chipset
- On board 4 Mbit flash memory factory loaded with Silicon Image IDE BIOS
- Supports both 3.3V and +5V universal PCI signaling
- DC Input Voltage: 5V ±5% @ .40A with two CF typical

Compatibility
- Compliant with PCI 2.2
- Use with any board supporting standard PMC sites designed to IEEE P1386.1, such as CompactPCI and VMEbus SBCs or expansion adapters and carriers with PMC sites
- Disk controller is ATA/ATAPI-6 compliant.
- Software compatibility: Windows, VxWorks, and Linux. VxWorks 5.x and 6.x drivers are available for PowerPC SBCs; please inquire about other O/S support.
- Assembly is available with conformal coating, applied in accordance with MIL-I-46058C, Type UR.

Interface
Typically, no other cabling is required to use the PMCStor since the drives are on-board. Versions are available supporting external disk I/O from the front or from the rear of the PMC.

IDE/ATA Controller Specifications
- 2 independent IDE/ATA Channels
- Supports up to four IDE/ATA drives
- Supports multi-word and ultra DMA timing modes
- Supports external BIOS
- 32-bit 33MHz PCI interface
- Supports bus master DMA at 133 MB/sec PCI burst rate
- Compatible with Microsoft IDE/ATA driver protocols
- 3.3V operating voltage with 5V tolerant I/O

PMCStor-G Versions:

Version	Description / Function
9275	PCI/IDE with no front panel connector, 2 on-board Compact Flash sockets, rear I/O
9279	PCI/IDE with one front panel CF socket for removable media and one on-board CF socket; rear I/O

Front panel IDE connector for external drives

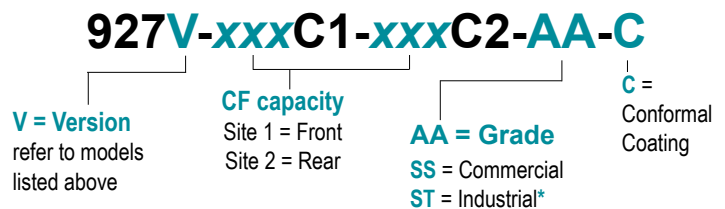| Version	Description / Function
9276	PCI/IDE with 40-pin front panel IDE connector, 2 Compact Flash sockets; rear I/O
9277	PCI/IDE with 44-pin front panel IDE connector, 2 Compact Flash sockets, rear I/O

CompactFlash Specifications

Specifications change on a regular basis. The following parameters are common to most CF cards. Please call us for all current specifications. The data in the following charts are from the CF manufacturers' documentation.

	Commercial	Industrial *
Operating Temperature	0 to +70°C	-40 to + 85°C
Drive Sizes (in GB)	2, 4, 8, 16	
Media (Read/Write) MB/sec	8/6 to 47/25	
Shock (MIL-STD-810F)	1000 Gs ½ sine @ 0.5 msec	
Vibration (MIL-STD-810F)	16.3 Gs RMS, per MIL-STD-810F	
Altitude (MIL-STD-810F)	80,000 feet	
Humidity	5% to 95%, non-condensing	

NOTE: Actual Read/Write rates vary widely by storage manufacturer, host processor and operating system used. Please contact factory for specific data.

Order Information

Build an assembly that fits your requirements. Use the following part number to create a PMCStor-G of your choice:

927V-*xxx*C1-*xxx*C2-AA-C

V = Version
refer to models listed above

CF capacity
Site 1 = Front
Site 2 = Rear

AA = Grade
SS = Commercial
ST = Industrial*

C =
Conformal Coating

*****Consult factory for extended temperature options.**

Mass storage capacities and specifications are always changing. Contact us for the latest available options.

Examples:

9275-4GBC1- 2GBC2-SS PMCStor with no front panel connector, 4 GB CF in on-board site 1 (front) and 2 GB CF in site 2 (rear). Commercial grade flash with no conformal coating.

9279-4GBC1-8GBC2-ST-C PMCStor with 4 GB industrial grade CF in front panel site 1 and 8 GB CF in on-board site 2. Complete assembly conformally coated.

9277-16GBC1- 16GBC2-SS PMCStor with 44-pin connector, 16 GB CF in on-board site 1 and 16 GB CF in on-board site 2. Commercial grade flash without conformal coating.

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