

SATA PMCDisk,
Model 9262

The Serial ATA (SATA) PMC Disk is a boot and/or data storage device for embedded computing systems in a PMC form factor. Available with rotating or solid state flash SATA drives, it utilizes the latest in serial attached storage technology for increased data transfer speeds. It fits a wide variety of commercial and rugged embedded applications.

Features:

- Compliant with Restriction of Hazardous Substances Directive (RoHS) 2002/95/EC
- Si13512 chipset supports SATA/150 MB/s PCI burst transfer rates
- Supports 32-bit 33/66 MHz PCIbus operation
- Can be used on any Single Board Computer or carrier with a standard IEEE 1386.1 PMC site
- 3.3V or 5V PCI signaling
- Uses a 2½" SATA rotating or solid state flash drive
- Solid state flash drives: up to 256 GB (consult factory for latest qualified drive capacities)
- Consult factory for solutions requiring extended temperature operations from -40 to +85°C
- Available with conformal coating
- Drivers for VxWorks 5.x & 6.x, Linux, and Windows

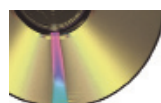
Benefits:

- Complete solution with drive, interface, and software driver
- Replaces external hard drives or Disk Modules that require external fixtures or additional backplane 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
- Enhanced Availability rotating drives are ideal for environments where better duty cycles are required, such as 24/7 operation
- Industrial solid state flash drive accommodates harsh and rugged environmental requirements; the SATA PMCDisk is available with a conformal coating
- Choice of 2½" SATA drives: up to 1 TB in rotating drives; up to 256 GB in solid state flash drives (consult factory for the latest qualified capacities)



Embedded Computing Products & Solutions

Design & Documentation



Chassis



Ethernet Switches



Specifications

The SATA PMCDisk consists of a RoHS compliant printed circuit board assembly with a PCI to SATA controller and a 2½" rotating or solid state flash Serial ATA drive.

Physical Characteristics

- Standard PMC form factor, single wide per IEEE 1386.1
- Supports 2½" disk form factor; uses 9.5 mm high drives
- Gasketed front panel

Compatibility

- May be used on any board supporting standard PMC sites such as CompactPCI and VMEbus SBCs or Carriers
- IEEE 1386 Core Family Standard Common Mezzanine
- PCI Local Bus v. 2.3
- See Manual for all related specifications
- Software: VxWorks 5.x & 6.x, Linux, and Windows
- Assembly available with conformal coating, applied in accordance with MIL-I-46058C, Type UR

Interface

- Serial ATA 150 compliant (Generation 1)

Electrical Specifications

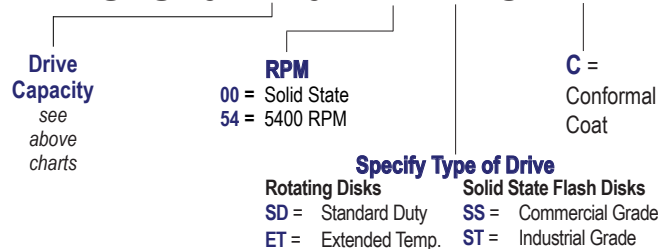
- Silicon Image SiI3512 controller
- On-board 512Kb flash memory factory loaded with Silicon Image BIOS
- Universal 3.3 volts or 5 volts PCI signaling
 - DC Input Voltage: 3.3V ±5% @ .3 A typical
 - 5V ±5% @ .7 A typical

Ordering Information

Build an assembly that fits your requirements. Use the following part number to create a SATA PMCDisk. Please call your sales representative to confirm drive availability.

Mass storage capacities and performance are always improving. Please call (800) 445-6194 or (215) 956-1200 for the latest available options.

9262G-xxxGB-YY-AA-C



Rotating Drive Specifications

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

NOTE: Drive performance is affected by storage manufacturer, host processor board, and operating system. Please contact factory for specific data.

	2.5" Commercial	2.5" Ext Temp.
Capacity GB	Currently Available Capacities	
Average Seek Time	12 msec	12.5 msec
Data Transfer Rate		
Buffer to/from Media	1136 Mbts/sec max	450 Mbts/sec max
Shock (half sine)		
Operating	400 G @ 2ms, 200 G @ 1ms	150 Gs @ 11 ms
Non-Operating	1000 Gs @ 1 ms	900 Gs @ 1 ms
Vibration (Random)		
Operating	1 G (5 to 500 Hz), 5 Hz sine	2 Gs, (5 to 500 Hz)
Non-Operating	5 Gs (10 to 500 Hz), 10 Hz sine	5 Gs, (5 to 500 Hz)
Temperature (in °C)		
Operating	+5 to +55	-30 to +85
Non-Operating	-40 to +65	-40 to +95
Relative Humidity (non-condensing)		
Operating	8 - 90%	5 - 90%
Non-Operating	5 - 95%	5 - 95%

Solid State Drive Specifications

	Commercial Grade	Industrial Grade *
Drive Sizes (in GB)	32, 64, 128	
Media (Read/Write) MB/sec	90/40 and up	
Vibration per MIL-STD-810F	16.3 Gs RMS (MIL-STD-810F)	
Shock per MIL-STD-810F	1,000 Gs half sine @ 0.5 ms	
Temperature (in °C)		
Operating	0 to +70	-40 to +85
Non-Operating	-40 to +85	-50 to +90
Humidity	5% to 95% non-condensing	



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