

SATA HDD/SSD PMC Storage Module

Product Datasheet

PDSi's new SATA PMC Storage Module (PMC-SD18) offers high capacity SATA storage using compact 1.8 inch hard disk or solid state drives providing up to 160GB of storage. The on-board 4 port SATA controller provides an additional 3 drive interfaces through the rear I/O (Pn4) connector.

Whether configured with an economical rotating HDD or highly shock-resistant SSD, this low profile module fits comfortably into VITA 42.3 compatible VME, CompactPCI®, AdvancedTCA®, and other processor boards with a PMC mezzanine card interface. This board meets all PMC height restrictions, especially when configured with a solid state drive.

Military applications will appreciate the high operating shock resistance (1000+ G) and high MTBF (over 1 million hours) when configuring this PMC with the latest solid state drive technology. PDSi will adapt this design for other I/O requirements and can develop compatible rear I/O boards if needed. Extended availability from PDSi is assured. PDSi can also provide integration, extended warranty, global repair and support services.

Key Features

- High-capacity SATA storage PMC
- 1.8 inch SATA HDD or SSD
 - Low-cost rotating HDD for normal uses
 - Rugged SSD for high shock and vibration
- 3 additional rear SATA channels
- Activity LEDs on front bezel
- Windows and Linux support
- PICMG PMC-compliant interface
- Low-profile, meets PMC height requirements
- Extended availability assured
- RoHS compliant



*Low profile design meets PMC height restrictions.
Shown with SSD installed.*

Dependable Storage for Embedded Apps

The PMC-SD18 adds compact, dependable storage resources to any VME, Compact PCI, ATCA or PCIe carrier board with an XMC site. Choose from high speed, low cost rotating media or the latest in ruggedized solid-state drive technology.

Better by Design

The PMC-SD18 offers Intel X18-M SATA Solid-State Drives (where available). Designed to deliver outstanding performance and featuring Intel's advanced SSD architecture, these drives are suitable for tough embedded applications in industries such as:

- Military
- Aerospace
- Industrial Control



Contact PDSi with your requirements.

- Controller** 4 port LSI SATA controller
- HDD device** 1.8 inch SATA drive with microSATA electrical interface
- o 5400 RPM
 - o Avg seek time: 15 ms
 - o 1.5 Gbit/sec transfer rate
- Reliability
- o Non recoverable errors: 1 in 10¹⁴ bits
 - o Product life: 5 years or 20,000 power ON hours
- Operating Shock
- o Shock: 500G / 2.0ms
 - o Vibration: 2G
- SSD device** 1.8 inch SATA drive with microSATA electrical interface
- o 0.1 ms access time
 - o Up to 250 MByte/s read
- Reliability
- o Built-in wear leveling
 - o MTBF: 1,000,000+ hours
- Operating
- o Shock: 1000-1500 G
 - o Vibration: 16 G

Front Panel

LEDs 4 activity LEDs, 1 per channel

PMC Interfaces

Pn1, Pn2 32 bit PCI-x bus, 33/66/100/133 MHz

Pn3 64 bit PCI-x bus, 33/66/100/133 MHz

Pn4 3 SATA channels

Signaling Keyed for 3.3V signaling

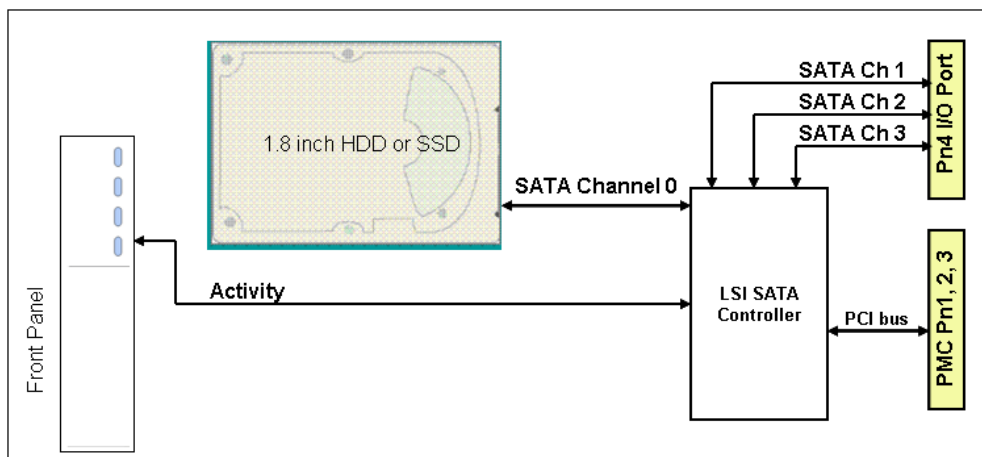
Power 5V and 3.3V through PMC connector
Total power – TBD watts

Compliance IEEE 1386/1386.1 (convection cooled)
ANSI/TIA/EIA-644 (electrical)
RoHS Directive 2002/95/EC

Operating Systems Linux, Windows

Form Factor/ Dimensions Single height PMC
74mm x 149mm x 8.2mm

Temperature & Humidity Operation : 5 to 55 degC
5% - 95% non-condensing



Ordering Guide	Description
PMC - SD18 - xxx - 00	SATA Storage PMC with:
Select Drive Type/Size	Storage Type / Capacity
	H08 1.8 inch HDD, 80 GB, 1.5Gb/s, 5.4K
	H16 1.8 inch HDD, 160 GB, 1.5Gb/s, 5.4K
	S03 1.8 inch SSD, 32 GB, 3.0Gb/s
	S06 1.8 inch SSD, 64GB, 3.0Gb/s
	S08 1.8 inch SSD, 80 GB, 3.0Gb/s
	S12 1.8 inch SSD, 160 GB, 3.0Gb/s