

# SATA HDD/SSD XMC Storage Module

## Product Datasheet

PDSi's new SATA XMC Storage Module (XMC-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 drive interface through the front connector. Two more drives can be controlled 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 an XMC mezzanine card interface. This board meets all XMC 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 XMC 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 XMC
- 1.8 inch SATA HDD or SSD
  - Low-cost rotating HDD for normal uses
  - Rugged SSD for high shock and vibration
- 3 additional SATA channels
  - 1 front, 2 rear
- Activity LEDs on front bezel
- Windows and Linux support
- Low-profile, meets XMC height requirements
- VITA XMC-compliant interfaces for high bandwidth
- Extended availability assured
- RoHS compliant



*Low profile design meets XMC height restrictions.  
Shown with HDD installed.*

### Dependable Storage for Embedded Apps

The XMC-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 XMC-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 10<sup>14</sup> 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**

- SATA** 1 SATA channel  
**LEDs** 4 activity LEDs, 1 per channel

**XMC Interfaces**

- P15** PCIe x 8 interface  
**Pn4** 2 SATA channels

**Signaling** Keyed for Universal signaling

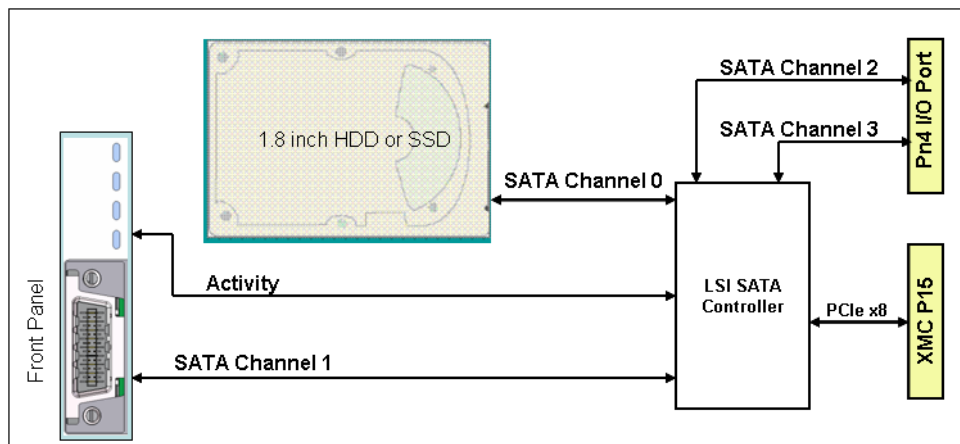
**Power** +/-12V , 5V and 3.3V through XMC connector  
 Total power –TBD watts

**Compliance** VITA 42.3 (convection cooled)  
 ANSI/TIA/EIA-644 (electrical)  
 RoHS Directive 2002/95/EC

**Operating Systems** Linux, Windows

**Form Factor/ Dimensions** Single height XMC  
 74mm x 149mm x 8.2mm

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



| Ordering Guide         |                         | Description                         |
|------------------------|-------------------------|-------------------------------------|
| XMC - SD18 - xxx - 00  |                         | SATA Storage XMC 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       |