XPort6107

XMC NVM Express® Solid-State Drive (SSD) with Self-Encrypting Drive (SED) Technology

- XMC x4 PCle interface per VITA 42.3
- ▶ 1 TB capacity
- Hardware AES-256 encryption
- Ideal for Anti-Tamper (AT) and Information Assurance (IA) requirements
- Key erasure in less than one second
- Up to 1.8 GB/s write performance
- Up to 2 GB/s read performance
- Can be configured in SLC or TLC mode to optimize endurance or capacity
- Designed for extremely rugged environments



XPort6107

The XPort6107 is a secure self-encrypting drive (SED) / Solid-State Drive (SSD) XMC module that provides 1 TB of storage. Its security features include AES-256 encryption, where the encryption key can be purged in less than one second. In addition, the XPort6107 supports sanitization protocols per the NVMe® specification, including block erase and overwrite. All of the sanitization protocols can be invoked via in-band software commands.

By utilizing solid-state NVM Express® technology, the XPort6107 provides a high-performance, high-density, reliable memory solution. The card yields 480 TB of write endurance in 100% TLC mode and 8,000 TB of write endurance in 100% SLC mode. The XPort6107 provides best-in-class performance with up to 1.8 GB/s sustained sequential write and up to 2 GB/s sustained sequential read rates.

The XPort6107 is intended for applications requiring secure data storage and is ideal for programs with demanding Anti-Tamper (AT) or Information Assurance (IA) requirements. The XPort6107 is capable of operating in the most rugged operating environments by utilizing directly soldered storage, rather than implementing a carrier-based approach for commercial storage form factors such as M.2.



"Fast, Flexible, Customer-Focused Embedded Solutions"

Extreme Engineering Solutions

9901 Silicon Prairie Parkway • Verona, WI 53593 Phone: 608.833.1155 • Fax: 608.827.6171 sales@xes-inc.com • https://www.xes-inc.com

www.xes-inc.com DS90015275-A

P15 XMC Interface

• x4 PCI Express port per VITA 42.3

Security

- 256-bit AES Encryption
- Support for multiple sanitization protocols
- · Declassification via software control
- · Key erasure in less than one second
- Ideal for Anti-Tamper (AT) and Information Assurance (IA) requirements

Supported Sanitization Protocols

- · Block erase
- Overwrite
- · Crypto erase

Storage Characteristics

- NVMe® 1.3c Compliant (PCIe Gen 3.0)
- Configurable SLC or TLC technology
- 1 TB capacity
- Up to 1.8 GB/s write
- Up to 2 GB/s read
- · End-to-end data protection

Physical Characteristics

- · XMC conduction-cooled form factor
- Dimensions: 143.75 mm x 74 mm

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 5
- Conformal coating available as an ordering option

Power Requirements

Power will vary based on configuration and usage.
Please consult factory.

Ruggedization Level	Level 5
Cooling Method	Conduction-Cooled
Operating Temperature	-40 to +85°C (board rail surface)
Storage Temperature	-55 to +105°C (maximum)
Vibration	0.1 g²/Hz (maximum), 5 to 2000 Hz
Shock	40 g, 11 ms sawtooth
Humidity	Up to 95% non-condensing



