

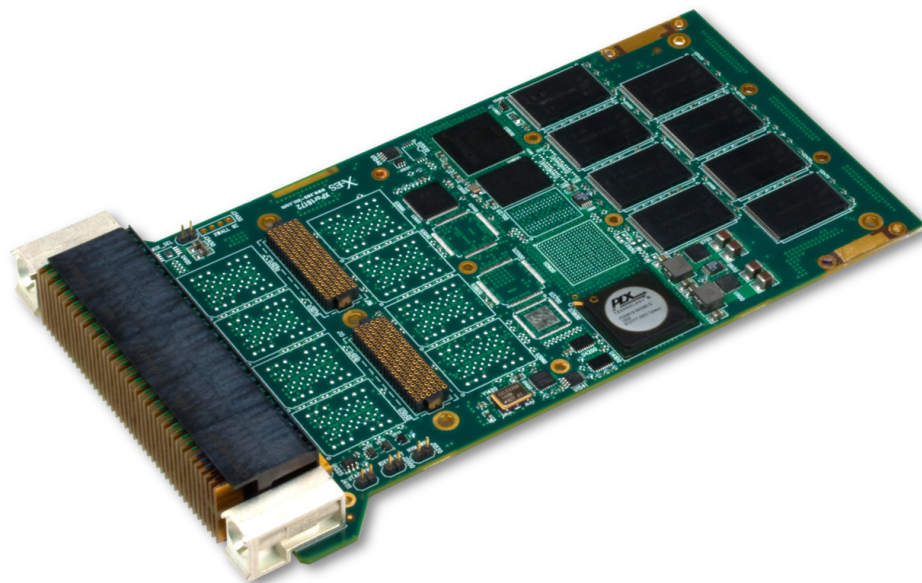
XPort6172

End of Life

3U VPX Solid-State Drive (SSD) Storage Solution

Please see XPort6173

- ▶ x4 PCIe P1 fabric interconnect
- ▶ Up to 512 GB capacity (appears as two 256 GB devices)
- ▶ Supports SSD XMC module for up to 1 TB of total storage
- ▶ XMC interface with rear I/O support
- ▶ Two onboard SATA controllers (512 GB configuration)
- ▶ 256-bit AES encryption (optional)
- ▶ Declassification support (optional)
- ▶ 120 MB/s write performance (no encryption)
- ▶ 200 MB/s read performance (no encryption)
- ▶ Based on reliable SLC NAND flash technology
- ▶ 100,000 program/erase cycles
- ▶ Designed for rugged environments
- ▶ -40°C to 85°C operating temperature range



XPort6172

The XPort6172 has been designed to meet the storage requirements of the most demanding applications. By utilizing solid-state NAND flash technology the XPort6172 provides a high-performance, high-density, reliable memory solution. The XPort6172 is capable of operating within the demanding environments of MIL-STD-810F, including harsh temperatures from -40°C to 85°C, as well as rigorous shock and vibration conditions.

The XPort6172 has the option to provide 256-bit AES encryption. The encryption chip is NIST and CSE certified. The key can be loaded from an onboard EEPROM or from an off-board secured device using the SATA API. The XPort6172 supports enhanced erases, meeting both DOD NISPOM 5220.22 and NSA/CSS 9-12 specifications.

The use of SLC NAND flash components allows the XPort6172 to support at least 100,000 program/erase cycles. The card supports global wear-leveling and bad block management, further prolonging the life and reliability of the memory. The XPort6172 provides best-in-class performance with up to 200 MB/s sustained sequential read and 120 MB/s sustained sequential write. The XPort6172 supports two 256 GB drives, making for an impressive total of 512 GB of solid-state storage. An X-ES 512 GB XMC SSD can be mounted on the XPort6172 to provide a grand total of 1 TB of solid-state storage in a single 3U VPX slot.

X-ES

Extreme Engineering Solutions

...Always Fast

Extreme Engineering Solutions

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VPX (VITA 46) I/O

- x4 PCI Express to P1.A
- x4 PCI Express to P1.B (optional)

Security

- Encryption (optional)
- 256-bit AES
- CBC block cipher mode
- ATA Secure Erase supported
- Declassification support (optional)

XMC Site

- x4 PCI Express port
- X12d P16 I/O support

Key Management

- SATA API
- EEPROM
- I²C interface

Storage Characteristics

- Serial ATA (SATA) capable of 3 Gb/s
- SLC technology
- Up to 512 GB total
- 120 MB/s write (no encryption)
- 200 MB/s read (no encryption)
- Write protection
- Primary storage support with X-ES host card

Physical Characteristics

- 3U VPX-REDI conduction- or air-cooled form factor
- Dimensions: 100 mm x 160 mm

Environmental Requirements

Contact factory for appropriate board configuration based on environmental requirements.

- Supported ruggedization levels (see chart below): 1, 3, 5
- Conformal coating available as an ordering option

Power Requirements

- 7 W (64 GB, no encryption)

Ruggedization Level	Level 1	Level 3	Level 5
Cooling Method	Standard Air-Cooled	Rugged Air-Cooled	Conduction-Cooled
Operating Temperature	0 to +55°C ambient (300 LFM)	-40 to +70°C (600 LFM)	-40 to +85°C (board rail surface)
Storage Temperature	-40 to +85°C ambient	-55 to +105°C ambient	-55 to +105°C (maximum)
Vibration	0.002 g ² /Hz (maximum), 5 to 2000 Hz	0.04 g ² /Hz (maximum), 5 to 2000 Hz	0.1 g ² /Hz (maximum), 5 to 2000 Hz
Shock	20 g, 11 ms sawtooth	30 g, 11 ms sawtooth	40 g, 11 ms sawtooth
Humidity	0% to 95% non-condensing	0% to 95% non-condensing	0% to 95% non-condensing

