XPand6200 Series

Sub-½ ATR, Conduction- or Convection-Cooled Chassis Supporting Conduction-Cooled VPX and XMC or PMC Modules

- ❯ Ideal for rapid deployment
- ❯ Small Form Factor (SFF) sub-½ ATR system
- ❯ Conduction- or convection-cooled chassis
- ❯ Physical dimensions of 9.64 in. (L) x 4.87 in. (W) x 3.97 in. (H)
- ❯ Supports up to two conduction-cooled VPX modules, 0.8 in. or 1.0 in. pitch
- ❯ Supports up to two conduction-cooled XMC or PMC modules
- ❯ Up to ten coaxial SMA RF connections
- ❯ Supports X-ES ruggedized 2.5 in. SATA SSD memory module (optional)
- ❯ MIL-STD-704E/F 28 VDC power supply
- ❯ MIL-STD-461 EMI filtering
- ❯ Environmentally sealed
- ❯ Rugged circular connector support
- ❯ Supports front and rear I/O from the internal modules
- ❯ Integration services with third-party modules available

XPand6200 Series

The XPand6200 Series is a true Commercial-Off-The-Shelf (COTS) Rugged system, supporting many 3U VPX, XMC, and PMC modules without modifications to the chassis or backplane to accommodate I/O. This significantly lowers up-front costs (NRE) and facilitates rapid deployment.

With a compact design and weighing less than nine pounds fully loaded, the XPand6200 Series is one of the industry's smallest rugged systems to support at least two 3U VPX slots. The XPand6200 Series provides a SWaP-optimized alternative to traditionally larger slot-based systems; it is an actual Small Form Factor (SFF) system based on COTS 3U VPX modules. The XPand6200 Series supports two conduction-cooled 3U VPX modules and up to two XMC/PMC modules hosted on the VPX modules. The system also supports a removable high-density SATA SSD memory module for secure solid-state storage. With two 130-pin circular connectors, the XPand6200 Series can support all of the rear I/O from two VPX modules. Additionally, the XPand6200 Series can be configured with up to ten sealed coaxial SMA connectors to enable RF signals to be routed directly from the front panel of an XMC, PMC, or VPX module.

This fully ruggedized chassis is designed to meet the rigorous standards of MIL-STD-810 and DO-160, while integrating the latest power-saving and performance-enhancing technology. The heat from the internal conduction-cooled modules is conducted to sidewall heat exchangers, where it is dissipated to the ambient environment by convection cooling or to an attached cold plate by conduction cooling. The system includes a MIL-STD-704E/F 28 VDC power supply and MIL-STD-461 EMI filtering. An optional SATA SSD memory module (with optional integrated encryption) provides the convenience of high-capacity off-the-shelf storage, the ruggedness of solid-state non-volatile memory, and the security of 256-bit AES encryption.

Physical Characteristics

- Dimensions: 9.64 in. (L) x 4.87 in. (W) x 3.97 in. (H)
- Weighs approximately 4.5 lbs. without payload cards or removable storage bay
- Weighs approximately 5 lbs. with removable storage bay and without payload cards
- Weighs approximately 7.5 lbs. with typical payload and without removable storage bay

Configuration Options

- Supports two, 0.8 in. or 1.0 in. pitch, conduction-cooled 3U VPX modules
- Each VPX module can support an XMC or PMC module (depends on XMC/PMC support of the VPX module)
- X-ES ruggedized 2.5 in. SSD module with optional integrated encryption

External I/O Options

- Two Series 80 circular connectors for I/O (default)
- Up to ten coaxial connections routed directly to the front panel of the VPX, XMC, or PMC modules
- Additional connector options available
- Supports the upper half of VPX P1 (Fabrics C and D) from both VPX slots
- Supports all of VPX P2 I/O from both VPX slots

Power Supply Options

- Power supply supports up to 150 W
- MIL-STD-704E/F 28 VDC input voltage support (default)
- MIL-STD-461 EMI filtering
- Additional power supply options available

Thermal

- The chassis, power supply, and internal components are designed and tested to handle ambient high temperatures. High and low temperature performance is dependent on the capabilities of the installed COTS modules.

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Removable Storage Bay	Solid-State Drive	
VPX Payload 1	A B C and D Fabrics routed to circular connectors	All J2 I/O routed to circular connectors Optional SATA routed to Storage Bay
VPX Payload 2	A B C and D Fabrics routed to circular connectors	All J2 I/O routed to circular connectors
	Power Planes (+3.3 V, +5 V, +12 V)	
Input Power	Power supplies providing +3.3 V, +5 V, and +12 V	

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