

# XPand4201

## ½ ATR Forced Air-Cooled Chassis for Conduction-Cooled Modules

- ▶ ½ ATR footprint forced air-cooled chassis (reduced height and length) for conduction-cooled modules
- ▶ Forced air-cooled sidewall heat exchangers
- ▶ Supports increased cooling through external cold plate
- ▶ Physical dimensions of 5.88 in (W), 7.2 in (H), 13.2 in (L) with removable memory module bay
- ▶ Chassis footprint: 4.88 in (W), 8.3 in (L)
- ▶ Six slots support conduction-cooled 3U VPX, 3U CompactPCI, or power supply modules
- ▶ 3U VPX and cPCI backplanes available
- ▶ Configurable front panel I/O connectors
- ▶ Memory module bay for removable solid-state flash drive (optional)
- ▶ Select from an extensive lineup of X-ES designed and manufactured SBC, FPGA, and I/O modules
- ▶ Integration services with third-party modules available
- ▶ Up to 200 W from a MIL-STD-704 28V DC or 115V AC source
- ▶ MIL-STD-461 E/F EMI filtering
- ▶ Environmentally sealed
- ▶ Internal holdup of up to 60-ms at 200 W



### XPand4201

The XPand4201 redefines the limits of power, performance, and functionality in a sub-½ ATR chassis. This forced air-cooled, fully ruggedized chassis is designed to meet the rigorous standards of MIL-STD-810 F/G 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 forced-air cooling. The XPand4201 sidewall heat exchangers have been increased by 1/2" on each side to provide increased cooling capacity over the XPand4200. In today's avionics and ruggedized environments, size really does matter, and the XPand4201 sets a new standard for sub-½ ATR computing.

An optional memory module bay can be added to the top of the XPand4201 unit, which supports a removable SATA solid-state disk (SSD) flash memory module.

An optional front-panel USB port provides system monitoring and maintenance capabilities. X-ES maximizes power supply performance, supporting up to 200 W from a MIL-STD-704 28V DC or 115V AC input, as well as internal EMI filtering and hold up for up to 60-ms at 200 W.

Depending on your processing requirements, the XPand4201 can be populated with high-performance, low-power, conduction-cooled 3U VPX or cPCI modules designed and manufactured by X-ES. X-ES also has an extensive lineup of conduction-cooled XMC and PMC solutions to fulfill your data-processing and I/O requirements. Additionally, X-ES provides integration services for third party modules.

Please contact X-ES sales to begin designing a system that will meet and exceed your I/O, processing, and power requirements.

# X-ES

Extreme Engineering Solutions

*...Always Fast*

### Extreme Engineering Solutions

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**Physical Characteristics**

- ½ ATR forced air-cooled chassis (reduced height and length) for conduction-cooled modules
- Forced air-cooled sidewall heat exchange
- Supports increased cooling through external cold plate
- Chassis footprint: 4.88 in (W), 8.3 in (L)
- Dimensions without memory module attachment: 5.88 in (W), 6.0 in (H), 13.2 in (L)
- Dimensions with memory module attachment: 5.88 in (W), 7.2 in (H), 13.2 in (L)
- Six slots support conduction-cooled 3U VPX, 3U CompactPCI, or power supply modules
- Removable memory module attachment (optional)

**Backplane Options**

- 3U VPX
- 3U cPCI
- Custom backplane solutions available (contact X-ES sales)

**Front Panel I/O Options**

- USB 2.0 and 1.0 compliant interface
- Up to three D38999 circular connectors for I/O
- DVI graphics interfaces
- 10/100/1000BASE-T Gigabit Ethernet interfaces
- RS-232/RS-422 serial links
- MIL-STD-1553
- ARINC-429
- Custom front panel I/O
- Custom I/O via XMC / PMC modules
- Custom I/O via third party modules

**Power Supply Options**

- MIL-STD-704 28V DC input voltage support (default)
- MIL-STD-704 115-AC input voltage support
- Up to 60-ms internal hold-up time at 200 W
- Up to 110-ms internal hold-up time at 120 W
- Additional power supply options available (contact X-ES sales)

**Memory Module Bay (Optional)**

- SATA solid-state flash drive module
- Optional 256-bit AES encryption

