

XPand4200 Series

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

- ▶ ½ ATR 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 for the basic version are 13.5 in. (L) x 4.88 in. (W) x 6.0 in. (H) without the removable memory module attachment with a chassis footprint of 9.6 in. (L) x 4.88 in. (W)
- ▶ Physical dimensions for the extended cooling versions are 13.2 in. (L) x 5.88 in. (W) x 7.2 in. (H) with removable memory module bay with a chassis footprint of 8.3 in. (L) x 4.88 in. (W)
- ▶ VPX and cPCI backplanes available
- ▶ Five conduction-cooled 3U VPX or 3U CompactPCI slots and one power supply slot
- ▶ Configurable front panel I/O connectors
- ▶ Memory module bay for removable Solid-State Drive (SSD) (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 28 VDC or 115 VAC source
- ▶ MIL-STD-461 E/F EMI filtering
- ▶ Environmentally sealed
- ▶ Internal holdup of up to 60 ms at 200 W



XPand4200 Series

The XPand4200 Series 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. A second version with sidewall heat exchangers increased by half an inch on each side provides increased cooling capacity over the basic version. A third version with heat exchangers with twenty percent more surface area than the second version increases the cooling capacity even more.

An optional memory module bay can be added to the top of the XPand4200 unit, which supports a removable SATA Solid-State Drive (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 28 VDC or 115 VAC input, as well as internal EMI filtering and holdup for up to 60 ms at 200 W.

Depending on your processing requirements, systems based on the XPand4200 Series 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 PMC and XMC 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) x 9.6 in. (L) for basic version
- Dimensions without memory module attachment: 13.5 in. (L) x 4.88 in. (W) x 6.0 in. (H) for basic version
- Dimensions with memory module attachment: 13.5 in. (L) x 4.88 in. (W) x 7.2 in. (H) for basic version
- Chassis footprint: 8.3 in. (L) x 4.88 in. (W) for extended cooling versions
- Dimensions without memory module attachment: 13.2 in. (L) x 5.88 in. (W) x 6.0 in. (H) for extended cooling versions
- Dimensions with memory module attachment: 13.2 in. (L) x 5.88 in. (W) x 6.9 in. (H) for extended cooling versions
- 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-232/422 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 28 VDC input voltage support (default)
- MIL-STD-704 115 VAC input voltage support
- Up to 60 ms internal holdup time at 200 W
- Up to 110 ms internal holdup time at 120 W
- Additional power supply options available (contact X-ES sales)

Memory Module Bay (Optional)

- SATA Solid-State Drive (SSD) module
- 256-bit AES encryption

