XPand1200

3U VPX Development Platform for Conduction-Cooled Modules

- Development platform for conduction-cooled modules
- Forced air-cooled sidewall heat exchangers
- Supports 1 in. or 0.8 in. pitch conduction-cooled VPX modules
- Standard VPX configurations in stock
- OpenVPX standards based
- Customizable with X-ES and third party components
- RTM (Rear Transition Module) support for maximum I/O flexibility
- Power and reset switches
- Power and reset LEDs
- Up to 550 W of total simultaneous power
- Up to 60 W per slot at 30°C ambient and 70°C rail
- 12V up to 50 A
- 5V up to 50 A
- 3.3V up to 25 A
- +/-12V_AUX and 3.3V_AUX
- 110-240VAC, 50/60 Hz power input

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The XPand1200 is a low-cost flexible development platform. This platform supports up to ten 1 in. or 0.8 in. pitch conduction-cooled VPX (VITA 48.2) modules. It provides 550 W of total simultaneous power, which can be distributed as up to 50 A on 12V, up to 50 A on 5V, and up to 25 A on 3.3V. The heat from the internal conduction-cooled modules is conducted to sidewall exchangers, where it is dissipated to the ambient environment by forced-air cooling. This efficient thermal design allows up to 60 W of power dissipation per slot at 30°C ambient, while maintaining 70°C at the module’s thermal interface.

X-ES platforms, including the XPand1200, provide a feature-rich solution for system development. RTMs provide maximum I/O flexibility and rapid system prototyping. Power and reset LEDs are provided for system status. A momentary push button is provided for reset, and a switch is provided for DC power enable.

The XPand1200 is currently available for purchase in several rapid development standard configurations. Custom configurations of modules, RTMs, and backplanes are also available utilizing X-ES and third party components.
Form Factor
- 3U VPX (VITA 48.2) 1 in. or 0.8 in. pitch
- 3U VPX (VITA 46.10) RTM

Slots
- Ten 1.0 in. pitch slots
- Eight 1.0 in. pitch RTM slots

Power
- 110-240VAC, 50/60 Hz power input
- 550 W total simultaneous power
- Up to 50 A on 12V
- Up to 50 A on 5V
- Up to 25 A on 3.3V
- +/- 12V_AUX
- 3.3V_AUX

Cooling
- Up to 60 W per slot at 30°C ambient and 70°C rail

Physical Characteristics
- 16.5 in. (H), x 5.5 in. (W), x 11.5 in. (L)
- 20 lbs. with backplane and power supply

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