

# XPand1203

3U VPX Development Platform for Up to Eight Conduction-Cooled Modules

- › Development platform for conduction-cooled modules
- › Forced-air-cooled sidewall heat exchangers
- › Supports eight 0.8 in. or 1.0 in. pitch conduction-cooled VPX modules
- › Supports SOSA-aligned modules
- › Compatible with multiple VITA 65 OpenVPX™ slot profiles
- › Customizable with X-ES and third-party components
- › Rear Transition Module (RTM) support for maximum I/O flexibility
- › Up to 25 Gbps signaling between payload and RTM
- › Front panel power and reset switches and LEDs
- › Up to 650 W of total simultaneous power
- › Up to 70 W per slot at 30°C ambient and 70°C rail
- › VITA 62 power supply included
- › 12 V up to 40 A
- › 5 V up to 40 A
- › 3.3 V up to 20 A
- › ±12 V\_AUX and 3.3 V\_AUX
- › 110-240 VAC, 50/60 Hz power input



## XPand1203

The XPand1203 is a low-cost, flexible, development platform. This platform supports up to eight 0.8 in. or 1.0 in. pitch conduction-cooled VPX (VITA 48.2) modules. It provides 650 W of total simultaneous power, which can be distributed as up to 40 A on 12 V, up to 40 A on 5 V, and up to 20 A on 3.3 V. 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 70 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 XPand1203, provide a feature-rich solution for system development. Rear Transition Modules (RTMs) provide maximum I/O flexibility and rapid system prototyping. Power and reset LEDs are provided for system status. Switches allow configuration of the included VITA 62 power supply, as well as I/O signals such as reset, MaskableReset, SYSCON, System Management (SM[3:0]), and GDISCRETE.

The XPand1203 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.

# X-ES

Extreme Engineering Solutions

*“Fast, Flexible, Customer-Focused  
Embedded Solutions”*

### Extreme Engineering Solutions

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**Form Factor**

- 3U VPX (VITA 48.2) 0.8 in. or 1.0 in. pitch
- 3U VPX (VITA 46.10) RTM

**Slots**

- Eight 0.8 in. or 1.0 in. pitch RTM slots
- Eight 0.8 in. or 1.0 in. pitch payload slots
- One 0.8 in. or 1.0 in. pitch power slot

**Power**

- 110-240 VAC, 50/60 Hz power input
- 650 W total simultaneous power
- Up to 40 A on 12 V
- Up to 40 A on 5 V
- Up to 20 A on 3.3 V
- Up to 4 A on 3.3 V\_AUX
- Up to 1.25 A on  $\pm 12$  V\_AUX

**Cooling**

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

**Physical Characteristics**

- Dimensions: 11.5 in. (L) x 5.5 in. (W) x 16.5 in. (H)
- 20 lbs. with backplane and power supply

