

XPand1004

**Not Recommended
for New Designs**

Two-Slot 3U VPX Development Platform for Conduction-Cooled Modules with RTM I/O

Please contact X-ES Sales

- ▶ Development platform for two conduction-cooled 3U VPX modules
- ▶ Compatible with multiple OpenVPX™ profiles
- ▶ Utilizes Rear Transition Modules (RTMs) for I/O access
- ▶ Forced-air-cooled sidewall heat exchangers
- ▶ Supports 0.8 in. or 1.0 in. pitch conduction-cooled VPX modules
- ▶ Supports VITA 48.2 REDI
- ▶ Standard VPX configurations in stock
- ▶ Options for Dual Fat Pipe (DFP) J1 interconnects or J1 I/O slot isolation with full I/O pass-through to RTM slots
- ▶ Customizable with X-ES and third-party components
- ▶ Power and reset switches
- ▶ Power and reset LEDs
- ▶ Designed for lab use up to 30°C ambient
- ▶ Input power is factory-configurable via an ATX supply or a VITA 62 power slot



XPand1004

The XPand1004 system is a low-cost development platform for conduction-cooled 3U VPX cards. It supports up to two 0.8 in. or 1.0 in. 3U VPX boards and utilizes RTMs to simplify I/O access and support rapid system prototyping. The XPand1004 can be configured as two I/O isolated slots, with all I/O from the payload passed to the RTM. Optionally, the XPand1004 can be configured with Dual Fat Pipe (DFP) J1 interconnects, with the remaining I/O from the payload passed to the RTM. 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. Power can be provided via an ATX power supply or via the 3U VPX VITA 62 power supply slot.

The XPand1004 dissipates heat from the conduction-cooled modules to sidewall heat exchangers, where it is quietly dissipated to the ambient environment by forced-air cooling.

The XPand1004 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

9901 Silicon Prairie Parkway • Verona, WI 53593
Phone: 608.833.1155 • Fax: 608.827.6171
sales@xes-inc.com • <https://www.xes-inc.com>

VPX Slot Features

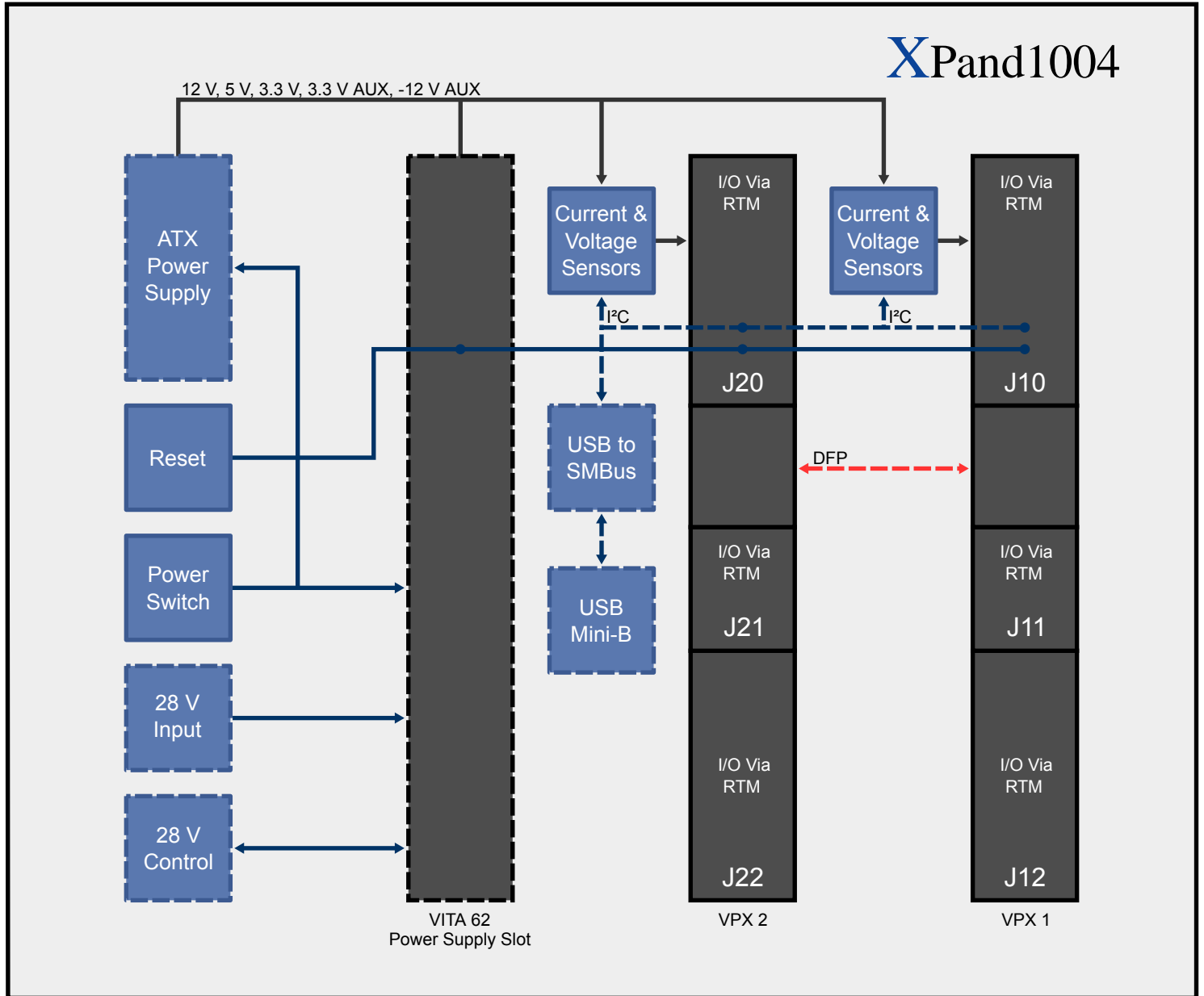
- Two 3U VPX-REDI (VITA 48.2) 0.8 in. or 1.0 in. pitch slots
- Two 3U VPX (VITA 46.10) RTM slots
- One 3U VPX VITA 62 power supply slot (optional)
- Options for Dual Fat Pipe (DFP) J1 interconnects or J1 I/O slot isolation with full I/O pass-through to RTM slots
- Configurable P0 I/O (NVMRO, geographical addresses, SYSCON) via DIP switches

Power

- ATX or VITA 62 power slot configurations available
- Per-slot voltage monitoring via I²C Analog to Digital Converters (ADCs) and test loops
- Per-slot current monitoring via I²C Analog to Digital Converters (ADCs) and test loops

Physical Characteristics

- Dimensions: 11.9 in. (L) x 5.6 in. (W) x 9.3 in. (H)
- 10 lbs. with backplane



Dashed lines indicate configuration-specific functionality. Please contact X-ES Sales to determine the appropriate configuration to support desired functionality.