

## FEATURES AND BENEFITS

- 5-slot full-mesh VPX backplane
- 2 slots dedicated I/O daughtercards
- VITA 46/48 and RoHS compliant
- Over 200 Watts per slot
- 28-layer board

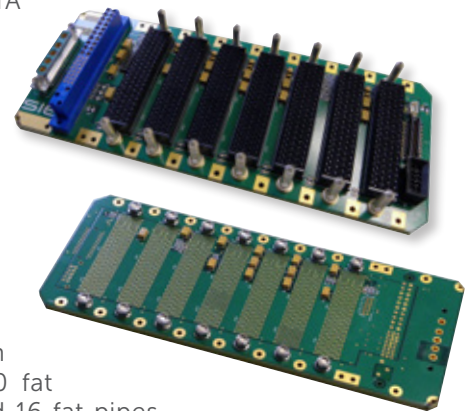


## VPX 3U

### VITA 46/48 3U 5-SLOT FULL-MESH BACKPLANE

Designed to the latest standards, the VPX Series VITA 46 / 48 3U 5-Slot Full-Mesh Backplane from Atrenne is ideally suited for a wide range of VPX applications. The highly configurable, 5-slot 3U VPX-REDI full-mesh backplane offers high-bandwidth in a compact size, with greater I/O flexibility through I/O PLUS™, an innovative use of configurable I/O daughtercards to accommodate VPX applications.

The I/O PLUS™ feature brings two high-speed VPX connectors to the front edge of the board and utilizes two interchangeable I/O daughtercards, reducing the need for custom backplanes for each VPX application. The backplane incorporates 10 fat pipes/high-speed differential channels on J1 and 16 fat pipes, as well as 20 single-ended signals, on J2.



Capable of delivering over 200 Watts of power per VPX slot, the VPX Series VITA 46/48 Backplane is ideal for deployment in aerospace and vetronic military applications in which high performance in a small form factor is required.

Atrenne Computing Solutions addresses the needs of users deploying a variety of boards for specialized applications, offering custom backplane, system design and manufacturing services, as well as standard and custom ATR rugged enclosures featuring convection, conduction, air-over conduction or liquid-cooling capabilities to meet the demanding cooling requirements for a variety of thermal loads.



## DESIGN SPECIFICATIONS:

### Standards Compliance

- VITA 46.0, 46.3 46.4, 46.7
- VITA 48

### Environmental

- Temperature ranges
- Operating: -40 C to +85 C
- Storage: -55 C to +85 C

### Safety

- Flammability rating: UL94
- Regulatory: Designed to meet UL, CSA and CE requirements
- RoHS

### Board

- 28 Layers
- 9.94" L x 4.02" W
- PCB FR4-08
- PCB .215" +/- .022 thick
- 3U Height
- 5 Slot full mesh
- 2 slots for I/O daughter cards
- Multi-Gig RT-2 connectors

### Current

- VS1 / +12V 80A
- VS2 / +3.3V 150A
- VS3 / +5V 120A

### User I/O Capabilities

- J1: 10 fat pipes / high speed differential channels
- J2: 16 fat pipes / high speed differential channels
- J2: 20 Single ended signals

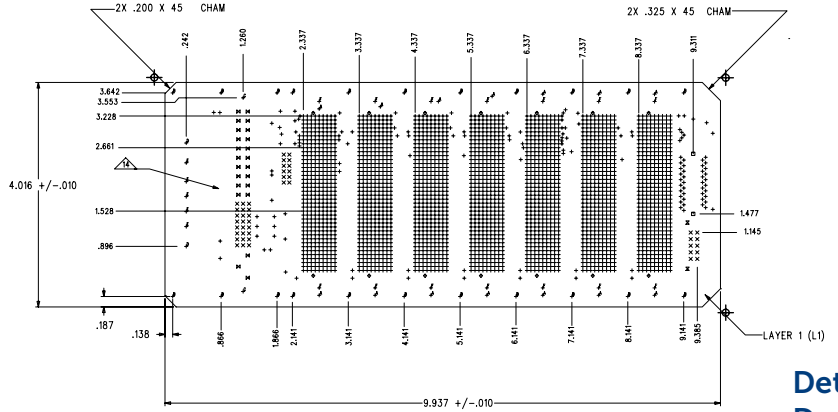
### WARRANTY

This product has a one year warranty.

### CONTACT INFORMATION

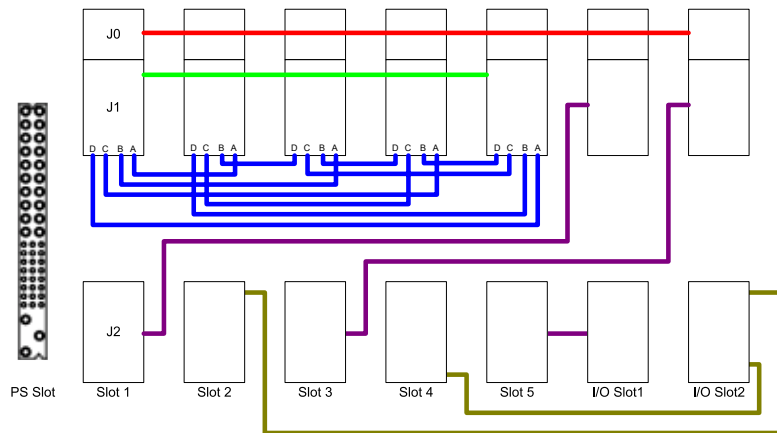
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Detail Drawing

## 3U, 5-SLOT FULL-MESH AND 2 I/O SLOTS



Block Diagram

Legend	
	Utility Connector - Power, JTAG, Address, Clock, Reset
	Based and non-based Single-ended Signals
	Five-position, Full Mesh, Serial Fabric Interface
	(32) Differential Pairs, (4) Single-ended Signals
	(16) Differential Pairs, (4) Single-ended Signals

Ordering Guide: VITA® 46/48 VPX	
Description	Part Number
5 Slot full mesh VPX backplane plus 2 I/O slots	VA05
Notes: Check with Atrenne's factory for custom configurations	