VRT518A
Rear I/O for VPX518, VPX RTM

Key Features
- 3U RTM per VITA 46
- Dual GbE, Clock input and I/O

Benefits
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company
VRT518A

The VRT518A is a 3U VPX Rear Transition Module providing I/O expansion for use with the VPX518.

Dual GbE (UTP) are routed from RP1 to back panel RJ-45. The 1PPS input signal is routed from the backplane to the RTM.

The high speed I/O connector supports general purpose and serial interfaces routed from RP2 LVDS. This section of the board can be customized for specific customer requirements, contact VadaTech sales for details.

Figure 1: VRT518A
Block Diagram

Back Panel
## Specifications

<table>
<thead>
<tr>
<th>Architecture</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Dimensions</td>
<td>3U RTM, 1&quot; pitch</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Configuration</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>VRT518A</td>
</tr>
<tr>
<td>Rear Panel Connectors</td>
<td>1 PPS, Co-ax Dual GbE, RJ-45 GPIO/Serial, Oculink</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VPX Interfaces Slot Profiles</th>
<th>See Ordering Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backplane</td>
<td>RP0: 1 PPS RP1: Dual GbE</td>
</tr>
<tr>
<td>Power Supplies</td>
<td>RP0: VS1 = 12V</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Other</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MTBF</td>
<td>MIL Hand book 217-F@ TBD hrs</td>
</tr>
<tr>
<td>Certifications</td>
<td>Designed to meet FCC, CE and UL certifications, where applicable</td>
</tr>
<tr>
<td>Standards</td>
<td>VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards</td>
</tr>
<tr>
<td>Warranty</td>
<td>Two (2) years, see VadaTech Terms and Conditions</td>
</tr>
</tbody>
</table>

### INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.
Ordering Options

VRT518A – 000-000-GHJ

<table>
<thead>
<tr>
<th>Option H</th>
<th>G = Applicable Slot Profiles</th>
<th>H = Environmental</th>
<th>J = Conformal Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 = 5 HP</td>
<td>See Environmental Specification</td>
<td>0 = No coating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 = Humiseal 1A33 Polyurethane</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 = Humiseal 1B31 Acrylic</td>
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</table>

Environmental Specification

<table>
<thead>
<tr>
<th>Air Cooled</th>
<th>Conduction Cooled</th>
</tr>
</thead>
<tbody>
<tr>
<td>H = 0</td>
<td>H = 0</td>
</tr>
<tr>
<td>H = 1</td>
<td>H = 1</td>
</tr>
<tr>
<td>H = 2</td>
<td>H = 2</td>
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<tr>
<td>H = 3</td>
<td>H = 3</td>
</tr>
<tr>
<td>H = 4</td>
<td>H = 4</td>
</tr>
</tbody>
</table>

Operating Temperature
- operating Temperature: AC1* (0°C to +55°C) AC3* (-40°C to +70°C)
- Storage Temperature: C1* (-40°C to +85°C) C3* (-50°C to +100°C)
- Operating Vibration: V2* (0.04 g2/Hz max) V2* (0.04 g2/Hz max)
- Storage Vibration: OS1* (20g) OS1* (20g)
- Humidity: 95% non-condensing 95% non-condensing

Conduction Cooled
- operating Temperature: CC1* (0°C to +55°C) CC3* (-40°C to +70°C)
- Storage Temperature: C1* (-40°C to +85°C) C3* (-50°C to +100°C)
- Operating Vibration: V3* (0.1 g2/Hz max) V3* (0.1 g2/Hz max)
- Storage Vibration: OS2* (40g) OS2* (40g)
- Humidity: 95% non-condensing 95% non-condensing

Notes: *Nomenclature per ANSI/VITA 47. Contact local sales office for conduction cooled (H = 2, 3, 4)

Related Products

- VPX518
  - 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
  - Xilinx Zynq-7000 FPGA in FFG-900 package (XC7Z100 or XC7Z045)
  - Protocols such as PCIe, SRI0, 10GbE/40GbE, etc. are FPGA programmable

- VPX754
  - 3U VPX module Intel 5th Generation Xeon D-1577, D-1548 or D-1520 (Broadwell) System-on-Chip (SoC)
  - PCIe Gen3 dual x4 or single x8
  - Front-panel video out via micro HDMI

- VTX870
  - Open VPX benchtop development platform
  - Dedicated Switch/management slot
  - Up to five 3U VPX payload slots
Choose VadaTech

We are technology leaders
• First-to-market silicon
• Constant innovation
• Open systems expertise

We commit to our customers
• Partnerships power innovation
• Collaborative approach
• Mutual success

We deliver complexity
• Complete signal chain
• System management
• Configurable solutions

We manufacture in-house
• Agile production
• Accelerated deployment
• AS9100 accredited

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