VTX662

8U VPX Chassis, Dual Six 3U Slots with RTM Support

Key Features

- 8U Open VPX rackmount system platform
- Total of 12 slots divvied among two-half of the chassis for full redundancy
- Dual Dedicated Switch/management slots
- Up to Dual five 3U VPX payload slots
- Compatible with 0.8-inch, 0.85-inch and 1.0-inch modules
- Option for conduction cool modules per VITA 48
- Support for Rear Transition Modules (RTMs)
- Dual redundant cooling in push/pull front-to-back airflow configuration per each half of the chassis
- Optional Dual JTAG Switch Module (JSM)

Benefits

- Up to four 800W AC Power Input
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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www.vadatech.com
VTX662

The VTX662 is an 8U VPX chassis with a dual six 3U VPX slots. The chassis can accept 0.8-inch, 0.85-inch and 1.0-inch pitch modules and is ideal for commercial deployment. The chassis has no single point of failure and when loaded with identical modules on each half of the chassis, the payload will be fully redundant. **The VTX662 has option for conduction cool modules per VITA 48 specification.**

**Power Supplies**
The VTX662 has up to four AC input power supplies to provide 800W in redundant configuration (1+1) or 1600W total per each half of the chassis. The chassis supplies 110W/slot and AC input is universal. The power supplies are hot swappable and there are total of four in the system (two for each half of the chassis).

**Cooling and Temperature Sensors**
The VTX662 is designed to meet the ANSI/VITA 65 standard. It provides dual redundant front to back push/pull cooling to the VPX payload and RTM slots. There are four fan trays in the front and four fan trays in the back of the chassis. The Fan trays are removable.

**Backplane**
The backplane provides dual five 3U VPX payload slots each in a star topology on the data port, fully compliant to VITA 46.0 baseline specification with additional support to the RTMs, compliant to VITA 46.10 and OpenVPX VITA65.

**JSM**
There are two JSM slots to provide JTAG access to the front (1 JSM for each group of 5 payloads slots).
The initial offering on VTX662 is based on a dual backplane routing as shown above. VadaTech can also design additional VITA standard backplane profiles for customer specific applications. Please contact your local sales team for more information.
Figure 3A: VTX662 Backplane Connections B=1
Chassis Layout

Figure 4: VTX662 Chassis Layout – Front

Figure 5: VTX662 Chassis Layout – Rear

<table>
<thead>
<tr>
<th>FIRST HALF OF THE CHASSIS</th>
<th>SECOND HALF OF THE CHASSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VPX 1/0</td>
<td>VPX 1/1</td>
</tr>
<tr>
<td>VPX 2/0</td>
<td>VPX 2/1</td>
</tr>
<tr>
<td>VPX 3/0</td>
<td>VPX 3/1</td>
</tr>
<tr>
<td>VPX 4/0</td>
<td>VPX 4/1</td>
</tr>
<tr>
<td>VPX 5/0</td>
<td>VPX 5/1</td>
</tr>
<tr>
<td>MGT</td>
<td>MGT</td>
</tr>
<tr>
<td>JSM</td>
<td>JSM</td>
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</tbody>
</table>

DUAL REDUNDANT 800W POWER SUPPLY FOR TOTAL OF 1600W

Figure 6: VTX662 Chassis Slots
OpenVPX allows for a wide range of pin assignments and use cases. Prior to purchasing VadaTech products as standalone items (i.e., not part of an integrated platform) please consult with VadaTech on the system architecture to ensure compatibility.

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

VTX662 – ABC-DE0-0HJ

<table>
<thead>
<tr>
<th>A = Power Supply</th>
<th>D = JSM</th>
</tr>
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<tbody>
<tr>
<td>0 = Reserved</td>
<td>0 = No JSM</td>
</tr>
<tr>
<td>1 = Single AC (800W) for each half</td>
<td>1 = JSM (Dual)</td>
</tr>
<tr>
<td>2 = Dual AC (1+1, 1600W) for each half</td>
<td></td>
</tr>
<tr>
<td>3 = Reserved</td>
<td></td>
</tr>
<tr>
<td>4 = Reserved</td>
<td></td>
</tr>
<tr>
<td>5 = Reserved</td>
<td></td>
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<table>
<thead>
<tr>
<th>B = Backplane routing</th>
<th>E = Card Guide Type*</th>
<th>H = Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Figure 3</td>
<td>0 = Air Cool</td>
<td>See <a href="#">Environmental Specification</a></td>
</tr>
<tr>
<td>1 = Figure 3A</td>
<td>1 = Conduction Cool (VITA 48)</td>
<td></td>
</tr>
<tr>
<td>2 = Reserved</td>
<td>2 = Reserved</td>
<td></td>
</tr>
<tr>
<td>4 = Reserved</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C = VPX Connector Type</th>
<th>J = Conformal Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 = Standard 50u Gold Rugged</td>
<td>0 = No coating</td>
</tr>
<tr>
<td>1 = KVPX Connectors</td>
<td>1 = Humiseal 1A33 polyurethane</td>
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</table>

Notes: *Applies only to VPX module, RTM card guide is always standard/air-cooled

Environmental Specification*

<table>
<thead>
<tr>
<th>Option H</th>
<th>H = 0</th>
<th>H = 1</th>
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</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>AC1* (-5°C to +55°C)</td>
<td>AC3* (-40°C to +70°C)</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>C1* (-40°C to +85°C)</td>
<td>C3* (-50°C to +100°C)</td>
</tr>
<tr>
<td>Operating Vibration</td>
<td>V2* (0.04 g2/Hz max)</td>
<td>V2* (0.04 g2/Hz max)</td>
</tr>
<tr>
<td>Storage Vibration</td>
<td>OS1* (20 g)</td>
<td>OS1* (20 g)</td>
</tr>
<tr>
<td>Humidity</td>
<td>95% non-condensing</td>
<td>95% non-condensing</td>
</tr>
</tbody>
</table>

Notes:
*Please contact VadaTech Sales for other specification.

[Environmental Specification](#)
Related Products

- **VPX518**
  - AMC FPGA carrier for FMC per VITA 57
  - Xilinx Zynq-7000 FPGA in FFG-900 package (XC7Z100 or XC7Z045) with embedded ARM®
  - Supported by DAQ Series™ data

- **VPX592**
  - 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
  - Xilinx Kintex UltraScale™ XCKU115 FPGA
  - High-performance clock jitter cleaner

- **VPX599**
  - 3U FPGA Dual DAC and Dual ADC per VITA 46
  - Xilinx Kintex UltraScale™ XCKU115 FPGA
  - Dual ADC 12-bit @ 6.4 GSPS
Choose VadaTech

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

We commit to our customers
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- Mutual success

We deliver complexity
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- Configurable solutions

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

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