VTX661

8U VPX Chassis, Up to Twelve 3U Slots with RTM Support

Key Features

- 8U Open VPX rackmount system platform
- Dual Dedicated Switch/management slots
- Up to ten 3U VPX payload slots (with two slots that can have up to 10 HP)
- 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)
- Redundant cooling in push/pull front-to-back airflow configuration
- Optional JTAG Switch Module (JSM)

Benefits

- Up to three 800W AC or 650W DC Power Input
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company
VTX661

The VTX661 is an 8U VPX chassis with twelve 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 VTX661 has option for conduction cool modules per VITA 48 specification.

Power Supplies
The VTX661 has three AC input power supplies to provide 1600W with redundancy (2+1). The chassis supplies 95W/slot and AC input is universal.

Cooling and Temperature Sensors
The VTX661 is designed to meet the ANSI/VITA 65 standard. It provides front to back push/pull cooling (18 CFM per slot at 0.24 in-H2O @ 5000 feet) to the VPX payload and RTM slots.

Backplane
The backplane provides ten 3U VPX payload slots in a star configuration, fully compliant to VITA 46.0 baseline specification with additional support to the RTMs, compliant to VITA 46.10 and OpenVPX VITA65.

JSM
There is an optional JSM to provide JTAG access to the front.

Figure 1: VTX661 Front View

Figure 2: VTX661 Rear View
Backplane Connection Options

The initial offering on VTX61 is based on backplane profile BKP3-CEN07_15.2.3-n. VadaTech can also design additional VITA standard backplane profiles for customer specific applications. Please contact your local sales team for more information.
Figure 4: VTX661 Backplane Connections (option F = 1)
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Payload Slots

Logical Slot Numbers (physical numbers may be different)

VPX 1 VPX 2 VPX 3 VPX 4 VPX 5

All I/O on P1/P2 are routed to the Rear Transition Module (RTM) (except P1 ports 14 to 16)

Data Plane (UTP)
P1 Ports 14 to 16
Full Mesh

Management Plane (IPMB)

Utility Plane including Power

Logical Slot Numbers (physical numbers may be different)

VPX 1 VPX 2 VPX 3 VPX 4 VPX 5

Figure 5: VTX661 Backplane Connections (option F = 2)
Chassis Layout

Figure 4: VTX661 Chassis Layout - Front

Figure 5: VTX661 Chassis Layout – Rear

Figure 6: VTX661 Chassis Slots
## Specifications

### Architecture

<table>
<thead>
<tr>
<th>Physical</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>8U</td>
</tr>
<tr>
<td>Width</td>
<td>19”</td>
</tr>
<tr>
<td>Depth</td>
<td>12.5”</td>
</tr>
<tr>
<td>Weight</td>
<td>TBD</td>
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</tbody>
</table>

### Type

- VPX Shelf
- 10 Payload Slots up to 1.0” pitch and dual dedicated Switch/management slots

### Standards

<table>
<thead>
<tr>
<th>VPX Type</th>
</tr>
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<tbody>
<tr>
<td>VITA-46.0 Baseline Specification</td>
</tr>
</tbody>
</table>

### Configuration

<table>
<thead>
<tr>
<th>Power Type</th>
<th>VTX661</th>
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<tbody>
<tr>
<td>Power</td>
<td>3 x 800W AC input with redundancy (or -48V DC 650W)</td>
</tr>
</tbody>
</table>

### Environmental

- See [Ordering Options](#)

### Cooling

- Front to Back

### Other

<table>
<thead>
<tr>
<th>MTBF</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIL Hand book 217-F@ TBD hrs</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Certifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed to meet FCC, CE and UL certifications, where applicable</td>
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<table>
<thead>
<tr>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>VadaTech is certified to both the ISO9001:2015 and AS9100D standards</td>
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</table>

<table>
<thead>
<tr>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) year, see <a href="#">VadaTech Terms and Conditions</a></td>
</tr>
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</table>

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

VTX661 – ABC-D0F-0HJ

A = Power Supply
- 0 = Single AC (800W)
- 1 = Dual AC (1+1, 1600W)
- 2 = Triple AC (2+1, 2400W)
- 3 = Single DC -48V (800W)
- 4 = Dual DC (1+1, 1600W)
- 5 = Triple DC (2+1, 2400W)

D = JSM
- 0 = No JSM
- 1 = JSM

G = Applicable Slot Profile
- 0 = 5HP, IEEE 1101.10
- 1 = 5HP, VITA 48.1

B = Card Guide Type*
- 0 = Air Cool
- 1 = Conduction Cool (VITA 48)
- 2 = Reserved

C = VPX Connector Type
- 0 = Standard 50u Gold Rugged
- 1 = KVXP Connectors

F = Backplane Routing
- 0 = Per Fig 3
- 1 = Per Fig 4
- 2 = Per Fig 5
- 3 = Reserved
- 4 = Reserved

H = Environmental
See Environmental Specification

J = Conformal Coating
- 0 = No coating
- 1 = Humiseal 1A33 polyurethane
- 2 = Humiseal 1B31 acrylic

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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<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>
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Notes:
*Please contact VadaTech Sales for other specification.
Related Products

- 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

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

- 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
• 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