# VTX870

## 7U VPX Benchtop Chassis, Six 3U Slots with RTM Support

VTX870

## Key Features

- Open VPX benchtop development platform
- Dedicated Switch/management slot
- Up to 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)
- Redundant cooling in push/pull bottom-to-top airflow configuration
- Front panel system health display
- Optional JTAG Switch Module (JSM)
- Removable side panels for ease of board probing

## Benefits

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

OpenVPX™


vadatech
THE POWER OF VISION

# VTX870

The VTX870 is a VPX chassis with 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 side panels on both the front and rear slots are removable for ease of probing and debugging a module. ***The VTX870 has option for conduction cool modules per VITA 48 specification.***

*Figure 1: VTX870 Chassis Front View*

## Power Supplies

The VTX870 has a single AC input power supplies to provide 800W AC or 650W DC input. The chassis supplies 95W/slot and the AC input is universal.

## Cooling and Temperature Sensors

The VTX870 is designed to meet the ANSI/VITA 65 standard. It provides bottom to top 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 five 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 VITA 65.

## JSM

There is an optional JTAG Switch Module to provide JTAG access to the front.

*Figure 2: VTX870 Chassis Rear View*

# Backplane Connections

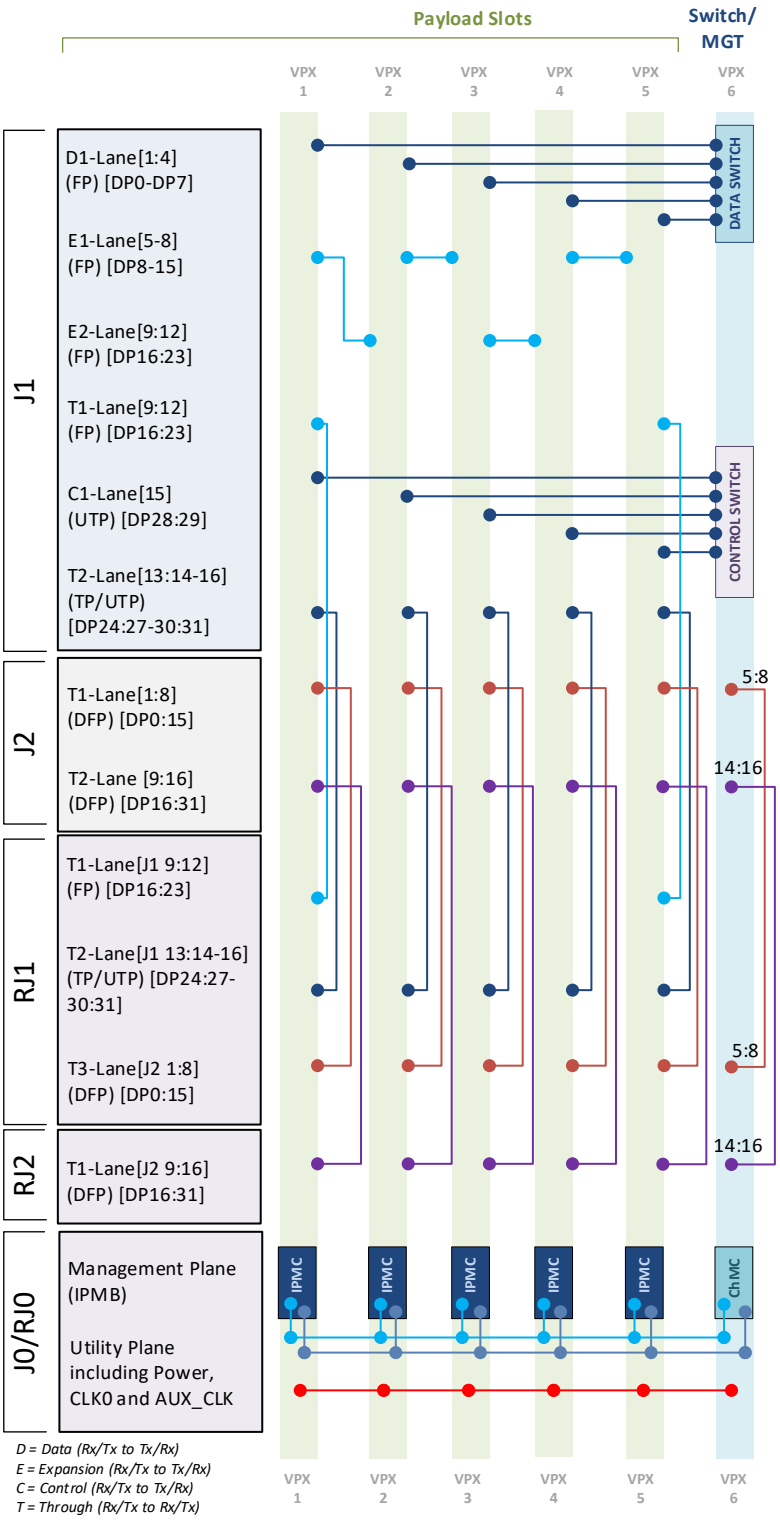


*Figure 3: VTX870 Backplane Connections*

The initial offering on VTX870 is based on backplane profile BKP3-CEN06_15.2.2-N. VadaTech can also design additional VITA standard backplane profiles for customer specific applications. Please contact your local sales team for more information.

# Chassis Layout


*Figure 4: VTX870 Chassis Layout - Front*


*Figure 5: VTX870 Chassis Layout - Rear*

| | | | | | | |
|---|---|---|---|---|---|---|
| VPX 1 | VPX 2 | VPX 3 | VPX 4 | VPX 5 | MGT | JSM |

*Figure 6: VTX870 Chassis Slots*

# Specifications

| | | |
|---|---|---|
| **Architecture** | | |
| **Physical** | **Dimensions** | Height: 7U |
| | | Width: 8.45” |
| | | Depth: 12.5” |
| | | Weight: TBD lbs |
| **Type** | **VPX Shelf** | 5 Payload Slots up to 1.0” pitch with a dedicated Switch/management slot |
| **Standards** | | |
| **VPX** | **Type** | VITA 46.0 Baseline Specification |
| **Configuration** | | |
| **Power** | **VTX870** | 800W AC input or -48V DC |
| **Environmental** | | See Ordering Options |
| **Cooling** | | Bottom to Top |
| **Other** | | |
| **MTBF** | MIL Hand book 217-F@ TBD hrs | |
| **Certifications** | Designed to meet FCC, CE and UL certifications, where applicable | |
| **Standards** | VadaTech is certified to both the ISO9001:2015 and AS9100D standards | |
| **Warranty** | One (1) year, see VadaTech Terms and Conditions | |

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

## VTX870 – ABC-D00-0HJ

| A = Power Supply | D = JSM** | |
|---|---|---|
| 0 = 800W (AC)<br>1 = 650W (-48V DC) | 0 = No JSM<br>1 = JSM (IEEE 1101.10)<br>2 = JSM (VITA 48.1) | |
| **B = Card Guide Type*** | | **H = Environmental** |
| 0 = Air Cooled (IEEE 1101.10)<br>1 = Conduction Cooled (VITA 48.2)<br>2 = Air Cooled (VITA 48.1)<br>3 = Reserved | | See Environmental Specification |
| **C = VPX Connector Type** | | **J = Conformal Coating** |
| 0 = Standard 50u Gold Rugged<br>1 = KVPX Connectors | | 0 = No coating<br>1 = Humiseal 1A33 polyurethane<br>2 = Humiseal 1B31 acrylic |

Notes:

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

** JSM D=1 and B=0 options must be ordered together. JSM D=2 and B=2 options must be ordered together.

## Environmental Specification*

| Option H | H = 0 | H = 1 |
|---|---|---|
| **Operating Temperature** | AC1* (-5°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* (20 g) | OS1* (20 g) |
| **Humidity** | 95% non-condensing | 95% non-condensing |

**Notes:**

*Please contact VadaTech Sales for other 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

# Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014
Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhu Street, Neihu District, Taipei 114, Taiwan
Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR
Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

# 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

vadatech
THE POWER OF VISION


**DOC NO. 4FM737-12 REV 01 | VERSION 2.3 – JUL/232**