

VTX991

One Slot 6U VPX Benchtop
Development Chassis with RTM
(P4 to P6 with six VITA 66.4/66.5)



VTX991

Key Features

- One slot benchtop 6U VPX development platform
- P4 to P6 with six VITA 66.4 or 66.5 connectors option
- Support for conduction cooled modules
- Variable fan speed control for front and rear
- Removable panels for ease of access for probing
- Support for Rear Transition Modules (RTMs)
- Allows for a shelf manager to do health monitoring
- JTAG connector
- User setting of SYSRESET, NVMRO, etc.
- Onboard battery pack to provide the VBAT
- Vertical or Horizontal positioning on bench

Benefits

- Optional shelf manager supporting Tier 2 Health Management
- 400W AC Power supply
- Ease of access to board under development
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

OpenVPX™



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VTX991

The VTX991 is a single slot 6U VPX chassis for board bring-up and testing of 6U VPX modules. The chassis can accept a front and a rear module (5 HP or 10 HP). The panels on both the front and rear slots are removable for ease of probing and debugging. **The VTX991 can support conduction cooled modules per VITA 48.**

The VTX991 can be placed on bench in both horizontal and vertical positioning for ease of access.

Power Supply

The VTX991 Universal AC power supply provides 400W to the chassis. The chassis supplies all the necessary power (+12V, -12V, +5V, etc.) to the module in accordance with VITA 46 specifications.

VTX991 also comes with a battery pack which provides the VBAT to the module. The VTX991 allows the power to VBAT to be switched between the onboard battery pack and the power supply. A sense resistor is fitted to each rail so that a voltmeter can measure power consumption.

Cooling

Variable speed fans provide front and rear cooling to the module.

Backplane

The backplane provides all the necessary VITA 46 signals set by the user (NVMRO, SYSRESET, SYS_CON, driver the dual clock, etc.). All the connectors are installed P0 thru P6 and are routed from the front to the rear.

Health Monitoring

The dual IPMI bus is routed to an external VT007 bench-top shelf manager that monitors the VPX board sensors in compliance to VITA 46.11. The VT007 supports Tier 2 Health Management and can be ordered separately or as an option with VTX991.

JTAG

The backplane breaks-out the JTAG signals via a header connector to enable external connection of a JTAG probe.



Figure 1: VTX991 Chassis Front View



Figure 2: VTX991 Chassis Rear View

Chassis Layout



Figure 3: Chassis Layout - Front

Figure 4: Chassis Layout - Rear



Figure 5: Chassis Layout – Front Vertical

Figure 6: Chassis Layout – Rear Vertical

Specifications

Architecture		
Physical	Dimensions	Height: 3U
Standards		
VPX	Type	VITA 46.0 and VITA 66.4 or 66.5 Baseline Specification
Configuration		
Power	VTX991	400W AC universal
Environmental		See Ordering Options
Cooling		Right to left
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

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

VTX991 – ABC-DEF-GHJ

A = Power Supply 0 = 400W (AC)	D = P5 VITA 66.4 or 66.5 0 = P5, No VITA 66.4 or 66.5 1 = P5, VITA 66.5 2 = P5, VITA 66.4	G = VPX Connector Type 0 = Standard 50u Gold Rugged 1 = KVPX Connectors 2 = High Speed 50u Gold Rugged (>16G)
B = Shelf Manager (health monitoring) 0 = No VT007 1 = VT007 included	E = P6 VITA 66.4 or 66.5 0 = P6, No VITA 66.4 or 66.5 1 = P6, VITA 66.5 2 = P6, VITA 66.4	H = Environmental See Environmental Specification
C = P4 VITA 66.4 or 66.5 0 = P4, No VITA 66.4 or 66.5 1 = P4, VITA 66.5 2 = P4, VITA 66.4	F = Card guide type* 0 = Standard (air cooled) 1 = Conduction cooled	J = Conformal Coating 0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

Environmental Specification*

Option H	H = 0
Operating Temperature	-5°C to +55°C
Storage Temperature	-40°C to +85°C
Operating Vibration	0.04 g2/Hz max
Storage Vibration	20g
Humidity	95% non-condensing

*Please contact VadaTech Sales for other specification

Related Products

VPX551



- Dual Kintex UltraScale™ XCKU115
- 16 GB of 64-bit wide DDR4 Memory to each FPGA
- Rear fibre I/O via VITA 66.5

VPX646



- 3U VPX NVMe Host Bus Adapter with Full support for RAID
- Dual Core ARM A15 RAID on Chip (ROC)
- Onboard 8 GB of DDR4 Memory with ECC

VPX752



- 6U VPX module Intel 5th Generation Xeon-D SoC
- PCIe Gen3 x16 (dual x8 or quad x4)
- Quad 10GbE XAUI

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, Wenhua 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

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