

VTX995

Two Slot 6U VPX Rackmount Chassis with RTM for Conduction Cooled Module



VTX995

Key Features

- Two slot 6U VPX platform for Conduction cooled modules
- 19" Rackmount
- Multiple backplane configurations for VITA 66.4, VITA 66.5, VITA 67.2, etc. by selectable connector options
- Chassis monitors the temperature of the wedgelock and maintains the required level
- Support for Rear Transition Modules (RTMs)
- Health monitoring via shelf manager
- JTAG connector
- User setting of SYSRESET, NVMRO, etc.
- VBAT provided by onboard battery pack

Benefits

- Allows development of conduction cooled modules in standard 19" rack mount
- Shelf manager supports Tier 2 Health Management
- 400W AC Universal Power supply
- Ease of access to board for debug and development
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company



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OpenVPX™



VTX995

The VTX995 is a dual slot 6U VPX chassis conduction cooled for two 6U VPX modules. The chassis can accept a front and a Rear Transition Module (RTM).

The Chassis CPU will monitor and maintain the VPX module wedge temperature, set by the user. This allows testing of the conduction cooled modules without going through the thermal chamber.

The chassis has provision to mount to a 19" Rackmount.

Power Supply

The VTX995 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.

A battery pack is included that provides VBAT to the module. The chassis provides the current draw on the +12V and +5V by the VPX module and its associated RTM.

Cooling

Variable speed fans controlled by the onboard CPU keeps the wedge at the user defined temp.

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. The backplane can be ordered with custom routing between the two modules. The default routing, routes all P1 ports between the two modules.

Health Monitoring

The chassis comes with the VadaTech 4th Generation shelf manager (VT040) that monitors the VPX board sensors in compliance to VITA 46.11. The VT040 supports Tier 2 Health Management and comes with the VTX995 chassis. For a more complete and detail description of the VT040, the data sheet may be downloaded from VadaTech web page.

JTAG

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



Figure 1: VTX995 Front View



Figure 2: VTX995 Rear View

Chassis Layout



Figure 3: VTX995 Chassis Layout - Front View



Figure 4: VTX995 Chassis Layout - Rear View

Backplane Connection Diagrams

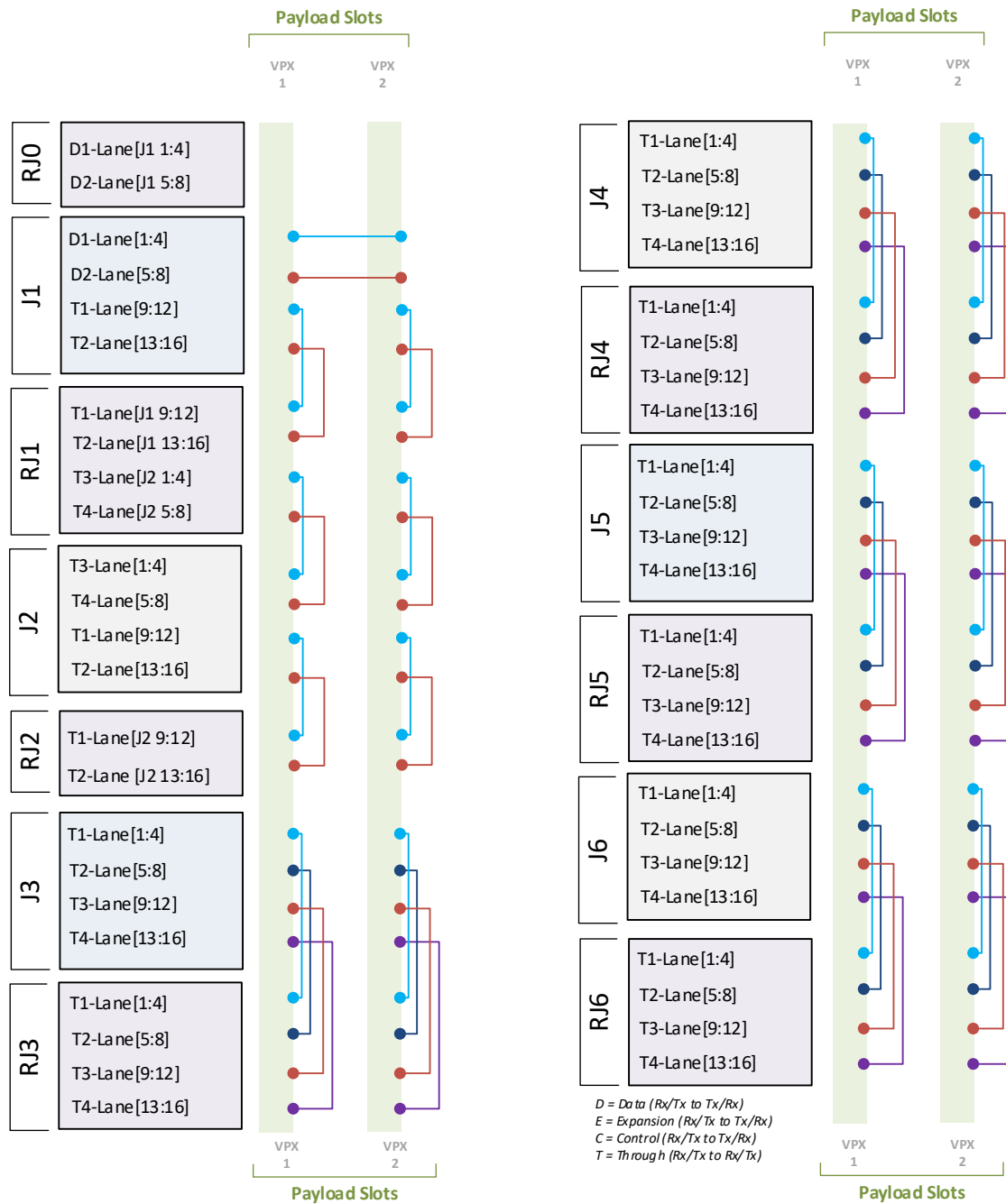


Figure 2: Backplane, Option A=0

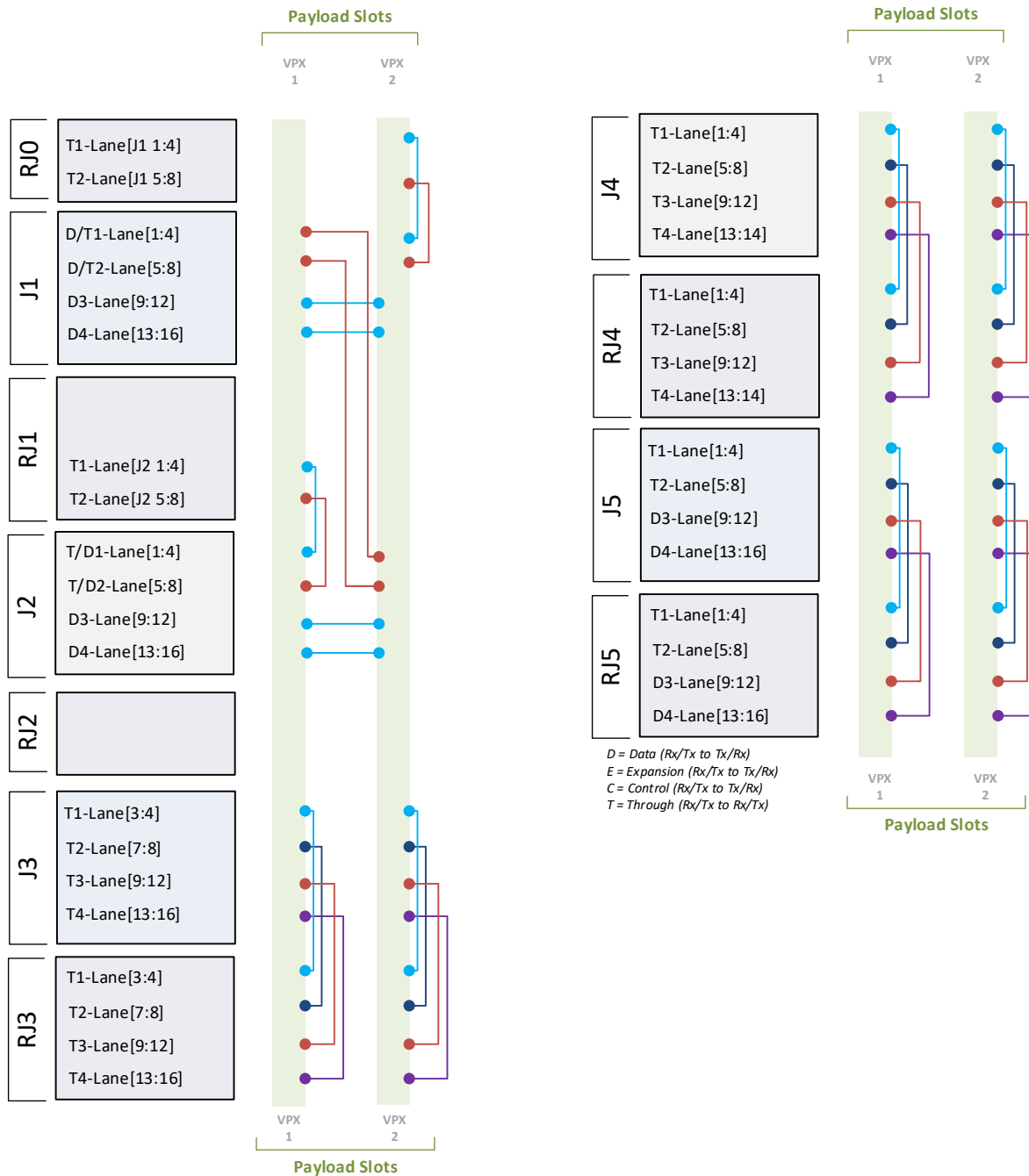


Figure 3: Backplane, Option A=1

Specifications

Architecture		
Physical	Dimensions	Height: 2U; 19"
Standards		
VPX	Type	VITA 46.0 and VITA 66.4, VITA 66.5, VITA67.2, etc. Baseline Specification
Configuration		
Power	VTX995	400W AC universal
Environmental		See Ordering Options
Cooling		Front to rear
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

VTX995 – AB0-D00-GHJ

A = Backplane	D = Mounting	G = VPX Connector Type
0 = Per Figure 2 1 = Per Figure 3 2 = Reserved 3 = Reserved 4 = Reserved 5 = Reserved 6 = Reserved	0 = Bench Top 1 = 19" Rackmount 2 = Reserved 3 = Reserved	0 = Standard 50u Gold Rugged 1 = KVPX Connectors
B = VPX Module 5HP Pitch		H = Environmental
0 = VITA48 1 = IEEE1101.1		See Environmental Specification
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

Environmental Specification*

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

Notes:

*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

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DOC NO. 4FM737-12 REV 01 | VERSION 1.4- OCT/21



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