VTX866

11U VPX Chassis, Up To Twelve 6U Slots with RTM Support

VTX866

Key Features

- 11U Open VPX rackmount system platform
- Up to twelve 6U VPX 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
- VITA66.5, VITA 67.1, VIT67.2, VITA67.3 and/or VITA67.3c support option
- Optional JTAG Switch Module (JSM)

Benefits

- Up to three AC or DC input supply
- 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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VTX866

The VTX866 is an 11U VPX chassis with twelve 6U 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 VTX866 has option for conduction cool modules per VITA 48 specification.*

Power Supplies

The VTX866 has three AC, -48V or +28V input power supplies to provide power to the slots. The chassis supplies 200W/slot and AC input is universal. Total power must be less than what power supply can support.

Cooling and Temperature Sensors

The VTX866 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 up to 12 slots of 6U VPX payload slots in a multiple backplane topology with the Rear Transition Modules (RTM). VadaTech can provide the backplane in any topology including VITA66.5, VITA67.1, VITA67.2, VITA 67.3, VITA 67.3c, etc. Please contact VadaTech Sales for a specific backplane routing.

JSM

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

Figure 1: VTX866 Front View

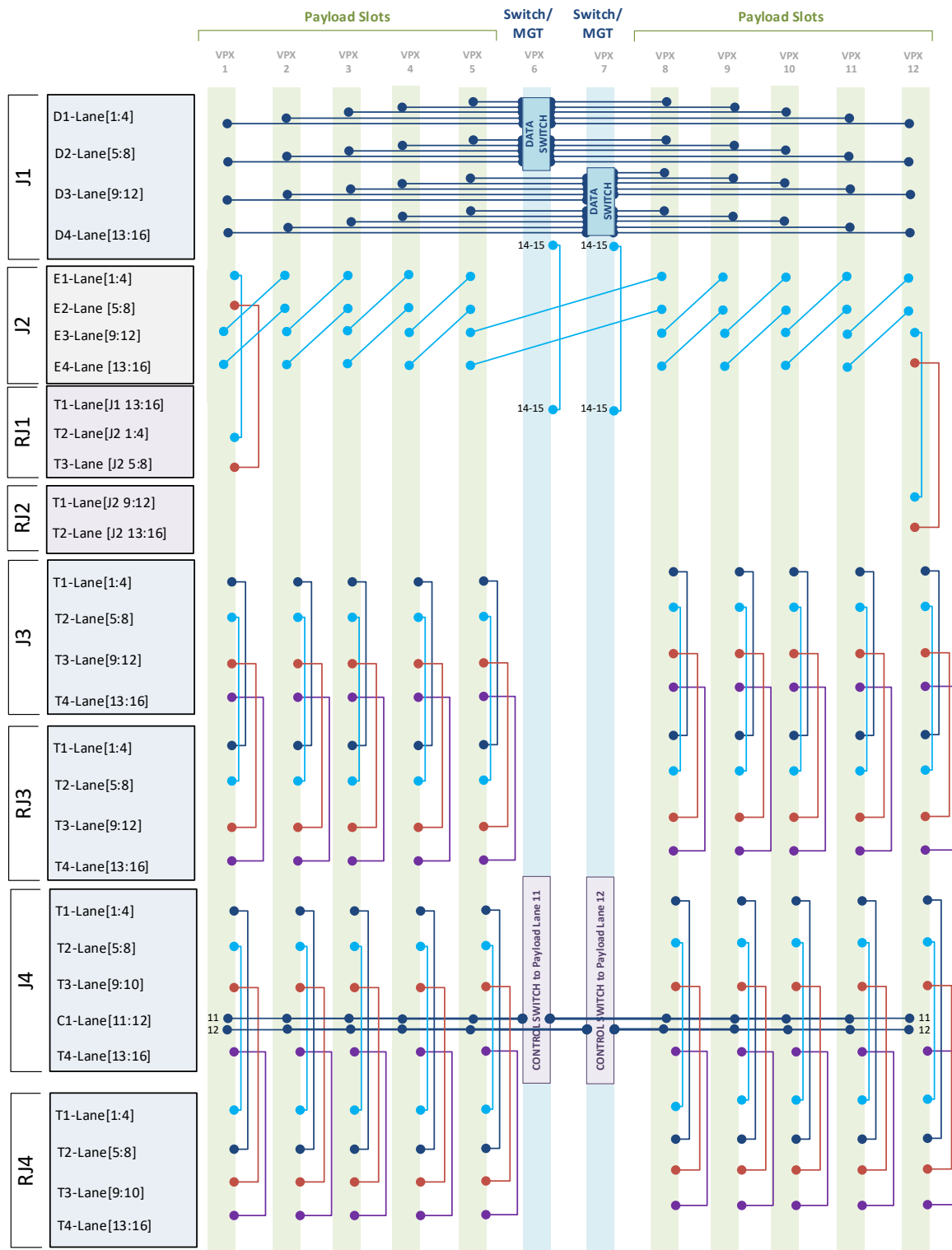*Figure 2: VTX866 Rear View*

Backplane Connections J1-J4

Figure 3: VTX866 Backplane Connections J1-J4

Backplane Connections J0, J5-J6

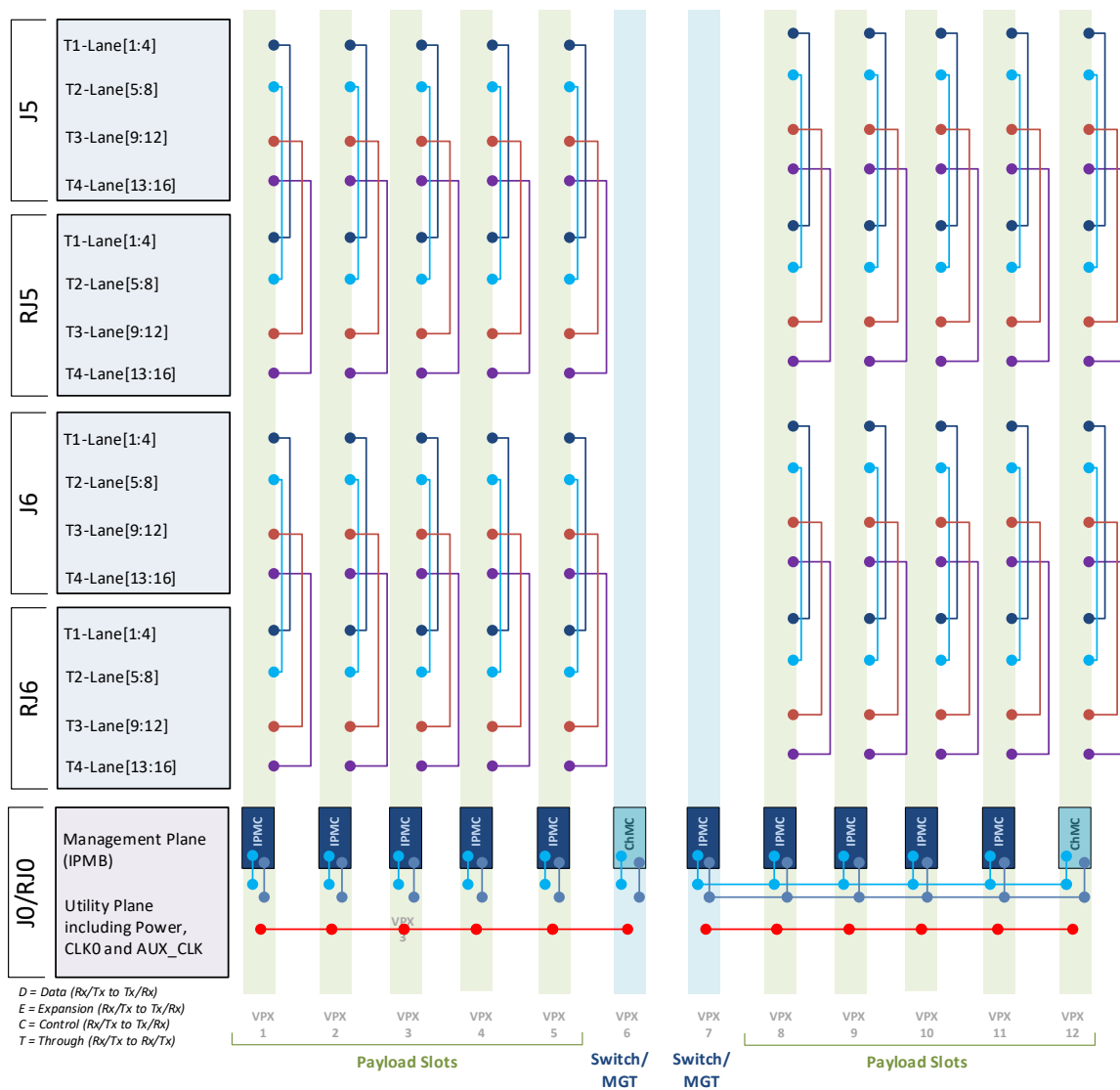*Figure 4: VTX866 Backplane Connections J5-J6 and J0*

The initial offering on VTX866 is based on backplane profile BKP6-CEN12_11.2.21-n. VadaTech can also design additional VITA standard backplane profiles for customer specific applications. Please contact your local sales team for more information.
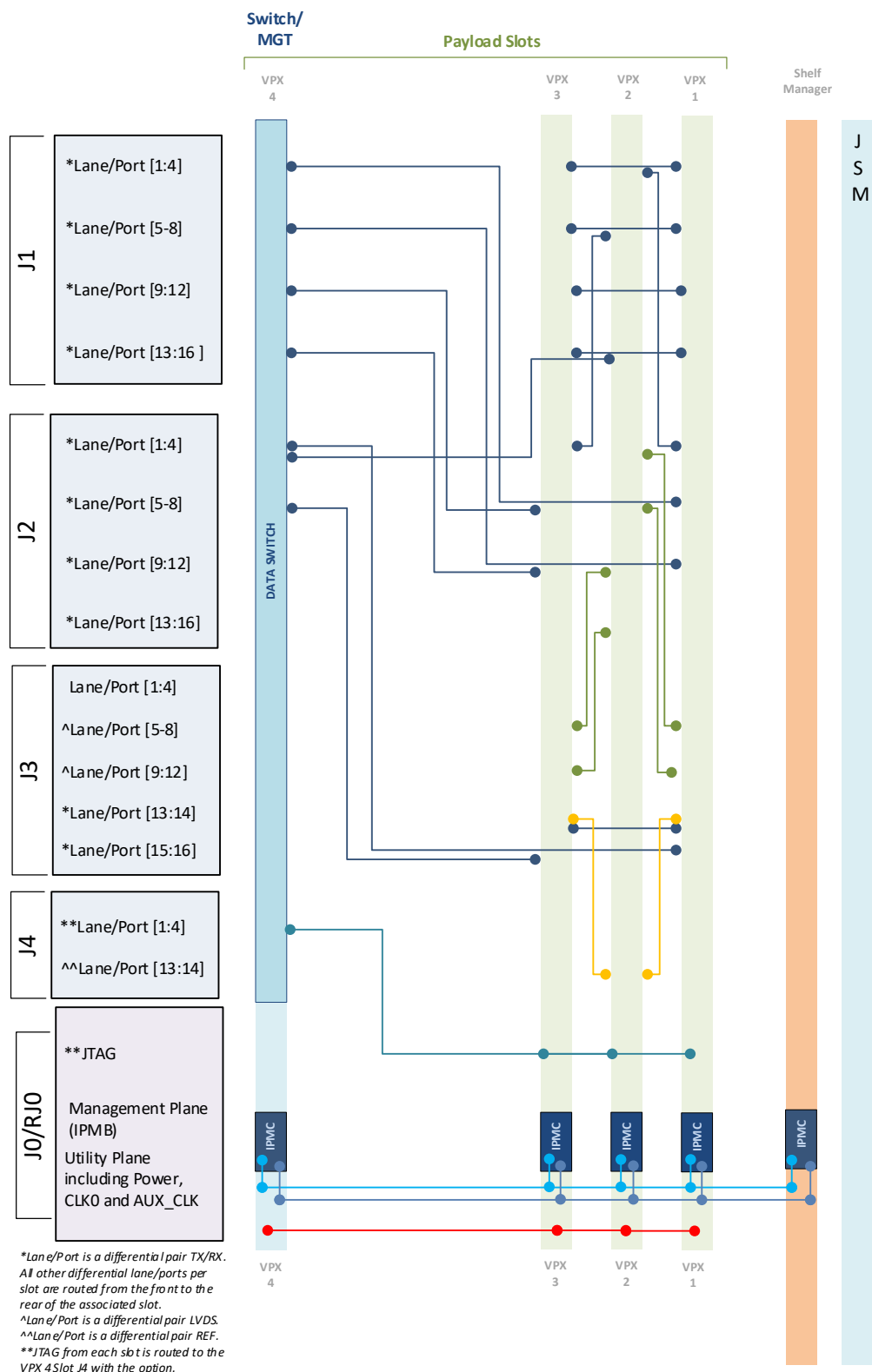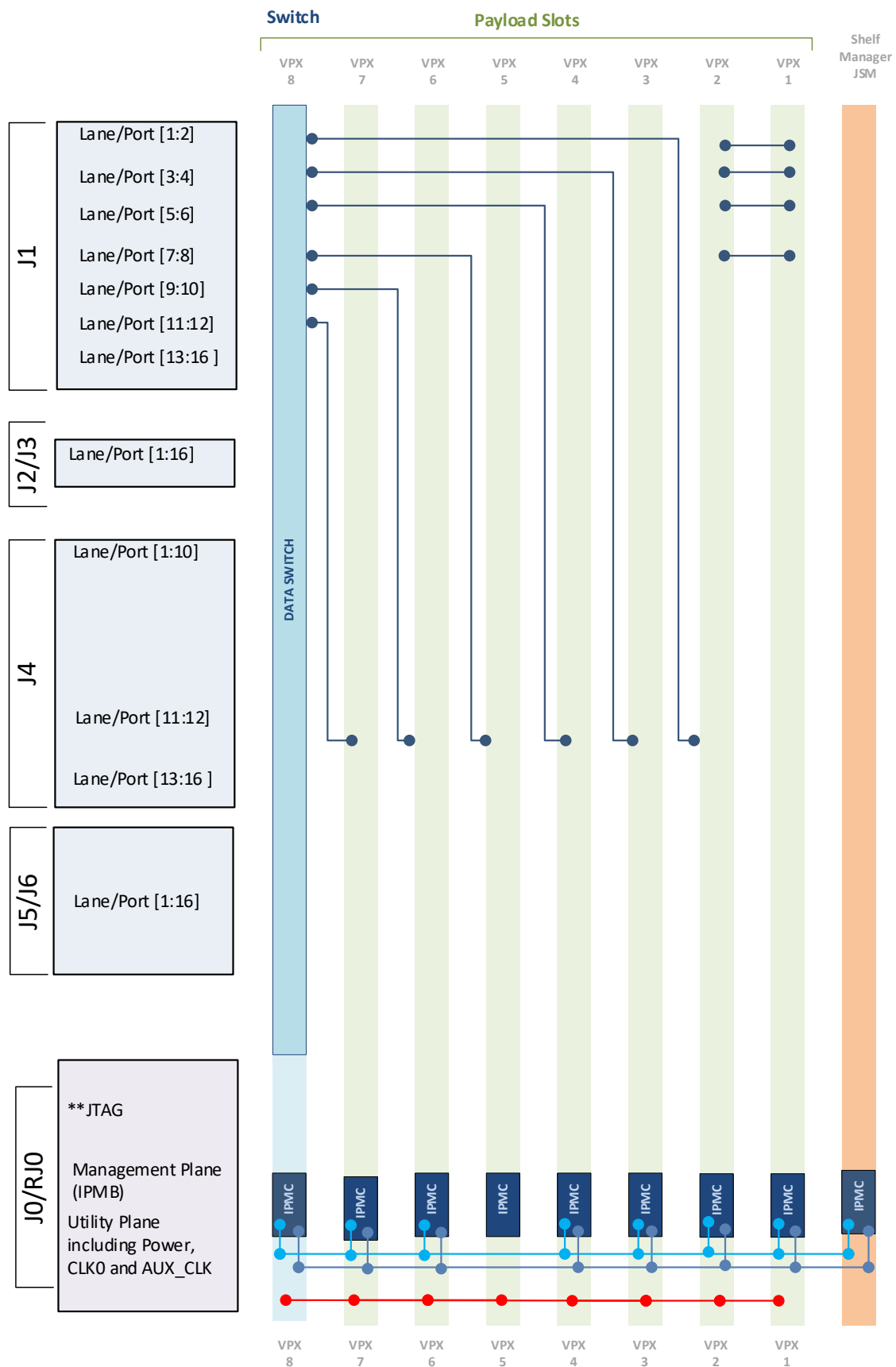
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Figure 11/12: VTX866 Backplane J0 to J6

Figure 13/14: VTX866 Backplane J0 to J6

Switch/MGT

Payload Slots

VPX 4

VPX 3

VPX 2

VPX 1

Shelf Manager

JSM

DATA SWITCH

J1
- *Lane/Port [1:4]
- *Lane/Port [5-8]
- *Lane/Port [9:12]
- *Lane/Port [13:16]

J2
- *Lane/Port [1:4]
- *Lane/Port [5-8]
- *Lane/Port [9:12]
- *Lane/Port [13:16]

J3
- Lane/Port [1:4]
- ^Lane/Port [5-8]
- ^Lane/Port [9:12]
- *Lane/Port [13:14]
- *Lane/Port [15:16]

J4
- **Lane/Port [1:4]
- ^^Lane/Port [13:14]

J0/RJ0
- **JTAG
- Management Plane (IPMB)
- Utility Plane including Power, CLK0 and AUX_CLK

IPMC

*Lane/Port is a differential pair TX/RX. All other differential lane/ports per slot are routed from the front to the rear of the associated slot.
^Lane/Port is a differential pair LVDS.
^^Lane/Port is a differential pair REF.
**JTAG from each slot is routed to the VPX 4 Slot J4 with the option.

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Payload Slots

Shelf
Manager
JSM

VPX 8 VPX 7 VPX 6 VPX 5 VPX 4 VPX 3 VPX 2 VPX 1

J1
- Lane/Port [1:2]
- Lane/Port [3:4]
- Lane/Port [5:6]
- Lane/Port [7:8]
- Lane/Port [9:10]
- Lane/Port [11:12]
- Lane/Port [13:16]

J2/J3
- Lane/Port [1:16]

J4
- Lane/Port [1:10]
- Lane/Port [11:12]
- Lane/Port [13:16]

J5/J6
- Lane/Port [1:16]

J0/RJ0
- **JTAG
- Management Plane (IPMB)
- Utility Plane including Power, CLK0 and AUX_CLK

DATA SWITCH

IPMC

VPX 8 VPX 7 VPX 6 VPX 5 VPX 4 VPX 3 VPX 2 VPX 1

Figure 15/16: VTX866 Backplane J0 to J6

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Specifications

Architecture			
Physical	**Dimensions**	Height: 11U	
		Width: 19"	
		Depth: 12.5"	
		Weight: TBD	
Type	**VPX Shelf**	12 Payload Slots up to 1.0" pitch	
Standards			
VPX	**Type**	VITA-46.0 Baseline Specification	
Configuration			
Power	**VTX866**	3 x AC, 3x -48V DC or 3x +28V DC	
Environmental		See Ordering Options	
Cooling		Front to Back	
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

VTX866 – ABC-DE0-0HJ

A = Power Supply	D = Shelf Manager/JSM	
0 = Single AC (800W) 1 = Dual AC (1+1, 1600W) 2 = Triple AC (2+1, 2400W) 3 = Single DC -48V (650W) 4 = Dual DC -48V (1+1, 1300W) 5 = Triple DC -48V (2+1, 1950W) 6 = VPX standard AC power supply (i.e. VadaTech VPX028)** 7 = Dual DC +28V (1+1) 1200W 8 = Triple DC +28V (2+1) 1800W	0 = No Shelf Manager/No JSM 1 = No Shelf Manager/JSM 2 = Shelf Manager, JSM and Virtual Probe 3 = Shelf Manger/No JSM	
B = Card Guide Type*	**E = Backplane routing Per**	**H = Environmental**
0 = Air Cool 1 = Conduction Cool (VITA48) 2 = Reserved	0 = Figure 3 and 4 1 = Figure 5 and 6 2 = Figure 7 and 8 3 = Figure 9 and 10 4 = Figure 11 and 12 5 = Figure 13 and 14 6 = Figure 15 and 16	See Environmental Specification
C = VPX Connector Type		**J = Conformal Coating**
0 = Standard 50u Gold Rugged 1 = KVPX Connectors 2 = 50u Gold Rugged high speed (25G)		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

** Please contact VadaTech for utilizing standard VPX Power Entry Modules option E = 5 configuration can take option A = 6

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

VPX007

- 6U OpenVPX Switch, 10GbE With Optional Health Management
- Versatile Layer 2 managed Ethernet switch
- Total of 24 Ports of 10GbE

VPX762

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

VPX551

- 6U VPX Dual Kintex UltraScale™ XCKU115
- 16 GB of 64-bit wide DDR4 Memory to each FPGA
- Rear fibre I/O via VITA 66.5

Contact

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