VTX959

1U Open VPX Rackmount Chassis, Two Independent 3U Payload Slots

VTX959

Key Features

- 1U Open VPX Rackmount platform with two 3U VPX payload slots. Compatible with 0.8-inch, 0.85-inch, 1.0-inch and. 1.2-inch modules
- Support for two conduction cooled modules only
- Two independent slots
- Two independent input power supply (AC Universal or DC 9-36V)
- Two independent cooling units
- Front to back cooling
- Each slot wedges can be kept at a fixed temperature (dynamic cooling)
- Selected P1/P2 I/O are routed to the front

Benefits

- 250W Universal AC Power or 156W DC Power
- 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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VTX959

The VTX959 is a 1U Open VPX chassis with two 3U VPX payload slots. It can accept 0.8-inch, 0.85-inch, 1.0-inch and 1.2-inch pitch modules.

The chassis provides +12V, +5V, +3.3V, -12V, +3.3V AUX and +12V AUX to each slot. The chassis has dual battery which provides VBAT to each slot. The batteries are replaceable thru the top of the chassis.

VTX959 routes some selected I/O from the P1/P2 to the front I/O connectors. Further the VTX959 routes dual GbE from the P1/P2 to the front via SFP ports.

The front allows setting the geographic address of each slot as well as the NVMRO and the SYSRESET.

This VadaTech Product provides unprecedented performance density, see OpenVPX for more details.

Figure 1: VTX959 Front View

Figure 2: VTX959 Rear View

Power Supplies

The VTX959 has dual 250W AC universal input power or dual 156W 9-36V Input voltage (24V typical).

Cooling and Temperature Sensors

The VTX959 is designed to meet the ANSI/VITA 65 standard. The chassis provide front to back cooling to keep the module wedges at the user defined temperature (dynamic cooling). The wedge temperature setting is programmable and it's monitored by eight (8) temperature sensors that are within the wedges. The cooling is independent between the two slots and are controlled separately.

Backplane

Backplane and routing per options E and F. VadaTech can support custom I/O configuration and backplane per customer request (contact Sales).

P1/P2 Routing to Front:

Configuration per Option E	P1 Differential Pairs Routed to Front	P2 Differential Pairs Routed to Front
0	DP16~19, 25~27; DP20Rx+ and DP21Tx+ to DB-50 DP30~31 to SFP	DP0~1 to SFP DP12 to DB-50
1	Reserved	Reserved
2	Reserved	Reserved

Specifications

Architecture		
Physical	**Dimensions**	Height: 1U
		Width: 19”
		Depth: 13.25”
		Weight: TBD
Type	**VPX Shelf**	Two Payload Slots up to 1.2” pitch
Standards		
VPX	**Type**	VITA 46.0 Baseline Specification
Configuration		
Power	**VTX959**	Dual 250W Universal AC input (90-264 Vrms, 47-63 Hz; 360-440 Hz higher leakage) Or 156W DC input 9-36V (typical 24V)
Environmental		See Ordering Options
Front Panel		Selected I/O are routed form the P1 to the front (per option D/E)
		Selected I/O are routed from the P2 to the front (per option D/E)
Cooling		Front to back cooling
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

VTX959 – ABC-DEF-GHJ

A = Module Type Pitch	D = Front I/O	G = Power supply
0 = Conduction cooled VITA 48.1	0 = Via DB-50 and dual SFP 1 = Reserved 2 = Reserved	0 = Universal AC 1 = 9V-36V (typical 28V)* 2 = Reserved
B = VPX Connector Type	**E = P1/P2 routing to the Front**	**H = Environmental**
0 = Standard 50u Gold Rugged 1 = KVPX Connectors	0 = Per Table one 1 = Reserved 2 = Reserved	See Environmental Specification
C = SFP Transceivers	**F = Backplane routing**	**J = Conformal Coating**
0 = None 1 = SR (all four SFP modules will be the same) 2 = LR (all four SFP modules will be the same)	0 = No connection between the two slots 1 = Reserved 2 = Reserved	0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

*Minimum Order Quantity (MOQ)

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:

*Nomenclature per ANSI/VITA 47. Contact local Sales office for other specifications.

** Operation with multiple conduction cooled modules is highly dependent on module design. Contact sales for details.

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

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