VRT550B

Rear Transition Module with QSFP+ and I/O Expansion for 6U VPX

VRT550B

Key Features

- 6U RTM VITA 46
- 5x QSFP+
- 2x GbE via RJ-45
- 3x SATA Ports, 6 Gbps
- Over 100 I/O to high density connector for expansion
- Health Management

Benefits

- Versatile I/O
- Reference design with VHDL source code speeds application development
- Full System supply from industry leader
- AS9100 and ISO9001 certified company

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VRT550B

The VRT550B is a 6U VPX Rear Transition Module for use with the VPX550. The module has 5 x QSFP+, dual GbE via RJ-45 and three SATA connectors.

The unit has a high-density connector which can be used to stack I/O expansion modules, supporting additional rear-panel I/O when used with a 10 HP panel. The I/O's can be customer specific such as RS485/RS422, RS-232, Isolated Input/Output, LVDS, etc.

The Module has full health Management.
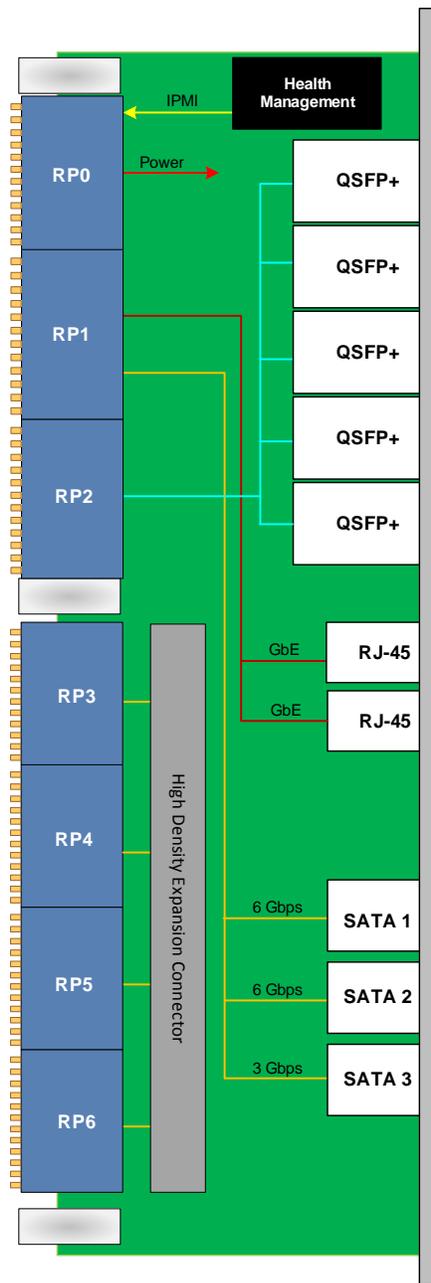

Figure 1: VRT550B

Block Diagram

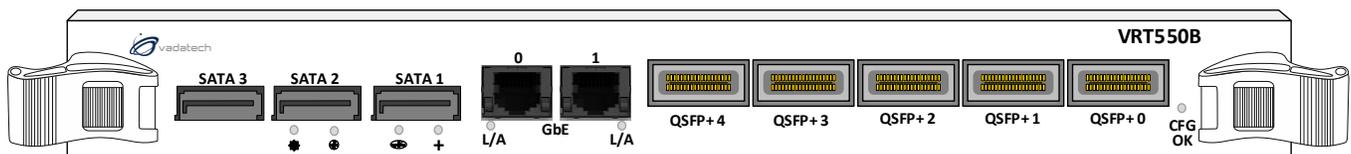*Figure 2: VRT550B Functional Block Diagram*

Rear Panel

Figure 3: VRT550B (Option G=0)

VRT550B – Rear Transition Module with QSFP+ and I/O Expansion for 6U VPX

Specifications

Architecture		
Physical	**Dimensions**	6U, 1" pitch
FPGA		VPX RTM
Configuration		
Power	**VRT550B**	4W (without the I/O Expansion and Fibre Transceiver)
Memory		None
Rear Panel		5x QSFP+
		2x RJ-45
		3x SATA 7-pole latching
Onboard Interfaces		None
VPX Interfaces	**Slot Profiles**	See Ordering Options
Rear IO	**RP1**	2x GbE
		3x 6 Gbps SATA
	RP2	40x SerDes
	Power Supplies	On RP0: 12V and 5V
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		Two (2) years, 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

VRT550B – A00-D00-GHJ

A = QSFP+ TXCVRs*	D = I/O Expansion	G = Applicable Slot Profiles
0 = No QSFP+ 1 = SR 2 = LR 3 = LC Style CWDM (LM4 140 Meter) 4 = LC Style CWDM (LR4 2KM) 5 = LC Style CWDM (LR4 10KM)	0 = No I/O Expansion 1 = Field I/O (DA640/DA641) 2 = Reserved 3 = Reserved	0 = 5 HP 1 = 10 HP
		H = Environmental
		See Environmental Specification
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Notes:

*All five Transceivers will be the same. Contact local sales office for mix of options.

Environmental Specification

Option H	H = 0	H = 1	H = 2	H = 3	H = 4
	Air Cooled		**Conduction Cooled**		
Operating Temperature	AC1* (0°C to +55°C)	AC3* (-40°C to +70°C)	CC1* (0°C to +55°C)	CC3* (-40°C to +70°C)	CC4* (-40°C to +85°C)
Storage Temperature	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C1* (-40°C to +85°C)	C3* (-50°C to +100°C)	C3* (-50°C to +100°C)
Operating Vibration	V2* (0.04 g2/Hz max)	V2* (0.04 g2/Hz max)	V3* (0.1 g2/Hz max)	V3* (0.1 g2/Hz max)	V3 (0.1 g2/Hz max)
Storage Vibration	OS1* (20g)	OS1* (20g)	OS2* (40g)	OS2* (40g)	OS2* (40g)
Humidity	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing	95% non-condensing

Notes:

*Nomenclature per ANSI/VITA 47. Contact local sales office for conduction cooled (H = 2, 3, 4)

Related Products

VPX516

- 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
- Xilinx Virtex-7 690T FPGA in FFG-1761 package
- High-performance clock jitter cleaner

VPX517

- 3U FPGA carrier for FMC per VITA 46 and VITA 57
- Xilinx Kintex-7 410T FPGA in FFG-900 package
- High-performance clock jitter cleaner

info@vadatech.com | www.vadatech.com

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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