VRT993

Rear I/O for VPX

VRT993

Key Features

- 3U RTM per VITA 46
- Dual GbE
- Three Isolated RS-422
- Isolated RS-232
- Isolated 4x GPIO
- Reset Button
- JTAG

Benefits

- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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VRT993

The VRT993 is a 3U VPX Rear Transition Module providing I/O expansion for use with a custom front 3U VPX module.

Dual GbE are routed from RP0 to back panel RJ-45. The module has three Isolated RS-422, Isolated RS-232, Isolated 4x GPIO and JTAG I/O. The module has a Reset Button which allows the front module to be reset.

The VRT993 has a custom width which does not follow the VITA-46 specification. The Module VS1 and VS3 are connected to +5V which does not follow the VITA-46 RP0 recommended Power Connection.

Figure 1: VRT993

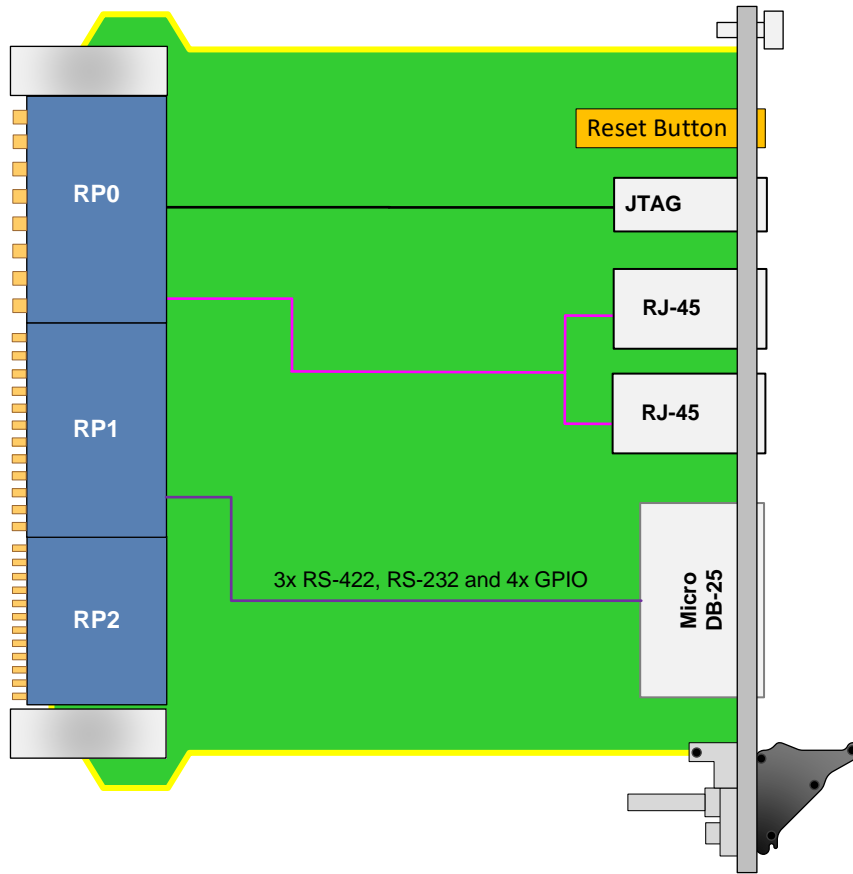*Figure 2: VRT993 Front Panel View*

Block Diagram

RP0

RP1

RP2

Reset Button

JTAG

RJ-45

RJ-45

3x RS-422, RS-232 and 4x GPIO

Micro DB-25

Figure 2: VRT993 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	3U RTM, 1" pitch, Width is out of specification of VITA 46
Configuration		
Power	**VRT993**	2W
Rear Panel	**Connectors**	Micro-DB25
		Dual GbE, RJ-45
		JTAG header
VPX Interfaces	**Slot Profiles**	See Ordering Options
	Backplane	RP0: Dual GbE and JTAG
		RP1: Three RS-422 (isolated) and RS-232 (isolated)
		RP1: GPIO (Isolated)
	Power Supplies	RP0: VS1 and VS3 = 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 and AS9100D:2015 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

VRT993 – 000-000-GHJ

		G = Applicable Slot Profiles
		0 = 5 HP
		H = Environmental
		See Environmental Specification
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Environmental Specification

Option H	Air Cooled		Conduction Cooled		
	H = 0	**H = 1**	**H = 2**	**H = 3**	**H = 4**
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

VPX518

- 3U FPGA carrier for FPGA Mezzanine Card (FMC) per VITA 46 and VITA 57
- Xilinx Zynq-7000 FPGA in FFG-900 package (XC7Z100 or XC7Z045)
- Protocols such as PCIe, SRIO, 10GbE/40Gbe, etc. are FPGA programmable

VPX754

- 3U VPX module Intel 5th Generation Xeon D-1577, D-1548 or D-1520 (Broadwell) System-on-Chip (SoC)
- PCIe Gen3 dual x4 or single x8
- Front-panel video out via micro HDMI

VTX870

- Open VPX benchtop development platform
- Dedicated Switch/management slot
- Up to five 3U VPX payload slots

Contact

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