# VRT560A

## Rear I/O for VPX560, 3U VPX RTM

VRT560A

## Key Features

- 3U Rear Transition Module (RTM) per VITA 46 for the VPX560 Module
- Dual GbE, Clock input/output, I/O and SERDES loop back

## 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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# VRT560A

The VRT560A is a 3U VPX Rear Transition Module (RTM) providing I/O expansion for use with the VPX560 for testing and validation.

Dual GbE 1000BASE-T are routed from RP1 to back panel RJ-45. The REF_CLK and AUX_CLK are routed to the SSMC.

The high speed SERDES and single ended I/O are looped back for test/validation. The JTAG is routed to the rear panel.

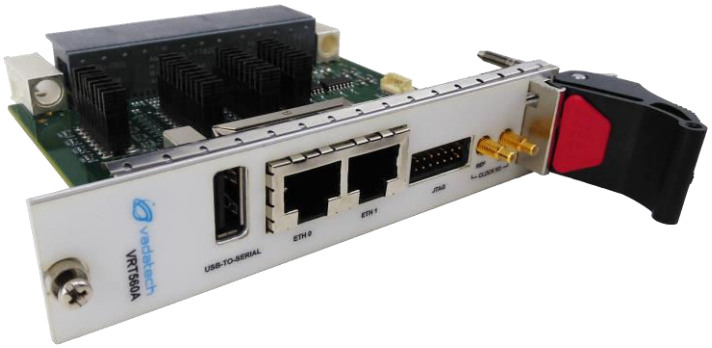


*Figure 1: VRT560A*

*Figure 2: VRT560A Top View*

# Block Diagram

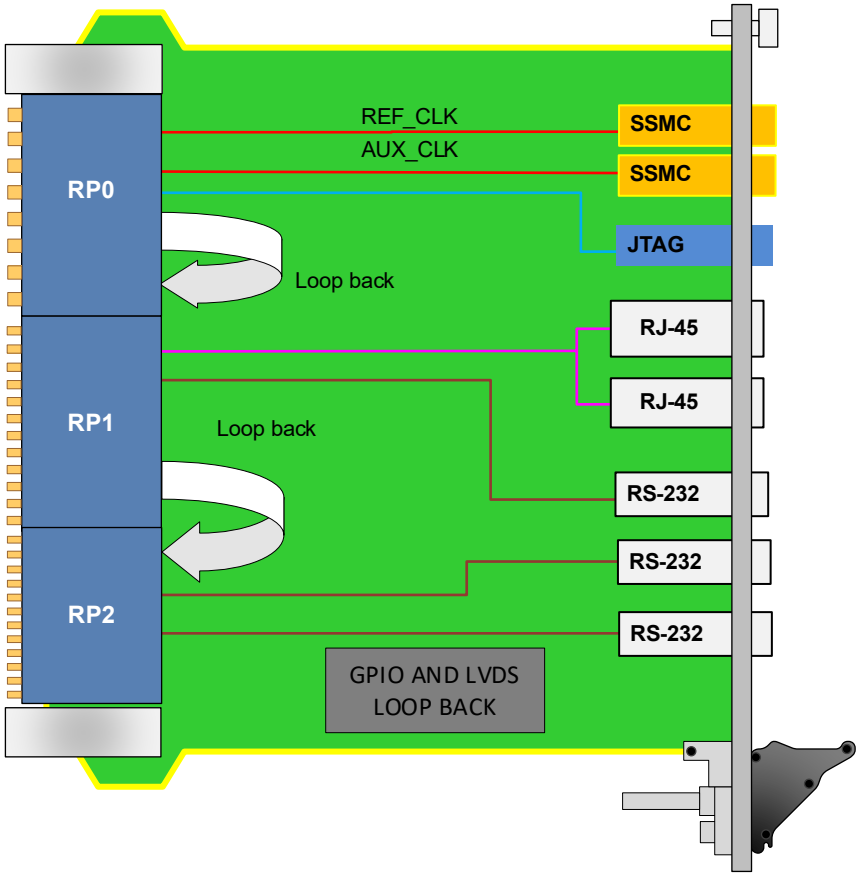


*Figure 3: VRT560A Functional Block Diagram*

# Specifications

| | | |
|---|---|---|
| **Architecture** | | |
| **Physical** | **Dimensions** | 3U RTM, 1” pitch |
| **Configuration** | | |
| **Power** | **VRT560A** | 0.5W |
| **Rear Panel** | **Connectors** | Dual SSMC for AUX_CLK, REF_CLK; JTAG |
| | | Dual GbE RJ-45; Loop back on GPIO and LVDS |
| | | Loop back on port P1 1-4 to 5-8; Loop back on P1 9-12 to 13-15 P2 |
| **VPX Interfaces** | **Slot Profiles** | See Ordering Options |
| | **Backplane** | RP0: JTAG; clocks |
| | | RP1: Dual GbE |
| | | RP1/RP2: I/O |
| | **Power Supplies** | RP0: VS1 = 12V |
| **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 ISO9001:2000 and AS9100B:2004 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

## VRT560A – AB0-000-GHJ

| A = Front Board Ports on P1 1-8 | | G = Applicable Slot Profiles |
|---|---|---|
| 0 = No loop back<br>1 = Loop back 1-4 to 5-8 | | 0 = 5 HP |
| **B = Front Board Ports P1 9-12 to P2 13-16** | | **H = Environmental** |
| 0 = No loop back<br>1 = Loop back P1 9-12 to P2 13-16 | | See Environmental Specification |
| | | **J = Conformal Coating** |
| | | 0 = No coating<br>1 = Humiseal 1A33 Polyurethane<br>2 = Humiseal 1B31 Acrylic<br>3 = Parylene |

## Environmental Specification

| | Air Cooled | | Conduction Cooled | | |
|---|---|---|---|---|---|
| **Option H** | **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

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