

# VTX350

## 6U VPX Chassis with Fiber Optic I/O



VTX350

## Key Features

- 6U VPX Chassis, 19" Rack Mountable per EIA-310D
- Rugged Chassis with High Density Fiber Optic I/O
- Fiber Optical Backplane per VITA 66.4 or 66.5
- Nine External Fiber I/O MIL-PRF-28876 Connectors
- Three External MIL-DTL-5015 I/O connectors for Power & Discrete Signals
- One Chassis Management slot (VITA 46.11 Tier 2 Command Set, IPMI 2.0 Compliant) with JTAG Switch Module (JSM)
- Dual-Redundant VPX Power Supply slots
- Six 6U VPX Payload slots on Base Configuration
- Inlet/Outlet Airflow baffle plate provision for optimized slot cooling

## Benefits

- Rugged construction suitable for field deployment in harsh environments
- Qualified to MIL-STD-810 for Temperature, Humidity, Salt Fog and Shock. Qualified to MIL-STD167-1A for Vibration
- Ideal for Phased Array Radars, Signal Processing, CCD/CMOS Imaging Sensors and FPGA SERDES applications
- 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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# VTX350

The VTX350 is a 6U VPX rugged chassis with six 6U VPX slots on the base configuration. Additional payloads may be supported based upon backplane order option. The chassis can accept 0.8-inch, 0.85-inch and 1.0-inch pitch modules. It provides unprecedented fiber density I/O and backplane fiber connectivity via VITA 66.1, VITA 66.4 and VITA 66.5 blind-mate backplane connections and is ideal for field deployment in rugged, harsh environments.

The VTX350 comes with high density fiber optic I/O, Internal fiber cable management and is environmentally qualified to MIL-STD-810G. The fiber optical backplane w/four payload slots have provision for up to Six VITA 66.4 or VITA 66.5 blind mate connectors per slot. Nine external fiber I/O MIL-PRF-28876 connectors provide up to 516 multi-mode channels and up to 96 single mode channels. Also, three external MIL-DTL-5015 I/O connectors provide power & discrete signals.

VTX350 is available with active single mode optical 1 x 92 splitter with >-4dBm power level and delay matching across all 92 Outputs. The unit supports chassis management (VITA 46.11 Tier 2 Command Set, IPMI 2.0 Compliant) with optional JSM.

The Inlet/Outlet airflow baffle plate optimizes slot cooling.

## Power Supplies

The VTX350 has two dual-Redundant VPX power supply slots.

## Cooling and Temperature Sensors

The VTX350 requires airflow to be provided by the cabinet. Contact VadaTech sales for details.

## Backplane

The backplane provides five 6U VPX payload slots, fully compliant to VITA 46.0 baseline specification with additional support to the RTMs, compliant to VITA 46.10 and OpenVPX VITA65. Fiber optics based on VITA 66.1, VITA 66.4 and VITA 66.5.

## JSM

A dedicated slot for optional chassis manager (VPX980) can include JSM which routes JTAG to each of the payload slots.

## Fiber Optic Distribution

Optional fiber optical distribution module (VPX981) slot provides 1x92 fiber Optical splitter with delay matching across all 92 outputs. An active optical amplifier maintains >-4dBm Power Level and Delay Matching across all 92 Outputs. The VPX981 follows the VITA 66.1 optical specification.



Figure 1: VTX350 Front View

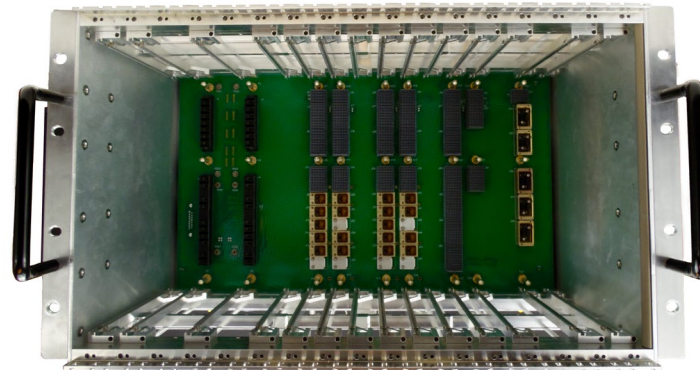


Figure 2: VTX350 Front View without Modules



Figure 3: VTX350 Rear View

# Backplane Connections J1-J4

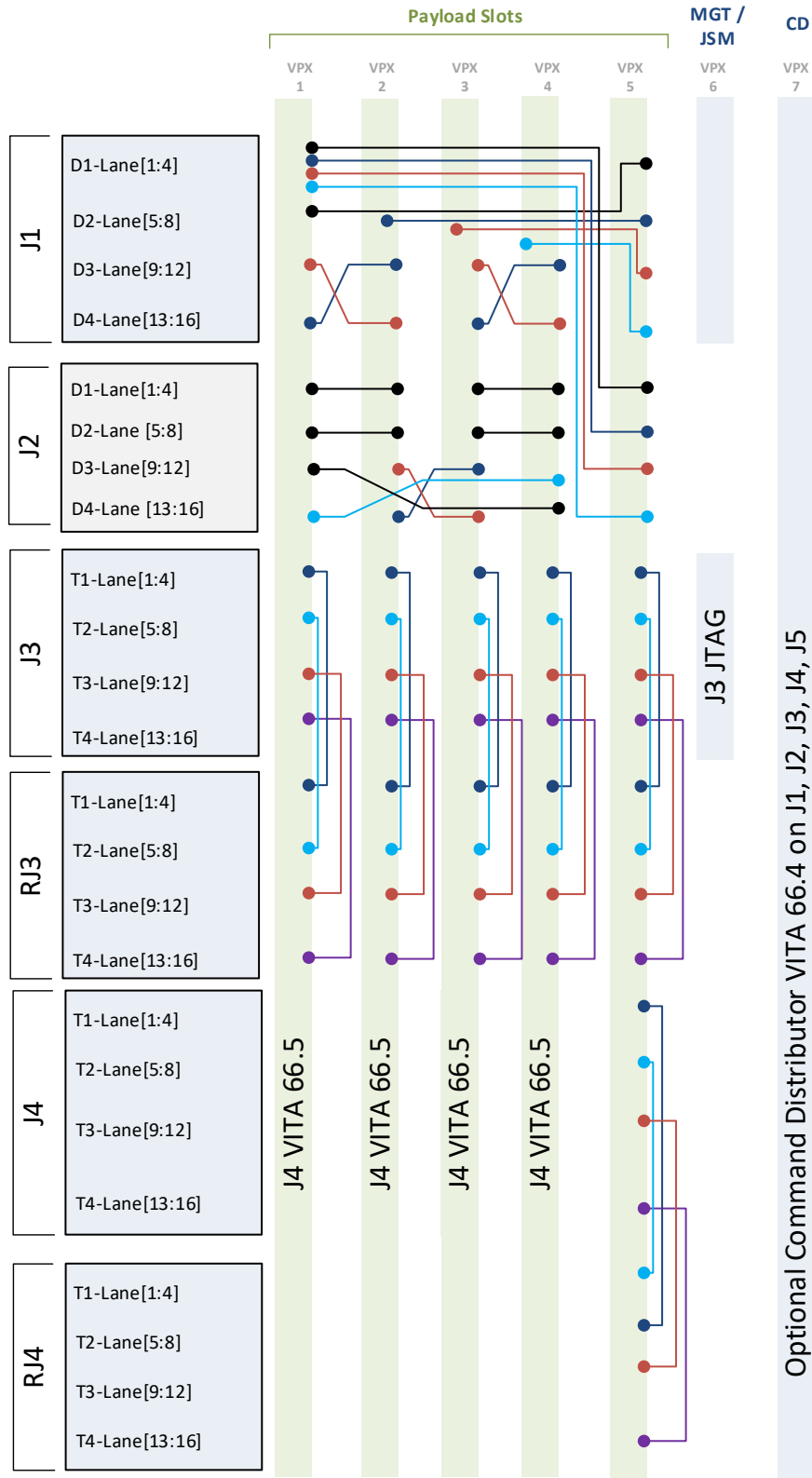


Figure 4: VTX350 Backplane Connections J1-J4

# Backplane Connections J0, J5-J6

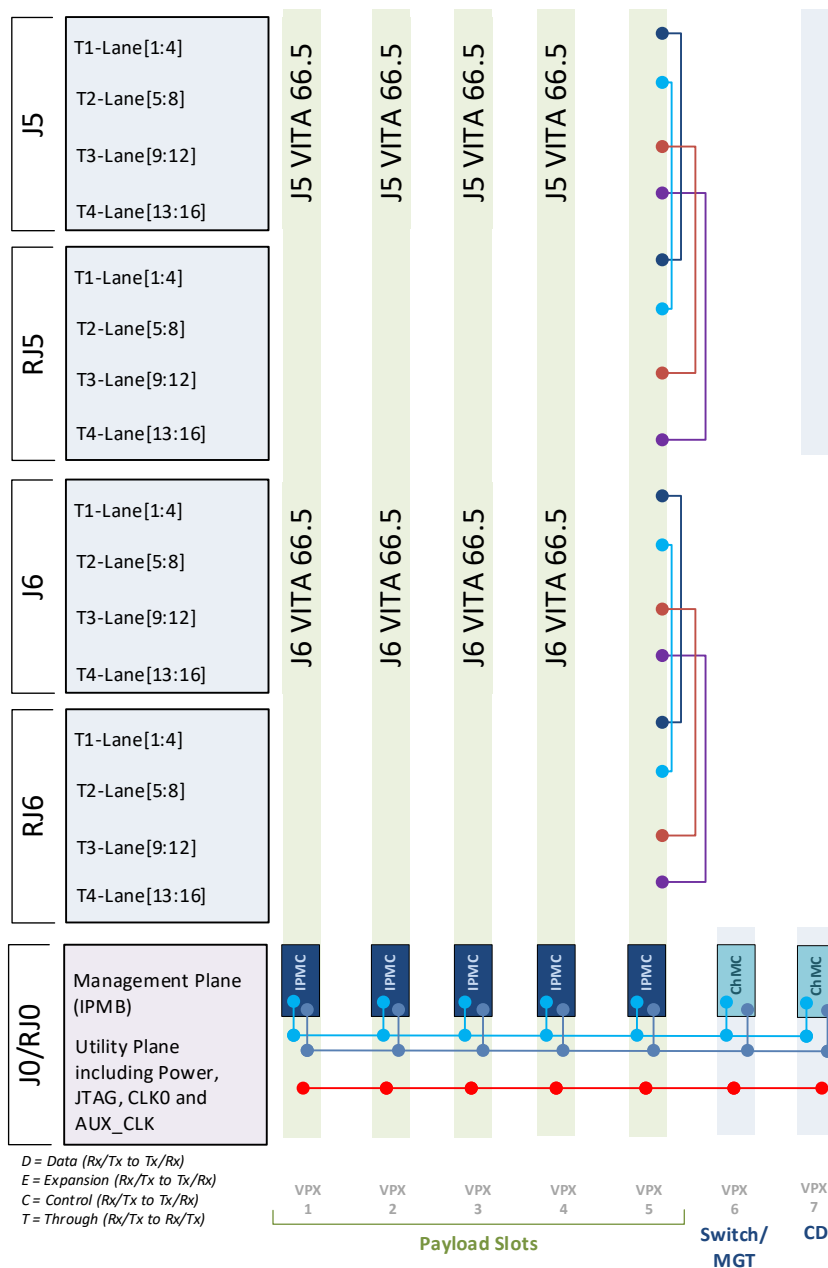


Figure 5: VTX350 Backplane Connections J5-J6 and J0

The initial offering on VTX350 is based on backplane profile BKP3-CEN06\_15.2.2-n. VadaTech can also design additional VITA standard backplane profiles for customer specific applications. Please contact your local sales team for more information.

# Chassis Layout

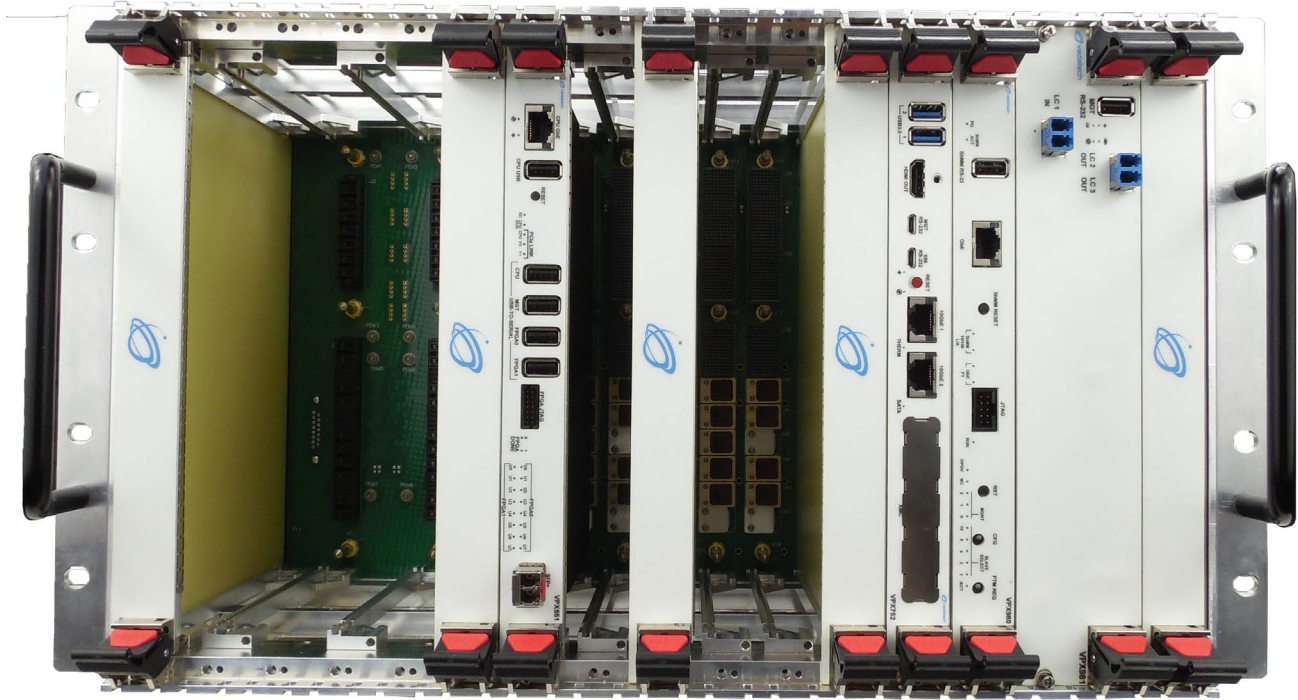


Figure 5: VTX350 Chassis Layout

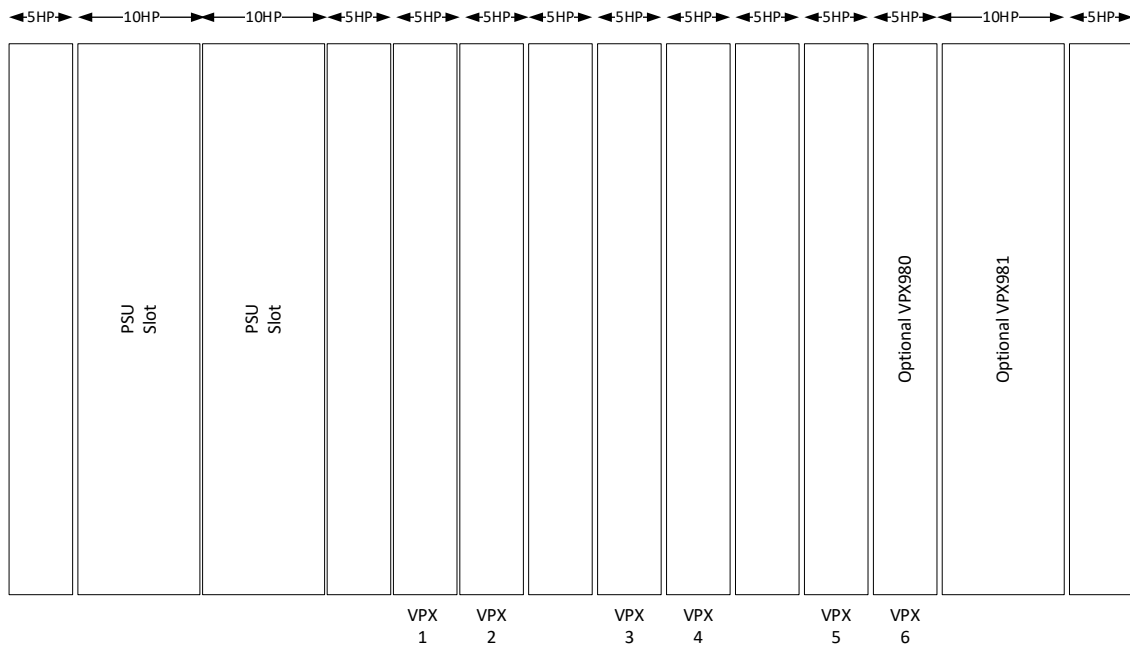


Figure 6: VTX350 Chassis Slots

## Specifications

Architecture		
<b>Physical</b>	<b>Dimensions</b>	Height: 6U Rack Mount per EIA-310D Width: 19" Rack Mount per EIA-310D Depth: 12.70" Max (Measured from Rear Surface of Front Mounting Flange) Weight: 22 lbs Max with no Payload Modules. VPX980 Module = 1.30 lbs, VPX981 Module = 4.85 lbs
<b>Type</b>	<b>VPX Shelf</b>	5 Payload slots up to 1.0" pitch and a dedicated Switch/management slot
Standards		
<b>VPX</b>	<b>Type</b>	VITA 46.0 Baseline Specification
Configuration		
<b>Power</b>	<b>VTX350</b>	Dependent on Payload Configuration
<b>Environmental</b>		See <a href="#">Ordering Options</a>
<b>Cooling</b>		Platform Supplied Cooling – Bottom to Top Airflow
Other		
<b>MTBF</b>		Calculated IAW MIL Hand book 217-F. Based on Order Option. Contact VadaTech sales for details.
<b>Certifications</b>		Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>		VadaTech is certified to both the ISO9001:2015 and AS9100D standards
<b>Warranty</b>		One (1) year, see <a href="#">VadaTech Terms and Conditions</a>

### 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

## VTX350 – ABC-000-GHJ

<b>A = Power supplies</b> 0 = No Power supplies		<b>G = VPX Connector Type</b> 0 = Standard 50u Gold Rugged 1 = KVPX Connectors
<b>B = Chassis Manager</b> 0 = VPX980 fitted 1 = No Chassis Manager		<b>H = Environmental</b> See <a href="#">Environmental Specification</a>
<b>C = Fiber Optic Distribution</b> 0 = VPX981 fitted 1 = CD slots empty 2 = Reserved		<b>J = Conformal Coating</b> 0 = No coating 1 = Humiseal 1A33 polyurethane 2 = Humiseal 1B31 acrylic

## Environmental Specification\*

Option H	H = 0
Operating Temperature	-40°C to +70°C
Storage Temperature	-50°C to +100°C
Operational Endurance Vibration	MIL-STD-167-1A Table III
Operational Shock	20G,11ms per MIL-STD-810G, Method 516.7
Humidity	95% non-condensing per AECTP 300-3ref. STANAG4370 ed.4, Method 306 Figure 1
Salt Fog	NaCl 5% @ 35°C, 96 Hours per MIL-STD-810G, Method 509.4
Fungus	AECTP 300-3ref. STANAG4370 ed.4, Method 308

Notes: \*Please contact VadaTech Sales for other specification

## Related Products

VPX551



- Dual Kintex UltraScale™ XCKU115
- 16 GB of 64-bit wide DDR4 Memory to each FPGA
- Rear fiber I/O via Six VITA 66.5 x12 Modules (Tx or Rx)

VPX752



- 6U VPX module Intel 5th Generation Xeon-D SoC
- PCIe Gen3 x16 (dual x8 or quad x4)
- Quad 10GbE XAUI

VPX980



- 6U VPX Chassis Manager Module compliant to VITA 46.11 w/Quad Core ARM Freescale processor
- One GB DDR3 memory with FRAM for log messages
- 32 GB of Flash, 8 GB of NAND Flash



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