

# VPX756

Intel Xeon E3 Processor, PCIe Gen3,  
3U VPX



VPX756

## Key Features

- Processor VPX (PrVPX) Intel® Xeon® Processor E3-1505M v6 (Kaby Lake)
- PCIe Gen3 x4 or dual PCIe x8
- Serial Over LAN (SOL)
- 16 GB of DDR4 memory with ECC
- Health Management through dedicated Processor

## Benefits

- High performance Xeon E3-1505M processor with CM238 PCH
- Design utilizes proven VadaTech subcomponents and engineering techniques
- 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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# VPX756

The VPX756 is a Processor VPX (PrVPX) in 3U form factor based on the Intel® Xeon® Processor E3-1505M v6 (Kaby Lake) with CM238 PCH. The processor base frequency is 3.0 GHz with max turbo frequency of 4.0 GHz.

The module provides dual PCIe Gen3 x4 or single x8, dual GbE, and SATA on P1. It also provides GbE to the front panel as well as dual USB 3.0, DP and RS-232.

The VPX756 provides up to 16 GB of DDR4 memory with ECC and 64 GB of Flash for the OS. The module has Serial over LAN (SoL). The BIOS allows booting from on-board Flash, off-board SATA, PXE boot and USB. There are dual USB 3.0 type C connectors for extended storage or peripherals.

Linux OS is standard on the VPX756, consult VadaTech for other options.



Figure 1: VPX756

# Block Diagram

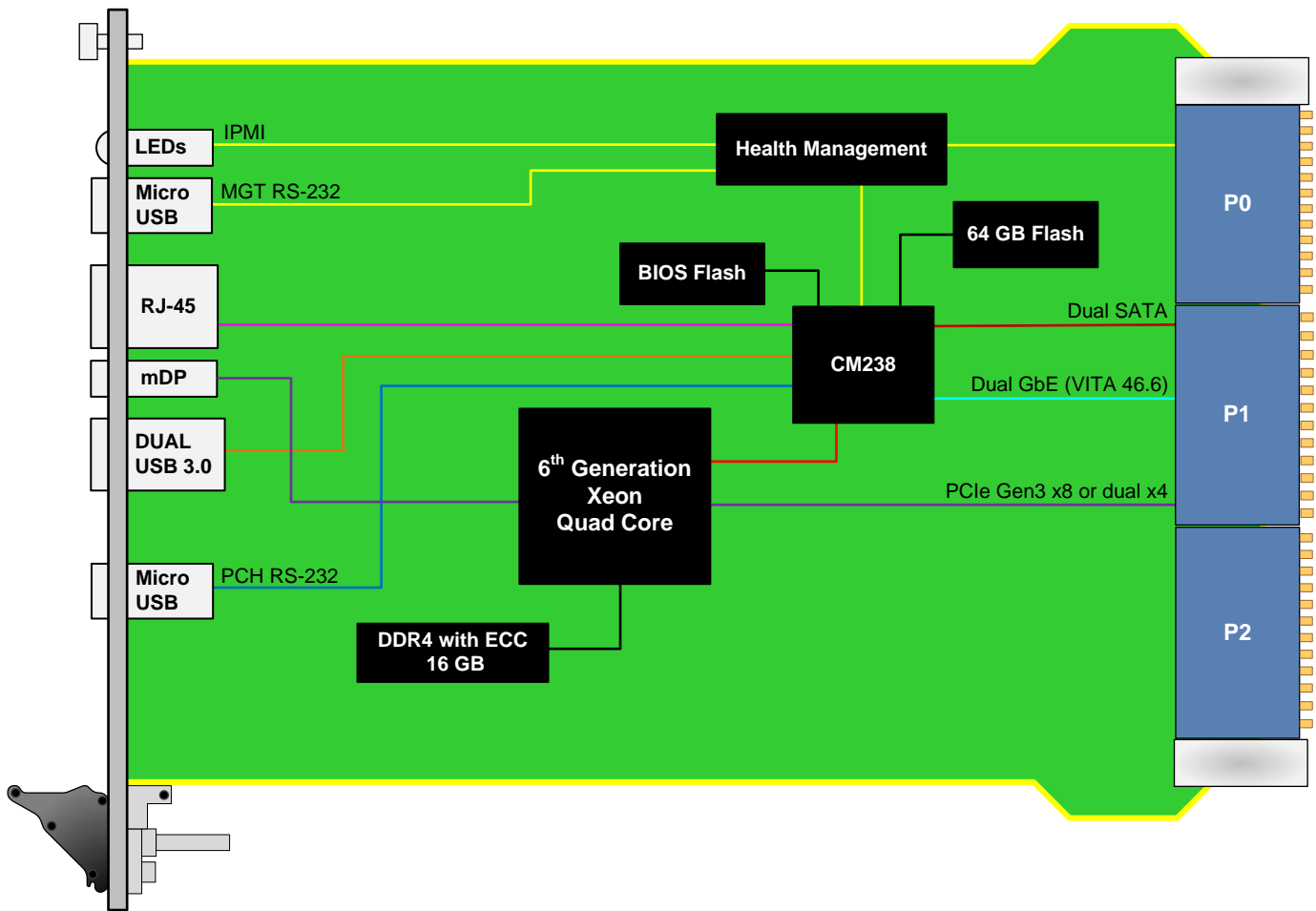


Figure 2: VPX756 Functional Block Diagram

# Front Panel

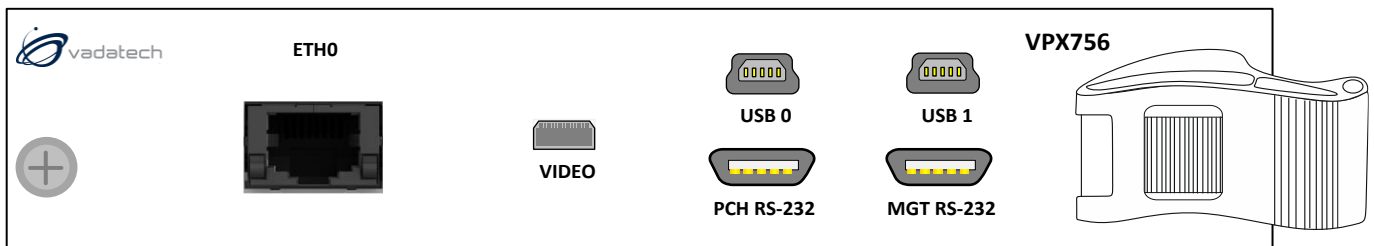


Figure 3: VPX756 Front Panel

# Specifications

Architecture	
<b>Physical</b>	<b>Dimensions</b> 3U, 1" pitch
<b>Type</b>	<b>VPX Processor</b> Intel Xeon E3 Processor VPX, Quad Core, 4.0 GHz
Standards	
<b>Module Management</b>	<b>IPMI</b> IPMI v2.0
<b>PCIe</b>	<b>Lanes</b> Single x8 or dual x4 as PCIe Gen3
Configuration	
<b>Power</b>	<b>VPX756</b> ~53 W
<b>Front Panel</b>	<b>Interface Connectors</b> 1x RJ-45 for GbE 2x USB type C connectors for USB 3.0
	<b>Micro USB</b> RS-232 from Health Management and RS-232 from FPGA 1x Mini DisplayPort for graphics
	<b>LEDs</b> IPMI, activity
<b>VPX Interfaces</b>	<b>Slot Profiles</b> See ordering options
	<b>Rear I/O</b> P0: IPMB Health Management P1: Dual x4 fabric, Dual GbE and Dual SATA
<b>Software Support</b>	<b>Operating System</b> Linux (consult VadaTech for other options)
Other	
<b>MTBF</b>	MIL Hand book 217-F@ TBD hrs
<b>Certifications</b>	Designed to meet FCC, CE and UL certifications, where applicable
<b>Standards</b>	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
<b>Warranty</b>	Two (2) years

## 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

## VPX756 – AB0-000-GHJ

<b>A = DDR4 Memory</b>		<b>G = Applicable Slot Profiles</b>
0 = Reserved 1 = 16 GB		0 = 5 HP
<b>B = Flash Storage</b>		<b>H = Environmental</b>
0 = Reserved 1 = 64 GB		See Environmental Specification table below
		<b>J = Conformal Coating</b>
		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
<b>Operating Temperature</b>	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)
<b>Storage Temperature</b>	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)
<b>Operating Vibration</b>	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)
<b>Storage Vibration</b>	OS1*(20g)	OS1*(20g)	OS2*(40g)	OS2*(40g)	OS2*(40g)
<b>Humidity</b>	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



- 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



- 3U FPGA carrier for FMC per VITA 46 and VITA 57
- Xilinx Kintex UltraScale™ XCKU115 FPGA
- High-performance clock jitter cleaner



- Xilinx Kintex UltraScale™ XCKU115 FPGA
- Dual ADC @ 6.4 GSPS 12-bits
- Dual DAC @ 12 GSPS 16-bits (AD9162 or AD9164)

# Contact

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## We deliver complexity

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- Accelerated deployment
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