

VPX756

Intel Xeon E3 Processor, PCIe Gen3,
3U VPX



VPX756

Key Features

- Processor VPX (PrVPX) Intel® Xeon® Processor E3-1505M v6 (Kaby Lake)
- Dual PCIe Gen3 x4 or single 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 onboard Flash, offboard 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

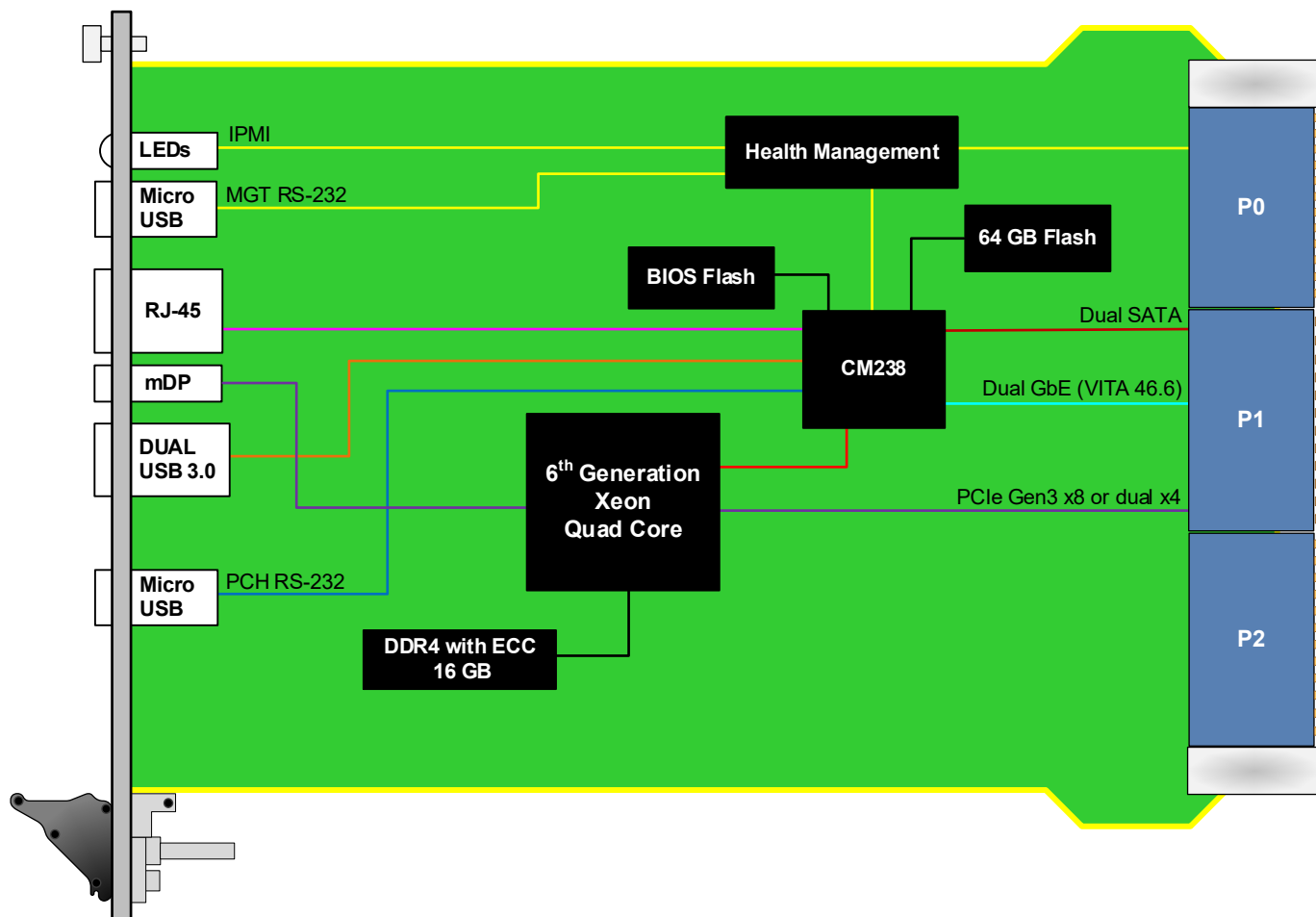


Figure 2: VPX756 Functional Block Diagram

Front Panel

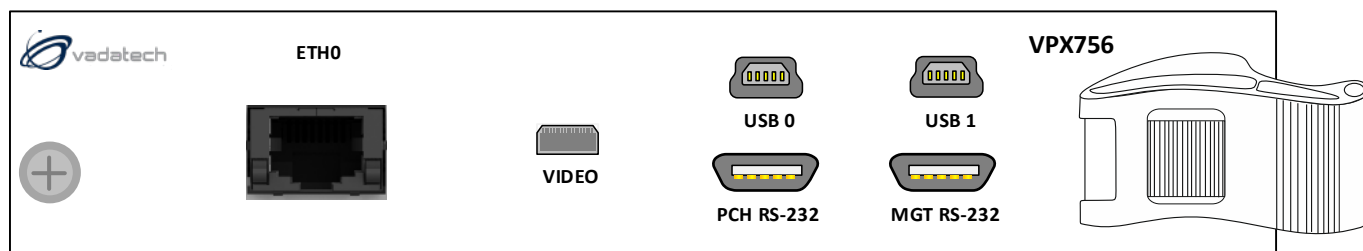


Figure 3: VPX756 Front Panel

Pinout Block Diagram

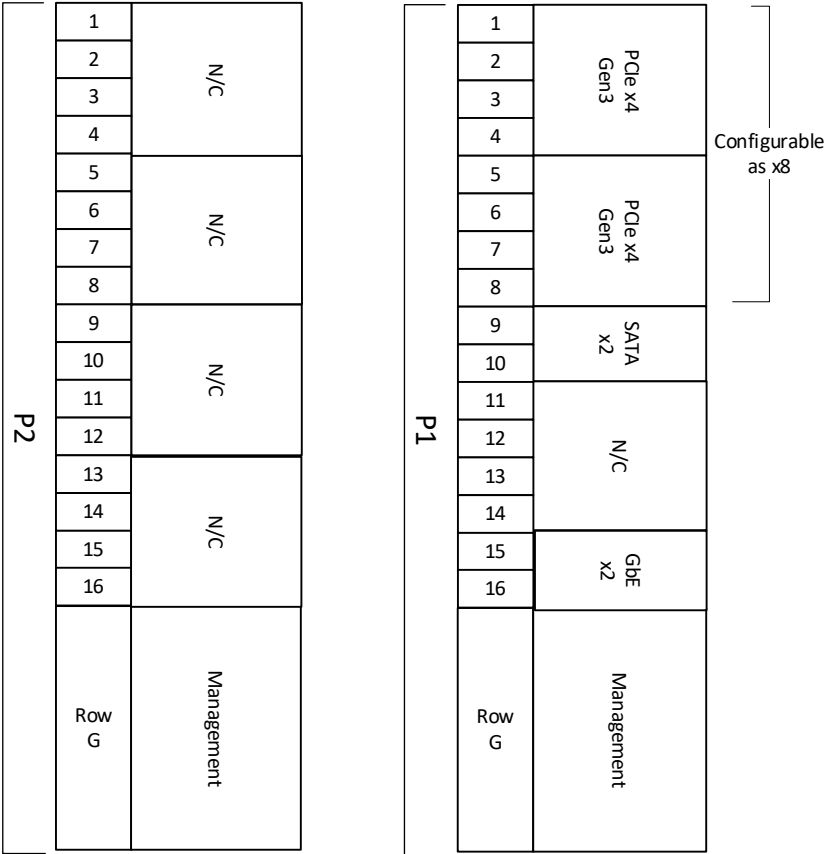


Figure 4: VPX756 Pinout Block Diagram

Specifications

Architecture		
Physical	Dimensions	3U, 1" pitch
Type	VPX Processor	Intel Xeon E3 Processor VPX, Quad Core, 4.0 GHz
Standards		
Module Management	IPMI	IPMI v2.0
PCIe	Lanes	Single x8 or dual x4 as PCIe Gen3
Configuration		
Power	VPX756	~53W
Front Panel	Interface Connectors	1x RJ-45 for GbE
		2x USB type C connectors for USB 3.0
	Micro USB	RS-232 from Health Management and RS-232 from FPGA
		1x Mini DisplayPort for graphics
		LEDs
VPX Interfaces	Slot Profiles	See Ordering Options
	Rear I/O	P0: IPMB Health Management
		P1: Dual x4 fabric, Dual GbE and Dual SATA
Software Support	Operating System	Linux (consult VadaTech for other options)
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

VPX756 – ABC-000-GHJ

A = DDR4 Memory 0 = Reserved 1 = 16 GB		G = Applicable Slot Profiles 0 = 5 HP, IEEE 1101
B = Flash Storage 0 = Reserved 1 = 64 GB		H = Environmental See Environmental Specification
C = VPX Connector Type 0 = Standard 50u Gold Rugged 1 = KVPX Connectors		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

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

VPX592



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

VPX599



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

Contact

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