

# ATC126

## ATCA Rugged Blade Processor with Dual Xeon E5-26xx v4



ATC126

## Key Features

- Dual 14-core Intel® Xeon® E5-2658, 2680, 2648L, 2618L, 2620, 2630 v4 processors
- Eight banks of DDR4 with ECC for up to 256 GB memory
- 10/40GbE Fabric channels
- Dual 10/100/1000Base-T Base Channels
- Dual 10/100/1000Base-T egress Ports
- Dual 10GbE Copper
- Two USB 2.0 and two USB 3.0 Front Panel Ports
- Graphics and RS-232 Front Panel Ports
- IPMI Management Controller with Serial Over LAN (SOL) capabilities
- Trusted Platform Module (TPM)
- BIOS redundancy boot with multiple Watch Dog Timers (WDT) for fail-over, before and after BIOS boot

## Benefits

- High performance 40G rugged processor blade
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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# ATC126

The ATC126 is a high performance ATCA processor blade featuring dual 14-core Intel® Xeon® processor (E5-2658 v4, E5-2680 v4, E5-2648L, 2618L, 2620 or 2630 v4), with up to eight banks of 256 GB DDR4 memory with ECC. Versatile connectivity includes two 10/40GbE Fabric Interfaces, dual GbE Base Interfaces, dual front panel GbE egress Ports, front panel dual RS-232 and USB 3.0/2.0 Ports and front panel DVI-I connector.

Onboard mSATA storage is available for local boot. The unit also has dual redundant BIOS-boot capability with multiple WDT for fail-safe, before and after OS boot.

The ATCA blade is PXI-boot capable via any of the onboard Ethernet interfaces. It offers SOL utilizing Hardware Random Number Generation (RNG) to form a secure session.

The ATC126 can be ruggedized for harsh environments and comes with conformal coating per customer ordering options.



Figure 1: ATC126

# Block Diagram

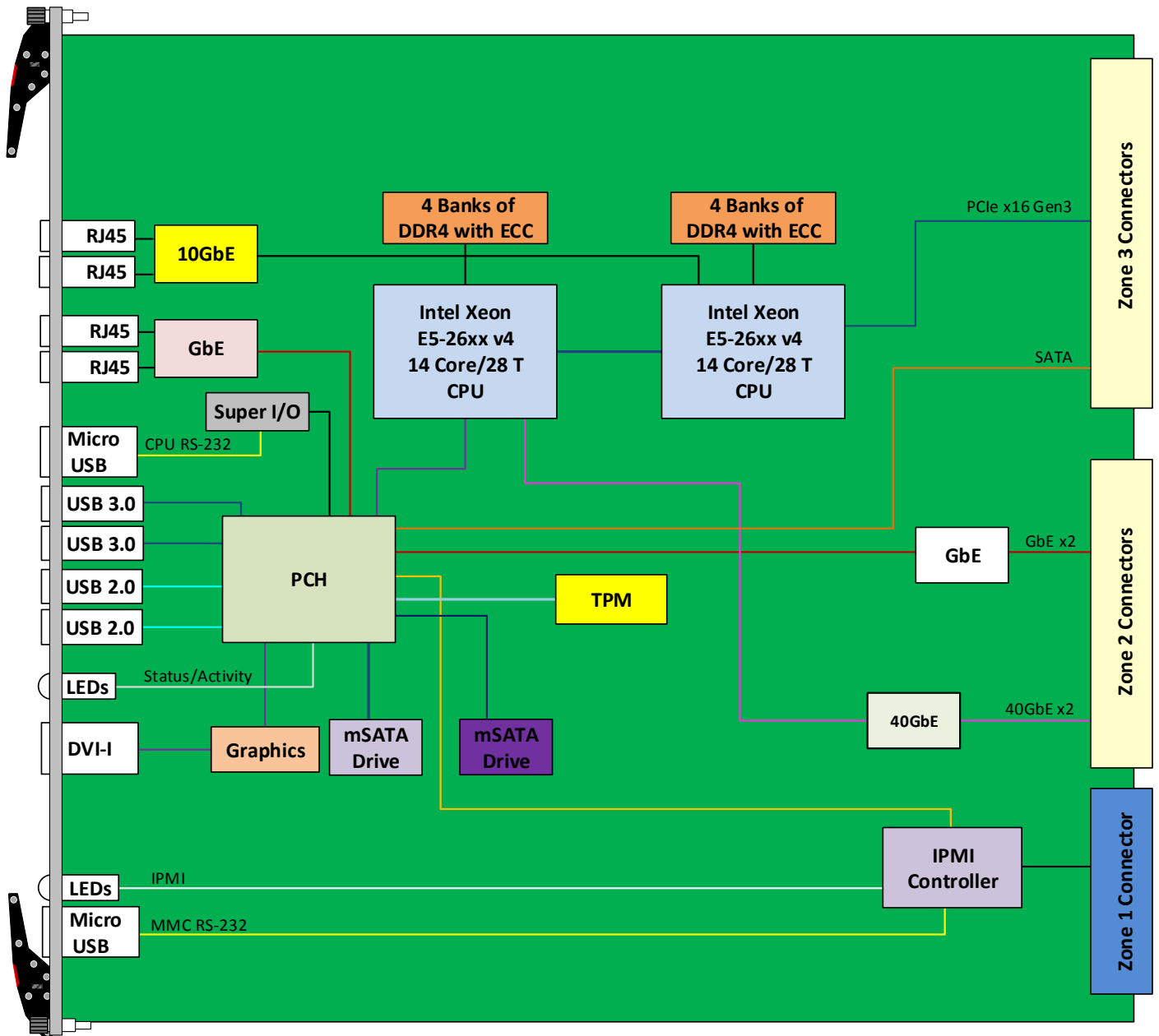


Figure 2: ATC126 Functional Block Diagram

# Specifications

<b>Architecture</b>		
<b>Physical</b>	<b>Dimensions</b>	Width: 12.68" (322.25 mm) Depth 11.02" (280 mm)
<b>Type</b>	<b>ATCA Processor</b>	Dual Intel Xeon E5-2658 v4, E5-2680 v4 or E5-2648L v4
	<b>Memory</b>	Eight banks DDR4 with ECC, up to 256 GB total
<b>Standards</b>		
<b>Module Management</b>	<b>IPMI</b>	IPMI v2.0
<b>Processor Type</b>	<b>MIPS</b>	For management
<b>PICMG</b>	<b>ATCA</b>	PICMG 3.0 R3.0
<b>Configuration</b>		
<b>Power</b>	<b>ATC126</b>	~250W for E5-2658A v4, ~300W for E5-2680 v4
<b>Environmental</b>	<b>Temperature</b>	See <a href="#">Ordering Options</a> Storage Temperature: -40° to +70°C
	<b>Vibration</b>	Operating 9.8 m/s <sup>2</sup> (1G), 5 to 500Hz on each axis
	<b>Shock</b>	Non-operating 20Gs peak, 11 ms duration
	<b>Relative Humidity</b>	5 to 95% non-condensing
<b>Front Panel</b>	<b>Interface Connectors</b>	Dual RJ-45 GbE; Dual RJ-45 10GbE Dual RS-232, DVI-I Port Dual USB 2.0 and dual USB 3.0 Ports
	<b>LEDs</b>	IPMI management control Activity/Link user LEDs
	<b>Mechanical</b>	Hot-swap with micro switch
<b>Software Support</b>	<b>Operating System</b>	Windows Server 2008 R2, Red Hat Enterprise Linux 6, Intel® DPDK supported
<b>Other</b>		
<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 ISO9001:2015 and AS9100D standards
<b>Warranty</b>		Two (2) years, 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

## ATC126 – AB0-DE0-0HJ

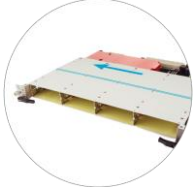
<b>A = Processor</b> 0 = Xeon E5-2658 v4, 2.3 GHz, 14 core 1 = Xeon E5-2680 v4, 2.4 GHz, 14 core 2 = Xeon E5-2648L v4, 1.8 GHz, 14-core 3 = Xeon E5-2618L v4, 2.2 GHz, 10-core 4 = Xeon E5-2620 v4, 2.10 GHz, 8-core 5 = Xeon E5-2630 v4, 1.8 GHz, 10-core	<b>D = First mSATA Drive*</b> 0 = 1 TB 1 = Reserved	
<b>B = DDR4 Memory Size (Total)*</b> 0 = Reserved 1 = 128 GB with ECC 2 = 256 GB with ECC 3 = Reserved	<b>E = Second mSATA Drive*</b> 0 = 1 TB 1 = Reserved 2 = No second mSATA drive	<b>H = Temperature Range</b> 0 = Commercial 1 = Industrial
		<b>J = Conformal Coating</b> 0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

**Notes:**

\*VadaTech reserves the right to supply larger capacity unless specifically stated otherwise on the Purchase Order

## Related Products

ATC133



- Xilinx Virtex-7 FPGA (XC7V690T in FFG1761 package)
- Crossbar switch to connect FPGA to full mesh of backplane fabric
- 2x XAUI ports and 2x GbE ports for each AMC slot

ATC136



- Xilinx Virtex-7 FPGA
- Four core QorIQ P2040 Power PC
- Eight channel ADC 10-bit @ 2 GSPS (EV10AS150B) Single DAC 14-bit @ 2.8 GSPS (AD9129)

VT830



- 19" rackmount 6U ATCA Chassis with integrated Switch and Shelf Manager
- 10GbE/GbE Managed Layer 2
- 40GbE/10GbE/GbE Managed Layer 3

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