# ATC127

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

ATC127

## Key Features

- Dual 14-core Intel® Xeon® E5-2658, 2680, 2648L, 2618L, 2620, 2630 v4 processors
- Eight banks of DDR4 for up to 256 GB memory
- PCIe Gen3 x16 Fabric channels
- GbE and 10GbE, graphics and USB on front panel
- 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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# ATC127

The ATC127 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 eight banks of memory up to 256 GB DDR4 memory. Versatile connectivity includes two PCIe Gen3 x16 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 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 unit has dual redundant BIOS-boot capability with multiple WDT for fail-safe, before and after OS boot.

The ATC127 can be ruggedized for harsh environments and comes with conformal coating per customer ordering options.

*Figure 1: ATC127*

# Block Diagram

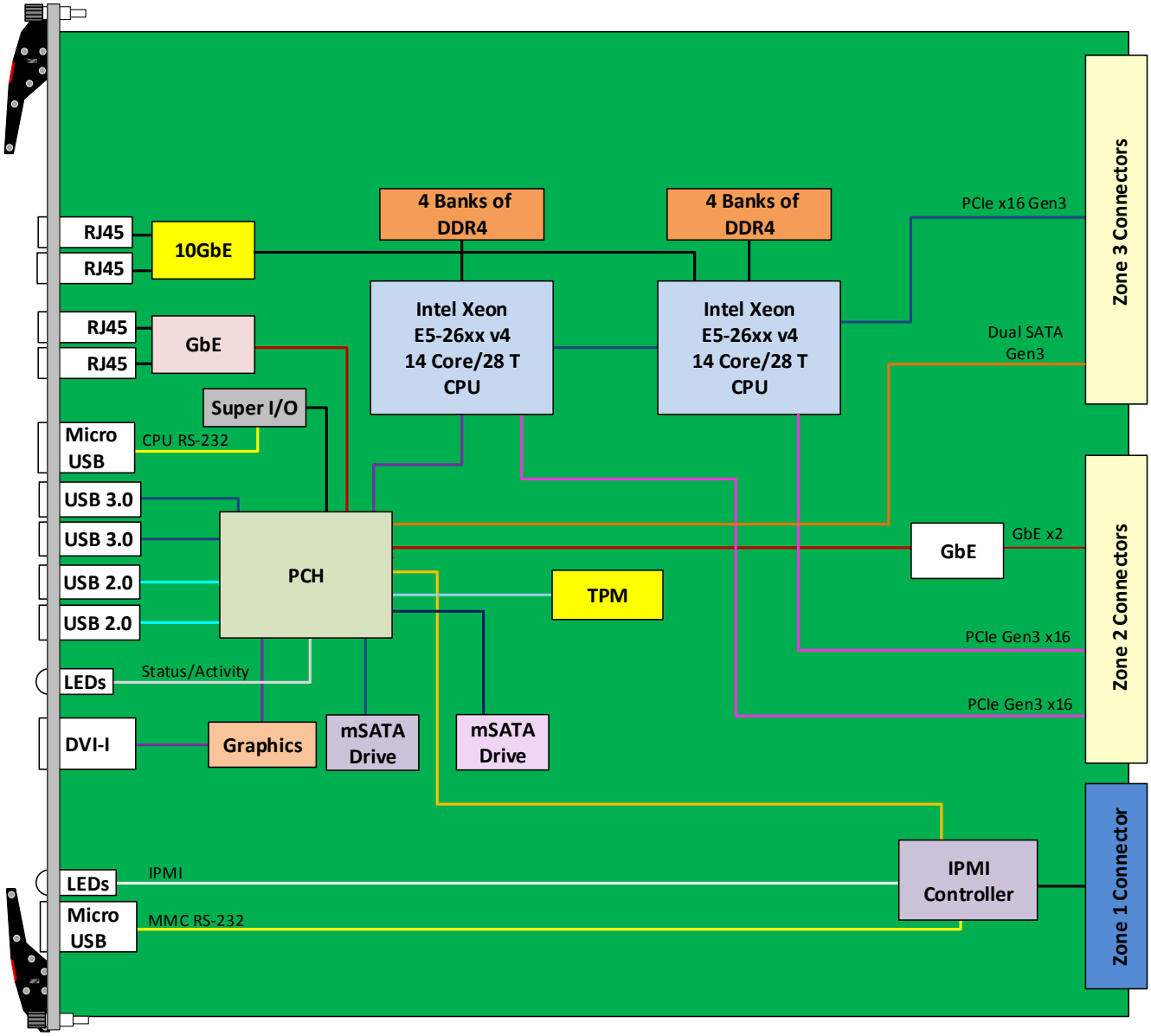


*Figure 2: ATC127 Functional Block Diagram*

# Specifications

| | | |
|---|---|---|
| **Architecture** | | |
| **Physical** | **Dimensions** | Width: 12.68” (322.25 mm) |
| | | Depth 11.02” (280 mm) |
| **Type** | **ATCA Processor** | Dual Intel Xeon E5-2658 v4, E5-2680 v4 or E5-2648L v4 |
| | **Memory** | Eight banks DDR4, up to 256 GB total |
| **Standards** | | |
| **PICMG** | **ATCA** | PICM 3.0 R3.0 |
| **Module Management** | **IPMI** | IPMI v2.0 |
| **Configuration** | | |
| **Power** | **ATC127** | ~250W for E5-2658A v4, ~300W for E5-2680 v4 |
| **Environmental** | **Temperature** | See Ordering Options |
| | | Storage Temperature: –40° to +70°C |
| | **Vibration** | Operating 9.8 $m/s^2$ (1G), 5 to 500Hz on each axis |
| | **Shock** | Non-operating 20Gs peak, 11 ms duration |
| | **Relative Humidity** | 5 to 95% non-condensing |
| **Front Panel** | **Interface Connectors** | Dual RJ-45 GbE; Dual RJ-45 10GbE |
| | | Dual RS-232 |
| | | Dual USB 2.0 and dual USB 3.0 Ports |
| | **LEDs** | IPMI management control |
| | | Activity/Link user LEDs |
| | **Mechanical** | Hot-swap with micro switch |
| **Software Support** | **Operating System** | Windows Server 2008 R2, Red Hat Enterprise Linux 6, Intel® DPDK supported |
| **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

## ATC127 – AB0-DE0-0HJ

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

**Notes:**

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

# Related Products

ATC126

- Dual 14-core Intel® Xeon® E5-2658, 2680 or 2648L v4 processors
- Eight banks of DDR4 for up to 256 GB memory
- 10/40GbE Fabric channels

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)

ATC121

- Processing Carrier w/ PCIe edge Module
- Xeon E3-1268L V3 Processor with 32 GB ECC
- x16 standard PCIe Gen 3 slot

# Contact

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