ATC140

ATCA Rugged Blade Processor with Intel 5th Gen Dual Xeon SP with 100G Ethernet

ATC140

Key Features

- Dual socket 24-core 5th Gen Intel® Xeon® Scalable Processors (SP)
    - Option for Singl socket 52 Core Platinum such as 8571N
- Multiple SKU support (i.e.4514Y, 4516Y+, 8571N etc.)
- Twelve banks of DDR5 for up to 1TB with ECC per socket (total of 2TB)
- Intel FPR for secure boot
- Dual 100/40G ethernet to Zone Two
- Dual 10/100/1000Base-T Base Channels
- Dual 10GbE Copper via front panel
- Dual USB 3.0
- IPMI Management Controller with Serial Over LAN capabilities (SOL)
- BIOS redundancy boot with multiple Watch Dog Timers (WDTs) for fail-over, before and after BIOS boot

Benefits

- High performance rugged processor blade
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader

AdvancedTCA®

100G

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ATC140

The ATC140 is a high performance ATCA processor blade featuring dual 24 core Intel® Xeon® processors (option for single socket 52 Core), each with eight banks of memory providing up to a total of 1TB DDR5 memory with ECC per socket (total blade memory is 2TB).

ATC140 is versatile in connectivity and includes two 100/40GbE Fabric Interfaces, PCIe to RTM expansion, dual GbE base Interfaces, dual front panel GbE egress Ports, front panel Micro USB (RS-232), USB 3.0 Ports and front panel Display Port connector. On-board M.2 storage is available for local boot.

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

The ATC140 has dual redundant BIOS-boot capability with multiple WDTs for fail-safe, before and after OS boot. The module utilizes the Intel Bootguard PFR via on board FPGA and Trusted Platform Management (TPM). The FPGA can be reprogrammed by the customer to meet their security beyond what is provided by the PFR.

The Unit uses one of the most feature rich Health Management Module in the industry, incorporating HTTP and HTTPS support, Web Interface, added security with SSL, multiple user permission level, etc.

The ATC140 can be ruggedized for harsh environments. See customer ordering options for conformal coating.

Figure 1: ATC140

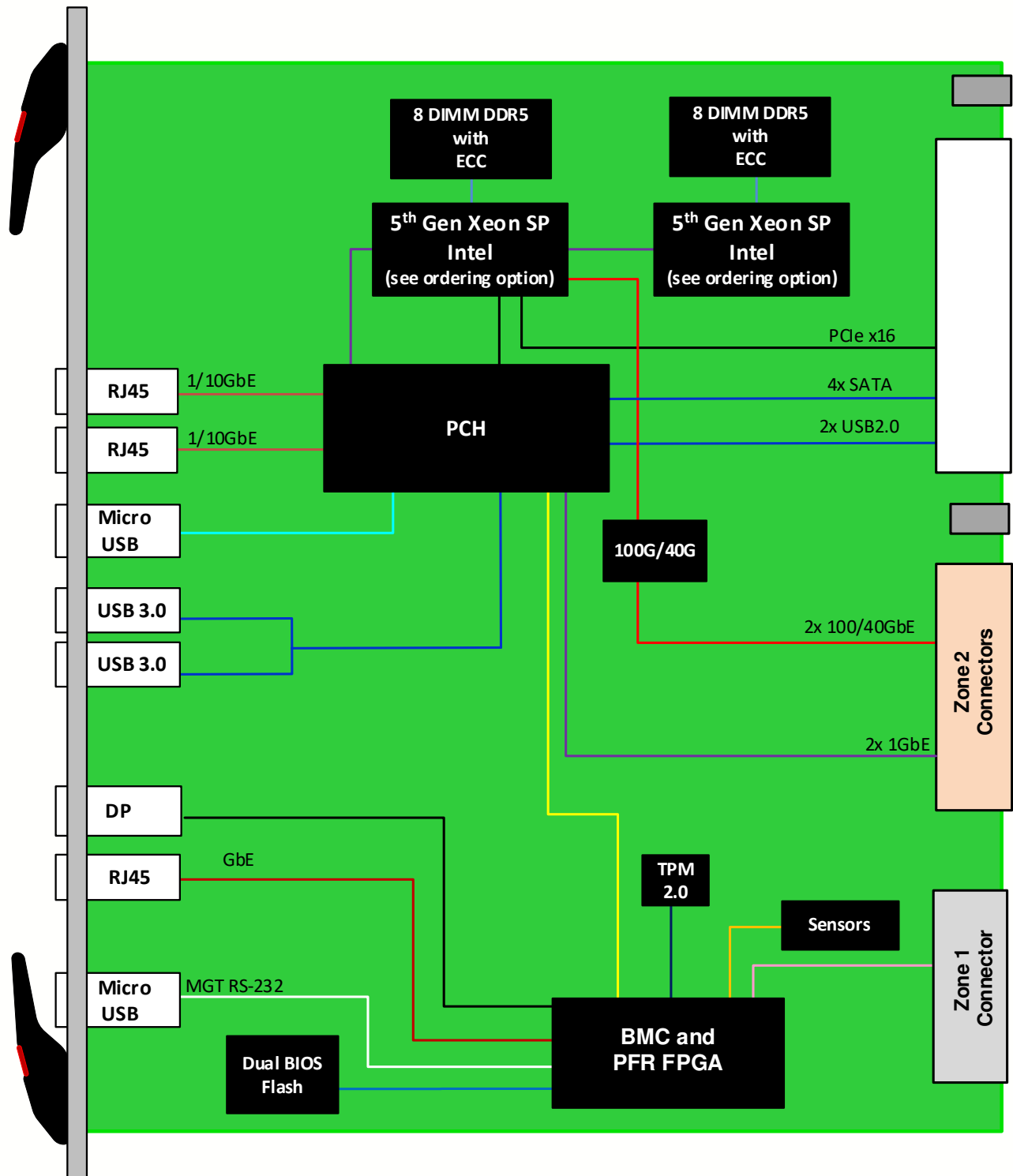*Figure 2: ATC140 Top View Without CPU and Heatsinks*

Figure 3: ATC140 Front Panel View

Block Diagram

Figure 4: ATC140 Functional Block Diagram

ATC140 – ATCA Rugged Blade Processor with Dual Xeon SP, 100/40G Ethernet

Specifications

Architecture		
Physical	**Dimensions**	Width: 12.687" (322.25 mm)
		Depth: 11.024" (280 mm)
Type	**ATCA Processor**	Dual Intel 5th Gen Intel® Xeon® Scalable Processors (SP)
	Memory	8 banks of DDR5 with 8 DIMM per socket
Standards		
ATCA	**Type**	PICMG 3.0 Revision 3.0
Module Management	**IPMI**	v2.0
Configuration		
Power	**ATC140**	~450W (CPU SKU and memory dependent)
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Vibration	0.5G 5 to 500 Hz on each axis
	Shock	Operating 30Gs on each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	x2 USB 3.0
		x3 RJ-45 for 1/10GbE
		x3 Micro USB for Serial Management Ports
		Display Port (DP)
	LEDs	IPMI, Activity, Status and User defined
	Ejector Handles	Hot swap with micro-switch
Software Support	**Operating System**	Linux
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 ISO9001:2000 and AS9100B:2004 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

ATC140 – ABC-DEF-0HJ

A = Processor Xeon SKU*	D = DRAM per Processor††	
0 = Reserved 1 = 4510T 3.7/2GHz, 12 cores 2 = 4510 4.1/2.4GHz, 12 core 3 = 4514Y 3.4/2GHz, 16 cores 4 = 4516Y+ 3.7/2.2GHz, 24 cores 5 = 8571N 4/2.4GHz, 52 cores** 6 = 6548N 4.1/2.8GHz, 32 Cores** 7 = 5520+ 4/2.2GHz, 28 Cores** 8 = Reserved 9 = Reserved	0 = 256 GB 1 = 512 GB 2 = 1TB	
B = Number of Processor	**E = M.2 Storage**	**H = Temperature Range**
0 = Dual 1 = Single	0 = No disk 1 = One TB 2 = Two TB	0 = Commercial 1 = Industrial
C = Panel size†	**F = Zone two Ethernet speed**	**J = Conformal Coating**
0 = 6 HP 1 = 9 HP 2 = 12 HP	0 = 40G 1 = 100G	0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic 3 = Parylene

Notes: *Other SKU's are support please contact VadaTech sales.

**Only Single Socket allowed

†Contact Vadatech for panel size. The panel size is determined by how much the chassis has cooling capabilities

†† The DRAM is per socket. For example, D = 1 (total memory is 1TB)

Related Products

ATC126

- Dual 14-core Intel® Xeon® E5-2658, 2680, 2648L, 2618L, 2620, 2630 v4 processors
- Eight banks of DDR4 for up to 256 GB memory
- 10/40GbE Fabric channels

ATC128

- Dual socket 24-core Intel® Xeon® Platinum Processors - Scalable Performance (SP)
- Twelve banks of DDR4 for up to 384 GB with ECC per socket (total of 768 GB)
- PCIe Fabric and expansion channels

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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