

# **3U BAM SERVER**

A family of ruggedized, secure, AI-powered rack mount servers equipped with Intel Xeon Scalable Processors for high-performance edge computing and inferencing to deliver actionable insights at the strategic, tactical, and operational levels.

### HARSH-ENVIRONMENT PROTECTION

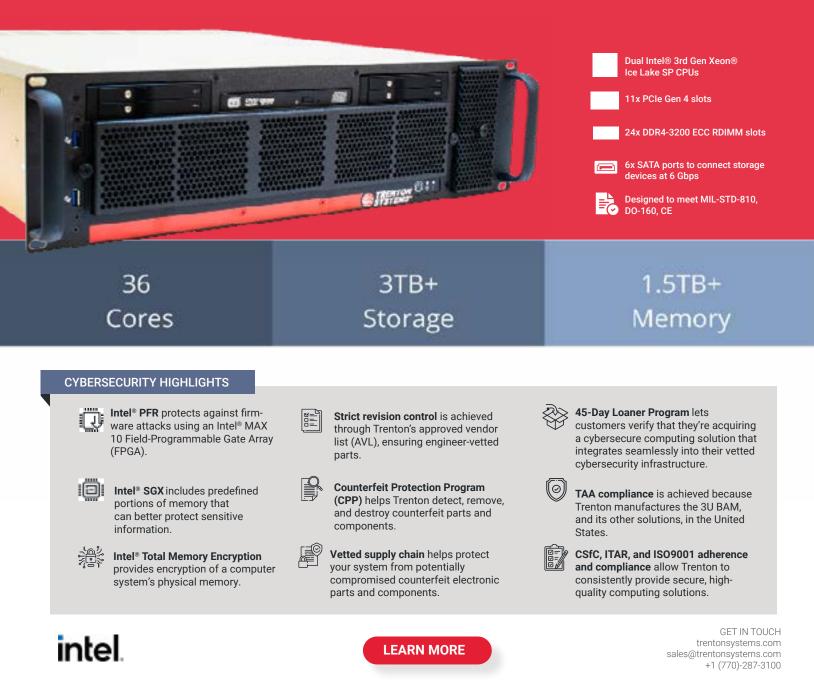
All key components are stresstested to pass stringent military standards, ensuring stability in harsh environments.



Trenton Systems' secure, highperformance computing solutions are designed, manufactured, assembled, integrated, tested, and supported in the USA.

# FULL CONTROL

Our in-house software engineers can tweak BIOS source code to bolster firmware security and configure to your exact needs.





#### MODEL NUMBER

BAC3000 (3U)

#### MOTHERBOARD

BAM8270

#### PROCESSORS (36 CORES PER PROCESSOR, 72 TOTAL)

Dual Intel<sup>®</sup> 3<sup>rd</sup> Gen Xeon<sup>®</sup> Scalable Processors (Ice Lake) up to 235W

#### MEMORY (UP TO 1.5 TB) | STORAGE (UP TO 72 TB)

24x DDR4-3200 ECC RDIMM slots

#### **ON-BOARD DEVICES**

- SATA: 6x SATA ports
- ► NVMe: 2x NVMe ports
- ► USB: 1x USB3 headers
- ► IPMI:
  - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
     ASPEED AST2500 BMC
- Network Controller:
   Intel® i350 Gigabit Ethernet
- ► Graphics: ASPEED AST2500 VGA
- ► TPM 2.0: Infineon SLB9670

#### **INPUT / OUTPUT**

- ▶ USB: 4x USB 3.0 ports
- Display: 1x VGA port
- ► LAN: 1x RJ-45 Gigabit Ethernet port; 1x RJ-45 Gigabit Ethernet Shared IPMI port
- ▶ Serial: 1x RS232 serial port

#### PCIE GEN 4 SLOTS

- 11x PCIe Gen 4 x16 mechanical slots
- 5x PCIe Gen 4 x16 electrical slots
- 6x PCIe Gen 4 x8 electrical slots
  I2C connectivity
  - monitors PCIe slots and NVIDIA cards via the I2C bus

#### DIMENSIONS

**BAC3000:** 19" x 5.25" x 20" **Weight:** 34 lbs.

#### FRONT PANEL

The front panel comes with three drive bays that support a mixture of front-removable drives and optical-drive bay carriers.

## The BAM: Powerful. Durable. Protected.

- Protected by a trusted supply chain and advanced hardware, firmware, and software security
- Ruggedized to withstand the world's harshest conditions
- x16 slots are double-spaced apart for improved incorporation of double-wide GPUs
- · PCIe slots have no switches for maximum throughput
- Designed to meet your exact requirements

#### SYSTEM COOLING

1x PWM CPU blower fan per CPU (1U and 2U fans)

#### **POWER / POWER SUPPLY**

- ► N+1 redundant power supply
- 220VAC: output power = 2850W
- 115VAC: output power = 1900W

#### SYSTEM BIOS

- ▶ BIOS Type: 128Mb SPI NOR Flash with Insyde BIOS
- BIOS Features:
  - Plug and Play (PnP)
  - APM 1.2
  - PCI 2.2
  - ACPI 1.0 / 2.0
  - USB keyboard support
     SMBIOS 2.3
  - UEFI

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SYSTEM MANAGEMENT

ASPEED AST2500 baseboard management controller: rKVM, system monitoring, out-of-band management

#### ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: 0°C 50°C
- Storage Temperature: -20°C 70°C
- Operating Humidity: 5% 95% non-condensing
- Non-Operating Humidity: 5% 95% non-condensing
- Shock: 3 axis, 35g, 25ms
- Vibration: 4.76Grms, 10Hz to 2000 Hz (SSD)
- Altitude: 0 to 10,000 ft (3,048m)
- Non-Operating Altitude: 0 to 30,000 ft (9,144m)
- \*Preliminary numbers noted. Final numbers expected to outperform current specifications.

#### COMPLIANCE

#### Designed to meet the following standards/certifications:

- MIL-STD-810H
- DO-160F
- 2014/35/EU (LVD)
- 2014/30/EU (EMC)



