

Rugged NVMe Storage Solutions

TSS32-20 | 2nd Gen Xeon[®] SP

A SWaP-C optimized, scalable, and secure 3U rugged NVMe storage solution delivering enhanced performance for a variety of ever-evolving on-premise and edge deployments.



MAXIMUM STORAGE CAPACITY AT THE EDGE

Record massive amounts of data at up to 3.5 GB/s read/write speeds for retrieval and analysis to enhance situational awareness and decision-making capabilities.



ENHANCED COMPUTE & SERVER DENSITY

Increased storage capacity in a short-depth 3U chassis greatly reduces size, weight, power, and cost, enabling peak performance within space-constrained environments.



RUGGEDIZED FOR EXTREMES

Tested to meet the toughest military and industrial standards to ensure the quality and reliability of our solutions within harsh and austere conditions.

Technical Overview



Dual 2nd Gen Intel[®] Xeon[®] Scalable Processors



8x DDR4-2400 ECC DIMM slots



Up to 8x U.2 front-removable NVMe SSDs



7x PCIe 3.0 x16 slots



Meets MIL-STD-704F, MIL-STD-461G, DO-160F



SYSTEM HIGHLIGHTS



Supply chain risk management allows us to fully vet, track, and trace each component down to the resistor level, ensuring complete system integrity.



Made in the USA - we design, manufacture, assemble, test, and support our servers (and other solutions) here in the USA.



Multi-layer cybersecurity across the hardware, firmware, software, and network stack protects critical data from sophisticated cyberattacks.

POWERED BY 

The TSS32-20 is customizable per your most complex application or program requirements. Designed to support additional customer-specified option cards including high-end NVIDIA GPUs with GPGPU-accelerated RAID.



Rugged, compact, and secure, the TSS32-20 can serve as a mission data recorder or network-attached storage solution to read, write, and retrieve massive amounts of critical intelligence at lightning-fast speeds.

Working in consultation with our team, add option cards such as FPGAs, NIC cards, and GPUs to meet the technical and performance requirements of your application or program.

PROCESSOR BOARD & DIMENSIONS

SSP8268, 12in. x 13in. (30.50cm. x 30.02cm.); Form Factor: SSI

PROCESSORS (UP TO 40 CORES, 20 PER PROCESSOR)

Dual 2nd Gen Intel® Xeon® Scalable Processors up to 85W TDP
Chipset: Intel® C622

**If an SKU higher than 250W is needed, contact a member of our team.*

MEMORY (UP TO 1.5TB)

8x DDR4-2666 ECC RDIMM slots

SLOTS (CAN SUPPORT FHFL GPUs)

7x PCIe 3.0 x16 mechanical slots (3x PCIe 3.0 x16 electrical, 4x PCIe 3.0 x16 electrical)

STORAGE (UP TO 30TB PER DRIVE)

Up to 8x front-removable U.2 NVMe SSDs

I/O

- ▶ **SATA:** 6x SATA3 ports
- ▶ **USB:** 9x USB 3.0 ports: 6x USB via rear, 3x USB via header
- ▶ **IPMI:** IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ▶ **Graphics:** ASPEED AST2500 BMC
- ▶ **Video:** 1x VGA port
- ▶ **LAN:** 7x RJ-45 1GbE ports (1x w/IPMI) via Intel® i350 controller
- ▶ **Serial:** 1x RS232 serial port

SECURITY

- ▶ **TPM 2.0**

**For a comprehensive list of cybersecurity features, please contact one of our team members.*

COOLING

3x chassis fan headers and 2x processor fans

SYSTEM BIOS

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

SYSTEM MANAGEMENT (BMC)

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

OS COMPATIBILITY

- ▶ Windows Enterprise, Server
- ▶ Linux
 - RHEL
 - Ubuntu
 - SUSE

**Contact us for the full compatibilities list*

CHASSIS DIMENSIONS (WIDTH x HEIGHT x DEPTH)

3U Chassis: 19in. 5.25x in. x 20in. (48.26cm. x 13.34cm. x 50.80cm.)

POWER SUPPLY

1X 750W, 461-filtered, 18-36VDC, fixed

ENVIRONMENTAL SPECIFICATIONS

- ▶ Operating Temperature: -15°C - 50°C
- ▶ Storage Temperature: -40°C - 70°C
- ▶ Operating Humidity: 10% - 95% non-condensing
- ▶ Non-Operating Humidity: 10% - 95% non-condensing
- ▶ Shock: 3 axis, 20g, 11ms
- ▶ Vibration: 1.48 Grms, 5Hz to 500Hz
- ▶ Altitude: 0ft to 3,000ft
- ▶ Non-Operating Altitude: 0ft to 15,000ft

**Temperature ranges are configuration-dependent. Performance degradation expected at extremes.*

**Test reports available upon request.*

COMPLIANCE

Meets the following standards/certifications:

- ▶ MIL-STD-704F
- ▶ MIL-STD-461G
- ▶ DO-160F

**Environmental specifications and compliance apply within Trenton 3U chassis.*

**Additional certifications available upon request.*

Contact us for pricing and availability.

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