

# Rugged NVMe Storage Solutions

## TRS32-20 | 2<sup>nd</sup> 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 **intel**®

The TRS32-20 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 TRS32-20 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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