

READY NOW

# RDY Servers

1U - 2U rugged rack servers supporting standard and non-standard form factor motherboards in any CPU architecture. Designed for maximum interoperability with today's common building blocks to allow you to craft a bolstered server with lots of I/O options.



## BOARD FLEXIBILITY

Incorporate any standard motherboard that follows the system's form factor to craft a solution according to your most complex requirements.



## FUTURE-PROOFED DESIGN

Easily swap boards to upgrade your server without modifying the rest of the system's architecture, increasing scalability and flexibility while reducing costs.



## UNDENIABLY RUGGED

Certified to the most stringent military and industrial standards, ensuring maximum operational efficiency within the harshest of environments.



## Overview

1U and 2U rugged rack servers that can support any standard motherboard for the system's form factor, simplifying upgrades and enabling interoperability with existing hardware when and where it matters most.

Take advantage of the latest technologies as they become available and reduce time to market to increase scalability alongside evolving applications, networks, and services.



### SOLUTION HIGHLIGHTS



**Intel® PFR, SGX, and TME** create a secure computing platform and enhance software/firmware resilience.



**Strict revision control** is achieved through Trenton's approved vendor list (AVL), ensuring engineer-vetted parts.



**In-house engineers** (hardware, software, mechanical, and electrical) control the design of your system down to the board and chip level.



**Next-gen PCIe slots** enable you to easily expand your board's capabilities to meet the demands of your application or program.



**Counterfeit Protection Program (CPP)** helps Trenton detect, remove, and destroy counterfeit parts and components.



**TAA compliance** is achieved because Trenton manufactures BAM servers, and its other solutions, in the United States.



**Intel® QAT** accelerates data compression and cryptography, freeing up the host processor and enhancing data storage/transfer.



**Vetted supply chain** helps protect your system from potentially compromised counterfeit electronic parts and components.



**CSfC, ITAR, ISO9001, and AS9100 adherence and compliance** allow Trenton to consistently provide secure, high-quality computing solutions.

# Technical Overview

SPECIFICATION	DETAILS
CPUs	Single or Dual Intel® (Core® or Xeon® SP) or AMD® (Epyc)
Memory	12x DDR4-2400/2666/2933 ECC RDIMM slots (6x per CPU)
Storage	Up to 16x SATA/SAS/NVMe high-capacity SSDs (FIPS 140-2/3 available)
Form Factors	1U - 2U rack servers between 18" - 28" depth (1U-2U GPU servers available)
Network Interface	1GbE, 10 GbE, 25 GbE, 40 GbE, and 100 GbE ports supporting IPMI
PCIe Interconnect	x1, x4, x8, and x16 PCIe 3.0/4.0/5.0 slots
Power	Low/Mid/High wattage, redundant/non-redundant, 461-optional, fixed/removable

## SYSTEM VARIATIONS

#	SYSTEM	BOARD	DEPTH	POWER	STORAGE	SLOTS	CERTIFIED RUGGED
1	TRC2010 (2U)	SSP8268	18"	1X 650W NON-REDUNDANT, NON-461, FIXED, OR 2X 600W REDUNDANT, NON-461, REMOVABLE	UP TO 6X FRONT-REMOVABLE SATA DRIVES OR 4X FRONT-REMOVABLE U.2 NVME DRIVES (REQUIRES RAID CONTROLLER)	7X LOW-PROFILE PCIE 3.0 OR 3X FHFL PCIE 3.0 VIA RISER	EXTENSIVE MIL-STD TESTING PASSED
2	TTM2400 (2U)	INTEL XEON SP	22"	2X 1600W REDUNDANT, NON-461, REMOVABLE	UP TO 6X FRONT-REMOVABLE U.3 NVME DRIVES (REQUIRES RAID CONTROLLER)	8X FHFL PCIE 5.0, 1X OCP PCIE	EXTENSIVE MIL-STD TESTING PASSED
3	TTM2401 (2U)	INTEL XEON SP	24"	2X 1600W REDUNDANT, NON-461, REMOVABLE	UP TO 16X FRONT-REMOVABLE U.3 NVME DRIVES (REQUIRES RAID CONTROLLER)	8X FHFL PCIE 5.0, 1X OCP PCIE	EXTENSIVE MIL-STD TESTING PASSED
4	TTM1003 (1U)	INTEL CORE/ XEON SP	20"	2X 500W REDUNDANT, NON-461, REMOVABLE	UP TO 9X FRONT-REMOVABLE SATA DRIVES (REQUIRES RAID CONTROLLER)	CORE: 1X FHFL PCIE 5.0 XEON: 1X FHFL PCIE 5.0	EXTENSIVE MIL-STD TESTING PASSED
5	TTM1400 (1U)	INTEL XEON SP	22"	2X 1600W REDUNDANT, NON-461, REMOVABLE	UP TO 2X INTERNAL M.2 NVME DRIVES (2280) (REQUIRES RAID CONTROLLER)	3X FHFL PCIE 3.0, 1X OCP PCIE	EXTENSIVE MIL-STD TESTING PASSED
6	DESIGNED TO SPEC	ANY COTS MOTHERBOARD VARIANT	18" - 28"	LOW/MID/HIGH WATTAGE, REDUNDANT OR NON-REDUNDANT, 461-OPTIONAL, FIXED OR REMOVABLE	SAS/SATA/NVME DRIVES (INTERNAL, FRONT-REMOVABLE, VIA RAID CONTROLLER, OR VIA RISER)	STANDARD ATX SLOT CONFIGURATION AVAILABLE	COTS/MOTS/ CUSTOM OPTIONS AVAILABLE

If you need a different system variation not listed above, please contact a Trenton Systems engineer to configure a system or solution to your specific application or program requirements.

**Contact us for pricing and availability.**

770.287.3100 | [info@trentonsystems.com](mailto:info@trentonsystems.com)



# TECH SPECS - SSP8268 ATX BOARD

## PROCESSORS (UP TO 28 CORES PER CPU, UP TO 56 TOTAL)

Dual Intel® 2<sup>nd</sup> Gen Xeon® Scalable Processors (Cascade Lake)  
up to 125W TDP  
Chipset: Intel® C622 Lewisburg

## MEMORY (UP TO 1.5 TB)

12x DDR4-2400/2666/2933 ECC RDIMM slots (6x per CPU)

## PCIE GEN 3.0/4.0./5.0 SLOTS (CAN SUPPORT FHFL GPUs)

7x PCIe Gen 3.0/4.0/5.0 x16 slots

## I/O

- ▶ **SATA:** 6x SATA3 ports
- ▶ **SAS:** 2x HD MiniSAS ports
- ▶ **USB:** 8x USB3 ports via I/O board (6 via ports, 2 via header)
- ▶ **IPMI:** IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ▶ **Graphics:** Intel® Integrated Graphics & ASPEED AST2500 BMC
- ▶ **Video:** 1x VGA port
- ▶ **LAN:** 7x 1GbE RJ-45 ports via dual Intel® i350 controller (1x Shared IPMI)
- ▶ **Serial:** 1x RS232 serial port

## SECURITY

- ▶ **TPM 2.0**

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

## COOLING (BMC Controlled)

7x 4 pin system fan headers, 2x 4 pin CPU fan headers

## SYSTEM BIOS

- ▶ InsydeH20 UEFI BIOS from Insyde
  - Plug and Play (PnP)
  - 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

## DIMENSIONS

12 in. x 13 in. (30.48cm x 33.02cm)

## ENVIRONMENTAL SPECIFICATIONS

- ▶ Operating Temperature: 0°C - 45°C
- ▶ Storage Temperature: -20°C - 70°C
- ▶ Operating Humidity: 5% - 90% non-condensing
- ▶ Non-Operating Humidity: 5% - 90% non-condensing
- ▶ Shock: 3 axis, 6G, 11ms
- ▶ 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.

\*Conformal coating available upon request.

## COMPLIANCE

Designed to meet the following standards/certifications:

- ▶ MIL-STD-810H
- ▶ MIL-STD-461G
- ▶ DO-160F
- ▶ MIL-STD-704

\*Environmental specifications and compliance apply within Trenton 1U/2U/3U chassis.



The RDY servers can be customized to your most complex technical, performance, and environmental specifications in consultation with our team. Ensure maximum reliability when and where it matters most.