

3PI Servers **TRS21-22** | 4th and 5th Gen Xeon SP[®]

A highly scalable, compact, and secure 2U rugged rack server with the latest in high-performance computing technologies to ensure peak performance and adaptability for a variety of ever-changing applications for on-premise and edge deployments.



DESIGN VERSATILITY FOR MAXIMUM CONFIGURABILITY

Quickly adjust your system configuration to meet the constantly fluctuating demands of diverse data environments and ensure operational efficiency.



ENHANCED COMPUTE + CONNECTIVITY

Securely process, analyze, store, retrieve, and transfer large amounts of actionable intelligence in seconds to improve decision-making and reduce response times.



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.



Overview

A scalable, high-density 2U rugged server supporting various option cards and a third-party motherboard that delivers maximum processing, AI/ML/DL, networking, security, and storage alongside evolving workloads.

Designed in consultation with our team, this server meets and exceeds the most complex technical, performance, and environmental requirements of your application or program. Can also serve as a network-attached storage (NAS) solution.

SOLUTION HIGHLIGHTS



Intel® PFR, SGX, TME, and TDX provide chip-based protections of firmware, data, applications, hypervisors, and virtual machines.



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



Reduce time to market to take advantage of the latest technologies as they become available and maximize operational efficiency.

POWERED BY **intel**

AI ACCELERATED BY  **NVIDIA**

Technical Overview

SPECIFICATION	DETAILS
CPUs	Dual Intel® 4 th and 5 th Gen Xeon®
Memory	32x DDR5-4800 ECC RDIMM slots (16x per CPU)
Storage	Up to 2x M.2 SSDs, 6x SATA/NMVe SSDs (FIPS 140-2/3 available)
Form Factors	2U rack server (19" x 3.5" x 22" 48.26cm x 8.9cm x 55.88cm)
Network Interface	1GbE port supporting IPMI
PCIe Interconnect	1x OCP x16 slot, and 4x PCIe 5.0 x16, 4x PCIe 5.0 X8 slots via MCIO connectors
Power	800W at 110V, 1200W at 230V, redundant, removable

PROCESSORS (UP TO 32 CORES PER CPU)

Dual Intel® 4th and 5th Gen Xeon® SP CPU up to 270W TDP
Chipset: Intel® C741 Emmitsburg

**If an SKU higher than 270W is needed, contact a member of our team.*

MEMORY (UP TO 8 TB)

32x DDR5-4800 ECC RDIMM slots (16x per CPU)

SLOTS (CAN SUPPORT FHFL GPUs)

1x OCP x16 slot, and 4x PCIe 5.0 x16, 4x PCIe 5.0 X8 slots via MCIO connectors

I/O

- ▶ **USB:** 3x USB ports: 2x USB2 ports via I/O riser, 1x USB3 header
- ▶ **IPMI:** IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ▶ **Graphics:** Intel® Integrated Graphics & ASPEED AST2600 BMC
- ▶ **Video:** 1x VGA port
- ▶ **LAN:** 1GbE port supporting IPMI

SECURITY

- ▶ **TPM 2.0**

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

COOLING (BMC Controlled)

8x 6 pin system fan headers, 2x 4 pin CPU fan headers

SYSTEM BIOS

- ▶ AMI SPI 256 Mbit BIOS
 - Plug and Play (PnP)
 - PCI 2.2
 - ACPI 1.0 / 2.0
 - USB Keyboard Support
 - SMBIOS 2.3
 - UEFI

SYSTEM MANAGEMENT (BMC)

ASPEED AST2600 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

Board: 17" x 11.5" (43.18cm x 29.21cm), Supermicro X13DEM

Chassis: 19" x 3.5" x 22" (48.26cm x 8.9cm x 55.88cm)

ENVIRONMENTAL SPECIFICATIONS

- ▶ Operating Temperature: -40°C - 50°C
- ▶ Storage Temperature: -40°C - 85°C
- ▶ Operating Humidity: 5°C-95°C relative
- ▶ Non-Operating Humidity: 5°C-95°C relative
- ▶ Shock: 3 axis, 15g, 11ms (MIL-STD-810)
- ▶ Vibration: 5Hz to 2,000Hz (SSD)
- ▶ Altitude: -300ft to 10,000ft
- ▶ Non-Operating Altitude: -300ft to 40,000ft

COMPLIANCE

Meets the following standards/certifications:

- ▶ MIL-STD-810H

**Environmental specifications and compliance are configuration dependent.*

***Test reports and additional certifications available upon request.*

Our **3PI Servers** are customizable per your most complex application or program requirements. Designed to support additional customer-specified option cards including high-end Multi-Instance GPUs.

Contact us for pricing and availability.

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