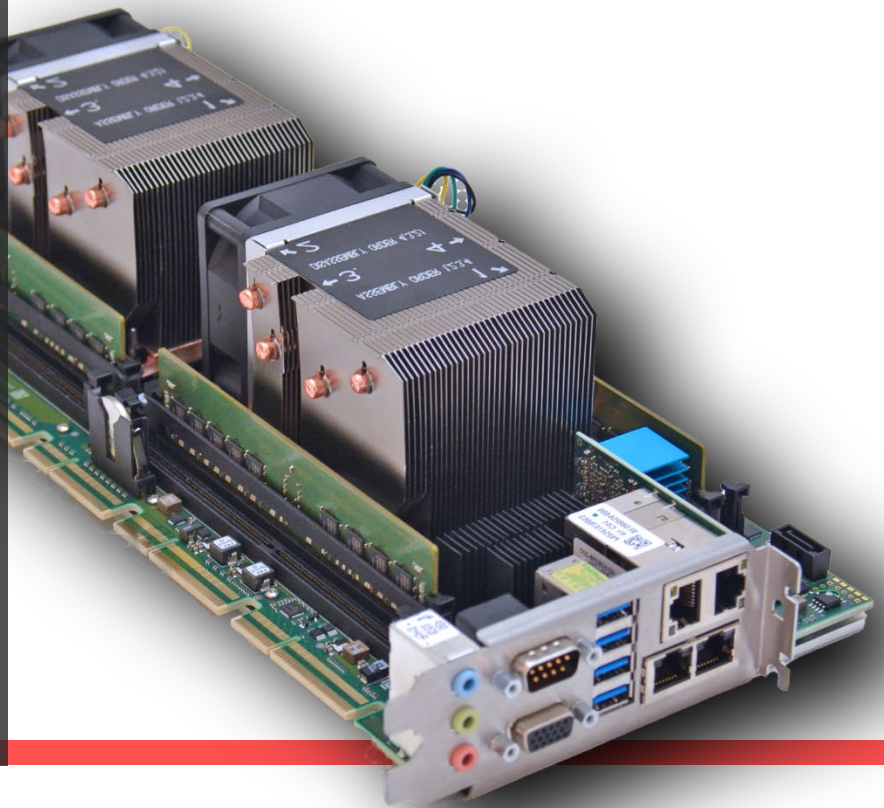




SEP8253

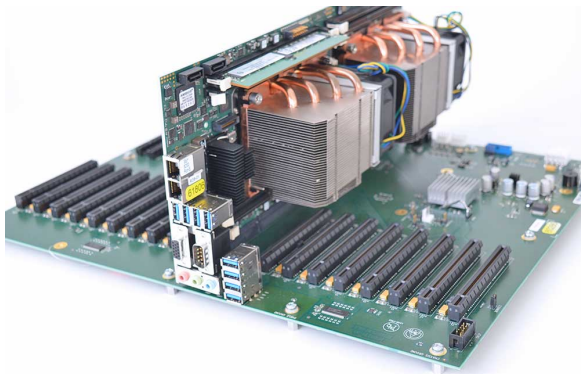
Processor Board

RUGGEDIZED | MADE IN USA



Perform with Ease in **Harsh** Conditions

Achieve peak mission-critical performance with Xeon® Scalable Performance Silver & Gold processors. HDEC Series architecture delivers 88 lanes of PCIe to compatible backplane. Up to 44 cores / 88 threads and 8 ECC RDIMMS with up to 3TB of DDR4.



Dual **Xeon® SP** CPUs

2nd Gen Intel® Xeon® SP CPUs deliver high performance and ECC RAM to ensure consistency and prevent data corruption.



Room for **Expansion**

With 88 lanes of PCIe Gen 3, worrying about whether you have enough expansion opportunities becomes a thing of the past.

Highly **Configurable**

Choose your rugged chassis, a compatible PCIe backplane, some rugged storage, and customize your own I/O interface.

Section 5 / System Overview

PROCESSOR BOARD

SEP8253 | Type: HDEC Series

COMPATIBLE CHASSIS MODEL NUMBER(S)

TRC2010, THS2085, TRC2019, THS4086, THS4095,
TRS4019, TRC3010 [Contact us for custom options](#)

PROCESSORS

- ▶ 2nd Gen Intel® Xeon® SP CPUs, LGA3647, Socket P
- ▶ CPU TDP support up to 125W

CPU	Cores/Threads	Frequency	Cache	TDP
Gold 6230	20/40	2.10-3.90GHz	27.5MB	125W
Gold 5218	16/32	2.30-3.90GHz	22MB	125W
Silver 4209T	8/16	2.20-3.20GHz	11MB	70W

MEMORY

Slots: 8x DDR4 RDIMM

Capacity: Up to 1.5TB DDR4 ECC RDIMM

Type: 2400/2666/2933 ECC DDR4 RDIMM

DIMM Sizes: 64GB, 32GB, 16GB, 8GB

Error Detection: Corrects single-bit errors and detects double-bit errors using ECC memory

STORAGE

Type(s): 1x 2.5" SSD/HDD SATA3 (6 Gbps) drive up to 15mm height

Capacity: Up to 1TB per drive (larger capacities available upon request)

ON-BOARD DEVICES

Chipset: Intel® C622

IPMI: Support for Intelligent Platform Management Interface v2

- ▶ IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
- ▶ ASPEED AST2500 BMC

Network Controllers:

- ▶ Supports 1000BASE-T, RJ-45 output

Graphics: Intel® Integrated Graphics & ASPEED AST2500 BMC

TPM 2.0: Secure cryptoprocessor that helps you with actions such as generating, storing, and limiting the use of cryptographic keys

INPUT / OUTPUT

USB: 4x USB 3.0 Ports

Display: 1x VGA Port 1920x1200@60Hz 32bpp

LAN: 4x RJ-45 Gigabit Ethernet LAN ports

- ▶ 3x RJ-45 Gigabit Ethernet LAN ports
- ▶ 1x RJ-45 Gigabit Ethernet LAN/IPMI shared port

Serial: 1x RS232 DB9 Serial Port

PROCESSOR BOARD DIMENSIONS

Length: 13.345" | 30.858 cm

Width: 5.570" | 14.6 cm

**System dimensions dependent on rugged chassis selection.*

SYSTEM BIOS

BIOS Type: 128 Mb 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

SYSTEM MANAGEMENT

AST2500 Baseband Management Controller: rKVM, System Monitoring, Out of Band Management

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 0°C - 50°C

Storage Temperature: -40°C - 70°C

Operating Humidity: 8% - 90% Non-Condensing

Non-operating Humidity: 5% - 95% Non-Condensing

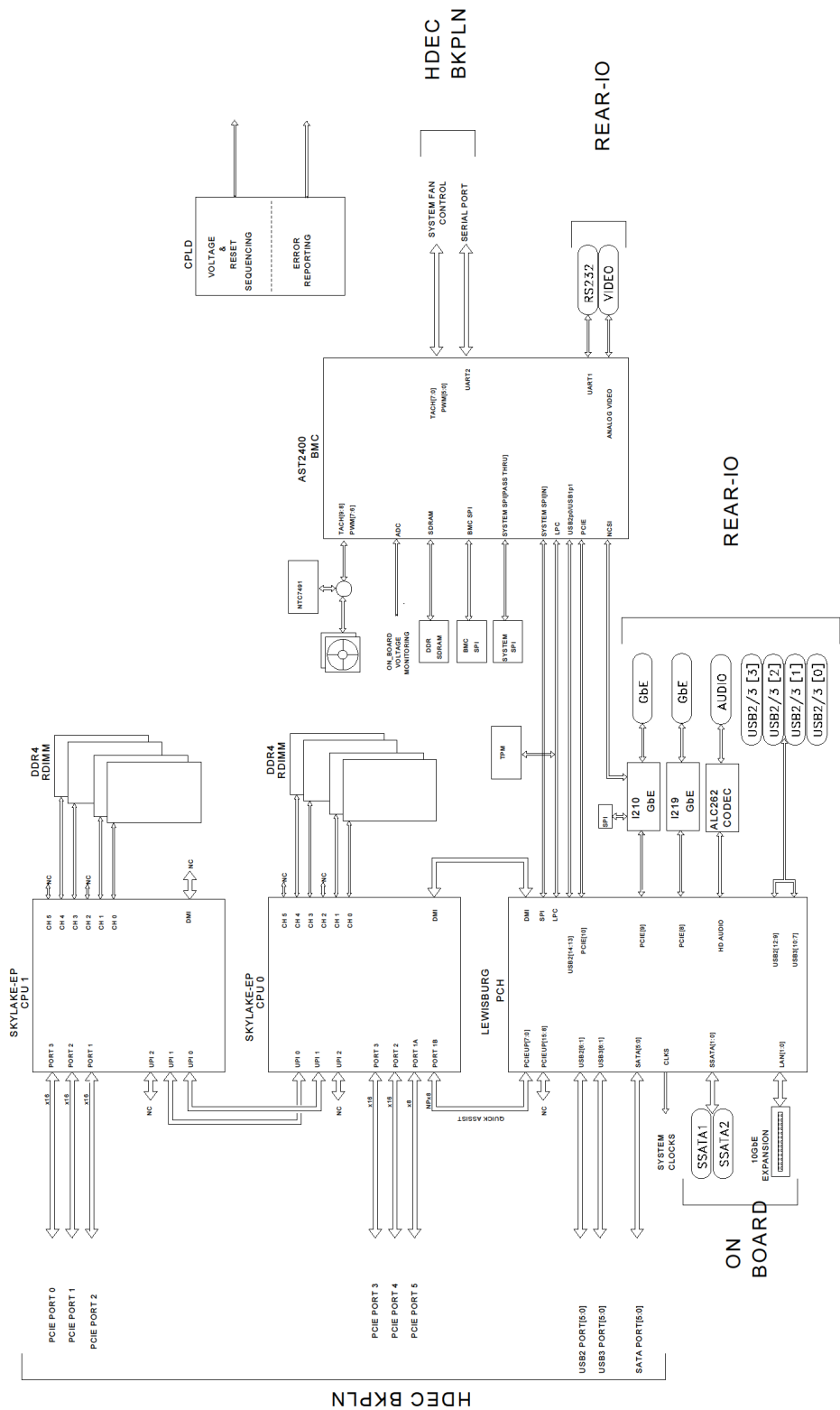
FCC

CE

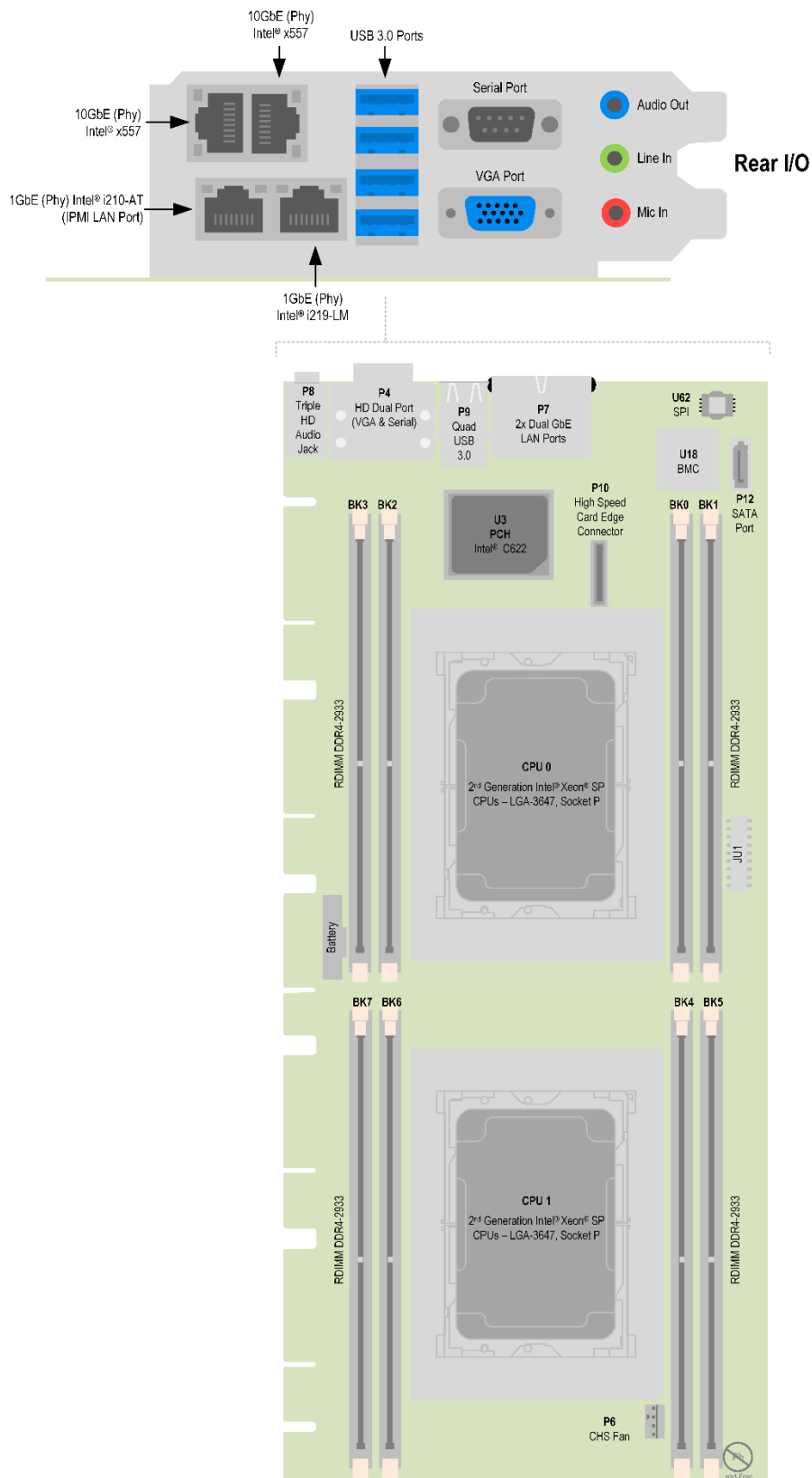
**Numbers noted are dependent on CPU selection. Please [contact Trenton Systems](#) for specific CPU environmental specs.*



BLOCK DIAGRAM



LAYOUT DRAWING





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