

QUANT AI CORE XR144-H8



HIGH-DENSITY 4U AI SERVER FOR DEEP LEARNING, GPU COMPUTING, AND SCIENTIFIC SIMULATION

The Quant AI Core XR144-H8 is a high-density 4U rack server platform designed for GPU-enabled computing, AI infrastructure, and enterprise acceleration workloads.

Powered by dual Intel® Xeon® Gold 6133 processors and Intel® C621 chipset, the XR144-H8 delivers massive parallel compute density, advanced scalability, and reliable uptime for modern data centers and AI-driven enterprises.

PROCESSOR & MEMORY

- Dual Socket P+ (LGA 4189) platform
- Supports Intel® Xeon® Gen 3 Scalable series processors
- 16 DIMM slots with support up to 4TB ECC DDR4 / Optane™ PMem 200

EXPANSION & STORAGE

- 6 × PCIe 4.0 x16 and 1 × PCIe 4.0 x8 for accelerator and I/O flexibility
- 2 × M.2 PCIe 4.0 x4 interfaces for high-speed boot or cache storage
- 2 × SATA 3.0 DOM and 2 × MCIO interfaces for platform storage design

NETWORK & POWER

- 2 × 10 Gigabit RJ45 ports powered by Intel® X550
- Dedicated management networking with IPMI rear access
- 2000W 1+1 redundant power supply for continuous operation

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COMPUTE FOUNDATION

- Supports Intel® Xeon® Gen 3 Scalable Series processors on Dual Socket P+ (LGA 4189)
- Intel® C621A chipset with ASPEED AST2500 BMC for platform control and monitoring
- Designed for AI infrastructure, compute expansion, and heavy enterprise processing

MEMORY & EXPANSION ARCHITECTURE

- 16 memory slots (8-channel per CPU) supporting 3200 / 2933 / 2666 MHz ECC DDR4 RDIMM / 3DS RDIMM
- Up to 4TB memory support, including Intel® Optane™ PMem 200 compatibility
- 6 × PCIe 4.0 x16, 1 × PCIe 4.0 x8, plus 2 × M.2 PCIe 4.0 x4 interfaces

CONNECTIVITY, POWER & SERVICEABILITY

- 2 × 10GbE RJ45 ports using Intel® X550, plus dedicated management access
- 2000W 1+1 redundant power supply for resilience under sustained workloads
- Rear panel includes COM, VGA, IPMI LAN, dual 10GbE LAN, USB Type-A / Type-C, and UID switch

TECHNICAL SPECIFICATIONS

FEATURE	DESCRIPTION
Model	Quant AI Core XR144-H8
Form Factor	4U Rackmount GPU Server
Chipset	Intel® C621A
BMC	ASPEED AST2500 BMC
Processor Support	Dual Socket P+ (LGA 4189), supporting Intel® Xeon® Gen 3 Scalable Series processors (Whitley / Ice Lake), up to 270W TDP

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TECHNICAL SPECIFICATIONS

FEATURE	DESCRIPTION
Memory Slots	16 memory slots (8-channel/CPU)
Memory Support	3200 / 2933 / 2666 MHz ECC DDR4 RDIMM / 3DS RDIMM
Maximum Memory	Up to 4TB 3DS RDIMM; supports Intel® Optane™ PMem 200 Series
Supported Capacities	RDIMM / 3DS RDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
Expansion Slots	6 × PCIe 4.0 x16; 1 × PCIe 4.0 x8
M.2 Interfaces	2 × M.2 PCIe 4.0 x4, supporting 2280 / 22110
Storage Interfaces	2 × SATA 3.0 DOM; 2 × MCIO interfaces (PCIe 4.0 x8)
Network	2 × 10 Gigabit RJ45 Ethernet ports using Intel® X550 controller
Management	1 × standard RJ45 network port for management; IPMI LAN on rear panel
Rear Panel I/O	1 × COM, 1 × VGA, 1 × IPMI LAN, 2 × 10 Gigabit LAN, 2 × USB 3.0 Type-A, 1 × USB 3.0 Type-A + 1 × USB 3.0 Type-C, 1 × UID switch
Power Supply	2000W 1+1 redundant power supply
Operating Temperature	10°C to 35°C (50°F to 95°F)
Operating Relative Humidity	8% to 90% (non-condensing)
Dimensions (W × H × D)	440 × 180 × 660 mm
Weight	30 kg

APPLICATIONS

- AI model training and inference.
- GPU computing and parallel data processing.
- Scientific simulation and engineering analysis.
- Virtualization and compute-intensive enterprise workloads.
- Data center acceleration and AI infrastructure nodes.

