

Experience unprecedented acceleration for AI/ML/DL training with the immersion-ready XE9680-IR HGX 8-way GPU platform, optimized by UNICOM Engineering. Delivering superior performance, density, and scalability while leveraging single-phase immersion cooling to meet demanding energy-efficiency requirements. Powered by up to two 5th Generation Intel Xeon Scalable processors with up to 64 cores each, this 6U platform features eight NVIDIA H100 or H200 700W SXM5 GPUs connected via four NVLink switch chips, making it acceleration-optimized for AI workloads at scale.

UNLEASHING NEXT-GEN EFFICIENCY A breakthrough in data center cooling technology, designed for immersion cooling environments, delivering:

- Significantly enhanced power and water usage efficiency
- Substantially reduced noise levels compared to air cooling
- More computing power in the same footprint
- Thermal management for sustained high-performance

TESTING AND VALIDATION

Each XE9680-IR undergoes rigorous validation and testing to ensure optimal performance in immersion environments addressing:

- Thermal management requirements
- Signal integrity optimization
- Material compatibility verification
- Performance reliability in immersion conditions

HIGH-LEVEI	Advanced Compute	Enhanced Memory	Extensive Expansion	Comprehensive
FEATURES	Architecture	Performance	Options	Support
BUILT FOR ADVANCED WORKLOAD	(CzenAI)	Large Language Models (LLMs)	Machine Learning (ML)	Deep Learning (DL)



TECHNICAL SPECIFICATIONS

XE9680-IR HGX 8-Way GPU Platform

Processor	Up to two 4th or 5th Generation Intel Xeon Scalable processor with up to 64 cores per processor
Memory	32 DDR5 DIMM slots, supports RDIMM 4TB max speeds up to 5600 MT/s Supports registered ECC DDR5 DIMMs only
Storage Controllers	Internal boot: Boot Optimized Storage Subsystem (NVMe BOSS-N1): HWRAID 1, 2 x M.2 SSDs
Front Drive Bays	Up to 8 x 2.5-inch NVMe SSD drives
Power Supplies	Up to Redundant 2800W and 3200W (277V) AC Titanium Power Supply Units
Dimensions	Height: 263.2 mm (10.36 inches) Width: 482.0 mm (18.97 inches) Depth: 995 mm (39.17 inches) without bezel
Form Factor	6U rack server
Embedded NIC	2 x 1 GbE LOM

Embedded Management	iDRAC9 iDRAC Direct iDRAC RESTful API with Redfish iDRAC Service Module
Networking Options	1 x OCP 3.0 (x8 PCIe lanes)
GPU Options	8 NVIDIA HGX H100 80GB or 8 NVIDIA HGX H200 141GB 700W, SXM5 GPUs, fully interconnected with NVIDIA NVLink technology
Cooling	Optimized for Immersion Cooling
Top Ports	1 x iDRAC Direct (Micro-AB USB) port 1 x USB 2.0 1 x VGA
Bottom Ports	1 x USB 2.0 1 x USB 3.0 1 x VGA 1 x RJ45 iDRAC9 ethernet port
PCle	Up to 10 x16 Gen5 (x16 PCle) full-height, half-length
Operating System and Hypervisors	Canonical Ubuntu Server LTS Red Hat Enterprise Linux

WARRANTY SUPPORT

UNICOM Engineering provides a standard 1-year base warranty that can be enhanced with extended coverage options up to 5 years, ensuring long-term protection for your critical infrastructure investment. This holistic approach helps organizations fully realize the efficiency and performance benefits of immersion cooling solutions, making it an ideal choice for high-density data centers facing increasing AI computational demands.









