

Altos BrainSphere™ R880 F8

High-Density Computing Platform
Built for Generative AI and Large-Scale Models



CPU
350W



GPU
1100W



Memory
4TB



Storage
Up to 250TB



Form Factor
8U



Powering the Generative Era at Scale

Engineered for compute-intensive workloads from training to real-time inference, the Altos BrainSphere™ R880 F8 integrates dual Intel® Xeon® 6700/6500 series processors, DDR5 memory, and 8 NVIDIA Blackwell Ultra GPUs into an 8U rack design. It optimizes token throughput, power efficiency, and infrastructure economics to power enterprise AI Factories at scale.

Exceptional AI and HPC Performance

Built on the NVIDIA HGX™ B300 system with NVLink™ technology, the R880 F8 delivers 1.8 TB/s interconnect bandwidth. Featuring over 2.1 TB of HBM3e memory and 64 TB/s aggregate memory bandwidth, it effortlessly scales larger models, longer contexts, and compute-heavy Generative AI workloads.

High-Speed Networking and Flexible Expansion for AI Scale-Out

Powered by NVIDIA ConnectX®-8 SuperNIC™, the R880 F8 provides 8 high-speed interfaces supporting 800 Gb/s XDR InfiniBand or dual 400 Gb/s Ethernet for massive scale-out AI. It features 8x 2.5-inch Gen5 NVMe bays, 2x M.2 slots, and 4x FHHL PCIe Gen5 x16 slots, with support for GPU-accelerated GRAID SupremeRAID™ AE or RAID expansion cards (up to 4x M.2 SSDs, RAID 0/1/10) to deliver robust data protection and flexible deployment.

Centralized Management, Intelligent Operations, and AI Workload Optimization

Equipped with an ASPEED® AST2600 BMC, the R880 F8 provides real-time monitoring of system health, power, and thermals. Paired with Altos aiWorks and Altos Smart Server Manager (ASSM), it unifies GPU resource management, workload scheduling, and AI deployment to streamline centralized operations and maximize large-scale infrastructure efficiency.

Specification

CPU	Dual Intel® Xeon® 6 Processors, TDP up to 350W - Intel® Xeon® 6700-Series Processors - Intel® Xeon® 6500-Series Processors
GPU	NVIDIA HGX™ B300 with 8 x NVIDIA Blackwell Ultra GPUs
Memory	32 DIMM slots, 8-Channel DDR5 RDIMM/MRDIMM RDIMM Up to 6400 MT/s (1DPC), 5200 MT/s (2DPC)
Network	8 x 800 Gb/s OSFP XDR InfiniBand / dual 400 Gb/s Ethernet (NVIDIA ConnectX-8 SuperNIC) 2 x 10GbE(NCSI supported)
TPM	1 x TPM 2.0 header (SPI)
Drive Bay	Front: 8 x 2.5"(Hot-swappable) PCIeGen5 NVMe Internal: 2x M.2 (2280/22110), PCIeGen5
I/O Ports	Front: 2 x USB 3.2 Gen1, 1 x VGA, 2 x RJ45, 1 x 1 Gb Management LAN port (default) Rear: 1 x 1 Gb Management LAN port
PCIe Expansion Slots	4 x FHHL dual-slot PCIe Gen5 x16
Graphics	ASPEED® AST2600 – 1 VGA port
Power Supply	6+6 3000W 80 PLUS Titanium redundant power supplies AC Input: 115-240V , C19 power cord
Cooling	Air cooling
Operating Properties	Operating: 10°C to 30°C, 8% to 80% (non-condensing) Non-operating: -40°C to 60°C, 20% to 95% (non-condensing)
Security and Manageability	ASPEED® AST2600 BMC TPM 2.0 UEFI Secure SNMP v3 Altos Smart Server Manager (ASSM)
Form factor	8U 447(W) x 351(H) x 923(D) mm
OS	Microsoft® Windows Server 2025 Microsoft® Windows Server 2022 Red Hat Enterprise Linux Server 8.10 / 9.6 / 10.0 Ubuntu Server 22.04 / 24.04 / 26.04 LTS VMware ESXi 8.0 / 9.0
EMC / Safety Compliance	FCC, CE
Packaging Content	1 x Altos BrainSphere™ R880 F8 2 x CPU heatsinks 4 x Carriers 1 x L-shape Rail kit

About Altos Computing Inc.

Altos Computing Inc. (abbr. Altos) is established in 2017, is a subsidiary of Acer Group. Leveraging in-house R&D and collaborations with ODM, IHV, and ISV partners, Altos delivers streamlined and cost-effective integrated solutions. Its product portfolio covers AI servers, AI workstations, and AI resource management platforms. In an era of rapid innovation, Altos provides leading solutions across diverse domains, including High Performance Computing (HPC), Virtual Desktop Infrastructure (VDI), Cloud Infrastructure, and Software-Defined Storage (SDS). Our customers include government agencies, academic institutions, cloud service providers, data center operators, and enterprises. In a continuing effort to improve the quality of our products, information in this brochure is subject to change without notice. Images appearing are only representations of some of the configurations available for this model. Availability may vary depending on region. Altos disclaims any liability for errors and omissions in product descriptions. © 2026. All rights reserved. Altos and the Altos logo are registered trademarks of Altos Computing, Inc. Other trademarks, registered trademarks and/or service marks, indicated or otherwise the properties of their respective owners.