

Altos BrainSphere™ R3-8F7

Dual-Socket 2U Servers Deliver Enhanced AI and HPC Performance



CPU
350W



GPU
300W



Memory
8TB



Storage
92TB



Form Factor
2U



Altos BrainSphere™ R3-8F7 is a powerful dual-socket 2U system designed to deliver exceptional performance, powered by the latest generation Intel® Xeon® 6700/6500-Series Processors. This system offers high core counts, large memory bandwidth, and advanced I/O expandability, making it ideal for a wide range of applications including, but not limited to, big data analytics, high-performance computing (HPC), virtualization, edge computing, and cloud computing.

Rich Computing Power

Powered by Intel® Xeon® 6700/6500-Series Processors, featuring up to 144 cores and 16 channels of DDR5 memory per socket, the Intel® Xeon® 6700/6500-Series deliver an exceptional balance of core/thread density, memory bandwidth, and I/O throughput. This enables highly optimized performance and efficient support for the most demanding and data-intensive workloads.

Excellent Expandability

Altos BrainSphere™ R3-8F7 provide 32 of DDR5-6400MT/s DIMM slots, can support maximum Two GPU, total of Twelve 3.5"/ 2.5" drive bays, to perfectly fulfill demands of high-capacity memory and storage.

Specification

Processor	Processor type	Dual Intel® Xeon® 6700 / 6500-Series Processors TDP 350	
	Number of processors	2	
On-board Devices	BMC	AST2600 Video Redirection up to 1920x1200	
Memory	Memory Slot	32 DIMM Slots	
	Memory type	16-Channel, 6400/5200MHz ECC RDIMM	
Expansion Slots	PCIe / PCI	4 x PCI-E 5.0 x16 slots and 1x PCI-E 5.0 x 8 slots Maximum support Two H100HVL, L40s, 6000 Ada	
	OCP 3.0	1 x PCI-E 5.0 x16 OCP 3.0 slot and 1 x PCI-E 5.0 x 8 OCP 3.0 slot	
	M.2	2 x M.2 2280 slots (Support NVMe)	
I/O Port	Front I/O Port	1 x VGA Port, 1 x Power Button, 1 x USB 3.2 Gen1 Type-A port 1 x USB 2.0 port Type-A Port	1x UID Button 1x Reset Button
	Rear I/O Port	1 x Power Button, 2 x USB 3.2 Gen1 Type-A Ports 1 x RJ45 Port (Dedicated BMC LAN Port) 1 x Mini Display Port	1x Reset Button
Network	Options OCP and PCI-E Lan card to support Network		
Storage Bay	Front 3.5”/2.5”	SAS card is required to enable SAS drives. • 4 x 3.5” /2.5” SATA and 12 x2.5” NVMe hot-swappable bays (on-board) • 12 x 3.5” /2.5” SATA/SAS hot-swappable bays (option HBA or Raid Card)	
	Rear 2.5”	2 x 2.5” SATA hot-swappable bays	
Management & Security	Management	IPMI2.0, KVM with dedicated LAN	
	Security	TPM 2.0 onboard; Optional TPM 2.0 module	
Power Supply	2 x 2400W 80Plus Titanium CRPS Redundant power supply		
Form factor	Dimensions	2U 770(D) x 438 (W) x 87(H) mm	
OS support	Windows	Microsoft® Windows Server 2025 / 2022	
	Linux	REHL 9.0 /8.5, Ubuntu 22.04 64bit Server	
OS Certification	Windows	Microsoft® Windows Server 2025	
	Linux	ESXi 8.0 U3 (vSAN 8.0 Update 3),ESXi 8.0 U2 (vSAN 8.0 Update 2),ESXi 8.0 U1 (vSAN 8.0 Update 1)	
EMC/Safety	CE, FCC, BSMI, CB		

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.