Product Brief

Supermicro EBox

Zero Downtime Universal AI Storage

Leading organizations choose VAST AI OS on Supermicro for production. xAI built Colossus in 122 days with VAST supporting over 100,000 NVIDIA® GPUs. SK Telecom deployed Korea's largest sovereign AI on VAST. NOAA chose VAST for HPC and AI workloads requiring mission-critical reliability. This proves readiness.

VAST AI OS transforms the VAST Certified Supermicro EBox through DASE (Disaggregated, Shared-Everything) architecture, separating stateless compute from shared storage to eliminate cache coherency issues plaguing traditional systems. This enables VAST to unify file, object, block, and database protocols without conversion, while DataBase provides SQL and vector search natively on one unified platform.

VAST's data efficiency extends QLC flash to 10 years through write shaping, similarity reduction delivering 2.9:1 compression, and erasure codes with 2.7% overhead. The VAST Zero downtime guarantee ensures 99.999%+ uptime even during live upgrades, and delivers 58.9% lower TCO versus architectures requiring multiple refreshes.

Combined with Supermicro CNode-X servers, the platform becomes a fully integrated NVIDIA® AI Data Platform with the VAST DataEngine orchestrating RAG and inference workloads. Unified management, multi-generation support, and capabilities proven from hyperscale to sovereign AI make this the complete AI infrastructure solution. Every server is Supermicro. One operating system brings it all together.

VAST delivers guaranteed uptime, ZERO data loss, and best in class data reduction.

Unified

One platform for file, object, block, and database without protocol conversion.

Proven

Powering accelerated AI and HPC workloads at xAI, SK Telecom, and NOAA

Reliable

99.999%+ uptime guarantee even during live upgrades and 58.9% lower TCO..

	Type	Quantity
Processor	AMD® EPYC™ 64-core, 9555P 3.2 GHz	1x
Memory	384GB DDR5 DIMM @6400MT/s	
Data Connectivity	NVIDIA® CX7 NDR 200/400G Ethernet/Infiniband	
Mgmt Connectivity	4x GbE in AIOM slot	1x
Boot	960GB M.2 NVMe SSD	2x
NVMe SSDs	800GB Storage Class Memory (SCM) 30TB QLC Hyperscale Flash	3x 9x
Management	DC-SCM with OpenBMC	
Model	Supermicro CloudDC SuperServer AS -1116CS-TN	

Per Node	
Raw Capacity	270 TB (540TB / 1080TB)
Read BW	22 GB/s
Write BW	10.5 GB/s



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