

Supermicro EBox for VAST Data

All-Flash AI Storage | Powered by AMD EPYC™ CPUs

The Supermicro EBox is powered by H14 CloudDC Servers, a purpose-built, all-flash storage platform optimized for VAST Data's Disaggregated Shared-Everything (DASE) architecture. Powered by the 5th Gen AMD EPYC™ 9005 Series processors (codenamed Turin), the second Gen EBox delivers a generational leap in storage throughput and energy efficiency. Built on world class advanced 4 nm process (Zen 5 cores) and 3 nm process (Zen 5c dense cores), Turin packs up to 192 cores per socket, 512 MB of L3 cache, 12-channel DDR5-6400 memory, and 128 PCIe Gen 5 lanes — representing up to 33% more cores, 33% more cache, and up to 17% faster per-core processing for storage and cloud workloads compared to the previous-generation Genoa platform. In real-world benchmarks, Turin delivers approximately 55% more throughput while drawing only about 32% more power than Genoa a net performance-per-watt gain that translates directly into more NVMe drives served per socket and higher IOPS-per-watt, exactly what power-constrained AI data centers need as storage demands scale.

Combined with the VAST AI OS — which unifies the datastore, database, and AI engine into a single platform — the EBox forms the storage backbone for data-intensive enterprise workloads and hyperscale multi-tenant storage. Each EBox runs both CNode (compute) and DNode (storage) containers on the same server, eliminating the need for separate storage enclosures while preserving DASE's ability to scale compute and capacity independently across the NVMe fabric. This architecture delivers linear scale-out from terabytes to exabytes under a single global namespace, with inline encryption, deduplication, and erasure coding handled natively no external accelerators required. Security governance follows data end-to-end: access controls on source files propagate automatically through embeddings to inference outputs. High-bandwidth RDMA networking (200 GbE via NVIDIA® ConnectX®-7/8) enables zero-copy data movement between EBox nodes and clients. For organizations adopting enterprise AI, the same EBox infrastructure supports the VAST InsightEngine for automated RAG pipelines and the native vector database for semantic queries.

VAST EBox: Storage Infrastructure

AS-1116CS-TN CloudDC

1U AMD EPYC™ Storage Node

The Supermicro AS-1116CS-TN is optimized as VAST Data Next Generation EBox platform, delivering the NVMe density, more memory bandwidth, and throughput required for VAST's all-flash DASE architecture. Built on OCP DC-MHS standards for hyperscale compatibility.



Product Photo — Supermicro AS-1116CS-TN (12 NVMe version)

Learn More: Contact your Supermicro representative for validated VAST configurations.
supermicro.com | vastdata.com | amd.com/epyc

EBox Specifications

Form Factor

1U Rackmount server with 12x SSDs OCP DC-MHS compliant

Processor

Single AMD EPYC™ 9555P (64 cores, 350W TDP)

Memory

12x 32G DDR5 DIMM, up to 384GB @6400MT/s

Storage

12 hot-plug NVMe (3x SCM, 9x QLC)

Management Network

1x AIOM slot with 1GbE x 4 + 1GbE BMC

Network

2x NVIDIA® ConnectX®-7 (200G x 2 or 400G x 1, Ethernet or InfiniBand)

Management

DC-SCM with OpenBMC