

# X13 Enterprise Storage

Cost Effective Storage for File, Object, and Archive Applications



## Flexible Cost-effective Storage

Supermicro's X13 Enterprise storage family offers a range of architectures and form factors ideal for large-scale object storage and archive applications such as private cloud or cloud data repatriation. Additional servers can be easily added as storage requirements increase, scaling effortlessly at both the system and rack level.

## High-Density Designs

As the amount of data produced by today's AI, HPC and Cloud applications continues to increase, cost-effective scale-out storage is essential for any organization's storage strategy. Supermicro X13 designs maximize the efficiency and cost effectiveness of large-scale data storage with intelligent, high-density, economically optimized designs. The Simply Double family features a dual-layer front-loading design which can fit up to 24 drives in a 2U form factor without the need to remove the chassis cover. For full drive access without sliding systems out of the rack, X13 Front-Loading storage servers offer front access and double-sided storage bays providing exceptional density.

## Complete Storage Solutions

All Supermicro X13 storage solutions are based on open industry standards and can be paired with the widest range of operating system and software-defined storage applications, allowing users to create scale-up and scale out storage solutions perfect for their own specific needs.

## Wide Range of Capacities and Form Factors

- Dual or single socket 5th/4th Gen Intel® Xeon® Scalable processors
- Up to 16 DIMM slots supporting DDR5-5600MT/s
- Up to 24 hot-swap 3.5"/2.5" drives in 2U or 36 drives in 4U with optional NVMe support
- PCIe 5.0 x16 slots with standard FHHL, LP and OCP 3.0 compatibility to support high-speed expansion
- Density-optimized architectures include Double-Sided and Simply Double
- Supermicro industry standard SAS architectures offer the widest compatibility with Software Defined Storage Applications for complete end-to-end solutions

### Supermicro X13 H-Series

- Integrated Broadcom® hardware RAID controller
- 8GB write-back-cache to improve small block/latency performance using HDD and SATA SSD media

### Supermicro X13 L-Series

- Integrated Broadcom® iTMode HBA controllers
- Reliable SAS/SATA disk control for Software Defined Environments

## Powered by 5th Gen Intel Xeon Processors

The new 5th Gen Intel Xeon processors are the most efficient to date, with improved performance-per-watt and more cores at the same power envelope. Not only does this mean better performance for storage workloads, but now some architectures like Simply Double are able to support the same workload with better performance using a single processor, dramatically improving architectural efficiency and TCO values. The built-in accelerator engines including Intel Data Streaming Accelerator (Intel DSA) and Intel QuickAssist Technology (Intel QAT) offer additional benefits to the bottom line offloading common storage tasks from CPU cores.



Enterprise Storage	SSG-521E-E1CR24H/L	SSG-621E-ACR12H/L	SSG-621E-ACR16H/L
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)*	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)*	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)*
Memory Slots & Capacity	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
I/O Ports	1 RJ45 dedicated IPMI LAN port 2 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)	2 10GbE LAN ports 1 RJ45 dedicated IPMI LAN port 4 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)	2 10GbE LAN ports 1 RJ45 dedicated IPMI LAN port 4 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)
Motherboard	X13SEDW-F	X13DEI-T	X13DEI-T
Form Factor	2U Rackmount 863.6mm/34" depth	2U Rackmount 650mm/25.6" depth	2U Rackmount 705mm/27.75" depth
Expansion Slots	4 PCIe 5.0 x8 FH slots 2 PCIe 5.0 x16 FH slots 2 PCIe 5.0 x16 AIOM slots	2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots	2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots
Drive Bays	24 hot-swap 3.5" SATA/SAS drive bays Broadcom® 3908 (E1CR24H)/3808 (E1CR24L)	12 hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid) 2 hot-swap 2.5" SATA rear drive bays Broadcom® 3916 (ACR12H)/3816 (ACR12L)	12 front + 4 internal hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid) 2 hot-swap 2.5" SATA rear drive bays Broadcom® 3916 (ACR16H)/3816 (ACR16L)
Cooling	4 heavy duty 8cm fans	3 heavy duty 8cm fans	4 heavy duty 8cm fans
Power	Redundant 1600W Titanium level (96%)	Redundant 1600W Titanium level (96%)	Redundant 1600W Titanium level (96%)



Enterprise Storage	SSG-631E-E1CR16H/L	SSG-641E-E1CR24H/L	SSG-641E-E1CR36H/L
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)*	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)*	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)*
Memory Slots & Capacity	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
I/O Ports	2 10GbE LAN ports 1 RJ45 dedicated IPMI LAN port 4 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)	2 10GbE LAN ports 1 RJ45 dedicated IPMI LAN port 4 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)	2 10GbE LAN ports 1 RJ45 dedicated IPMI LAN port 4 USB 3.0 ports (rear) 1 COM port (rear) 1 VGA port (rear)
Motherboard	X13DEI-T	X13DEI-T	X13DEI-T
Form Factor	3U Rackmount 647mm/25.5" depth	4U Rackmount 660mm/26" depth	4U Rackmount 698.5mm/27.5" depth
Expansion Slots	2 PCIe 5.0 x8 FH slots 4 PCIe 5.0 x16 FH slots	2 PCIe 5.0 x8 FH slots 4 PCIe 5.0 x16 FH slots	2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots
Drive Bays	16 front hot-swap 3.5" SATA/SAS drive bays 2 hot-swap 2.5" SATA rear drive bays Broadcom® 3908 (E1CR16H)/3808 (E1CR16L)	24 front hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid) 2 hot-swap 2.5" SATA rear drive bays Broadcom® 3908 (E1CR24H)/3808 (E1CR24L)	24 front + 12 rear hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid) 2 hot-swap 2.5" SATA rear drive bays Broadcom® 3908 (E1CR36H)/3808 (E1CR36L)
Cooling	5 heavy duty 8cm fans	5 heavy duty 8cm fans	7 heavy duty 8cm fans
Power	Redundant 1200W Titanium level (96%)	Redundant 1200W Titanium level (96%)	Redundant 1600W Titanium level (96%)