

X13 GrandTwin[®]

Multi-Node Architecture Optimized for Single-Processor Performance



Resource Saving Architecture with Modular Design

- Single 5th/4th Gen Intel[®] Xeon[®] Scalable processor per node
- 2U 4-Node single-socket architecture designed for maximum memory density
- Flexible front storage bays support 2.5" HDD or PCIe Gen5 x16 AIOMs
- Front-serviceable nodes reduce downtime for higher availability
- Optional front I/O configuration with integrated GrandTwin module reduces cable complexity for space-constrained edge data centers

All-new Single Processor Twin Architecture

Supermicro's new GrandTwin[®] family of servers is a new multi-node architecture purpose-built for single-processor performance, with front-serviceable hot-swap nodes allowing easier installation and servicing in space constrained environments. Powered by dual 5th/4th Gen Intel Xeon Scalable processors, the GrandTwin architecture delivers high performance in a modular design that can be optimized for a wide range of applications, with Supermicro's Resource Saving Architecture delivering improved power efficiency and lower materials costs thanks to shared components including power and cooling.

Optimized for Single Processor Performance

GrandTwin is designed for applications that need a large number of discrete servers with high-speed interconnects for networked or clustered operations. They are ideal for virtualized and nonvirtualized applications including:

- HPC
- Mission Critical Web Applications
- EDA (Electronic Design Automation)
- Telco Edge Cloud
- High-availability Cache Cluster
- Multi-Purpose CDN
- MEC (Multi-Access Edge Computing)
- Cloud Gaming

Modular Design Reduces Costs and Materials

The GrandTwin architecture was designed from the ground up to be as flexible and configurable as possible based on the customers' specific needs. The GrandTwin chassis was developed with future technologies in mind, allowing for new generations to support next-generation components with minimal alterations, minimizing development costs. Internal components are also fully modular, meaning customers only install—and pay for—the components they need, reducing cost and materials.

Maximum Flexibility with Front or Rear I/O

The GrandTwin family is available in front and rear I/O configurations for maximum flexibility. Each front I/O node features a GrandTwin module with on-board networking and management ports, plus up to 4 NVMe or SATA drives. Additional high-speed networking is also available via OCP 3.0 compliant PCIe 5.0 interfaces in place of storage bays. Rear I/O systems feature up to 6 front hot-swappable NVMe or SATA drives per node, with all I/O connectivity accessible at the rear of the chassis.

Powered by a Single 5th Gen Intel Xeon Processor

GrandTwin's single-processor optimized design combined with the power and efficiency of new 5th Gen Intel Xeon processors means that many workloads which were previously run on dual-processor systems can now be handled by a single CPU per node. The 5th Gen Intel Xeon processors also include the built-in Intel

Data Streaming Accelerator (Intel DSA) engine for improved data movement performance and efficiency and Intel QuickAssist Technology (Intel QAT) to offload popular compression and cryptographic algorithms, increasing core workload capacity.



GrandTwin®	SYS-211GT-HNTF/HNC8F (node)	SYS-211GT-HNTR/HNC8R (node)
Processor Support (node)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled) [†]	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled) [†]
Memory Slots & Capacity (node)	16 DIMM slots; up to 4TB DDR5-4800MT/s	16 DIMM slots; up to 4TB DDR5-4800MT/s
I/O Ports (node)	1 RJ45 dedicated BMC LAN port 2 USB 3.0 ports (front) 1 VGA port Networking via AIOM	1 RJ45 dedicated BMC LAN port 2 USB 3.0 ports (rear; shared between 2 nodes) 1 VGA port (rear; shared between 2 nodes) Networking via AIOM
Motherboard	X13SET-G	X13SET-G
Form Factor	2U Rackmount 711.2mm/28" depth	2U Rackmount 711.2mm/28" depth
Expansion Slots (node)	2 PCIe 5.0 x16 AIOM slots	2 PCIe 5.0 x16 AIOM slots
Drive Bays (node)	4 hot-swap 2.5" NVMe/SATA drive bays; 4x 2.5" NVMe dedicated; optional RAID support via Intel® PCH (SYS-211GT-HNTF) 4 hot-swap 2.5" NVMe/SATA/SAS drive bays; 4x 2.5" NVMe dedicated; optional RAID support via Broadcom® 3808 AOC (HNC8F)	6x 2.5" hot-swap NVMe/SATA drive bays; 6x 2.5" NVMe dedicated; Optional RAID support via Intel® PCH (HNTR) 6x 2.5" hot-swap NVMe/SATA/SAS drive bays; 6x 2.5" NVMe dedicated; Optional RAID support via Broadcom® 3808 AOC (HNC8R)
Cooling	2 heavy duty 8cm fans	2 heavy duty 8cm fans
Power	Redundant 2200W Titanium level (96%)	Redundant 2200W Titanium level (96%)

[†]CPUs with high TDP supported under specific conditions. Contact Technical Support for details.