X14 Server Solutions

The latest generation of proven platforms designed for maximum performance, efficiency, and flexibility for AI, Cloud, Storage, and 5G/Edge workloads

Supporting upcoming Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)

- **Industry's broadest portfolio of systems based on Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids**
- **Rack Scale plug-and-play service to deliver complete, validated solutions within weeks, not months**
- **Supermicro liquid cooling including CPU/GPU cold plates, Cooling Distribution Unit and Cooling Distribution Manifolds for a complete integrated solution**
- **Production capacity of up to 5,000 racks per month worldwide**
- **Support for the latest industry technologies including PCIe 5.0, DDR5, CXL 2.0, Open Compute Project (OCP) DC-MHS and OCP 3.0, as well as EDSFF E3.S and E1.S storage form factors**

Ultimate Performance, Efficiency, and Flexibility with X14

Introducing the more powerful, efficient, and versatile Supermicro X14 portfolio. X14 combines the flexibility of Supermicro's industry-leading Building Block Solutions with Supermicro's rack-scale integration and complete liquid cooling solutions to deliver customized, workload-optimized solutions at any scale for a range of AI, HPC, Cloud, and Edge workloads. Powered by the upcoming Intel Xeon 6 processors (formerly codenamed Sierra Forest and Granite Rapids), Supermicro X14 will deliver higher performance-per-watt and performance-per-core to accelerate any workload.

Proven Platforms, Workload Optimized

X14 is the latest generation of Supermicro's Intel Xeon-based platform, which has been proven in wide-scale deployments across a range of industries and verticals. Comprising more than 15 families of systems, X14 solutions can be optimized for any workload, from the latest generation of GPU-accelerated Generative AI and HPC systems, to highly flexible data center and cloud rackmounts, as well as efficiency-optimized Edge and telco deployments.

Ready for Rack-Scale

Not only is Supermicro X14 the industry's broadest range of workload-optimized servers, X14 is also the foundation for creating custom solutions for any workload at rack-scale. With a production capacity of 5,000 racks per month globally, including 1,350 liquid-cooled 100kW racks, and lead time as short as 2 weeks, Supermicro is unmatched in its ability to design, build, validate, and deliver fully customized, workload-optimized rack-scale solutions to customers, including the most advanced AI hardware available today.

Flexible, Modular, Supports Open Standards

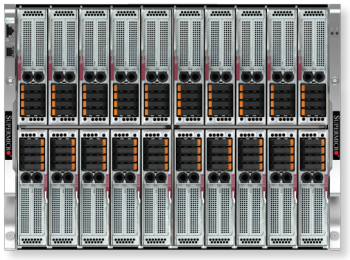
Supermicro X14 systems have been designed from the ground up to be the industry's most flexible architectures, based on the Supermicro Building Block Solutions modular design platform, which allows components to be easily customized to support various power, storage, I/O, and acceleration requirements for specific workloads. In addition, Supermicro has consistenty been an early adopter of new industry standards and open architectures, including OCP 3.0, DC-MHS, OAM, ORV2, OSF, Open BMC, CXL, and EDSFF E1.S and E3.S storage form factors.

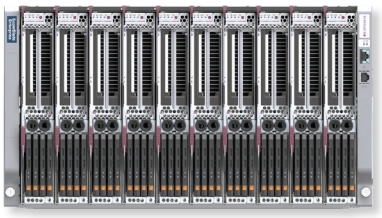
Powered by Intel® Xeon® 6 Processors (formerly Codenamed Sierra Forest and Granite Rapids)

Supermicro X14 takes flexibility to the next level, with future support for a new generation of Intel Xeon 6 processors (formerly codenamed Sierra Forest and Granite Rapids) that will provide additional workload optimization at the processor level. For cloud-native and scale-out workloads, upcoming Intel Xeon 6 processors with E-cores (formerly codenamed Sierra Forest) will allow greater core density per rack unit and better performance per watt for workloads which don't require a huge amount of compute power, but benefit from being able to run a large number of concurrent instances. Just like Supermicro Building Blocks, the Intel Xeon 6 processors with E-cores allow customers to forego those features which their workloads do not require in order to maximize core count on a single CPU and performance per watt of those cores, increasing capacity for cloud-native and scale-out workloads. For those workloads which do require more compute power, Intel Xeon 6 processors with P-cores (formerly codenamed Granite Rapids) will provide the performance per core that has made Supermicro servers powered by Intel Xeon processors the mainstay of data centers, providing maximum performance per core and acceleration for AI, HPC, storage and Edge workloads.

Get Early Access to X14 and Intel Xeon 6

Supermicro will offer pre-launch availability of new X14 systems powered by the Intel Xeon® 6 processors to qualified customers through a number of early access programs. Supermicro JumpStart provides free remote access to X14 servers for testing and validation, while the Early Ship Program can deliver X14 systems with full-production CPUs to qualified customers before official launch. For more information on any of Supermicro's early access programs, please reach out to your Supermicro representative or visit supermicro.com/X14.





X14	**GPU-optimized** Optimized, Integrated Performance for Generative AI, HPC, and Media Applications	**8U SuperBlade** Highest Density Multi-Node Server Solutions	**6U SuperBlade** Memory-Optimized Multi-Node Architecture for EDA and Enterprise Applications
Family Highlights	• Next-generation architecture for the most intensive AI workloads • Most comprehensive AI building block platform • Support for OAM/SXM and PCIe GPU accelerators • Up to 13 PCIe 5.0 slots • 24 DDR5 DIMM slots • Direct-to-chip CPU and GPU liquid cooling options	• 120 servers per rack (Up to 34,560 CPU cores) • Shared power supplies, cooling fans, CMMs, Ethernet, and InfiniBand switches • 16 DDR5 DIMM slots (Up to 4TB memory) • 400G IB or Ethernet (OCP 3.0), 200G integrated IB switch, and up to 4x 25G Ethernet switches • Reusable enclosure, power supplies, cooling fans, CMMs, and switches for future generation servers • Direct-to-chip liquid cooling options	• 100 servers per rack (Up to 28,800 CPU cores) • Shared power supplies, cooling fans, CMMs, and Ethernet switches • Up to 4 GPUs or network cards • 400G IB or Ethernet (PCIe 5.0 x16 slots), and up to 4x 25G Ethernet switches with 100G uplinks • Reusable enclosure, power supplies, cooling fans, CMMs, and switches for future generation servers • 96% efficiency, (N+N / N+1) redundant power supplies • Direct-to-chip liquid-cooling options
Key Applications	• Generative AI • Natural Language Processing (NLP) • Computer Vision • Speech Recognition • Computer Vision • Real-Time Collaboration • Design and Visualization • Cloud Gaming • Animation/3D Rendering	• Enterprise Server • Cloud Computing • Big Data Analytics • Hyperconverged Storage • AI Inference and Machine Learning • Network Function • Virtualization	• AI/ML Inferencing • Hybrid and Private Cloud • Cloud Computing • Big Data Analytics • Financial Services • HPC • CDN • vSAN • EDA
Form Factor	4U (liquid cooled), 5U, or 8U rackmount	4U blade 20/10 nodes per 8U enclosure	6U blade 10/5 nodes per 6U enclosure
Socket Count/Type	Dual Intel® Xeon® 6 processors (formerly codenamed Granite Rapids)	Dual Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids) - up to 288 cores	Single or Dual Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids) - up to 288 cores
GPU Compatibility	Up to 8 OAM/SXM or 10 PCIe GPUs		Up to 4 GPUs
Storage	Up to 24 U.2 NVMe	5 NVMe SSDs (4 E1.S and 1 M.2)	Up to 10 NVMe SSDs (8 E3.S + 2 M.2)

X14	**Hyper** Best-in-class Performance and Flexibility Rackmount Server	**Hyper-E** Maximum Performance and Flexibility for Edge Data Centers	**CloudDC with DC-MHS** All-in-one Rackmount Platform for Cloud Data Centers Designed to OCP DC-MHS Specifications
Family Highlights	• Single and dual socket configurations supporting Intel® Xeon® 6 processors (Formerly codenamed Sierra Forest and Granite Rapids) • Support for DDR5 with up to 32 DIMMs per system • Flexible networking options with up to 2 AIOM networking slots (OCP NIC 3.0 compatible) • Optional PCIe slot configurations up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 slots with support for double-width GPU/ Accelerator cards • Optional direct-to-chip liquid cooling • Redundant Titanium level (96%) power supplies from 900W to 2600W	• High-density processing power in compact form factors suitable for Edge deployments • Flexible I/O with up to 2 AIOM PCIe 5.0 and 8 PCIe 5.0 slots • Both AC and DC power configurations available with redundant power supplies • Enhanced operating temperatures from -5ºC to 55ºC (CPU TDP-dependent) • Front or rear I/O configurations available	• Support for DDR5 with up to 32 DIMMs per node • Support for PCIe 5.0 and CXL 2.0 • Architectures based on the OCP Data Center Modular Hardware System (DC-MHS)
Key Applications	• Enterprise Server • Cloud Computing • Big Data Analytics • Hyperconverged Storage • AI Inference and Machine Learning • Network Function • Virtualization	• 5G Core and Edge • Telco Micro Data Center	• Private/Public/Hybrid Cloud • Cloud Computing • Big Data Analytics • AI Inference • Machine Learning • Network Appliance • Virtualization • Open BMC • ODM Custom Design for CSPs/ Hyperscalers
Form Factor	1U or 2U rackmount	2U rackmount	1U or 2U rackmount
Socket Count/Type	Dual Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)	Dual Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)	Single or dual Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)
GPU Compatibility	Up to 4 double-width or 4 single-width GPUs	Up to 3 double-width or 4 single-width GPUs	Up to 3 double-width or 6 single-width GPUs
Storage	All-hybrid hot-swappable NVMe/SAS/SATA; up to 24 drive bays	All-hybrid hot-swappable NVMe/SAS/SATA; up to 24 drive bays	U.2 NVMe/SAS/SATA drives with all-hybrid options

X14	**BigTwin®** Industry-leading Multi-node Architectures	**GrandTwin®** Multi-Node Architecture Optimized for Single-Processor Performance
Family Highlights	• Highly configurable 2U 4-node and 2U 2-node systems optimized for density or storage • Optimized thermal design • Optional direct-to-chip liquid cooling can provide increased thermal capacity without sacrificing expansion slots • Support for DDR5 with up to 16 DIMMs per node • All-hybrid hot-swappable NVMe/SAS/SATA drive bays and new E3.S configuration for increased storage density • Flexible networking with up to 400G Ethernet per node • Supports a range of power supply capacities from 2200W to 3600W	• Support for DDR5 with up to 16 DIMMs per node • Support for PCIe 5.0 and CXL 2.0 • Front I/O configuration to simplify cold-aisle servicing • Optional support for EDSSF E1.S NVMe drives
Key Applications	• HCI • HPC • CDN • Hybrid Cloud • Container-as-a-Service • Cloud Computing • Big Data Analytics • Back-up and • Recovery • Scale-Out Storage	• MEC (Multi-Access Edge Computing) • HPC • Cloud Gaming • Multi-Purpose CDN • High-Availability Cache Cluster • Telco Edge Cloud • EDA (Electronic Design Automation) • Mission-Critical Web Applications
Form Factor	2U2N and 2U4N rackmount	2U4N rackmount
Socket Count/Type	Dual socket Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)	Single socket per node supporting Intel® Xeon® 6 processors (formerly codenamed Sierra Forest and Granite Rapids)
Storage	E3.S, 2.5" NVMe/SAS/SATA or 3.5" NVMe/SAS	2.5" NVMe or E1.S NVMe

X14	**UP WIO** Industry's Widest Variety of I/O Optimized Servers	**Telco/Edge** Compact and short-depth rackmount systems for telco Edge deployments
Family Highlights	• Support for DDR5 with up to 8 DIMMs per system • Support for PCIe 5.0 and CXL 2.0 • Native SATA support on motherboard; no additional controller card required • Supports double-width GPU/FPGA cards in both 1U and 2U	• High-density processing power in compact form factors suitable for Edge deployments • Flexible I/O with up to 3 PCIe 5.0 slots in 1U or 4 slots in 2U • Both AC and DC power configurations available with redundant power supplies • Enhanced operating temperatures from -5°C to 55°C (CPU TDP-dependent)
Key Applications	• Enterprise Applications • Networking Appliance • Firewall/Security Appliances • General Purpose Computing • Cloud Computing • Media Entertainment	• Multi-Access Edge Computing • Flex-RAN/Open RAN • Edge AI Outdoor 5G
Form Factor	1U or 2U rackmount	1U short-depth rackmount, 2U short-depth rackmount or compact box server
Socket Count/Type	Single Intel® Xeon® 6 processor (formerly codenamed Sierra Forest and Granite Rapids)	Single Intel® Xeon® 6 processor (formerly codenamed Sierra Forest and Granite Rapids)
Storage	U.2 NVMe/SAS/SATA drives with up to 8 hybrid drives	U.2 NVMe/SATA, M.2