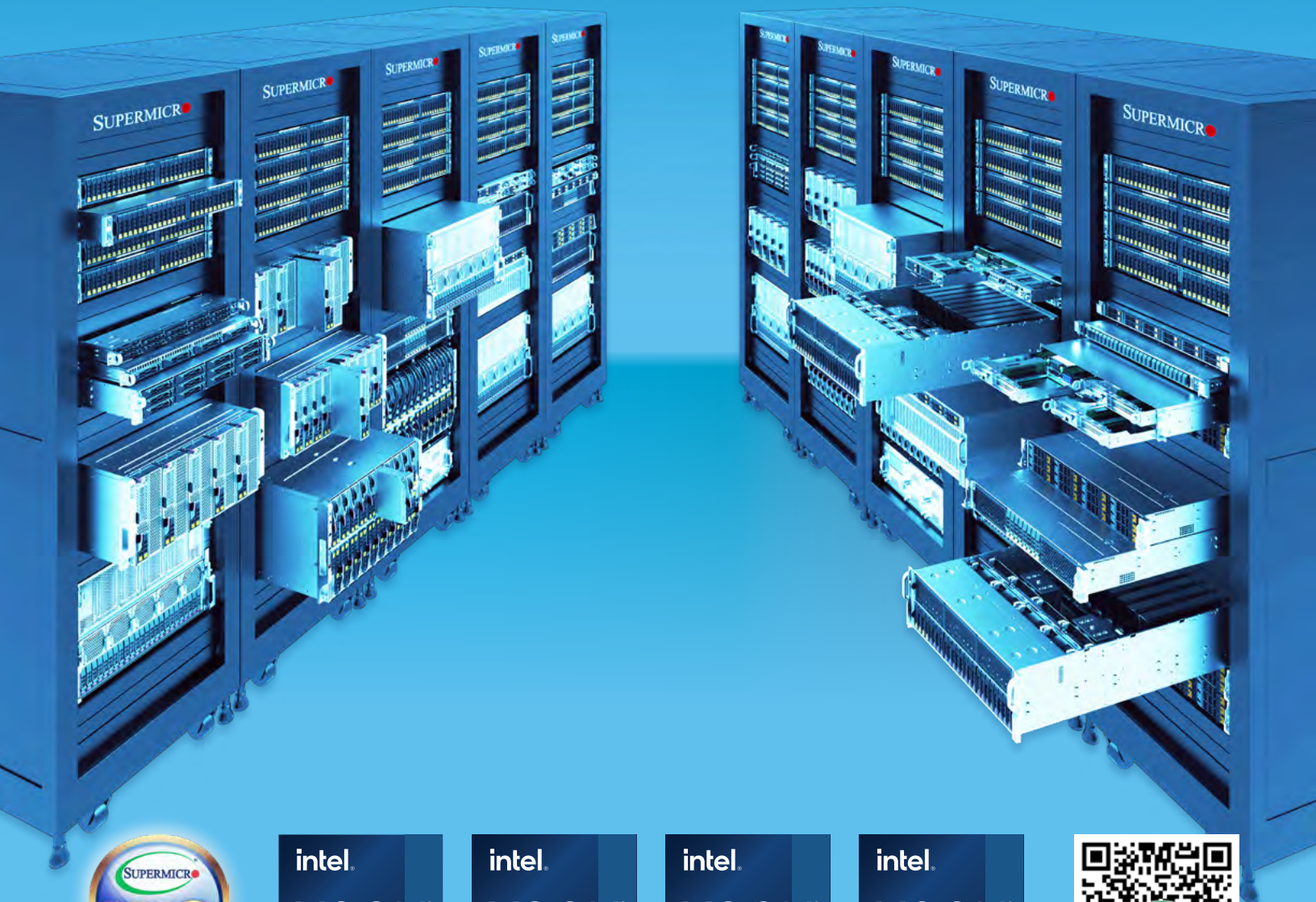




# X13 Server Solutions

Supporting 5th Gen Intel® Xeon® Processors  
*(Emerald Rapids)*





# INTRODUCING SUPERMICRO X13 GENERATION



Accelerate Everything with 5th Gen Intel® Xeon® Processors  
*(Emerald Rapids)*

## The Supermicro X13 Advantage

Supermicro's tried-and-tested Building Block Solutions® approach and industry-leading first-to-market advantage deliver optimized systems for the most demanding AI, Cloud, Storage and 5G/Edge workloads.

**X13 AI Inference**

Up to **67%**  
performance gain vs  
Supermicro X13 with 4th Gen Intel Xeon<sup>1</sup>

### Supermicro Total IT Solutions

- Industry's broadest portfolio of systems based on 5th Gen Intel Xeon processors
- Rack Scale plug-and-play service to deliver complete, validated solutions within weeks, not months
- Production capacity of up to 5,000 racks per month worldwide
- Made in the USA program with manufacturing in San Jose headquarters
- Industry standard compliance for hardware and silicon Root of Trust (RoT) and cryptographical attestation of components throughout the entire supply chain
- Supermicro liquid cooling including CPU/ GPU cold plate, Cooling Distribution Unit and Cooling Distribution Manifolds for a complete integrated solution

### Optimized, Open Architectures

- More than 15 families of systems optimized for AI, Cloud, 5G Edge and more
- Resource saving architecture to reduce materials and energy usage
- Enhanced thermal capacity to support next-gen CPUs, GPUs and other components
- Flexible networking with Advanced I/O Modules (AIOM) up to 400G per card
- High ambient temperature operation up to 40°C with liquid cooling options
- Support for open and industry standards including OCP 3.0, OAM, ORV2, OSF, Open BMC and EDSFF

### 5th/4th Gen Intel® Xeon® Scalable Processors

- Up to 64 cores and 385W TDP per CPU
- Support for Intel Xeon® Max Series CPUs with High Bandwidth Memory
- Support for PCIe 5.0, DDR5 and CXL 1.1
- Built in accelerators:
  - Intel AMX
  - Intel® Dynamic Load Balancer
  - Intel® QuickAssist
  - Technology (QAT)
  - Intel vRAN Boost
- Built on the Intel® 7 process

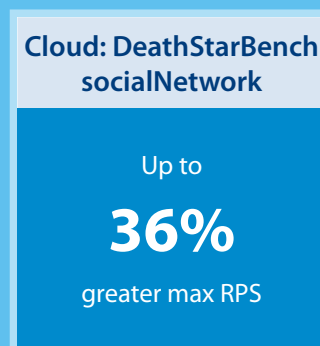
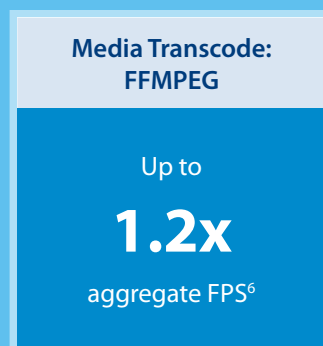
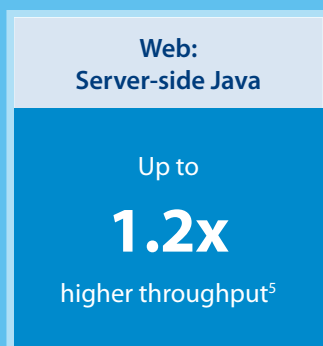
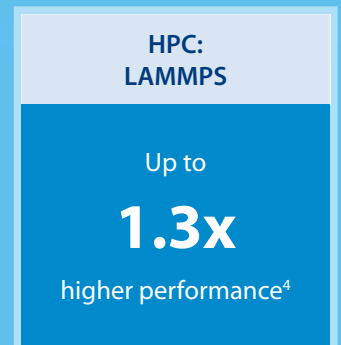
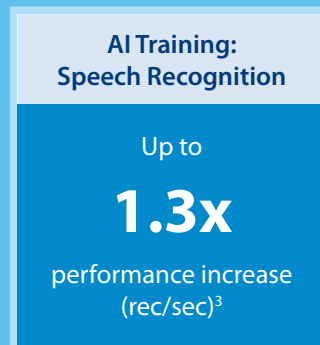
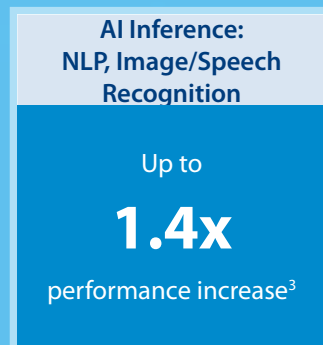
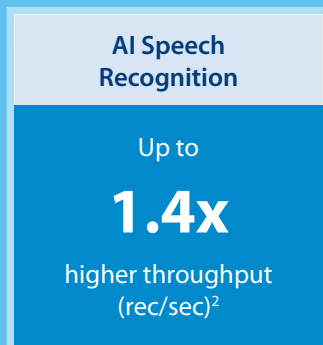
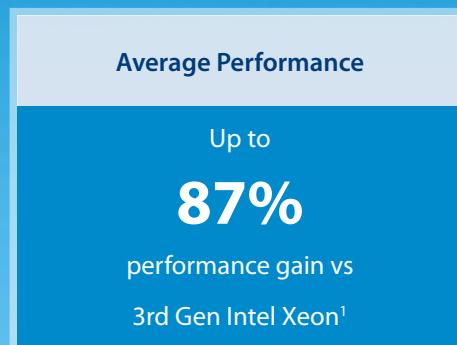


<sup>1</sup> See [www.supermicro.com/en/new/articles/5thGenBenchmarks](http://www.supermicro.com/en/new/articles/5thGenBenchmarks) for detailed information.

# INTRODUCING NEW 5TH GEN INTEL® XEON® PROCESSORS



Get impressive performance per watt gains across all workloads plus outsized performance and TCO in AI, database, networking, and HPC. 5th Gen Intel® Xeon® processors deliver more compute and faster memory at the same TDP as the previous generation. They're software- and platform compatible with the previous generation, minimizing testing and validation when deploying new systems.



1. Average performance gain as measured by the geomean of SPEC CPU rate, STREAM Triad, and LINPACK compared to 3rd Gen Intel® Xeon® processor. See G1 at intel.com/processorclaims: 5th Gen Intel Xeon Scalable processors. Results may vary.  
 2. Workload: SSD-ResNet34, Inference: bs=x [1 instance/numa node], bs: amx bf16=1, SPR=112, EMR=16; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 3. a.BERT-Large, Inference: bs=x [1 instance/numa node], bs: amx bf16=1, SPR=16, EMR=88; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 b.SSD-ResNet34, Inference: bs=x [1 instance/numa node], bs: amx bf16=1, SPR=112, EMR=16; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 c.ResNet50v-1.5, Inference: bs=x [1 instance/numa node], amx int8=1, SPR=116, EMR=128; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 d.RNN-T, Training bs=x [1 instance / numa node (1 socket only)], amx bf16=1, SPR/EMR=64; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 e.DLRM, Training bs=x [1 instance / numa node (1 socket only)], amx bf16=1, SPR=7168, EMR=8192; Framework: <https://github.com/pytorch/pytorch/tree/8aa785fa2baa3280581c5fe0777e958821d07402> [github.com]  
 4. LAMMPS (Copper): Application version: LAMMPS v2021-09-29, compiler: Intel ICC 2021.6.0, runtime environment: Intel ICC 2021.6.0, Intel MPI 2021.6.0, Intel MKL 2022.1.0  
 5. Estimated performance. Workload: SPECjbb2015 1.03, Compiler: jdk-17  
 6. Workload: FMB2.0 24 use cases (x264, x265, SVT-HEVC, SVT-AV1)  
 7. DeathStarBench hotelReservation v1.0, score=289851 (req/s)

# ACCELERATE EVERYTHING

Supermicro X13 workload-optimized systems with Intel® Accelerator Engines



Built-in Intel Accelerator Engines improve performance across AI, data analytics, networking, storage, and HPC. By making the best use of CPU core resources, built-in accelerators can result in more efficient utilization and power efficiency advantages, helping businesses achieve their sustainability goals.

## Intel AMX

(Advanced Matrix Extensions)

### Deep Learning Inference

Up to **10x higher** PyTorch real-time inference performance (Intel® AMX) (BF16) vs. 3rd Gen Intel Xeon<sup>1</sup>

### Deep Learning Training

Up to **10x higher** PyTorch training performance (Intel® AMX) (BF16) vs. 3rd Gen Intel Xeon<sup>2</sup>



Hyper

GrandTwin®

SuperEdge

CloudDC

## Intel DSA

(Data Streaming Accelerator)

### SPDK NVMe-oF (Large Transfer Size)

Up to 1.77x higher performance (IOPS) vs no DSA5



BigTwin®

Hyper

GrandTwin

WIO

## Intel QAT

(Quick Assist Technology)

### Network Secure Gateway

Up to 2.45x 7K requests per second vs no QAT3

Up to 1.71x 77-78K requests per second vs no QAT<sup>4</sup>



BigTwin®

SuperBlade®

Petascale

WIO

## Intel IAA

(In-Memory Analytics Accelerator)

### Database

Up to 1.2x higher RocksDB performance with 80/20 read-write<sup>6</sup>

Up to 1.12x higher ClickHouse DB (SSB) performance<sup>7</sup>

Up to 1.25x higher ClickHouse DB (Overtime) performance and 62% better compression vs no IAA<sup>8</sup>

Up to 1.33x higher Cassandra performance with 80/20 read-write<sup>9</sup>



Multi-Processor

Petascale



1 See [A17] at intel.com/processorclaims: 5th/4th Gen Intel® Xeon® Scalable processors. Results may vary.  
 2 See [A16] at intel.com/processorclaims: 5th/4th Gen Intel® Xeon® Scalable processors. Results may vary.  
 3 NGINX TLS 1.3 ECDHE-X25519-RSA2K on 5th Gen Xeon Platinum 8592+  
 4 NGINX TLS 1.3 ECDHE-X25519-RSA2K on 5th Gen Xeon Platinum 8592+

5 Offload CRC32 on 5th Gen Xeon Platinum 8592+ (w/1 DSA device)  
 6 5th Gen Xeon Platinum 8592+ (w/4 IAA devices) vs 4th Gen Xeon Platinum 8490H.  
 7 5th Gen Xeon Platinum 8592+ (w/4 IAA devices) vs 4th Gen Xeon Platinum 8490H (with LZ4)  
 8 5th Gen Xeon Platinum 8592+ (w/4 IAA devices) vs SW Compression (LZ4)  
 9 5th Gen Xeon Platinum 8592+ (w/4 IAA devices) vs SW Compression (ZStd)



# X13 UNIVERSAL GPU

Optimized Integrated Performance for AI/ML and HPC Applications



Most comprehensive AI building block platform  
Supercharged for the largest workloads with next-generation architecture  
All set to break through the barriers of AI at Scale  
Powered by Intel® Data Center GPU Max Series 1550 and NVIDIA HGX H100 8 SXM5 GPUs up to 700W TDP  
9X more performance, 2X faster networking, and high-speed scalability  
AIOM Slot (OCP 3.0 compliant) support  
Optional **Liquid Cooling** support

## 8U Universal GPU



SYS-821GE-TNHR

**AIOM**  
Ready



**SYS-821GE-TNHR (8U)**  
NVIDIA H100-8  
8 PCIe 5.0 networking slots + optional AOC/AIOM  
Up to 16x 2.5" U.2 NVMe drives



**SYS-821GE-FTNHR (8U Front IO)**  
NVIDIA H100-8  
8 PCIe 5.0 networking slots + optional AOC/AIOM  
Up to 16x 2.5" U.2 NVMe drives



**SYS-821GV-TNR (8U)**  
Intel Data Center GPU Max Series OAM, 24 hot-swap 2.5" NVMe/SATA



**SYS-521GU-TNXR (5U)**  
NVIDIA H100-4  
5U 10 PCIe 5.0 networking slots  
10x 2.5" U.2 NVMe drives  
Thermal capacity up to 700W per GPU



**SYS-421GU-TNXR (4U)**  
NVIDIA H100-4  
4U 8 PCIe 5.0 networking slots  
6x 2.5" U.2 NVMe drives  
Thermal capacity up to 700W per GPU

## Open, Modular, Standards-Based Universal GPU System

Supermicro X13 Universal GPU systems feature an open, modular, standards-based architecture designed for maximum flexibility. Support for multiple industry-standard GPUs allows organizations to take advantage of different GPU configurations based on workload while only deploying a single server architecture, reducing infrastructure complexity and simplifying future upgrades.

Designed for serviceability with hot-swappable, tool-less components in a modular construction, the chassis are optimized for thermal capacity, supporting next-generation GPUs up to 700W TDP.

## Key Applications

- High Performance Computing
- AI/Deep Learning Training
- Industrial Automation
- Retail
- Healthcare
- Conversational AI
- Business Intelligence & Analytics
- Drug Discovery
- Climate and Weather Modeling
- Finance & Economics



# X13 PCIe GPU

## Tailored for Omniverse and Metaverse



Dual socket 5th/4th Gen Intel® Xeon® Scalable processors

32 DIMM slots supporting DDR5-5600MT/s

Supports NVIDIA H100, A100, Intel® Ponte Vecchio (PVC) and Intel® Data Center GPU Flex and Max Series GPUs

Double the CPU to GPU throughput with PCIe 5.0

Dual root and direct-connect GPU configurations available

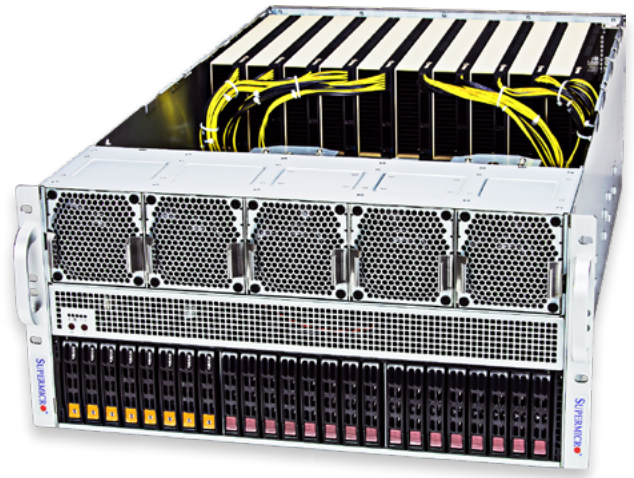
5U option available for enhanced thermal capacity

Flexible storage with U.2 NVMe direct to CPU and storage options

NVIDIA-certified systems supporting NVIDIA GPUs

Workstations with optional liquid cooling for ultra-quiet operation

5U 10-GPU



SYS-521GE-TNRT

AIOM Ready



SYS-521GE-TNRT (5U)

Up to 10 FHFL double-width PCIe GPUs  
8x 2.5" SAS/SATA hybrid +  
8x 2.5" U.2 NVMe direct to CPU +  
8x 2.5" U.2 NVMe direct to storage  
(optional)  
High Ambient Temperature: 38°C  
Dual-root



SYS-421GE-TNRT (4U)

Up to 10 FHFL double-width PCIe GPUs  
8x 2.5" SAS/SATA hybrid +  
8x 2.5" U.2 NVMe direct to CPU +  
8x 2.5" U.2 NVMe direct to storage  
(optional)  
Dual-root



SYS-421GE-TNRT3 (4U)

Up to 8 FHFL double-width direct  
connect PCIe GPUs,  
8x 2.5" SATA +  
4x 2.5" U.2 NVMe direct to CPU  
Direct-Connect



SYS-751GE-TNRT

Liquid Cooled DP GPU  
Workstation,  
Closed-loop liquid cooling,  
Up to 4 double-width liquid  
cooled GPUs



SYS-741GE-TNRT

GPU Workstation,  
Up to 4 double-width PCIe GPUs

## Flexible Platform

Optimized for the next generation of HPC, action-oriented AI, 3D simulation, and advanced graphic design and rendering, Supermicro X13 PCIe accelerated solutions empower the creation of 3D worlds, digital twins, 3D simulation models and the Metaverse.

These systems support next-generation accelerators based on the industry-standard PCIe form factor, with up to 10 double-width GPUs in a 4U or 5U chassis.

Support for the latest industry-standard PCIe 5.0 provides unprecedented throughput for graphics accelerators, supporting the most demanding workloads, with CPU-direct U.2 NVMe bays ensuring maximum data throughput. Additional networking slots provide connectivity of up to 400Gb/s to create high performance clusters of up to 32 nodes. [Liquid Cooling options](#) are available for delivering superior efficiency for the most demanding performance.

## Key Applications

- AI model training
- Digital twins
- 3D simulation
- Real-time ray-tracing
- Animation and Modeling
- Cloud Gaming
- Design & Visualization
- 3D Rendering
- VDI
- Media/Video Streaming
- Diagnostic Imaging



# X13 6U SUPERBLADE®

Memory-Optimized Multi-Node Architecture for EDA and Enterprise Applications



6U enclosure with 10 single-width or 5 double-width SuperBlade nodes, shared power, cooling and switches

Single or dual 5th/4th Gen Intel® Xeon® Scalable with air-cooled support for up to 350W TDP CPUs (optional liquid cooling available)

Up to 32 DIMM slots per node supporting DDR5-5600MT/s

Networking with up to 4 25G Ethernet switches per enclosure

Up to 4 double-width GPUs per double-width blade

High-performance NVMe support in E3.S, E1.S, U.2 and M.2 form factors

## 6U SuperBlade®



SBE-610J2-630/830/630 | SBE-610J2-422/622/822  
Up to 10 hot-pluggable nodes in 6U,  
Performance and memory optimized architecture



Liquid-Cooled 6U SuperBlade

AIOM  
Ready

## 6U SuperBlade® - 10/5 UP/DP Nodes in 6U



SBI-621E-1T3N  
3 SATA/NVMe  
DP/32 DIMM



SBI-621E-1C3N  
2 SAS/NVMe  
DP/32 DIMM



SBI-621E-5T3N  
2 SATA/NVMe  
DP/32 DIMM



SBI-611E-1C2N  
2 SAS/NVMe  
1 M.2 + 2 E1.S  
UP/16 DIMM



SBI-611E-1T2N  
2 SAS/SATA/NVMe  
3 M.2 + 2 E1.S  
UP/16 DIMM



SBI-611E-5T2N  
2 SATA/NVMe  
3 M.2 + 2 E1.S  
UP/16 DIMM

## High Efficiency Resource Saving Architecture

Supermicro's X13 SuperBlade® features hot-swappable UP or DP nodes and utilizes shared, redundant components including cooling fans, switches or passthrough modules and power supplies to deliver the compute performance of a full server rack in a much smaller physical footprint.

Supermicro's X13 6U SuperBlade architecture is optimized for memory density, with up to 32 DDR5-5600 slots per node to support Enterprise Data Center and EDA applications. Up to 2 double-width GPUs can be installed in a double-width blade for acceleration and visualization and a range of storage options ensures flexibility for a wide range of applications.

## Key Applications

- Enterprise Data Center
- EDA
- VDI
- Cloud
- CAE



# X13 8U SUPERBLADE®

Ultra High-Density Multi-Node with High-Speed Networking for HPC Applications



8U enclosure with 20 single-width or 10 double-width SuperBlade nodes, shared power, cooling and switches

Single or dual 5th/4th Gen Intel Xeon Scalable with air-cooled support for up to 350W TDP CPUs (optional liquid cooling available)

Up to 16 DIMM slots per node supporting DDR5-5600MT/s

High performance networking with 400G NDR InfiniBand

Up to 4 GPUs per blade in a high-density, balanced architecture

High-performance NVMe support in E1.S, U.2 and M.2 form factors

## 8U SuperBlade®



SBE-820J2-630/830/622/822 | SBE-820H2-630/830/622/822

High-density configuration with 20 hot-pluggable nodes in 8U, Optimized for performance and advanced networking



Liquid-Cooled SuperBlade

AIOM  
Ready

## 8U SuperBlade® - 20/10 DP Nodes in 8U



SBI-421E-1T3N  
3 SATA or 2 NVMe  
1 M.2 + 4 M.2 via mezz card  
DP/16 DIMM



SBI-421E-5T3N  
3 SATA or 2 NVMe  
1 M.2 + 4 M.2 via mezz card  
DP/16 DIMM

## 8U SuperBlade® - 20/10 UP Nodes in 8U



SBI-411E-1G  
2 M.2 + 2 E1.S  
4 M.2 via mezz card  
UP/8 DIMM



SBI-411E-5G  
2 M.2 + 2 E1.S  
4 M.2 via mezz card  
UP/8 DIMM

## High Efficiency Resource Saving Architecture

Supermicro's high performance, density-optimized, and energy-efficient SuperBlade® can significantly reduce initial capital and operational expenses for many organizations. SuperBlade® utilizes shared, redundant components including cooling fans, switches or passthru modules and power supplies to deliver the compute performance of a full server rack in a much smaller physical footprint.

Supermicro's X13 8U SuperBlade architecture maximizes rack density for HPC workloads, with up to 100 single or dual processor nodes in a 42U rack. Support for InfiniBand networking provides high-speed interconnect and optional direct-to-chip liquid cooling reduced TCO while also allowing the use of high-TDP CPUs in dense configurations.

## Key Applications

- HPC
- AI
- Financial Services Industry
- HCI
- CDN





# X13 GRANDTWIN®

Multi-Node Architecture Optimized for Single-Processor Performance



## 2U 4-Node GrandTwin®

2U 4-Node single-socket architecture designed for maximum memory density

Flexible front storage bays support E1.S drives, PCIe Gen5 and CXL

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



X13SET-G/GC



SYS-211GT-HNTF (Front View)

AIOM Ready

### 2U 4-Node Front I/O GrandTwin®



SYS-211GT-HNTF

SYS-211GT-HNC8F

Up to 4 U.2 NVMe/SATA drives per node

Up to 4 U.2 NVMe/SAS/SATA drives per node

### 2U 4-Node Rear I/O GrandTwin®



SYS-211GT-HNTR

SYS-211GT-HNC8R

Up to 6 U.2 NVMe/SATA drives per node

Up to 6 U.2 NVMe/SAS/SATA drives per node

## Highly Configurable Single Processor Systems with Front or Rear I/O

GrandTwin® is an all-new architecture purpose-built for single-processor performance. The design maximizes compute, memory and efficiency to deliver maximum density. Powered by 5th/4th Gen Intel® Xeon® Scalable processors, GrandTwin's flexible modular design can be easily adapted for a wide range of applications, with the ability to add or remove components as required, reducing cost.

For front configurations, all I/O and node trays are fully accessible from the cold aisle, simplifying installation and servicing in space-constrained environments. Flexible storage and networking options are available via front AIOM modules, allowing countless custom configurations.

## Key Applications

- 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



# X13 BIGTWIN®

## Industry-leading Multi-node Architectures



Highly configurable 2U 4-node and 2U 2-node systems optimized for density or storage

Optimized thermal design for dual socket 5th/4th Gen Intel® Xeon® Scalable processors

Optional direct-to-chip liquid cooling for increased thermal capacity

16 DIMM slots per node supporting DDR5-5600MT/s

All-hybrid hot-swappable NVMe/SAS/SATA drive bays - Up to 12 drives per node

Flexible networking with up to 400G Ethernet per node

### 2U 4-Node BigTwin®



Direct to Chip (D2C) Cold Plate (optional)

Liquid Cooled Node



SYS-221BT-H Series

**AIOM**  
Ready

2U 4-Node BigTwin®



SYS-621BT-H Series  
3x 3.5" NVMe/SAS/SATA drives  
(per node)

2U 4-Node BigTwin®  
(Liquid cooling option)



SYS-221BT-H Series  
6x 2.5" NVMe/SAS/SATA drives  
(per node)

2U 2-Node BigTwin®



SYS-621BT-D Series  
6x 3.5" NVMe/SAS/SATA drives  
(per node)

2U 2-Node BigTwin®



SYS-221BT-D Series  
12x 2.5" NVMe/SAS/SATA drives  
(per node)

### Highly Modular Multi-Node Systems with Tool-Less Design

Supermicro X13 BigTwin® systems provide superior performance and serviceability with dual 5th/4th Gen Intel® Xeon® Scalable processors per node and hot-swappable tool-less design.

Superior modular mid-plane design with NVMe Gen 5 storage controller options. Optimized for density (2U4N) or storage (2U2N), BigTwin® systems with shared components can be more cost effective than standard 1U servers.

### Key Applications

- HCI
- HPC
- CDN
- Hybrid Cloud
- Container-as-a-Service
- Cloud Computing
- Big Data Analytics
- Back-up and Recovery
- Scale-Out Storage



# X13 FATTWIN®

## Advanced Multi-Node Architecture for HPC



Highly configurable 4U 8-node and 4-node systems

Single socket 5th/4th Gen Intel® Xeon® Scalable processors per node

16 DIMM slots per node supporting 4TB DDR5-5600MT/s

Front accessible service design for cold-aisle serviceability

Hot-swappable drive bays – interchangeable NVMe, SAS or SATA

Improved thermal management with new, optimized airflow designs

### 4U 8-Node FatTwin®



X13SEFR-A



SYS-F511E2-RT

**AIOM**  
Ready

4U 8-Node



SYS-F511E2-RT (4U8N)  
6x 2.5" hot-swap drives per node

4U 4-Node



SYS-F521E3-RTB (4U4N)  
8x 3.5" hot-swap drives per node

### Innovative Twin Architecture to Maximize Serviceability and Reliability

Supermicro X13 FatTwin® systems offer an advanced multi-node 4U twin architecture with 8 or 4 nodes. Front-accessible service design allows cold-aisle serviceability, with highly configurable systems optimized for data center compute or storage density. Supports all-hybrid hot-swappable NVMe/SAS/SATA hybrid drive bays with up to 6 drives per node (8-node) and up to 8 drives per node (4-node).

Supermicro X13 FatTwin® systems provide superior density, performance and front serviceability with 5th/4th Gen Intel® Xeon® Scalable processors per node and hot-swappable, tool-less design.

### Key Applications

- Hyperscale/Hyperconverged
- Cloud Optimized Servers
- Data Center Enterprise Applications
- Scale-out Storage Expansion
- Telcom Data Center
- Virtualization Server



# X13 HYPER AND HYPER-E

Best-in-class Performance and Flexibility Rackmount Server



2U Hyper-E  
Optimized for 5G and Telco

1U and 2U optimized thermal designs for dual socket 5th/4th Gen Intel® Xeon® Scalable processors with liquid cooling options

32 DIMM slots per node supporting DDR5-5600MT/s

NVMe SSD support with up to 24 drives in 2U

Optional 2.5"/E1.S SSD hybrid configuration

Up to 3 PCIe 5.0 slots in 1U or 8 PCIe 5.0 slots in 2U

PCIe 5.0 AIOM slots supporting up to 400G networking

Tool-less system for simplified maintenance



X13DEM



SYS-221H-TNR

AIOM  
Ready

2U Hyper-E  
Optimized for 5G and Telco



SYS-221HE-FTNR

6x 2.5" NVMe/SAS/SATA drives, short depth, front I/O, AC power

2U Hyper-E  
Optimized for 5G and Telco



SYS-221HE-FTNRD

6x 2.5" NVMe/SAS/SATA drives, short depth, front I/O, -48V DC power

2U Hyper  
Optimized for Storage Capacity



SYS-621H-TN12R

12x 3.5" NVMe/SAS/SATA drives

2U Hyper  
Optimized for Storage Performance  
(Liquid Cooling options)



SYS-221H-TNR  
SYS-221H-TN24R

Up to 24x 2.5" NVMe/SAS/SATA drives

1U Hyper  
Compute & Storage Powerhouse  
(Liquid Cooling options)



SYS-121H-TNR

12x 2.5" NVMe/SAS/SATA drives

## Ultimate Configurability for Enterprise and Telco Applications

The new X13 Hyper series brings next-generation performance to Supermicro's range of rackmount servers, built to take on the most demanding workloads along with the storage & I/O flexibility that provide a custom fit for a wide range of application needs.

Telco-optimized configurations include short depth carrier grade (NEBS Level 3) and optional DC power options on selected models.

Maintenance-friendly design innovations eliminate the need for tools when servicing the system to simplify rollout and installation.

## Key Applications

- 5G Core and Edge
- Telco Micro Data Center
- Enterprise Server
- Cloud Computing
- Big Data Analytics
- Hyperconverged Storage
- AI Inference and Machine Learning
- Network Function Virtualization



# X13 CLOUDDC

All-in-one Rackmount Platform for Cloud Data Centers



Single and dual socket 5th/4th Gen Intel® Xeon® Scalable processors

16 DIMM slots per node supporting DDR5-5600MT/s

Up to 12 U.2 NVMe/SAS/SATA drives with all-hybrid options

2 PCIe 5.0 slots in 1U or 6 PCIe 5.0 slots in 2U

Dual PCIe 5.0 AIOM slots supporting up to 400G networking



X13DDW-A (DP CloudDC)



X13SEDW-F (UP CloudDC)



SYS-121C-TN10R



SYS-111C-NR

**AIOM**  
Ready

## High Density Cloud Storage



SYS-621C-TN12R

2U/DP with 12x 3.5" NVMe/SAS/SATA drives and 6x PCIe 5.0 slots

SYS-521C-NR

2U/UP with 12x 3.5" SAS/SATA drives, 2x hybrid NVMe drives and 6x PCIe 5.0 slots

## Compact Cloud Compute



SYS-121C-TN10R

1U/DP with 10x 2.5" NVMe/SAS/SATA drives

SYS-111C-NR

1U/UP with 10x 2.5" NVMe/SAS/SATA drives

## General Purpose Balanced

## Compact Storage Optimized



SYS-121C-TN2R

1U/DP with 8x 2.5" SATA/SAS and 2x hybrid NVMe drives

SYS-611C-TN4R

1U/DP with 4x 3.5" NVMe/SAS/SATA drives

## High-density, Tool-less Mechanical Design for Rapid Cloud Deployment and Easy Maintenance

Ultimate flexibility on I/O and storage with 2 or 6 PCIe 5.0 slots and dual AIOM slots (PCIe 5.0; OCP 3.0 compliant) for maximum data throughput. Supermicro X13 CloudDC systems are designed for convenient serviceability with tool-less brackets, hot-swap drive trays and redundant power supplies that ensure a rapid deployment and more efficient maintenance in data centers. High-efficiency Titanium Level redundant power supplies provide resiliency and lower carbon footprint.

Rich Security Features include Intel® SGX, TPM 2.0, signed firmware, Silicon Root of Trust, Secure Boot, System Erase, Runtime FW protection, FIPS Compliance and Trusted Execution Environment.

## Key Applications

- Cloud Computing
- Web Servers
- Hyper-Converged Storage
- Virtualization
- File Servers
- Head-Node Computing
- 5G Telco AI Inference



# X13 ALL-FLASH EDSFF

Revolutionary Petascale NVMe for Unprecedented Density and Capacity



24 EDSFF (E3.S) NVMe SSD

Dual socket 5th/4th Gen Intel® Xeon® Scalable processors

32 DIMM slots per node supporting DDR5-5600MT/s

Dual PCIe 5.0 x16 AIOM slots and up to 2 PCIe 5.0 x16 expansion slots

Up to 24 EDSFF E1.S or 16 EDSFF E3.S drives in 1U

Up to 24 EDSFF E3.S drives in 2U



X13DSF-A



SUG-221E-NE324R

AIOM Ready

1U High-density All-Flash



SUG-121E-NE324R  
24 EDSFF (E1.S 15mm) NVMe SSD

1U High-capacity All-Flash



SUG-121E-NE316R  
16 EDSFF (E3 7.5mm NVMe SSD)

2U TCO Optimized All-Flash



SUG-221E-NE324R  
Up to 24 EDSFF (E3 7.5mm NVMe SSD)

## High Throughput, Low Latency All-flash Servers

X13 Petascale storage systems are ideal for deployments where storage throughput and latency are paramount, including generative AI, mission-critical databases, virtualization, nextgen big data, HPC, media & entertainment and hot-tier caching. Supermicro's open architectures are designed to work with the widest range of software partners to create a solution to drive every application. The symmetrical dual-CPU architecture not only balances resources, it also reduces latency by minimizing the length of data paths and maximizes airflow over critical components for optimal thermal performance.

Get ahead of the competition with the latest industry-standard EDSFF E3.S and E1.S form factors designed specifically for high performance solid-state media, facilitating maximum performance from the X13 range's PCIe 5.0 interconnects and ensuring compatibility with future iterations of the PCIe protocol. These systems support the new Gen 5 drives from all major vendors, giving customers the freedom to choose the best components for their specific application. Embracing the future, Supermicro X13 Petascale systems also support the industry's first CXL expansion modules, which can add up to 1TB of DDR memory to the already powerful 32-DIMM solution. This emerging CXL technology is now available to add capacity and bandwidth for memory-bound applications.

## Key Applications

- Data Intensive HPC/AI
- Private & Hybrid Cloud
- Software-Defined Storage
- NVMe Over Fabrics Solution
- In-Memory Computing
- Composable Infrastructure Platform



# X13 ENTERPRISE STORAGE

## Cost-Effective Systems for Large-Scale Object Storage



Single/Dual 5th/4th Gen Intel® Xeon® Scalable processors

16 DIMM slots supporting DDR5-5600MT/s

Density-optimized architectures with up to 24 drives in 2U or 36 drives in 4U

Up to 5 PCIe 5.0 slots for expansion

Hardware RAID or IT Mode/HBA with JBOD expansion port

### 2U Simply Double



SSG-521E-E1CR24H

2U 24-Bay Simply Double



SSG-521E-E1CR24H  
SSG-521E-E1CR24L

Up to 24 hot-swap SAS/SATA

2U 12-bay Front Loading



SSG-621E-ACR12L  
SSG-621E-ACR12H

Up to 12 hot-swap SATA/SAS  
(6 optional NVMe)

2U 16-Bay Front Loading/  
Internal



SSG-621E-ACR16H  
SSG-621E-ACR16L

Up to 12 hot-swap SAS/SATA  
(6 optional NVMe), Up to 4  
internal SAS/SATA

3U 16-Bay Front Loading



SSG-631E-E1CR16H  
SSG-631E-E1CR16L

Up to 16 hot-swap SAS/SATA

4U 24-Bay Front Loading



SSG-641E-E1CR24H  
SSG-641E-E1CR24L

Up to 24 hot-swap SAS/SATA  
(6 optional NVMe)

4U 36-Bay Double Sided®



SSG-641E-E1CR36H  
SSG-641E-E1CR36L

Up to 36 hot-swap SAS/SATA  
(6 optional NVMe)

## Large-Scale Storage Building Blocks

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, highdensity, 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.

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.

## Key Applications

- Enterprise Server
- iSCSI SAN
- HPC, Data Center
- Database Processing & Storage
- Corporate Database
- Appliance Optimized Storage Building Blocks



# X13 UP WIO

Industry's Widest Variety of I/O Optimized Servers



Cost-effective systems supporting up to 4 PCIe 5.0 devices

Single socket 5th/4th Gen Intel® Xeon® Scalable processor

8 DIMM slots supporting DDR5-5600MT/s

Hot-swappable 2.5" or 3.5" storage

Up to 10 NVMe hybrid storage supported (optional)

## 2U WIO with 4 PCIe Slots



X13SEW-F (WIO)



SYS-521E-WR

1U UP WIO



SYS-511E-WR

4x 3.5" SATA/SAS and 3 PCIe 5.0 slots

1U UP WIO



SYS-111E-WR

10x 2.5" SATA/SAS/NVMe with 3 PCIe 5.0 slots

2U UP WIO



SYS-521E-WR

8x 3.5" SATA/SAS/NVMe with 4 PCIe 5.0 slots

## Wide-Ranging Flexibility for any Enterprise Workload

Supermicro WIO systems offer a wide range of I/O options to deliver truly optimized systems for specific requirements. Users can optimize the storage and networking alternatives to accelerate performance, increase efficiency and find the perfect fit for their applications.

In addition to enabling customizable configurations and optimization for multiple application requirements, Supermicro WIO SuperServers® also provide attractive cost advantages and investment protection.

## Key Applications

- Enterprise Applications
- Networking Appliance
- Firewall/Security Appliances
- General Purpose Computing
- Cloud Computing
- Media Entertainment





# X13 SUPEREDGE

High-Density Computing and Flexibility at the Intelligent Edge



2U form factor with short-depth (430mm) 3-node or full-depth 4-node configuration

Single 5th/4th Gen Intel® Xeon® Scalable processor per node

Front-access hot-swappable nodes or front-accessible storage

Up to 8 DIMMs slots per node supporting DDR5-5600

Up to 3 PCIe 5.0 slots per node

3-node architecture optimized for operating temperatures from -5°C to 55°C (CPU TDP-dependent)



X13SEED-F

## 2U 3-Node SuperEdge



SYS-211SE-31D

Short-depth 3-node with redundant AC power



SYS-211SE-31A  
SYS-211SE-31AS

RJ45 or SFP management port options

Short-depth 3-node with redundant DC power



SYS-211SE-31D  
SYS-211SE-31DS

RJ45 or SFP management port options

4-node with redundant AC power



SYS-211TP-HPTR

Storage-optimized 4-Node architecture

4-node with redundant DC power



SYS-211TP-HPTRD

Storage-optimized 4-Node architecture

## Data Center-Class Performance and Expandability at the Edge

Supermicro's SuperEdge is designed to handle increasing compute and I/O density requirements of modern edge applications. With 3 or 4 customizable single-processor nodes, SuperEdge delivers data center-class performance in a 2U form factor.

Three front-access hot-swappable nodes provide front to access I/O, making the system ideal for remote IoT, edge, or telco deployments, while the 4-node configuration provides front access to storage for easy maintenance. Each node can accommodate two or three PCIe 5.0 slots, enabling a wide range of add-on cards such as FPGA, DPU, eASIC, and TimeSync cards that allow the SuperEdge to be outfitted for networking.

## Key Applications

- 5G Open RAN/Flex-RAN
- C-RAN (vRAN)
- Telecom/Networking Appliance
- Multi-Access Edge Computing
- Edge Data Center
- Enterprise Edge Computing



# X13 5G/EDGE

Compact and short-depth rackmount systems for telco Edge deployments



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)



X13SEM-TF



SYS-211E-FRDN2T

1U UP short-depth server with front I/O



SYS-111E-FWTR  
SYS-111E-FDWTR  
2x 2.5" internal SATA  
AC/DC power supply options

2U UP compact OpenRAN server



SYS-211E-FRN2T  
SYS-211E-FRDN2T  
2x 2.5" hot-swap NVMe  
AC/DC power supply options

2U UP compact Edge/IoT server



SYS-211E-FRN13P  
SYS-211E-FRDN13P  
2x 2.5" hot-swap SATA  
AC/DC power supply options

IoT box server



SYS-E403-13E-FRN2T  
2x 2.5" hot-swap NVMe  
AC power supply

## Expanding our Product Portfolio to address 5G, Edge Computing and Emerging IoT Systems

Supermicro provides innovative and first-to-market technologies that are the building blocks for today's embedded computing platforms. Rapid growth in embedded markets and open standards are driving the need for higher levels of product integration and optimization through virtualization, AI inferencing, network connectivity, remote management, mobile communication, expanded I/O, and device-to-device communications using space and power efficient configurations.

Supermicro's family of high-performance embedded products are optimized for a wide range of applications and solutions. Supermicro offers many flexible and customized solutions for critical OEM projects, as well as advanced designs for stringent environments, firmware customization, BOM enhancements, and a wide range of legacy IO support.

## Key Applications

- Multi-Access Edge Computing
- Flex-RAN/Open RAN
- Edge AI Outdoor 5G



# X13 MULTI-PROCESSOR SYSTEMS

Highest Performance and Flexibility for Enterprise Applications



4- and 8-way systems with 4th Gen Intel® Xeon® Scalable processors

Next-generation PCIe 5.0 for GPU/accelerator and high-speed network interface cards up to 12 double width GPU

Compute and hybrid storage-optimized configurations up to 24 drives

Large memory footprint with up to 64 DIMMs in 2U and 128 DIMMs in 6U supporting DDR5-4800MHz



X13QEH+

## Hyper 2U 4-Way Compute-Optimized



SYS-241H-TNRTTP

AIOM Ready

Hyper 2U 4-way Compute-Optimized



SYS-241H-TNRTTP

64 DIMM / 8 SAS/SATA or NVMe  
8 PCIe 5.0 (4 x16 + 4 x8) +  
4 PCIe 4.0 (2 x16 + 2 x8)

Hyper 2U 4-way Storage-Optimized



SYS-241E-TNRTTP

64 DIMM / 24 NVMe hybrid  
8 PCIe 5.0 (4 x16 + 4 x8)

6U 8-way GPU-Optimized



SYS-681E-TR

128 DIMM / 24 NVMe hybrid  
26 PCIe 5.0 x16 (12 DW GPU)

## Maximum Configurability and Scalability

X13 multi-processor systems bring new levels of compute performance and flexibility with support for 4th Gen Intel® Xeon® Scalable processors to support mission-critical enterprise workloads.

A large memory footprint is ideal for large database and in-memory compute applications, with support for 12 double width GPU to enable even the most AI-intensive applications. Dynamic storage options support direct-attached full-hybrid all NVMe for lower latency with higher throughput and IOPS and up to 24x 2.5" hybrid NVMe/SAS3/SATA3 drive bays in a 2U/6U chassis. Flexible networking is available via AIOM slots supporting OCP 3.0 NIC devices.

## Key Applications

- Artificial Intelligence (AI)
- Business Intelligence
- ERP
- CRM
- Scientific Virtualization
- In-Memory Database
- HCI
- SAP HANA



# X13 MAINSTREAM

## Cost-effective Platforms for Enterprise Workloads



- Dual 5th/4th Gen Intel® Xeon® Scalable processors
- Flexible storage options with hot-swap support
- DDR5 memory support
- Onboard 1GbE or 10GbE LAN
- Up to 6 next-generation PCIe 5.0 slots for accelerators and expansion



X13DEI-T



SYS-621P-TR

2U Mainstream Rackmount



SYS-621P-TR  
SYS-621P-TRT

8 hot-swap 3.5" SATA bays (optional 4 NVMe)



SYS-221P-C9R  
SYS-221P-C9RT

16 hot-swap 2.5" drive bays (optional 4 NVMe)

Mainstream DP Tower



SYS-741P-TR  
SYS-741P-TRT

8 hot-swap 3.5"/2.5" SATA bays (optional 4 NVMe)

### Ideal for Small and Medium Businesses

Supermicro's X13 mainstream family has been specifically designed to deliver balanced compute power and storage flexibility in a cost-effective architecture. Rackmount systems with front-loading SATA bays allow for sufficient storage to handle most enterprise applications, while rear PCIe slots can provide ample networking for everyday workloads. For organizations that are not equipped for rackmount servers, the 4U tower form factor provides data center compute power in a compact and portable chassis that can be installed in offices, laboratories or field offices.

Supermicro Mainstream systems offer flexibility and value for everyday virtualization, enterprise and data serving workloads commonly required by small and medium organizations. Up to 6 rear PCIe 5.0 expansion slots offer flexibility for networking, acceleration or offload cards depending on workload. Up to 16 front-loading storage drives can support SAS or SATA RAID configurations, while optional NVMe drive support can be implemented for high-speed caching.

### Key Applications

- Virtualization
- Enterprise Server
- Application and Data Serving
- Compute Intensive Applications



# X13 UP WORKSTATION

Next-Gen Workstation for Creative Professionals



Single Intel® Xeon® W Series processor  
Up to 4 double-width GPUs  
Feature-rich front and rear I/O ports  
Optional closed-loop liquid cooling and rack mount kits are available



X13SWA-TF

## Full Tower UP Workstation



SYS-551A-T

### Mid-Tower UP Workstation



SYS-531A-I

Intel® Xeon® W-2400 Processor  
Up to 2 double-width GPUs

### Full Tower UP Workstation



SYS-551A-T

Intel® Xeon® W-3400 Series Processor  
Up to 4 double-width GPUs

## Balanced Power and Efficiency for Intensive Visual Workloads

Supermicro X13 workstations bring data center CPU processing power and PCIe expandability to the desktop for AI, simulation, metaverse/Omniverse, and 3D media applications. Fuel your creative workflows and boost productivity with a single Intel® Xeon® W-3400 or W-2400 processor combined with lightning-fast M.2 NVMe PCIe 5.0 storage and up to 4TB of DDR5 RAM. The new Supermicro X13 SuperWorkstation offers configuration flexibility to meet your complex design and engineering demands.

## Key Applications

- 2D/3D Content Creation
- VR Content Development
- Product Design
- Engineering Simulation



# X13 DP WORKSTATION

Compact, High Performance Systems with GPU support



## Full Tower DP Workstation

Dual 5th/4th Gen Intel® Xeon® Scalable processors up to 350W

Support for up to 2 double-width GPUs

Up to 4 SATA/SAS drives with optional hot-swap 2.5" SSD bays

Additional 5.25" peripheral bays for expansion

Front USB and audio I/O access

Rack-mountable 5U tower form factor

Refer to PCIe GPU section for 4-GPU workstations



X13DAI-T



SYS-751A-I

Full Tower DP Workstation



SYS-751A-I

Up to 2 double-width GPUs

## Deploy Data Center Power in a Range of Environments

Supermicro X13 workstations are designed to deliver high performance compute power in a compact form factor suitable for offices, schools, research laboratories and field offices, with efficient and quiet cooling reducing operating volume for convenient under-desk installation.

Designed for compute-intensive 3D design, content creation and engineering workloads, dual 5th Gen Intel Xeon processors deliver unrivaled compute power, complemented by support for the industry's latest double-width GPUs. Extensive connectivity is available for peripherals and accessories, with both front and rear mounted USB and audio ports as well as flexible storage options including front-accessible hot-swap 2.5" drive bays.

## Key Applications

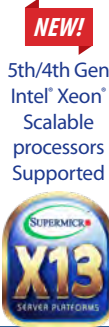
- Rendering
- CAD
- Multimedia/Digital Content Creation
- Engineering/Scientific Research



# X13 UNIVERSAL GPU

8U

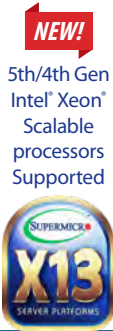
8U Front IO



MODEL	SYS-821GE-TNHR	SYS-821GE-FTNHR
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W (air cooled)/385W (liquid cooled)	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W
Key Applications	<ul style="list-style-type: none"> <li>• Finance &amp; Economics</li> <li>• Climate and Weather Modeling</li> <li>• Drug Discovery</li> <li>• Business Intelligence &amp; Analytics</li> <li>• Conversational AI</li> <li>• Healthcare</li> <li>• Industrial Automation, Retail</li> <li>• AI/Deep Learning Training</li> <li>• High Performance Computing</li> <li>• Highest GPU communication using NVIDIA® NVLINK™ + NVIDIA® NVSwitch™</li> </ul>	<ul style="list-style-type: none"> <li>• Finance &amp; Economics</li> <li>• Climate and Weather Modeling</li> <li>• Drug Discovery</li> <li>• Business Intelligence &amp; Analytics</li> <li>• Conversational AI</li> <li>• Healthcare</li> <li>• Industrial Automation, Retail</li> <li>• AI/Deep Learning Training</li> <li>• High Performance Computing</li> <li>• Highest GPU communication using NVIDIA® NVLINK™ + NVIDIA® NVSwitch™</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• High density 8U system with NVIDIA® HGX™ H100 8-GPU</li> <li>• 8 NVMe for GPU direct storage</li> <li>• 8 NIC for GPU direct RDMA (1:1 GPU Ratio)</li> <li>• 2 M.2 NVMe for boot drive only</li> </ul>	<ul style="list-style-type: none"> <li>• High density 8U system with NVIDIA® HGX™ H100 8-GPU</li> <li>• 8 NVMe for GPU direct storage</li> <li>• 8 NIC for GPU direct RDMA (1:1 GPU Ratio)</li> <li>• 2 M.2 NVMe for boot drive only</li> </ul>
Serverboard	SUPERMIC® X13DEG-OAD	SUPERMIC® X13DEG-OAD
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots up to 8TB DDR5 5600MT/s	32 DIMM slots up to 8TB DDR5 5600MT/s
Expansion Slots	8 PCIe 5.0 x16 LP, 2 FHFL PCIe 5.0 x16 Slots	8 PCIe 5.0 x16 LP, 2 FHFL PCIe 5.0 x16 Slots
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE RJ45 with Intel® X710-AT2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional)	2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE RJ45 with Intel® X710-AT2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional)
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	20x 2.5" hot-swap NVMe/SATA drive bays; 8x 2.5" NVMe dedicated	24 hot-swap 2.5" NVMe/SATA drive bays; 12 2.5" NVMe dedicated
Peripheral Bays	None	None
Power Supply	6x 3000W (4+2) Redundant power supplies, Titanium Level	6x 3000W (4+2) Redundant power supplies, Titanium Level
Cooling System	10 heavy duty fan(s)	10 heavy duty fan(s)
Form Factor	8U Rackmount Enclosure: 437 x 355.6 x 843.28mm (17.2" x 14" x 33.2") Package: 698 x 750 x 1300mm (27.5" x 29.5" x 51.2")	8U Rackmount Enclosure: 437 x 355.6 x 843.28mm (17.2" x 14" x 33.2") Package: 698 x 750 x 1300mm (27.5" x 29.5" x 51.2")

# X13 UNIVERSAL GPU

4U



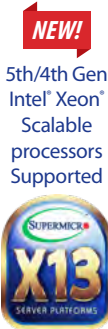
MODEL	SYS-821GV-TNR	SYS-421GU-TNXR
Processor Support	4th Gen Intel® Xeon® Scalable processors; Dual Socket LGA-4677 (Socket E) supported; TDP up to 350W	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W
Key Applications	<ul style="list-style-type: none"> <li>Finance Services and Fraud Detection</li> <li>Generative AI</li> <li>Biomedical</li> <li>Climate and Weather Modeling</li> <li>Business Intelligence &amp; Analytics</li> <li>Industrial Automation</li> <li>AI/Deep Learning Training</li> <li>High Performance Computing</li> </ul>	<ul style="list-style-type: none"> <li>AI/Deep Learning Training</li> <li>High Performance Computing</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Dual 4th Gen Intel® Xeon® Scalable processors With PCIE Gen 5 Platform</li> <li>GPU Memory Bandwidth: 3276.8 GB/s</li> <li>GPU Memory: 1TB HBM2</li> <li>GPU to GPU Interconnect: 742 GB/s XeLink Scale Up Bandwidth</li> <li>High Density Computing: 8 x Intel® Data Center GPU Max 1550 (600W) OAM</li> <li>Open Ecosystem with oneAPI</li> </ul>	<ul style="list-style-type: none"> <li>Highest GPU communication using NVIDIA® NVLINK™</li> <li>High density 4U Universal GPU system with NVIDIA® HGX™ H100 4-GPU</li> <li>8 NIC for GPU direct RDMA (1:1 GPU Ratio)</li> </ul>
Serverboard	SUPER● X13DEG-PVC	SUPER● X13DGU
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots; up to 8TB DDR5 4800MT/s	32 DIMM slots; up to 8TB DDR5 5600MT/s
Expansion Slots	8 PCIe 5.0 x16 LP, 2 FHHL PCIe 5.0 x16 Slots, 2 FHHL PCIe 5.0 x16 Slots (optional)	8 PCIe 5.0 x16 LP Slots
Onboard Storage Controller		Intel® SATA
Connectivity	2x 10GbE RJ45 with Intel® X550-AT2 (optional)	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710-AT2
VGA/Audio	1 VGA port	1 VGA port
Management		Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	19x 2.5" hot-swap NVMe/SATA drive bays; 16x 2.5" NVMe dedicated;	6x 2.5" hot-swap NVMe/SATA drive bays; 6x 2.5" NVMe hybrid;
Peripheral Bays	None	None
Power Supply	6x 3000W Redundant Titanium Level power supplies	4x 3000W Redundant power supplies, Titanium Level
Cooling System	10 heavy duty fan(s)	5 heavy duty fan(s)
Form Factor	8U Rackmount Enclosure: 447 x 356 x 843mm (17.7" x 13.8" x 33.2") Package: 1300 x 700 x 750mm (51" x 27.6" x 29.5")	4U Rackmount Enclosure: 449 x 175.6 x 833mm (17.67" x 7.0" x 32.79") Package: 700 x 370 x 1260mm (27.55" x 14.57" x 49.6")



# X13 PCIe GPU

10 PCIe GPUs

8 PCIe GPUs

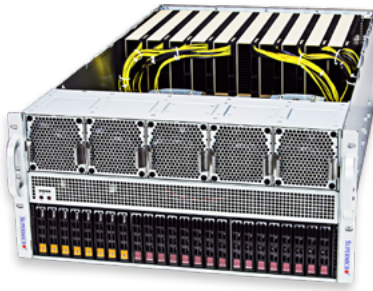
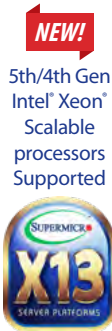


MODEL	SYS-421GE-TNRT	SYS-421GE-TNRT3
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W
Key Applications	<ul style="list-style-type: none"> <li>Diagnostic Imaging</li> <li>3D Rendering</li> <li>Design &amp; Visualization</li> <li>Animation and Modeling</li> <li>Cloud Gaming</li> <li>Media/Video Streaming</li> <li>AI/Deep Learning Training</li> <li>VDI</li> <li>High Performance Computing</li> <li>Flexible networking options</li> </ul>	<ul style="list-style-type: none"> <li>Diagnostic Imaging</li> <li>3D Rendering</li> <li>Design &amp; Visualization</li> <li>Animation and Modeling</li> <li>Cloud Gaming</li> <li>Media/Video Streaming</li> <li>AI/Deep Learning Training</li> <li>VDI</li> <li>High Performance Computing</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>8 NVMe for GPU direct storage</li> <li>2 M.2 NVMe for boot drive only</li> </ul>	<ul style="list-style-type: none"> <li>Flexible networking options</li> <li>2 M.2 NVMe for boot drive only</li> </ul>
Serverboard	SUPERMICRO X13DEG-OA	SUPERMICRO X13DEG-OA
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots Up to 8TB DDR5-5600MT/s	32 DIMM slots Up to 8TB DDR5-5600MT/s
Expansion Slots	13 PCIe 5.0 x16 Slots	8 PCIe 5.0 x16 Slots
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710-AT2	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710-AT2
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	24 hot-swap 2.5" NVMe/SATA/SAS drive bays (8 NVMe dedicated + 8 SATA dedicated)	24 hot-swap 2.5" NVMe/SATA/SAS drive bays (4 NVMe dedicated + 8 SATA dedicated)
Peripheral Bays	None	None
Power Supply	4x 2700W (2+2) Redundant Power Supplies, Titanium Level	4x 2700W (2+2) Redundant Power Supplies, Titanium Level
Cooling System	8 heavy duty fan(s)	8 heavy duty fan(s)
Form Factor	4U Rackmount Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: (27" x 26.57" x 41")	4U Rackmount Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: (27" x 26.57" x 41")

# X13 PCIe GPU

5U, 10 PCIe GPUs

4U Tower, 4 PCIe GPUs



MODEL	SYS-521GE-TNRT	SYS-741GE-TNRT	SYS-751GE-TNRT
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI
Key Applications	<ul style="list-style-type: none"> <li>Diagnostic Imaging</li> <li>3D Rendering</li> <li>Design &amp; Visualization</li> <li>Animation and Modeling</li> <li>Cloud Gaming</li> <li>Media/Video Streaming</li> <li>AI/Deep Learning Training</li> <li>VDI</li> <li>High Performance Computing</li> </ul>	<ul style="list-style-type: none"> <li>AI Training</li> <li>Diagnostic Imaging</li> <li>3D Rendering</li> <li>Design &amp; Visualization</li> <li>Animation and Modeling</li> <li>Cloud Gaming</li> <li>Media/Video Streaming</li> <li>AI/Deep Learning Training</li> <li>VDI</li> <li>High Performance Computing</li> </ul>	<ul style="list-style-type: none"> <li>AI Training</li> <li>AI/Deep Learning Training</li> <li>AI/ML Researchers</li> <li>Product Data Management (CAD Design)</li> <li>High Performance Computing</li> <li>Architecture, Engineering, and Construction (AEC)</li> <li>Scientific Research Labs</li> <li>Diagnostic Imaging</li> <li>3D Rendering</li> <li>Design &amp; Visualization</li> <li>Animation and Modeling</li> <li>M&amp;E</li> <li>Close-loop liquid cooled CPUs, GPUs, and memory</li> <li>Low Acoustic Level "Idle" under 32dBA &amp; "100% Load" under 50dBA</li> <li>Flexible Solution: Workstation Tower or 5U Rackmountable System</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Flexible networking options</li> <li>8 NVMe for GPU direct storage</li> <li>2 M.2 NVMe for boot drive only</li> </ul>	<ul style="list-style-type: none"> <li>Workstation or 4U Rackmountable System</li> <li>Performance Anywhere</li> <li>Innovate Faster</li> <li>Flexible Solution</li> </ul>	<ul style="list-style-type: none"> <li>Close-loop liquid cooled CPUs, GPUs, and memory</li> <li>Low Acoustic Level "Idle" under 32dBA &amp; "100% Load" under 50dBA</li> <li>Flexible Solution: Workstation Tower or 5U Rackmountable System</li> </ul>
Serverboard	SUPERMICRO X13DEG-OA	SUPERMICRO X13DEG-QT	SUPERMICRO X13DEG-QT
Chipset	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots Up to 8TB DDR5-5600MT/s	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots Up to 1TB: 16x 128GB DRAM
Expansion Slots	13 PCIe 5.0 x16 Slots	7 PCIe 5.0 x16 FHFL Slots	6 PCIe 5.0 x16 FHFL Slots - 4 PCIe 5.0 x16 for double-width GPU cards, support up to 4 liquid-cooled A100 GPUs - 2 PCIe 5.0 x16 for single-width High-Speed Network or RAID card
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710-AT2	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X550-AT2	1x 1GbE RJ45 port(s) with ASPEED AST2600 2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X550-AT2
VGA/Audio	1 VGA port	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	24 hot-swap 2.5" NVMe/SATA/SAS drive bays (8 NVMe dedicated + 8 SATA dedicated)	8 hot-swap 2.5" NVMe/SATA/SAS drive bays 2 M.2 NVMe slots	8 hot-swap 2.5" NVMe/SATA/SAS drive bays 2 M.2 NVMe slots
Peripheral Bays	None	None	None
Power Supply	4x 2700W (2+2) Redundant Power Supplies, Titanium Level	2x 2000W (1+1) Redundant Power Supplies, Titanium Level	1200W/2200W (1+1) Redundant Power Supplies, Titanium Level
Cooling System	8 heavy duty fan(s)	4 heavy duty fan(s)	3x 8, 12cm heavy duty fan(s)
Form Factor	5U Rackmount Enclosure: 437 x 222.5 x 737mm (17.2" x 8.75" x 29") Package: (27" x 26.57" x 41")	Tower Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: 330.2 x 685.8 x 965.2mm (13" x 27" x 38")	Tower or 5U Rackmount Enclosure: 454.7 x 218.4 x 701mm (17.9" x 8.6" x 27.6") Package: 388 x 655 x 956mm (15.3" x 25.8" x 37.6")

# X13 SUPEREDGE

Redundant AC power, RJ45 or SFP management port options

Redundant AC power, RJ45 or SFP management port options

Redundant DC power, RJ45 or SFP management port options

Redundant DC power, RJ45 or SFP management port options

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-211SE-31A	SYS-211SE-31AS	SYS-211SE-31D	SYS-211SE-31DS
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported TDP up to 300W	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported TDP up to 300W	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported TDP up to 300W	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported TDP up to 300W
Key Applications	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Three front hot-swappable nodes with single CPU socket and 8 DIMM design</li> <li>Front access IO design, and tool less serviceability</li> <li>16.9" (430mm) chassis depth</li> </ul>	<ul style="list-style-type: none"> <li>Three front hot-swappable nodes with single CPU socket and 8 DIMM design</li> <li>Front access IO design, and tool less serviceability</li> <li>16.9" (430mm) chassis depth</li> </ul>	<ul style="list-style-type: none"> <li>Three front hot-swappable nodes with single CPU socket and 8 DIMM design</li> <li>Front access IO design, and tool less serviceability</li> <li>16.9" (430mm) chassis depth</li> </ul>	<ul style="list-style-type: none"> <li>Three front hot-swappable nodes with single CPU socket and 8 DIMM design</li> <li>Front access IO design, and tool less serviceability</li> <li>16.9" (430mm) chassis depth</li> </ul>
Serverboard	SUPER® X13SEED-F	SUPER® X13SEED-SF	SUPER® X13SEED-F	SUPER® X13SEED-SF
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP	2 PCIe 5.0 x16 FHHL 1 PCIe 5.0 x16 LP
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	1x 1GbE RJ45 port(s)	1x 1GbE SFP port(s)	1x 1GbE RJ45 port(s)	1x 1GbE SFP port(s)
VGA/Audio	1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)	1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)	1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)	1 KVM dongle (output VGA x1, COM x1, USB 2.0 x2 through KVM cable)
Management	IPMI 2.0; SuperDoctor® 5	IPMI 2.0; SuperDoctor® 5	IPMI 2.0; SuperDoctor® 5	IPMI 2.0; SuperDoctor® 5
Drive Bays	N/A	N/A	N/A	N/A
Peripheral Bays	None	None	None	None
Power Supply	2000W AC Redundant PSU	2000W AC Redundant PSU	2000W DC Redundant PSU	2000W DC Redundant PSU
Cooling System	4 heavy duty fan(s)	4 heavy duty fan(s)	4 heavy duty fan(s)	4 heavy duty fan(s)
Form Factor	2U Rackmount Enclosure: 449 x 88 x 430mm (17.7" x 3.5" x 16.9") Package: 750 x 240 x 590mm (29.5" x 9.5" x 23.2")	2U Rackmount Enclosure: 449 x 88 x 430mm (17.7" x 3.5" x 16.9") Package: 750 x 240 x 590mm (29.5" x 9.5" x 23.2")	2U Rackmount Enclosure: 449 x 88 x 430mm (17.7" x 3.5" x 16.9") Package: 750 x 240 x 590mm (29.5" x 9.5" x 23.2")	2U Rackmount Enclosure: 449 x 88 x 430mm (17.7" x 3.5" x 16.9") Package: 750 x 240 x 590mm (29.5" x 9.5" x 23.2")

# X13 SUPEREDGE

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



Redundant AC power,  
Storage-optimized 4-Node architecture



Redundant DC power,  
Storage-optimized 4-Node architecture



MODEL	SYS-211TP-HPTR	SYS-211TP-HPTRD
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Single Socket supported TDP up to 270W	5th/4th Gen Intel® Xeon® Scalable processors Single Socket supported TDP up to 270W
Key Applications	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>	<ul style="list-style-type: none"> <li>Enterprise Edge Computing</li> <li>Telecom DRAN, CRAN, and Edge Core Application</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Multi-Access Edge Computing</li> </ul>
Outstanding Features	Four 24 front-access 2.5" hot-swap SATA drives (6 per node) <ul style="list-style-type: none"> <li>Up to 8 DIMMs slots per node supporting DDR5-5600Mhz</li> <li>Up to 2 PCIe 5.0 HHHHL slots per node</li> <li>Operating temperatures from 0°C - 35°C (32°F - 95°F) (CPU TPD-dependent)</li> </ul>	24 front-access 2.5" hot-swap SATA drives (6 per node) <ul style="list-style-type: none"> <li>Up to 8 DIMMs slots per node supporting DDR5-5600Mhz</li> <li>Up to 2 PCIe 5.0 HHHHL slots per node</li> <li>Operating temperatures from 0°C - 35°C (32°F - 95°F) (CPU TPD-dependent)</li> </ul>
Serverboard	SUPERMICRO® X13SET-PT	SUPERMICRO® X13SET-PT
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
Expansion Slots	2x PCIe 5.0 x16 HHHHL	2x PCIe 5.0 x16 HHHHL
Onboard Storage Controller		
Connectivity	2x 10GbE SFP+ port(s) with Intel® Ethernet Controller X710-BM2	2x 10GbE SFP+ port(s) with Intel® Ethernet Controller X710-BM2
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management		
Drive Bays	6 hot-swap 2.5" drive bays	6 hot-swap 2.5" drive bays
Peripheral Bays	None	None
Power Supply	2000W AC Redundant power supplies (per enclosure)	2000W DC Redundant power supplies (per enclosure)
Cooling System	4 heavy duty 8cm fans (per enclosure)	4 heavy duty 8cm fans (per enclosure)
Form Factor	2U Rackmount Enclosure: 438 x 88 x 730mm (17.25" x 3.5" x 28.75") Package: 526 x 250 x 965mm (20.7" x 9.8" x 38")	2U Rackmount Enclosure: 438 x 88 x 730mm (17.25" x 3.5" x 28.75") Package: 526 x 250 x 965mm (20.7" x 9.8" x 38")

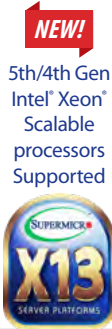
# X13 5G/EDGE

1U UP short-depth server  
with front I/O

1U UP short-depth server  
with front I/O

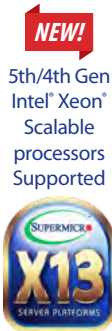
2U UP compact  
OpenRAN server

2U UP compact  
OpenRAN server



MODEL	SYS-111E-FWTR	SYS-111E-FDWTR	SYS-211E-FRN2T	SYS-211E-FRDN2T
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 350W	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 350W	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W
Key Applications	<ul style="list-style-type: none"> <li>Machine Learning (ML)</li> <li>Artificial Intelligence (AI) on Edge</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Outdoor DU of 5G Application</li> <li>Multi-Access Edge Computing</li> <li>Redundant Power Supplies Design</li> </ul>	<ul style="list-style-type: none"> <li>Machine Learning (ML)</li> <li>Artificial Intelligence (AI) on Edge</li> <li>Flex-RAN, Open-RAN vBBU</li> <li>Outdoor DU of 5G Application</li> <li>Multi-Access Edge Computing</li> </ul>	<ul style="list-style-type: none"> <li>Cloud Computing</li> <li>Network Function Virtualization</li> <li>AI Inference and Machine Learning</li> <li>5G Core and Edge</li> </ul>	<ul style="list-style-type: none"> <li>Cloud Computing</li> <li>Network Function Virtualization</li> <li>AI Inference and Machine Learning</li> <li>5G Core and Edge</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Front access IO design, 16.9" (430mm) chassis depth</li> <li>5G Telecom, Flex-RAN, Open-RAN Optimized Redundant Power Supplies Design</li> <li>Front access IO design, 16.9" (430mm) chassis depth</li> <li>5G Telecom, Flex-RAN, Open-RAN Optimized</li> </ul>	<ul style="list-style-type: none"> <li>Redundant Power Supplies Design</li> <li>Front access IO design, 16.9" (430mm) chassis depth</li> <li>5G Telecom, Flex-RAN, Open-RAN Optimized</li> </ul>	<ul style="list-style-type: none"> <li>Designed with compliance to NEBS-Level 3</li> </ul>	<ul style="list-style-type: none"> <li>Designed with compliance to NEBS-Level 3</li> </ul>
Serverboard	SUPER® X13SEW-TF	SUPER® X13SEW-TF	SUPER® X13SEM-TF	SUPER® X13SEM-TF
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x16 LP slot	2 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x16 LP slot	1 PCIe 5.0 x16 HHHL slot 1 PCIe 5.0 x8 HHHL slot 2 PCIe 5.0 x16 FHHL slots	1 PCIe 5.0 x16 HHHL slot 1 PCIe 5.0 x8 HHHL slot 2 PCIe 5.0 x16 FHHL slots
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	2 10GbE ports	2 10GbE ports	2x 100GbE QSFP28 with Intel® E810-CAM2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 200GbE QSFP56 with Mellanox® MT28908A0-XCCF-HVM (optional) 2x 25GbE QSFP28 with Intel® E810-CAM1 (optional) 2x 25GbE QSFP28 with Intel® XXV710 (optional) 2x 40GbE QSFP+ with Intel® XL710-BM2 (optional) 4x 1GbE RJ45 with Intel® i350 (optional)	2x 100GbE QSFP28 with Intel® E810-CAM2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 200GbE QSFP56 with Mellanox® MT28908A0-XCCF-HVM (optional) 2x 25GbE QSFP28 with Intel® E810-CAM1 (optional) 2x 25GbE QSFP28 with Intel® XXV710 (optional) 2x 40GbE QSFP+ with Intel® XL710-BM2 (optional) 4x 1GbE RJ45 with Intel® i350 (optional)
VGA/Audio	1 VGA port	1 VGA port	1 VGA port	1 VGA port
Management	IPMI 2.0	IPMI 2.0	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	2 fixed internal 2.5" SATA drive bays	2 fixed internal 2.5" SATA drive bays	2 hot-swap 2.5" NVMe drive bays	2 hot-swap 2.5" NVMe drive bays
Peripheral Bays	None	None	None	None
Power Supply	800W AC Redundant PSU	600W DC Redundant PSU	Redundant 800W AC 100-240Vac input, Platinum level	2x 600W -48Vdc single output
Cooling System	4 heavy duty fans	4 heavy duty fans	4 heavy duty fans	4 heavy duty fans
Form Factor	1U Rackmount Enclosure: 436.88 x 44.5 x 429.3mm (17.2" x 1.7" x 16.9") Package: 685 x 203 x 609mm (27" x 8" x 24")	1U Rackmount Enclosure: 437 x 43 x 429mm (17.2" x 1.7" x 16.9") Package: 686 x 203 x 610mm (27" x 8" x 24")	2U Rackmount Enclosure: 436.88 x 88.9 x 298.8mm (17.2" x 3.5" x 11.8") Package: 490 x 188 x 590mm (19.3" x 7.4" x 23.3")	2U Rackmount Enclosure: 436.88 x 88.9 x 298.8mm (17.2" x 3.5" x 11.8") Package: 490 x 188 x 590mm (19.3" x 7.4" x 23.3")

# X13 5G/EDGE



2U UP compact Edge/IoT server

2U UP compact Edge/IoT server



MODEL	SYS-211E-FRN13P	SYS-211E-FRDN13P	SYS-E403-13E-FRN2T
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W	Single 5th/4th Gen Intel® Xeon® Scalable processor up to 270W	5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported TDP up to 350W
Key Applications	<ul style="list-style-type: none"> <li>GNSS &amp; IEEE1588 Sync-E Support</li> <li>5G CU/DU Edge Server</li> <li>Cloud Computing</li> <li>Network Function Virtualization</li> </ul>	<ul style="list-style-type: none"> <li>GNSS &amp; IEEE1588 Sync-E Support</li> <li>5G CU/DU Edge Server</li> <li>Cloud Computing</li> <li>Network Function Virtualization</li> </ul>	<ul style="list-style-type: none"> <li>Smart Retail/Medical Expert Systems</li> <li>Machine Learning (ML)</li> <li>Artificial Intelligence (AI) on Edge</li> <li>Industrial Automation</li> <li>Universal Customer Premise Equipment (uCPE)</li> <li>Multi-Access Edge Computing (MEC)</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Design with compliance to NEBS-Level 3</li> <li>Single Socket E (LGA-4677) 4th Gen Intel® Xeon® Scalable processors</li> <li>8 DIMM slots; Up to 2TB 3DS ECC DDR5-4800: RDIMM/LRDIMM</li> <li>2x PCIe 5.0 x8 FHHL expansion slots for Accelerator Add-On-Cards</li> <li>Onboard 12x 25GbE SFP28 ports</li> <li>2x 2.5" drive bays for SSD drives</li> <li>Redundant 800W AC Power Supplies</li> <li>1 x RJ45 for dry contact</li> <li>Ultra short depth, 2U Front I/O Edge Server</li> </ul>	<ul style="list-style-type: none"> <li>Design with compliance to NEBS-Level 3</li> <li>Single Socket E (LGA-4677) 4th Gen Intel® Xeon® Scalable processors</li> <li>8 DIMM slots; Up to 2TB 3DS ECC DDR5-4800: RDIMM/LRDIMM</li> <li>2x PCIe 5.0 x8 FHHL expansion slots for Accelerator Add-On-Cards</li> <li>Onboard 12x 25GbE SFP28 ports</li> <li>2x 2.5" drive bays for SSD drives</li> <li>2x 600W DC -48V Power Supplies</li> <li>1 x RJ45 for dry contact</li> <li>Ultra short depth, 2U Front I/O Edge Server</li> </ul>	<ul style="list-style-type: none"> <li>4th Gen Intel® Xeon® Scalable Processors(Sapphire Rapids)</li> <li>Up to 8 DIMMs and total 2TB 3DS ECC DDR5-4800: RDIMM</li> <li>3x PCIe5.0 x16 slot</li> <li>2x 10 Gigabit Ethernet Ports</li> <li>Up to 4x 2.5" U.2 NVMe drive(2 Hot-swap, Optional 2 fixed)</li> </ul>
Serverboard	SUPER® X13SEVR-SP13F	SUPER® X13SEVR-SP13F	SUPER® X13SEW-TF
Chipset	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots; Up to 2TB DDR5-5600MT/s	8 DIMM slots Max Memory (2DPC): Up to 2TB 4800MT/s ECC DDR5 RDIMM
Expansion Slots	2 PCIe 5.0 x8 FHHL slots	2 PCIe 5.0 x8 FHHL slots	3x PCIe5.0 x16 FHFL
Connectivity	12 25GbE QSFP28 ports with Intel® Ethernet Controller E810-CAM1 1 1GbE RJ45 ports with Intel® Ethernet Controller i210-AT	12 25GbE QSFP28 ports with Intel® Ethernet Controller E810-CAM1 1 1GbE RJ45 ports with Intel® Ethernet Controller i210-AT	2x 10GbE RJ45 port(s)
VGA/Audio	1 VGA port	1 VGA port	1 1 VGA port
Management	Shared BMC LAN port	Shared BMC LAN port	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	2 fixed internal 2.5" SATA drive bays	2 fixed internal 2.5" SATA drive bays	2x 2.5" hot-swap NVMe drive bays;
Peripheral Bays	None	None	None
Power Supply	800W Redundant AC power supply	600W redundant short depth DC48V input power supply	800W Redundant Platinum Level power supplies
Cooling System	4 heavy duty fans	4 heavy duty fans	3 heavy duty fan(s)
Form Factor	2U Rackmount Enclosure: 436.88 x 88.9 x 298.8mm (17.2" x 3.5" x 11.8") Package: 490 x 188 x 590mm (19.3" x 7.4" x 23.3")	2U Rackmount Enclosure: 436.88 x 88.9 x 298.8mm (17.2" x 3.5" x 11.8") Package: 490 x 188 x 590mm (19.3" x 7.4" x 23.3")	Fan-based Embedded Rackmount Enclosure: 266.7 x 117.348 x 406.4mm (10.5" x 4.62" x 16") Package: 416 x 264 x 660mm (16.4" x 10.4" x 26")

# X13 8U SUPERBLADE®

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



Enclosure	SBE-820 Series
Processor Blade	<ul style="list-style-type: none"> <li>• Up to 20 hot-swappable, half-height, single-width blade servers</li> <li>• Up to 10 hot-swappable, full-height, single-width blade servers</li> <li>• Mixed configuration supported</li> </ul>
LED Indicator	<ul style="list-style-type: none"> <li>• Power LED, Fault LED</li> </ul>
Infiniband Switch	<ul style="list-style-type: none"> <li>• SBE-820H/H2 only: Single 200G HDR InfiniBand switch</li> <li>• SBE-820C only: Single 100G EDR InfiniBand switch</li> </ul>
Ethernet Switch / Pass-Thru Module	<ul style="list-style-type: none"> <li>• SBE-820C/H/H2 only: Up to 2 hot-swap 25G Ethernet switches or pass-thru modules</li> <li>• SBE-820J/J2 only: Up to 4 hot-swappable 25G Ethernet switches or pass-thru modules</li> <li>• SBE-820L only: Up to 2 hot-swappable 10G Ethernet switches or pass-thru modules</li> </ul>
Chassis Management Module (CMM)	<ul style="list-style-type: none"> <li>• Single/Redundant CMM for remote system management with software</li> <li>• SBE-820J/J2 only: Up to 2 hot-swappable CMMs for remote system management with software</li> </ul>
Models	<ul style="list-style-type: none"> <li>• SBE-820C/J/J2/L/H-822: Up to 8 hot-swappable 2200W Titanium (96% efficiency) power supplies</li> <li>• SBE-820H2/J2-830: Up to 8 hot-swap 3000W Titanium (96% efficiency) power supplies</li> </ul>
Rack Unit	8 RU
Form Factor	356 x 447 x 813mm (14" x 17.6" x 32")

# X13 8U SUPERBLADE®

3 SATA or 2 NVMe,  
DP/16 DIMM

3 SATA or 2 NVMe,  
DP/16 DIMM

2 NVMe,  
UP/8 DIMM

2 NVMe,  
UP/8 DIMM

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SBI-421E-1T3N	SBI-421E-5T3N	SBI-411E-1G	SBI-411E-5G
Server Nodes/ Enclosure	20	10	20	10
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processors Up to 250W TDP (air cooled) Up to 350W TDP (liquid cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)†
Chipset	Intel® C741 chipset	Intel® C741 chipset	Intel® C741 chipset	Intel® C741 chipset
System Memory (Max.)	Up to 4TB; 16 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s	Up to 4TB; 16 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s	Up to 2TB; 8 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s	Up to 2TB; 8 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s
PCIe Expansion	OCP 3.0 (PCIe 5.0 x16)	OCP 3.0 (PCIe 5.0 x16)	2 PCIe 5.0 slots	4 PCIe 5.0 slots
Storage & RAID	4 M.2 NVMe with optional mezzanine card 1 M.2 NVMe drive 2 hot-swap U.2 NVMe/SATA3 drive bays & 1 hot-swap SATA3 drive bay; RAID 0, 1 (VROC) Intel® PCH 3.0 SATA Controller	4 M.2 NVMe with optional mezzanine card 1 M.2 NVMe drive 2 hot-swap U.2 NVMe/SATA3 drive bays & 1 hot-swap SATA3 drive bay; RAID 0, 1 (VROC) Intel® PCH 3.0 SATA Controller	4 M.2 NVMe with optional mezzanine card 2 E1.s drives 2 M.2 NVMe drives	4 M.2 NVMe with optional mezzanine card 2 E1.s drives 2 M.2 NVMe drives
Networking	OCP 3.0 network card with 400G NDR IB and other options Mezzanine options for 200G HDR / 100G EDR IB or dual 25GbE Dual 25GbE LOM	OCP 3.0 network card with 400G NDR IB and other options Mezzanine options for 200G HDR / 100G EDR IB or dual 25GbE Dual 25GbE LOM	Dual 25GbE LOM Mezzanine options for 200G HDR / 100G EDR IB or dual 25GbE	Dual 25GbE LOM Mezzanine options for 200G HDR / 100G EDR IB or dual 25GbE
Management	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust
LED Indicators	Fault LED, network activity LED, power LED, UID	Fault LED, Network Activity LED, Power LED, UID	Fault LED, network LED Power, button, KVM/UID LED	Fault LED, network LED Power, button, KVM/UID LED
Form Factor	165 x 44.4 x 597mm (6.5" x 1.75" x 23.5")	165 x 88.9 x 597mm (6.5" x 3.5" x 23.5")	166 x 43 x 580 mm (6.55" x 1.69" x 22.84")	166 x 86 x 580 mm (6.55" x 3.4" x 22.84")
Enclosure	SBE-820C/J/L-422 SBE-820H/C/H2/J/J2/L-622/822 SBE-820H2/J2-630/830	SBE-820H2/J2-630/830 SBE-820H2/J2-622/822	SBE-820C/J/L-422 SBE-820H/C/H2/J/J2/L-622/822 SBE-820H2/J2-630/830	SBE-820H2/J2-630/830 SBE-820H2/J2-622/822

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



# X13 6U SUPERBLADE®

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



Enclosure	SBE-610 Series
Processor Blade	<ul style="list-style-type: none"> <li>• Up to 10 hot-swap, single-width blade servers</li> <li>• Up to 5 hot-swap, double-width blade servers</li> <li>• Mixed configuration supported</li> </ul>
LED Indicator	<ul style="list-style-type: none"> <li>• Power LED, Fault LED</li> </ul>
Infiniband Switch	N/A
Ethernet Switch / Pass-Thru Module	<ul style="list-style-type: none"> <li>• Up to 4 hot-swap 25G Ethernet switches, 10G Ethernet switches or pass-thru modules</li> </ul>
Chassis Management Module (CMM)	<ul style="list-style-type: none"> <li>• Up to 2 hot-swap CMMs for remote system management with software</li> </ul>
Models	<ul style="list-style-type: none"> <li>• SBE-610J/610J2-822: Up to 8 hot-swap 2200W Titanium (96% efficiency) power supplies</li> <li>• SBE-610J2-830: Up to 8 hot-swap 3000W Titanium (96% efficiency)</li> </ul>
Rack Unit	6 RU
Form Factor	267 x 447 x 813mm (10.5" x 17.6" x 32")

# X13 6U SUPERBLADE®



2 SATA/NVMe  
UP/16 DIMM



2 SAS/NVMe  
UP/16 DIMM

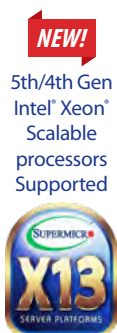


2 SATA/NVMe  
UP/16 DIMM



MODEL	SBI-611E-1T2N	SBI-611E-1C2N	SBI-611E-5T2N
Server Nodes/ Enclosure	10	10	5
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 250W TDP (air cooled) Up to 350W TDP (liquid cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 250W TDP (air cooled) Up to 350W TDP (liquid cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)
Chipset	Intel® C741 chipset	Intel® C741 chipset	Intel® C741 chipset
System Memory (Max.)	Up to 4TB; 16 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s or 2DPC speeds up to 4400 MT/s	Up to 4TB; 16 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s	Up to 4TB; 16 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s or 2DPC speeds up to 4400 MT/s
PCIe Expansion	1 PCIe Gen5 x16 slot, 1 PCIe Gen5 x8 slot, support 1 FHFL DW GPU or 2 SW PCIe cards	1 PCIe Gen5 x16 slot, 1 PCIe Gen5 x8 slot, support 1 FHFL DW GPU or 2 SW PCIe cards	2 PCIe Gen5 x16 slot, 2 PCIe Gen5 x8 slot, support 2 FHFL DW GPU or 4 SW PCIe cards
Storage & RAID	2 hot-swap U.2 NVMe/SATA drive bays 2 E1.S drives 1 M.2 NVMe drive	2 hot-swap U.2 NVMe/SAS drive bays 2 E1.S drives 1 M.2 NVMe drive Broadcom 3108 HW RAID	2 hot-swap U.2 NVMe/SATA3 drive bays 3 M.2 NVMe drives 2 E1.S drives Intel® PCH 3.0 SATA controller
Networking	Standard IB or GbE PCIe cards Mezzanine option for dual 25GbE dual 25GbE LOM	Standard IB or GbE PCIe cards Mezzanine option for dual 25GbE dual 25GbE LOM	Standard IB or GbE PCIe cards Mezzanine option for dual 25GbE dual 25GbE LOM
Management	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust	Redundant Chassis Management Modules, Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust	Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust
LED Indicators	Fault LED, network activity LED, power LED, UID	Fault LED, Network Activity LED, Power LED, UID	Fault LED, network activity LED, power LED, UID
Form Factor	248 x 44.4 x 597mm (9.75" x 1.75" x 23.5")	248 x 44.4 x 597mm (9.75" x 1.75" x 23.5")	248 x 44.4 x 597mm (9.75" x 1.75" x 23.5")
Enclosure	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830

# X13 6U SUPERBLADE®



3 SATA/NVMe  
DP/32 DIMM



3 SAS/NVMe  
DP/32 DIMM



3 SATA/NVMe  
DP/32 DIMM

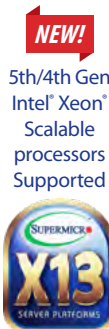


MODEL	SBI-621E-1T3N	SBI-621E-1C3N	SBI-621E-5T3N
Server Nodes/ Enclosure	10	10	5
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)
Chipset	Intel® C741 chipset	Intel® C741 chipset	Intel® C741 chipset
System Memory (Max.)	Up to 4TB; 32 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s	Up to 8TB; 32 DDR5 DIMM slots, 1DPC speeds up to 5600 MT/s or 2DPC speeds up to 4400 MT/s	32 DIMM slots DDR5-5600MT/s 1DPC speeds up to 5600 MT/s
PCIe Expansion	N/A	N/A	N/A
Storage & RAID	3 hot-swap U.2 NVMe/SATA drive bays Intel® PCH 3.0 SATA controller	2 hot-swap U.2 NVMe/SAS drive bays & 1 hot- swap SAS drive bay; HW RAID w/ 3108	3 hot-swap U.2 NVMe/SATA drive bays Intel® PCH 3.0 SATA Controller
Networking	Mezzanine option for dual 25GbE dual 25GbE LOM	Mezzanine option for Dual 25GbE Dual 25GbE LOM	Mezzanine option for Dual 25GbE Dual 25GbE LOM
Management	Redundant Chassis Management Modules, Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust / Chassis Management Module	Redundant Chassis Management Modules, Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust / Chassis Management Module	Redundant Chassis Management Modules, Open Industry Standard IPMI 2.0 / KVM over IP / Redfish API / TPM 2.0 / Signed Firmware / HW Root of Trust / Chassis Management Module
LED Indicators	Fault LED, network activity LED, Power LED, UID	Fault LED, Network Activity LED, Power LED, UID	Fault LED, Network Activity LED, Power LED, UID
Form Factor	248 x 44.4 x 597mm (9.75" x 1.75" x 23.5")	248 x 44.4 x 597mm (9.75" x 1.75" x 23.5")	248 x 88.9 x 596.9mm (9.75" x 3.5" x 23.5")
Enclosure	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830	SBE-610J/J2-422/622/822 SBE-610J2-430/630/830

# X13 GRANDTWIN®

2U 4-Node Front I/O

2U 4-Node Front I/O

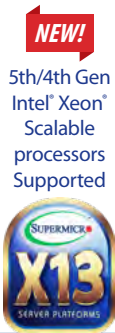


MODEL	SYS-211GT-HNTF	SYS-211GT-HNC8F
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Mission Critical Web Applications</li> <li>• EDA (Electric Design Automation)</li> <li>• Telco Edge Cloud</li> <li>• High-availability Cache Cluster</li> <li>• Multi-Purpose CDN</li> <li>• MEC (Multi-Access Edge Computing)</li> <li>• Cloud Gaming</li> </ul>	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Mission Critical Web Applications</li> <li>• EDA (Electric Design Automation)</li> <li>• Telco Edge Cloud</li> <li>• High-availability Cache Cluster</li> <li>• Multi-Purpose CDN</li> <li>• MEC (Multi-Access Edge Computing)</li> <li>• Cloud Gaming</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Single processor with 16 DIMM</li> <li>• Front I/O design</li> <li>• Four front access hot-swappable node in 2U</li> <li>• Flexible storage selection</li> </ul>	<ul style="list-style-type: none"> <li>• Single processor with 16 DIMM</li> <li>• SAS controller built-in</li> <li>• Front I/O design</li> <li>• Four front access hot-swappable node in 2U</li> <li>• Flexible storage selection</li> </ul>
Serverboard	SUPER● X13SET-G	SUPER● X13SET-GC
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-4800MT/s	16 DIMM slots; up to 4TB DDR5-4800MT/s
Expansion Slots	2 PCIe 5.0 x16 AIOM slots	2 PCIe 5.0 x16 AIOM slots
Onboard Storage Controller	Intel® SATA	Broadcom® Broadcom® 3808
Connectivity	via AIOM	via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)
Drive Bays	4 hot-swap 2.5" NVMe/SATA drive bays; 4x 2.5" NVMe dedicated; optional RAID support via Intel® PCH	4 hot-swap 2.5" NVMe/SATA/SAS drive bays; 4x 2.5" NVMe dedicated; optional RAID support via Broadcom® 3808 AOC
Peripheral Bays	None	None
Power Supply	Redundant 2200W Titanium level (96%)	Redundant 2200W Titanium level (96%)
Cooling System	2 heavy duty 8cm fans	2 heavy duty 8cm fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 GRANDTWIN®

2U 4-Node Rear I/O

2U 4-Node Rear I/O

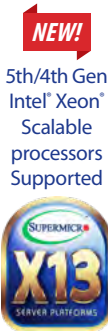


MODEL	SYS-211GT-HNTR	SYS-211GT-HNC8R
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)†	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)†
Key Applications	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Mission Critical Web Applications</li> <li>• EDA (Electric Design Automation)</li> <li>• Telco Edge Cloud</li> <li>• High-availability Cache Cluster</li> <li>• Multi-Purpose CDN</li> <li>• MEC (Multi-Access Edge Computing)</li> <li>• Cloud Gaming</li> </ul>	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Mission Critical Web Applications</li> <li>• EDA (Electric Design Automation)</li> <li>• Telco Edge Cloud</li> <li>• High-availability Cache Cluster</li> <li>• Multi-Purpose CDN</li> <li>• MEC (Multi-Access Edge Computing)</li> <li>• Cloud Gaming</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Single processor with 16 DIMM</li> <li>• Four front access hot-swappable node in 2U</li> <li>• 6x NVMe/SATA drives per node</li> </ul>	<ul style="list-style-type: none"> <li>• Single processor with 16 DIMM</li> <li>• SAS controller built-in</li> <li>• Four front access hot-swappable node in 2U</li> <li>• 6x NVMe/SAS/SATA drives per node</li> </ul>
Serverboard	SUPER● X13SET-G	SUPER● X13SET-GC
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-4800MT/s	16 DIMM slots; up to 4TB DDR5-4800MT/s
Expansion Slots	2 PCIe 5.0 x16 AIOM slots	2 PCIe 5.0 x16 AIOM slots
Onboard Storage Controller	Intel® SATA	Broadcom® Broadcom® 3808
Connectivity	via AIOM	via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)
Drive Bays	6x 2.5" hot-swap NVMe/SATA drive bays; 6x 2.5" NVMe dedicated; Optional RAID support via Intel® PCH	6x 2.5" hot-swap NVMe/SATA/SAS drive bays; 6x 2.5" NVMe dedicated; Optional RAID support via Broadcom® 3808 AOC
Peripheral Bays	None	None
Power Supply	Redundant 2200W Titanium level (96%)	Redundant 2200W Titanium level (96%)
Cooling System	2 heavy duty 8cm fans	2 heavy duty 8cm fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 BIGTWIN®

2U 2-Node

2U 2-Node



MODEL	SYS-621BT-DNTR	SYS-621BT-DNC8R
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 300W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 300W TDP (air cooled) Up to 350W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Back-up &amp; Recovery</li> <li>• Scale-Out Object Storage</li> <li>• Hyperconverged Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Back-up &amp; Recovery</li> <li>• Scale-Out Object Storage</li> <li>• Hyperconverged Infrastructure</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> <li>• Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SATA per node (Drive Bays)</li> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> </ul>	<ul style="list-style-type: none"> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> <li>• Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays)</li> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> </ul>
Serverboard	SUPER® X13DET-B	SUPER® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 M.2 (22x110mm) slots for boot drive or caching 1 PCIe 5.0 x16 LP slot 2 PCIe x8 LP slots	2 M.2 (22x110mm) slots for boot drive or caching 1 PCIe 5.0 x16 LP slot 2 PCIe x8 LP slots
Onboard Storage Controller	Intel® SATA	Broadcom® 3808
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog
Drive Bays	6 hot-swap 3.5" NVMe/SATA drive bays; RAID support via Intel® PCH	6 hot-swap 3.5" NVMe/SAS drive bays; HBA support via SAS3808 Adapter
Peripheral Bays	None	None
Power Supply	1U 2200W Redundant Power Supply Titanium with C14 inlet, 45(W) X 40(H) X 480(L)	1U 2200W Redundant Power Supply Titanium with C14 inlet, 45(W) X 40(H) X 480(L)
Cooling System	4 heavy duty 14.9K RPM 8cm fans	4 heavy duty 14.9K RPM 8cm fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 774mm (17.68" x 3.47" x 30.5") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 774mm (17.68" x 3.47" x 30.5") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 BIGTWIN®

2U 2-Node

2U 2-Node

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SYS-221BT-DNTR	SYS-221BT-DNC8R
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 350W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Big Data Analytics and AI</li> <li>• Scale Out All-Flash NVMe Storage</li> <li>• Diskless HPC Clusters</li> <li>• High-Performance File System</li> </ul>	<ul style="list-style-type: none"> <li>• All-Flash Object Storage</li> <li>• All-Flash Storage Area Network</li> <li>• All-Flash Hyperconverged Infrastructure</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> <li>• Supports 2x PCIe 5.0 NVMe and 10x PCIe 4.0 NVMe/SATA per node (Drive Bays)</li> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> </ul>	<ul style="list-style-type: none"> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> <li>• Supports 2x PCIe 5.0 NVMe and 10x PCIe 4.0 NVMe/SAS per node (Drive Bays)</li> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> </ul>
Serverboard	SUPERMICRO® X13DET-B	SUPERMICRO® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 M.2 (22x110mm) slots for boot drive or caching 1 PCIe 5.0 x16 LP slot 2 PCIe x8 LP slots	2 M.2 (22x110mm) slots for boot drive or caching 1 PCIe 5.0 x16 LP slot 2 PCIe x8 LP slots
Onboard Storage Controller	Intel® SATA	Broadcom® 3816
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog
Drive Bays	12 hot-swap 2.5" NVMe/SATA drive bays; RAID support via Intel® PCH	12 hot-swap 2.5" NVMe/SAS drive bays; Optional HBA support via SAS3816 AOC
Peripheral Bays	None	None
Power Supply	1U 2200W Redundant Power Supply Titanium with C14 inlet, 45(W) X 40(H) X 480(L)	1U 2200W Redundant Power Supply Titanium with C14 inlet, 45(W) X 40(H) X 480(L)
Cooling System	4 heavy duty 16.5K RPM 8cm fans	4 heavy duty 16.5K RPM 8cm fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 BIGTWIN®

2U 4-Node

2U 4-Node



**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SYS-621BT-HNTR	SYS-621BT-HNC8R
Processor Support	Dual Socket 5th/4th Gen Intel® Xeon® Scalable processors Up to 185W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual Socket 5th/4th Gen Intel® Xeon® Scalable processors Up to 185W TDP (air cooled) Up to 350W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>Scale-Out File Server</li> <li>Container Storage</li> <li>Hyperconverged Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Container Storage</li> <li>Scale-Out File Storage</li> <li>Hyperconverged Infrastructure</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Tool-less support for swapping AOC cards</li> <li>Supports Liquid Cooling up to 350W TDP</li> <li>Supports 2x PCIe 5.0 NVMe and 1x PCIe 4.0 NVMe/SATA per node (Drive Bays)</li> <li>Optional TPM 1.2 or 2.0 module</li> <li>HW Boot Controller for NVMe M.2 drives</li> </ul>	<ul style="list-style-type: none"> <li>Tool-less support for swapping AOC cards</li> <li>Supports Liquid Cooling up to 350W TDP</li> <li>Supports 2x PCIe 5.0 NVMe and 1x PCIe 4.0 NVMe/SAS per node (Drive Bays)</li> <li>Optional TPM 1.2 or 2.0 module</li> <li>HW Boot Controller for NVMe M.2 drives</li> </ul>
Serverboard	SUPER® X13DET-B	SUPER® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 M.2 (22x110mm) slots for boot drive or caching 2 PCIe 5.0 x16 LP slots	2 M.2 (22x110mm) slots for boot drive or caching 2 PCIe 5.0 x16 LP slots
Onboard Storage Controller	Intel® SATA	Broadcom® 3808
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog
Drive Bays	3 hot-swap 3.5" NVMe/SATA drive bays; RAID support via Intel® PCH	3 hot-swap 3.5" NVMe/SAS drive bays; HBA support via SAS3808 Adapter
Peripheral Bays	None	None
Power Supply	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)
Cooling System	4 heavy duty 14.9K RPM 8cm fans	4 heavy duty 14.9K RPM 8cm fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 774mm (17.68" x 3.47" x 30.5") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 774mm (17.68" x 3.47" x 30.5") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")



# X13 BIGTWIN®

2U 4-Node

2U 4-Node



**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported

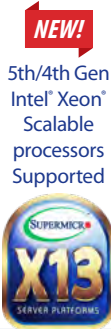


MODEL	SYS-221 BT-HNC8R	SYS-221 BT-HNC9R
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>All-Flash Hyperconverged Infrastructure</li> <li>Diskless HPC Clusters</li> <li>Container-as-a-Service; Application Accelerator</li> </ul>	<ul style="list-style-type: none"> <li>High-Density Storage RAID Array</li> <li>Virtualized Big Data Analytics</li> <li>Mission Critical HPC</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Tool-less support for swapping AOC cards</li> <li>Supports Liquid Cooling up to 350W TDP</li> <li>Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays)</li> <li>Optional TPM 1.2 or 2.0 module</li> <li>HW Boot Controller for NVMe M.2 drives</li> </ul>	<ul style="list-style-type: none"> <li>Tool-less support for swapping AOC cards</li> <li>Supports Liquid Cooling up to 350W TDP</li> <li>Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays)</li> <li>Optional TPM 1.2 or 2.0 module</li> <li>HW Boot Controller for NVMe M.2 drives</li> </ul>
Serverboard	SUPERMICRO® X13DET-B	SUPERMICRO® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 M.2 (22x110mm) slots for boot drive or caching 2 PCIe 5.0 x16 LP slots	2 M.2 (22x110mm) slots for boot drive or caching 1 PCIe 5.0 x16 LP slot
Onboard Storage Controller	Broadcom® 3808	Broadcom® 3908
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog
Drive Bays	6 hot-swap 2.5" NVMe/SAS drive bays; HBA support via SAS3808 Adapter	6 hot-swap 2.5" NVMe/SAS drive bays; Optional RAID support via Broadcom® 3908 AOC
Peripheral Bays	None	None
Power Supply	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)
Cooling System	4x 16K RPM Counter Rotating 8cm Fan(s)	4x 16K RPM Counter Rotating 8cm Fan(s)
Form Factor	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 BIGTWIN®

2U 4-Node

2U 4-Node  
(Coming Soon All NVMe Gen 5)



MODEL	SYS-221BT-HNTR	SYS-221BT-HNR
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 205W TDP (air cooled) Up to 350W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Diskless HPC Clusters</li> <li>• High-Performance File System</li> <li>• Container-as-a-Service; Application Accelerator</li> <li>• All-Flash NVMe Hyperconverged Infrastructure</li> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> </ul>	<ul style="list-style-type: none"> <li>• Diskless HPC Clusters</li> <li>• High-Performance File System</li> <li>• Container-as-a-Service; Application Accelerator</li> <li>• All-Flash NVMe Hyperconverged Infrastructure</li> <li>• Tool-less support for swapping AOC cards</li> <li>• Supports Liquid Cooling up to 350W TDP</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SATA per node (Drive Bays)</li> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> </ul>	<ul style="list-style-type: none"> <li>• Optional TPM 1.2 or 2.0 module</li> <li>• HW Boot Controller for NVMe M.2 drives</li> <li>• All NVMe PCIe 5.0 Flash</li> </ul>
Serverboard	SUPERMICRO X13DET-B	SUPERMICRO X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	6 DIMM slots; up to 4TB DDR5-5600MT/s	6 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 M.2 (22x110mm) slots for boot drive or caching 2 PCIe 5.0 x16 LP slots	2 M.2 (22x110mm) slots for boot drive or caching 2 PCIe 5.0 x16 LP slots
Onboard Storage Controller	Intel® SATA	
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; Supemicro Out of Band (OOB) License; SuperCloud Composer; SuperDoctor® 5; Watch Dog
Drive Bays	6 hot-swap 2.5" NVMe/SATA drive bays; RAID support via Intel® PCH	6 hot-swap 2.5" NVMe Gen5 drive bays
Peripheral Bays	None	None
Power Supply	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)	1U 3000W Redundant Power Supply Titanium with C22 inlet, 45(W) X 40(H) X 480(L)
Cooling System	4 16K RPM 8cm counter-rotating fans	4 16K RPM 8cm counter-rotating fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 730mm (17.68" x 3.47" x 28.75") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

# X13 FATTWIN®

4U8N

4U4N



**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SYS-F511E2-RT	SYS-F521E3-RTB
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)†	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)†
Key Applications	<ul style="list-style-type: none"> <li>• Hyperscale / Hyperconverged</li> <li>• Telco Data Center and ETSI certified</li> <li>• Data Center Enterprise Applications</li> <li>• HPC and Big Data</li> </ul>	<ul style="list-style-type: none"> <li>• Hyperscale / Hyperconverged</li> <li>• Telco Data Center and ETSI certified</li> <li>• Data Center Enterprise Applications</li> <li>• HPC and Big Data</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Shared power architecture for best efficiency</li> <li>• Redundant cooling and power configurations for high availability</li> <li>• Optimized designs for storage and compute density</li> <li>• HDD hot-swap capability</li> <li>• 16 DIMMs Up to 4TB DDR5</li> </ul>	<ul style="list-style-type: none"> <li>• Shared power architecture for best efficiency</li> <li>• Redundant cooling and power configurations for high availability</li> <li>• Optimized designs for storage and compute density</li> <li>• HDD hot-swap capability</li> <li>• 16 DIMMs Up to 4TB DDR5</li> </ul>
Serverboard	SUPERMICRO X13SEFR-A	SUPERMICRO X13SEFR-A
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 AIOM slots 1 PCIe 5.0 x16 LP slot 2 M.2 slots	2 AIOM slots 1 PCIe 5.0 x16 LP slot 2 M.2 slots
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	1 1GbE RJ45 (BMC) port via AIOM	1 1GbE RJ45 (BMC) port via AIOM
VGA/Audio	1 VGA port, Aspeed AST2600 BMC	1 VGA port, Aspeed AST2600 BMC
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	6 hot-swap 2.5" NVMe/SATA/SAS drive bays; 8x 2.5" NVMe hybrid; 8x 2.5" 7mm drive bays	8 hot-swap 3.5" NVMe/SATA/SAS drive bays; 8x 2.5" NVMe hybrid; 8x 2.5" 7mm drive bays
Peripheral Bays	None	None
Power Supply	Redundant 2000W Titanium level (96%)	Redundant 2000W Titanium level (96%)
Cooling System	4 heavy duty 4cm fans	4 heavy duty 4cm fans
Form Factor	4U Rackmount Enclosure: 448 x 177 x 737mm (17.63" x 6.96" x 29") Package: (28.3" x 15" x 42.4")	4U Rackmount Enclosure: 448 x 177 x 737mm (17.63" x 6.96" x 29") Package: (28.3" x 15" x 42")

# X13 CLOUDDC

High Density Cloud Storage

High Density Cloud Storage

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-621C-TN12R	SYS-521C-NR
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>• CDN, Edge Nodes</li> <li>• DNS &amp; Gateway Servers, Firewall Application</li> <li>• Cloud Computing, Compact Server</li> <li>• Data Center Optimized, Value IaaS</li> <li>• Web Server, Firewall Application</li> </ul>	<ul style="list-style-type: none"> <li>• Database/Storage</li> <li>• AI Inference, ML training</li> <li>• Network Appliance</li> <li>• Data Center Optimized</li> <li>• Cloud Computing</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Up to 12x NVMe/SATA/SAS hybrid tool-less drive bays</li> <li>• Optional hot-swappable 2.5" rear drive bays</li> <li>• Flexible expansion with up to 2x PCIe 5.0 x16 and 4x PCIe 5.0 x8 (convertible to 2x PCIe 5.0 x16) slots</li> <li>• Dual sockets up to 350W TDP</li> <li>• Dual NVMe M.2 (2280)</li> <li>• Dual FHFLDW PCIe 4.0 GPU support</li> <li>• Dual AIOM with NCSI (OCP 3.0 NIC)</li> <li>• Compact server with tool-less drive trays</li> <li>• Balanced architecture in compact chassis (25.6")</li> <li>• 3.5" tool-less drive trays also support 2.5" drives</li> </ul>	<ul style="list-style-type: none"> <li>• Support powerful double-width GPUs</li> <li>• Flexible Configurations. Support 6 PCIe 5.0 expansion slots + 2x AIOM slots in 2U</li> </ul>
Serverboard	SUPERMICRO® X13DDW-A	SUPERMICRO® X13SEDW-F
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	Slot 1: PCIe 4.0 x8 FHHL (optional x16 by merging slot 2) Slot 2: PCIe 4.0 x8 FHHL Slot 3: PCIe 4.0 x16 FHHL Slot 4: PCIe 4.0 x8 FHHL Slot 5: PCIe 4.0 x8 FHHL (optional x16 by merging slot 4) Slot 6: PCIe 4.0 x16 FHHL Slot A1: PCIe 4.0 x16 OCP 3.0 Mezzanine NIC Slot A2: PCIe 4.0 x16 OCP 3.0 Mezzanine NIC	Slot 1: PCIe 5.0 x8 FHFL (optional x16 by merging slot 2) Slot 2: PCIe 5.0 x8 FHFL Slot 3: PCIe 5.0 x16 FHHL Slot 4: PCIe 5.0 x8 FHFL Slot 5: PCIe 5.0 x8 FHFL (optional x16 by merging slot 4) Slot 6: PCIe 5.0 x16 FHHL Slot A1: PCIe 5.0 x16 OCP 3.0 AIOM NIC Slot A2: dummy AIOM slot
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	with Via Advanced IO Module, AIOM (OCP 3.0 NIC, refer to AIOM Network Card(s) under Optional Parts List for NIC options) via AIOM	via AIOM
VGA/Audio	1 VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SCC; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM
Drive Bays	12 hot-swap 3.5" NVMe/SATA/SAS hybrid drive bays; Optional RAID support via RAID controller AOC	12 hot-swap 3.5" SATA/SAS drive bays; 2x 3.5" NVMe hybrid
Peripheral Bays	None	None
Power Supply	Redundant 1200W Titanium level (96%)	Redundant 1200W Titanium level (96%)
Cooling System	3 heavy duty 8cm fans	3 (8cm x 8cm x 3.8cm) heavy duty fan(s)
Form Factor	2U Rackmount Enclosure: 437 x 89 x 648mm (17.2" x 3.5" x 25.5") Package: 678 x 290 x 876mm (26.7" x 11.4" x 34.5")	2U Rackmount Enclosure: 437 x 89 x 648mm (17.2" x 3.5" x 25.5") Package: 678 x 290 x 876mm (26.7" x 11.4" x 34.5")

# X13 CLOUDDC

Compact Cloud Compute

Compact Cloud Compute



**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-121C-TN10R	SYS-111C-NR
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 270W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 350W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>• CDN, Edge Nodes</li> <li>• DNS &amp; Gateway Servers, Firewall Application</li> <li>• Cloud Computing, Compact Server</li> <li>• Data Center Optimized, Value IaaS</li> <li>• Web Server, Firewall Application</li> </ul>	<ul style="list-style-type: none"> <li>• HPC</li> <li>• Virtualization</li> <li>• Storage Headnode</li> <li>• Data Center Optimized</li> <li>• Cloud Computing</li> <li>• CDN, Edge Nodes</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Up to 10x NVMe/SATA/SAS hybrid tool-less drive bays</li> <li>• Dual sockets up to 270W TDP</li> <li>• Dual NVMe M.2 (2280)</li> <li>• Dual AIOM with NCSI (OCP 3.0 NIC)</li> <li>• Compact server with tool-less drive trays</li> <li>• Balanced architecture in compact chassis (23.5")</li> </ul>	<ul style="list-style-type: none"> <li>• Max 10x PCIe 5.0 NVMe drives supported in 1U Form Factor</li> <li>• Flexible Configurations. Support 2x 16 PCIe 5.0 expansion slots + 2x AIOM slots in 1U</li> </ul>
Serverboard	SUPERMICRO® X13DDW-A	SUPERMICRO® X13SEDW-F
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x16 FHHL slots	Slot 1: PCIe 5.0 x16 FHHL Slot 2: PCIe 5.0 x16 FHHL Slot A1: PCIe 5.0 x16 OCP 3.0 AIOM NIC Slot A2: PCIe 5.0 x16 OCP 3.0 AIOM NIC
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	with Via Advanced IO Module, AIOM (OCP 3.0 NIC, refer to AIOM Network Card(s) under Optional Parts List for NIC options) via AIOM	via AIOM
VGA/Audio	1 VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SCC; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM
Drive Bays	10 hot-swap 2.5" NVMe/SATA/SAS hybrid drive bays; Optional RAID support via RAID controller AOC	10 hot-swap 2.5" NVMe/SATA/SAS drive bays
Peripheral Bays	None	None
Power Supply	Redundant 860W Platinum level (94%)	Redundant 860W Platinum level (94%)
Cooling System	6 heavy duty 4cm fans	6 (4cm x 4cm x 5.6cm) heavy duty fans
Form Factor	1U Rackmount Enclosure: 437 x 43 x 597mm (17.2" x 1.7" x 23.5") Package: 605 x 197 x 822mm (23.8" x 7.8" x 32.4")	1U Rackmount Enclosure: 437 x 43 x 597mm (17.2" x 1.7" x 23.5") Package: 602 x 195.6 x 807.7mm (23.7" x 7.7" x 31.8")

# X13 CLOUDDC

General Purpose Balanced

Compact Storage Optimized

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-121C-TN2R	SYS-611C-TN4R
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)
Key Applications	<ul style="list-style-type: none"> <li>• CDN, Edge Nodes</li> <li>• DNS &amp; Gateway Servers, Firewall Application</li> <li>• Cloud Computing, Compact Server</li> <li>• Data Center Optimized, Value IaaS</li> <li>• Web Server, Firewall Application</li> </ul>	<ul style="list-style-type: none"> <li>• CDN, Edge Nodes</li> <li>• DNS &amp; Gateway Servers, Firewall Application</li> <li>• Cloud Computing, Compact Server</li> <li>• Data Center Optimized, Value IaaS</li> <li>• Web Server, Firewall Application</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Up to 8x SATA/SAS w/ 2x NVMe tool-less drive bays</li> <li>• Optional DVD ROM support</li> <li>• Dual sockets up to 270W TDP</li> <li>• Dual NVMe M.2 (2280)</li> <li>• Dual AIOM with NCSI (OCP 3.0 NIC)</li> <li>• Compact server with tool-less drive trays</li> <li>• Balanced architecture in compact chassis (23.5")</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 4x SATA/SAS/NVMe tool-less drive bays</li> <li>• Optional fixed 2.5" 7 mm drive bays</li> <li>• Dual sockets up to 270W TDP</li> <li>• Dual NVMe M.2 (2280)</li> <li>• Dual AIOM with NCSI (OCP 3.0 NIC)</li> <li>• Compact server with tool-less drive trays</li> <li>• Balanced architecture in compact chassis (25.6")</li> <li>• 3.5" tool-less drive trays also support 2.5" drives</li> </ul>
Serverboard	SUPERMICRO® X13DDW-A	SUPERMICRO® X13DDW-A
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x16 FHHL slot(s)	2 PCIe 5.0 x16 FHHL slot(s)
Onboard Storage Controller	Intel® SATA	
Connectivity	with Via Advanced IO Module, AIOM (OCP 3.0 NIC, refer to AIOM Network Card(s) under Optional Parts List for NIC options) via AIOM	with Via Advanced IO Module, AIOM (OCP 3.0 NIC, refer to AIOM Network Card(s) under Optional Parts List for NIC options) via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SCC; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SCC; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	8 hot-swap 2.5" NVMe/SATA/SAS hybrid drive bays; Optional RAID support via RAID controller AOC	4 hot-swap 3.5" NVMe/SATA/SAS hybrid drive bays; Optional RAID support via RAID controller AOC
Peripheral Bays	1x DVD-ROM (optional)	2 fixed 2.5" 7mm peripheral bays (optional)
Power Supply	Redundant 860W Platinum level (94%)	Redundant 860W Platinum level (94%)
Cooling System	6 heavy duty 4cm fans	6 heavy duty 4cm fans
Form Factor	1U Rackmount Enclosure: 437 x 43 x 597mm (17.2" x 1.7" x 23.5") Package: 605 x 197 x 822mm (23.8" x 7.8" x 32.4")	1U Rackmount Enclosure: 437 x 43 x 650mm (17.2" x 1.7" x 25.6") Package: 605 x 197 x 878mm (23.8" x 7.8" x 34.6")

# X13 ALL-FLASH EDSFF

1U High-performance All-Flash

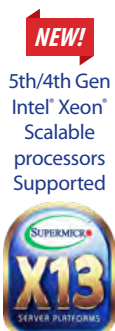
**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SSG-121E-NES24R	SSG-121E-NE316R	SSG-221E-NE324R
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 350W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>In-Memory Computing</li> <li>Software-defined Storage</li> <li>NVMe Over Fabrics Solution</li> <li>Private &amp; Hybrid Cloud</li> <li>Data Intensive HPC</li> </ul>	<ul style="list-style-type: none"> <li>In-Memory Computing</li> <li>Software-defined Storage</li> <li>NVMe Over Fabrics Solution</li> <li>Private &amp; Hybrid Cloud</li> <li>Data Intensive HPC</li> </ul>	<ul style="list-style-type: none"> <li>In-Memory Computing</li> <li>Software-defined Storage</li> <li>NVMe Over Fabrics Solution</li> <li>Private &amp; Hybrid Cloud</li> <li>Data Intensive HPC</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Two PCIe 5.0 x16 slots &amp; two AIOM connectors (OCP 3.0 SFF compliant)</li> <li>Supports 32 DIMMs with 2DPC, up to 12TB memory capacity with 16 DIMMs of 256Gb 3DS RDIMM/RDIMM DDR5 ECC memory and 16 DIMMs of 512Gb</li> <li>Redundant Titanium 2000W Power Supplies</li> <li>Dual Socket E (LGA-4677) 5th/4th Generation Intel® Xeon® Scalable processors. Up to 270W TDP.</li> <li>Composable Infrastructure Platform</li> <li>24x hot-swap E1.5 (9.5mm or 15mm) NVMe drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Two PCIe 5.0 x16 slots &amp; two AIOM connectors (OCP 3.0 SFF compliant)</li> <li>Supports 32 DIMMs with 2DPC, up to 8TB memory capacity with 32 DIMMs of 256GB 3DS RDIMM/RDIMM DDR5 ECC memory</li> <li>Dual Socket E (LGA-4677) 5th/4th Generation Intel® Xeon® Scalable processors. Up to 270W TDP.</li> <li>Composable Infrastructure Platform</li> </ul>	<ul style="list-style-type: none"> <li>Two PCIe 5.0 x16 slots &amp; two AIOM connectors (OCP 3.0 SFF compliant)</li> <li>Supports 32 DIMMs with 2DPC, up to 8TB memory capacity with 32 DIMMs of 256GB 3DS RDIMM/RDIMM DDR5 ECC memory</li> <li>Redundant Titanium 2000W Power Supplies</li> <li>Dual Socket E (LGA-4677) 5th/4th Generation Intel® Xeon® Scalable processors. Up to 350W TDP.</li> <li>Composable Infrastructure Platform</li> </ul>
Serverboard	SUPER® X13DSF-A	SUPER® X13DSF-A	SUPER® X13DSF-A
Chipset	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots; Up to 8TB DDR5-4800MT/s	32 DIMM slots; Up to 8TB DDR5-4800MT/s	32 DIMM slots; Up to 8TB DDR5-4800MT/s
Expansion Slots	2 PCIe 5.0 x16 FHHL slots or 4 PCIe 5.0 x8 FHHL slots; 2 PCIe 5.0 x 16 AIOM slots	2 PCIe 5.0 x16 AIOM slots 2 PCIe 5.0 x16 FH slots	1 PCIe 5.0 x16 AIOM slots 1 PCIe 5.0 x16 FH slots 1 PCIe 5.0 x8 AIOM slots 1 PCIe 5.0 x8 FH slots
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	via AIOM	via AIOM	via AIOM
VGA/Audio	1 VGA port	1 VGA port	None
Management	IPMI 2.0; NMI; SUM; SuperDoctor® 5; Watch Dog	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	24 hot-swap E1.5 NVMe drive slots	16 hot-swap E3.5 NVMe drive slots	24 hot-swap E3.5 NVMe (9.5mm or 15mm) drive slots
Peripheral Bays	None	None	None
Power Supply	2000W Redundant Power Supplies with PMBus	1600W Redundant Power Supplies with PMBus	Redundant 750W Platinum level (94%)
Cooling System	8 heavy duty 8cm fans	8 heavy duty 4cm fans	8 heavy duty 4cm fans
Form Factor	1U Rackmount Enclosure: 438.4 x 43.6 x 773.25mm (17.2" x 1.7" x 30.4") Package: 604.774 x 199.898 x 1029.97mm (23.81" x 7.87" x 40.55")	1U Rackmount Enclosure: 438.4 x 43.6 x 773.25mm (17.2" x 1.7" x 30.4") Package: 604.774 x 199.898 x 1029.97mm (23.81" x 7.87" x 40.55")	2U Rackmount Enclosure: 438.4 x 89.8 x 789.9mm (17.2" x 3.5" x 30.8") Package: 673.1 x 254 x 1098.55mm (26.5" x 10" x 43.25")

# X13 ENTERPRISE STORAGE



2U 12-bay Front Loading



2U 12-bay Front Loading



2U 16-Bay Front Loading/Internal



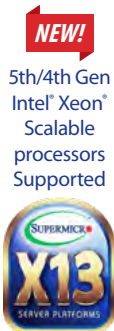
2U 16-Bay Front Loading/Internal



MODEL	SSG-621E-ACR12H	SSG-621E-ACR12L	SSG-621E-ACR16H	SSG-621E-ACR16L
Processor Support	5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W	5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W	5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W	5th Gen Intel® Xeon®/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W
Key Applications	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Up to 4TB DDR5-5600MHZ/4800MHZ ECC Registered RDIMM in 16 DIMM slots(1DPC)</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>12x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB DDR5-5600MHZ/4800MHZ ECC Registered RDIMM in 16 DIMM slots(1DPC)</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>12x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB DDR5-5600MHZ/4800MHZ ECC Registered RDIMM in 16 DIMM slots(1DPC)</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>12x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB DDR5-5600MHZ/4800MHZ ECC Registered RDIMM in 16 DIMM slots(1DPC)</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual Socket E (LGA-4677) 5th/4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>12x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>
Serverboard	SUPER● X13DEI-T	SUPER● X13DEI-T	SUPER● X13DEI-T	SUPER● X13DEI-T
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM	16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM	16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM	16 DIMM slots Max Memory (1DPC): Up to 4TB 5600MT/s ECC DDR5 RDIMM
Expansion Slots	2 PCIe 5.0 x8 LP slot(s) 4 PCIe 5.0 x16 LP slot(s)	2 PCIe 5.0 x8 LP slot(s) 4 PCIe 5.0 x16 LP slot(s)	2 PCIe 5.0 x8 LP slot(s) 4 PCIe 5.0 x16 LP slot(s)	2 PCIe 5.0 x8 LP slot(s) 4 PCIe 5.0 x16 LP slot(s)
Onboard Storage Controller				
Connectivity	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416
VGA/Audio	1 VGA port	1 VGA port	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	12x 3.5" hot-swap SATA3/SAS3 drive bays; 6x 2.5" NVMe hybrid;	12x 3.5" hot-swap SATA3/SAS3 drive bays; 6x 2.5" NVMe hybrid;	16x 3.5" hot-swap SATA3/SAS3 drive bays; 6x 2.5" NVMe hybrid;	16x 3.5" hot-swap SATA3/SAS3 drive bays; 6x 2.5" NVMe hybrid;
Peripheral Bays	None	None	None	None
Power Supply	1200W Redundant Titanium Level power supplies	1200W Redundant Titanium Level power supplies	1600W Redundant Titanium Level power supplies	1600W Redundant Titanium Level power supplies
Cooling System	3x 8cm heavy duty fan(s)	3x 8cm heavy duty fan(s)	4x 8cm heavy duty fan(s)	4x 8cm heavy duty fan(s)
Form Factor	2U Rackmount Enclosure: 437 x 89 x 650mm (17.2" x 3.5" x 25.6") Package: 673 x 292 x 864mm (26.5" x 11.5" x 34")	2U Rackmount Enclosure: 437 x 89 x 650mm (17.2" x 3.5" x 25.6") Package: 673 x 292 x 864mm (26.5" x 11.5" x 34")	2U Rackmount Enclosure: 437 x 89 x 705mm (17.2" x 3.5" x 27.75") Package: 658 x 274 x 998mm (25.9" x 10.8" x 39.3")	2U Rackmount Enclosure: 437 x 89 x 705mm (17.2" x 3.5" x 27.75") Package: 658 x 274 x 998mm (25.9" x 10.8" x 39.3")



# X13 ENTERPRISE STORAGE



3U 16-Bay Front Loading

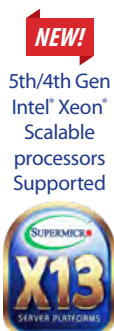


3U 16-Bay Front Loading



MODEL	SSG-631E-E1CR16H	SSG-631E-E1CR16L
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)
Key Applications	<ul style="list-style-type: none"> <li>• Appliance Optimized Storage Building Blocks</li> <li>• Corporate Database</li> <li>• Database Processing &amp; Storage</li> <li>• HPC, Data Center</li> <li>• iSCSI SAN</li> <li>• Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>• Appliance Optimized Storage Building Blocks</li> <li>• Corporate Database</li> <li>• Database Processing &amp; Storage</li> <li>• HPC, Data Center</li> <li>• iSCSI SAN</li> <li>• Enterprise Server</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>• Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>• Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>• 4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>• 2x onboard M.2 NVMe</li> <li>• 16x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>• Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>• Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>• Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>• 4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>• 2x onboard M.2 NVMe</li> <li>• 16x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>
Serverboard	SUPER● X13DEI-T	SUPER● X13DEI-T
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
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
Onboard Storage Controller	Intel® SATA Broadcom® AOC-S3908L-H8IR	Broadcom® 3808
Connectivity	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416
VGA/Audio	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	16 front hot-swap 3.5" SATA/SAS drive bays 2 hot-swap 2.5" SATA rear drive bays	16 front hot-swap 3.5" SATA/SAS drive bays 2 hot-swap 2.5" SATA rear drive bays
Peripheral Bays	None	None
Power Supply	1200W Redundant Power Supplies with PMBus	1200W Redundant Power Supplies with PMBus
Cooling System	5 heavy duty 8cm fans	5 heavy duty 8cm fans
Form Factor	3U Rackmount Enclosure: (17.2" x 5.2" x 25.5") Package: (27" x 13" x 35")	3U Rackmount Enclosure: (17.2" x 5.2" x 25.5") Package: (27" x 13" x 35")

# X13 ENTERPRISE STORAGE



4U 24-Bay Front Loading



4U 24-Bay Front Loading



4U 36-Bay Double-Sided\*



4U 36-Bay Double-Sided\*



MODEL	SSG-641E-E1CR24H	SSG-641E-E1CR24L	SSG-641E-E1CR36H	SSG-641E-E1CR36L
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)	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 270W
Key Applications	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Appliance Optimized Storage Building Blocks</li> <li>Corporate Database</li> <li>Database Processing &amp; Storage</li> <li>HPC, Data Center</li> <li>iSCSI SAN</li> <li>Enterprise Server</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>24x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>2x onboard M.2 NVMe</li> <li>24x Hot-swap 3.5" SAS3/SATA3 drive bays</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>36x Hot-swap 3.5" SAS3/SATA3 drive bays</li> <li>2x onboard M.2 NVMe</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4TB 3DS ECC RDIMM, DDR5-4800MT/s(1DPC) in 16 DIMM slots</li> <li>Server remote management: IPMI 2.0/KVM over LAN/Media over LAN</li> <li>Dual socket 4th Gen Intel® Xeon® Scalable processors</li> <li>4 PCIe 5.0 X16 Slots + 2 PCIe 5.0 x8 Slots</li> <li>36x Hot-swap 3.5" SAS3/SATA3 drive bays</li> <li>2x onboard M.2 NVMe</li> </ul>
Serverboard	SUPER® X13DEI-T	SUPER® X13DEI-T	SUPER® X13DEI-T	SUPER® X13DEI-T
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	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	16 DIMM slots; up to 4TB DDR5-5600MT/s
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	2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots
Onboard Storage Controller	Broadcom® 3908	Broadcom® 3808	Broadcom® 3908	Broadcom® 3808
Connectivity	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416	2x 10GbE RJ45 port(s) with Broadcom BCM57416
VGA/Audio	1 VGA port	1 VGA port	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	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	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	24 front + 12 rear hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid)	24 front + 12 rear hot-swap 3.5" SATA/SAS drive bays (6 hot swap 2.5" NVMe hybrid)
Peripheral Bays	None	None	None	None
Power Supply	1200W Redundant Power Supplies with PMBus	1200W Redundant Power Supplies with PMBus	1600W Redundant Power Supplies with PMBus	1600W Redundant Power Supplies with PMBus
Cooling System	5 heavy duty 8cm fans	5 heavy duty 8cm fans	7 heavy duty 8cm fans	7 heavy duty 8cm fans
Form Factor	4U Rackmount Enclosure: (17.2" x 7" x 26") Package: (27" x 15" x 39")	4U Rackmount Enclosure: (17.2" x 7" x 26") Package: (27" x 15" x 39")	4U Rackmount Enclosure: (17.2" x 7" x 27.5") Package: (27" x 15" x 39")	4U Rackmount Enclosure: (17.2" x 7" x 27.5") Package: (27" x 15" x 39")

# X13 SIMPLY DOUBLE

2U 24-Bay Simply Double  
Up to 24 hot-swap SAS/SATA

2U 24-Bay Simply Double  
Up to 24 hot-swap SAS/SATA

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SSG-521E-E1CR24H	SSG-521E-E1CR24L
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Appliance Optimized Storage Building Blocks</li> <li>• Corporate Database</li> <li>• Database Processing &amp; Storage</li> <li>• HPC, Data Center</li> <li>• iSCSI SAN</li> <li>• Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>• Appliance Optimized Storage Building Blocks</li> <li>• Corporate Database</li> <li>• Database Processing &amp; Storage</li> <li>• HPC, Data Center</li> <li>• iSCSI SAN</li> <li>• Enterprise Server</li> </ul>
Outstanding Features	•	•
Serverboard	SUPERMICRO® X13SEDW-F	SUPERMICRO® X13SEDW-F
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; up to 4TB DDR5-5600MT/s	16 DIMM slots; up to 4TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x16 AIOM slot(s) 2 PCIe 5.0 x16 FH slot(s) 4 PCIe 5.0 x8 FH slot(s)	2 PCIe 5.0 x16 AIOM slot(s) 2 PCIe 5.0 x16 FH slot(s) 4 PCIe 5.0 x8 FH slot(s)
Onboard Storage Controller	Broadcom® 3908	Broadcom® 3808
Connectivity	via AIOM	via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	24 hot-swap 3.5" SATA/SAS drive bays	24 hot-swap 3.5" SATA/SAS drive bays
Peripheral Bays	None	None
Power Supply	Redundant 1600W Titanium level (96%)	Redundant 1600W Titanium level (96%)
Cooling System	4 heavy duty 8cm fans	4 heavy duty 8cm fans
Form Factor	2U Rackmount Enclosure: (17.2" x 3.5" x 34") Package: (29" x 12" x 52")	2U Rackmount Enclosure: (17.2" x 3.5" x 34") Package: (29" x 12" x 52")

# X13 HYPER-E

2U Hyper-E  
Optimized for 5G and Telco



2U Hyper-E  
Optimized for 5G and Telco



**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported

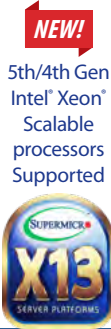


MODEL	SYS-221HE-FTNR	SYS-221HE-FTNRD
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Cloud Computing</li> <li>• Network Function Virtualization</li> <li>• AI Inference and Machine Learning</li> <li>• Telecom Micro Data Center</li> <li>• 5G Core and Edge</li> </ul>	<ul style="list-style-type: none"> <li>• Cloud Computing</li> <li>• Network Function Virtualization</li> <li>• AI Inference and Machine Learning</li> <li>• Telecom Micro Data Center</li> <li>• 5G Core and Edge</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Tool-less system design for east maintenance</li> <li>• Storage configurations up to 6x 2.5" hot-swap NVMe/SATA drive bays</li> <li>• Flexible networking options with 2 AIOM networking slots (OCP NIC 3.0 compatible)</li> </ul>	<ul style="list-style-type: none"> <li>• Tool-less system design for east maintenance</li> <li>• Storage configurations up to 6x 2.5" hot-swap NVMe/SATA drive bays</li> <li>• Flexible networking options with 2 AIOM networking slots (OCP NIC 3.0 compatible)</li> </ul>
Serverboard	SUPERMICRO® X13DEM	SUPERMICRO® X13DEM
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots; up to 8TB DDR5-5600MT/s	32 DIMM slots; up to 8TB DDR5-5600MT/s
Expansion Slots	Configurable PCIe slot options up to 8 SW PCIe 5.0 x8 (6 FHFL+ 2 FHHL) or 4 DW PCIe 5.0 x16 (3 FHFL + FHHL)	Configurable PCIe slot options up to 8 SW PCIe 5.0 x8 (6 FHFL+ 2 FHHL) or 4 DW PCIe 5.0 x16 (3 FHFL + FHHL)
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 100GbE QSFP28 with Intel® E810-CAM2 (optional) 2x 100GbE QSFP28 with Mellanox® CX-6 DX (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45 with Intel® X550 (optional) 4x 10GbE SFP+ with Intel® X710-BM2 (optional) via AIOM	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 100GbE QSFP28 with Intel® E810-CAM2 (optional) 2x 100GbE QSFP28 with Mellanox® CX-6 DX (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45 with Intel® X550 (optional) 4x 10GbE SFP+ with Intel® X710-BM2 (optional) via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	6 hot-swap 2.5" NVMe/SAS/SATA drive bays; 6x 2.5" NVMe hybrid; Optional RAID support via RAID Controller AOC	6 hot-swap 2.5" NVMe/SAS/SATA drive bays; 6x 2.5" NVMe hybrid; Optional RAID support via RAID Controller AOC
Peripheral Bays	None	None
Power Supply	Redundant 2000W Titanium level (96%)	2x 1300W -48Vdc single output
Cooling System	6 heavy duty fans	6 heavy duty fans
Form Factor	2U Rackmount Enclosure: 436.88 x 88.9 x 574mm (17.2" x 3.5" x 22.6") Package: 598 x 247 x 938mm (23.5" x 9.7" x 36.9")	2U Rackmount Enclosure: 436.88 x 88.9 x 574mm (17.2" x 3.5" x 22.6") Package: 598 x 247 x 938mm (23.5" x 9.7" x 36.9")

# X13 HYPER

2U Hyper  
Optimized for Storage Performance  
(Liquid Cooling options)

2U Hyper  
Optimized for Storage Performance

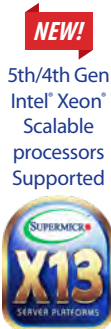


MODEL	SYS-221H-TNR	SYS-221H-TN24R
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 385W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 385W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Software-defined Storage</li> <li>• Virtualization</li> <li>• Enterprise Server</li> <li>• Cloud Computing</li> <li>• AI Inference and Machine Learning</li> <li>• Tool-less system design for easy maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Software-defined Storage</li> <li>• Virtualization</li> <li>• Enterprise Server</li> <li>• Cloud Computing</li> <li>• AI Inference and Machine Learning</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Storage configurations up to 16x 2.5" hot-swap NVMe/SATA/SAS drive bays</li> <li>• Flexible networking options with AIOM/OCN NIC 3.0 support</li> </ul>	<ul style="list-style-type: none"> <li>• Tool-less system design for easy maintenance</li> <li>• Flexible networking options with AIOM/OCN NIC 3.0 support</li> <li>• 24x 2.5" hot-swap NVMe/SATA/SAS drive bays</li> </ul>
Serverboard	SUPER® X13DEM	SUPER® X13DEM
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots; Up to 8TB DDR5-5600MT/s	32 DIMM slots; Up to 8TB DDR5-5600MT/s
Expansion Slots	Configurable PCIe slot options up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 FH, 10.5"L	Configurable PCIe slot options up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 FH, 10.5"L
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 1GbE RJ45 with Intel® i350-AM2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45/SFP+ with Intel® X710-TM4 (optional) 4x 10GbE SFP+ with Intel® XL710-BM1 (optional) 4x 1GbE RJ45 or 4x 1GbE SFP with Intel® i350-AM4 (optional) 4x 25GbE RJ45/SFP28 with Mellanox® CX-4 Lx EN Intel® X550-AT2 (optional) via AIOM	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 1GbE RJ45 with Intel® i350-AM2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45/SFP+ with Intel® X710-TM4 (optional) 4x 10GbE SFP+ with Intel® XL710-BM1 (optional) 4x 1GbE RJ45 or 4x 1GbE SFP with Intel® i350-AM4 (optional) 4x 25GbE RJ45/SFP28 with Mellanox® CX-4 Lx EN Intel® X550-AT2 (optional) via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	8 hot-swap 2.5" NVMe/SATA/SAS drive bays; Optional RAID support via RAID Controller AOC	24 hot-swap 2.5" NVMe/SATA/SAS drive bays; Optional RAID support via RAID Controller AOC
Peripheral Bays	None	None
Power Supply	Redundant 1200W Titanium level (96%)	Redundant 1600W Titanium level (96%)
Cooling System	4 heavy duty 8cm fans	4 heavy duty 8cm fans
Form Factor	2U Rackmount Enclosure: 437 x 88.9 x 760mm (17.2" x 3.5" x 29.9") Package: 605 x 263 x 1107mm (23.8" x 10.4" x 43.6")	2U Rackmount Enclosure: 437 x 88.9 x 760mm (17.2" x 3.5" x 29.9") Package: 605 x 263 x 1107mm (23.8" x 10.4" x 43.6")

# X13 HYPER

2U Hyper  
Optimized for Storage Capacity

1U Hyper  
Compute & Storage Powerhouse  
Liquid Cooling Options



MODEL	SYS-621H-TN12R	SYS-121H-TNR
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 385W TDP (liquid cooled)	Dual 5th/4th Gen Intel® Xeon® Scalable processors Up to 350W TDP (air cooled) Up to 385W TDP (liquid cooled)
Key Applications	<ul style="list-style-type: none"> <li>• Software-defined Storage</li> <li>• Virtualization</li> <li>• Enterprise Server</li> <li>• Cloud Computing</li> <li>• AI Inference and Machine Learning</li> </ul>	<ul style="list-style-type: none"> <li>• Software-defined Storage</li> <li>• Virtualization</li> <li>• Enterprise Server</li> <li>• Cloud Computing</li> <li>• AI Inference and Machine Learning</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>• Tool-less system design for easy maintenance</li> <li>• Flexible networking options with AIOM/OCP NIC 3.0 support</li> <li>• 12x 3.5"/2.5" hot-swap NVMe/SATA/SAS drive bays</li> </ul>	<ul style="list-style-type: none"> <li>• Tool-less system design for easy maintenance</li> <li>• Storage configurations up to 12x 2.5" hot-swap NVMe/SATA/SAS drive bays</li> <li>• Flexible networking options with AIOM/OCP NIC 3.0 support</li> </ul>
Serverboard	SUPER® X13DEM	SUPER® X13DEM
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots; Up to 8TB DDR5-5600MT/s	32 DIMM slots; Up to 8TB DDR5-5600MT/s
Expansion Slots	Configurable PCIe slot options up to 8 PCIe 5.0 x8 or 4 PCIe 5.0 x16 FH, 10.5"L	2 PCIe 5.0 x16 FH, 10.5"L and 1 PCIe 5.0 x16, FH, 6.6"L
Onboard Storage Controller	Intel® SATA	Intel® SATA
Connectivity	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 1GbE RJ45 with Intel® i350-AM2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45/SFP+ with Intel® X710-TM4 (optional) 4x 10GbE SFP+ with Intel® XL710-BM1 (optional) 4x 1GbE RJ45 or 4x 1GbE SFP with Intel® i350-AM4 (optional) 4x 25GbE RJ45/SFP28 with Mellanox® CX-4 Lx EN Intel® X550-AT2 (optional) via AIOM	2x 100GbE QSFP28 with Broadcom® BCM57508 (optional) 2x 10GbE RJ45 with Intel® X550-AT2 (optional) 2x 10GbE SFP+ with Intel® X710-BM2 (optional) 2x 1GbE RJ45 with Intel® i350-AM2 (optional) 2x 25GbE SFP28 with Broadcom® BCM57414 (optional) 4x 10GbE RJ45/SFP+ with Intel® X710-TM4 (optional) 4x 10GbE SFP+ with Intel® XL710-BM1 (optional) 4x 1GbE RJ45 or 4x 1GbE SFP with Intel® i350-AM4 (optional) 4x 25GbE RJ45/SFP28 with Mellanox® CX-4 Lx EN Intel® X550-AT2 (optional) via AIOM
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	12 hot-swap 3.5" NVMe/SATA/SAS drive bays; Optional RAID support via RAID Controller AOC	8 hot-swap 2.5" NVMe/SATA/SAS drive bays; Optional RAID support via RAID Controller AOC
Peripheral Bays	None	None
Power Supply	Redundant 1200W Titanium level (96%)	Redundant 1200W Titanium level (96%)
Cooling System	4 heavy duty 8cm fans	8 heavy duty 4cm fans
Form Factor	2U Rackmount Enclosure: 437 x 88.9 x 803mm (17.2" x 3.5" x 31.6") Package: 605 x 263 x 1107mm (23.8" x 10.4" x 43.6")	1U Rackmount Enclosure: 437 x 43 x 747mm (17.2" x 1.7" x 29.4") Package: 605 x 206 x 1032mm (23.8" x 8.1" x 40.6")

# X13 UP WIO

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



1U UP WIO



1U UP WIO



2U UP WIO



MODEL	SYS-511E-WR	SYS-111E-WR	SYS-521E-WR
Processor Support	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)	Single 5th/4th Gen Intel® Xeon® Scalable processor Up to 300W TDP (air cooled)
Key Applications	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Value IaaS</li> <li>Entry GPU server</li> <li>Data Center Optimized</li> <li>Cloud Computing</li> </ul>	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Entry GPU server</li> <li>Database/Storage</li> <li>Data Center Optimized</li> <li>Cloud Computing</li> </ul>	<ul style="list-style-type: none"> <li>Entry GPU server</li> <li>Database/Storage</li> <li>Network Appliance</li> <li>Data Center Optimized</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Maximum I/O. Support 3 x16 expansion slots in 1U form factor.</li> <li>Cost optimized 1U X13 solution</li> </ul>	<ul style="list-style-type: none"> <li>Maximum I/O. Support 3 x16 expansion slots in 1U form factor</li> <li>Max 10x PCIe 5.0 NVMe drives supported in 1U Form Factor</li> </ul>	<ul style="list-style-type: none"> <li>Up to 4 expansion slots with optional riser card</li> <li>Max 4x hybrid PCIe 5.0 NVMe drives supported at front</li> <li>Flexible I/O expansion</li> </ul>
Serverboard	SUPER● X13SEW-F	SUPER● X13SEW-F	SUPER● X13SEW-F
Chipset	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	8 DIMM slots; Up to 2TB DDR5 5600MT/s	8 DIMM slots; Up to 2TB DDR5 5600MT/s	8 DIMM slots; Up to 2TB DDR5 5600MT/s
Expansion Slots	Slot 1: PCIe 5.0 x16 FHFL Slot 2: PCIe 5.0 x16 FHFL Slot 3: PCIe 5.0 x8 (in x16) LP	Slot 1: PCIe 5.0 x16 FHFL Slot 2: PCIe 5.0 x16 FHFL Slot 3: PCIe 5.0 x8 (in x16) LP	Slot 1: PCIe 5.0 x16 FHFL Slot 3: PCIe 5.0 x16 FHFL Slot 5: PCIe 5.0 x8 LP Slot 6: PCIe 5.0 x8 LP
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	2x 1GbE RJ45 port(s) with Intel® Ethernet Controller i210	2x 1GbE RJ45 port(s) with Intel® Ethernet Controller i210	2x 1GbE RJ45 port(s) with Intel® Ethernet Controller i210
VGA/Audio	1 onboard VGA port	1 onboard VGA port	1 onboard VGA port
Management	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM
Drive Bays	10 hot-swap 2.5" NVMe/SATA/SAS drive bays; 10 2.5" NVMe hybrid	4 hot-swap 3.5" SATA/SAS drive bays; Optional slim DVD module	8 hot-swap 3.5" SATA/SAS drive bays; 4 3.5" NVMe hybrid; 2 optional 2.5" hot-swap SATA drive bays (rear); Optional slim DVD module
Power Supply	Redundant 860W Platinum level (94%)	Redundant 860W Platinum level (94%)	Redundant 920W platinum level
Cooling System	5 heavy duty 4cm fans (1 optional fan)	5 heavy duty 4cm fans (1 optional fan)	3 heavy duty 8cm fans
Form Factor	1U Rackmount Enclosure: 437 x 43 x 650mm (17.2" x 1.7" x 25.6") Package: 596.9 x 215.9 x 855.98mm (23.5" x 8.5" x 33.7")	1U Rackmount Enclosure: 437 x 43 x 597mm (17.2" x 1.7" x 23.5") Package: 609.6 x 203.2 x 812.8mm (24" x 8" x 32")	2U Rackmount Enclosure: 437 x 89 x 647mm (17.2" x 3.5" x 25.5") Package: 673.1 x 279.4 x 863.6mm (26.5" x 11" x 34")

# X13 MP SYSTEMS

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



2U 4-way Compute-optimized



2U 4-way Storage-optimized



6U 8-way GPU-optimized



MODEL	SYS-241H-TNRTP	SYS-241E-TNRTP	SYS-681E-TR
Processor Support	5th/4th Gen Intel® Xeon® Scalable processors Quad Socket LGA-4677 (Socket E) supported TDP up to 350W; 3 UPI up to 16GT/s	5th/4th Gen Intel® Xeon® Scalable processors Quad Socket LGA-4677 (Socket E) supported TDP up to 250W; 3 UPI up to 16GT/s	5th/4th Gen Intel® Xeon® Scalable processors Octa Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI up to 16GT/s
Key Applications	<ul style="list-style-type: none"> <li>SAP HANA</li> <li>HCI</li> <li>In-Memory Database</li> <li>Scientific Virtualization</li> <li>ERP, CRM</li> <li>Business Intelligence</li> <li>Artificial Intelligence (AI)</li> <li>up to 12 PCIe expansion provides scalability as business grows</li> </ul>	<ul style="list-style-type: none"> <li>SAP HANA</li> <li>HCI</li> <li>In-Memory Database</li> <li>Scientific Virtualization</li> <li>ERP, CRM</li> <li>Business Intelligence</li> <li>Artificial Intelligence (AI)</li> <li>up to 8 PCIe expansion provides scalability as business grows</li> </ul>	<ul style="list-style-type: none"> <li>Scale -up HPC</li> <li>Research Lab/National Lab</li> <li>Virtualization, ERP, CRM</li> <li>In-Memory Database</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Support up to 2 double-width GPU/FPGA to accelerate AI workloads</li> <li>Compute Optimized 4-Way Server</li> </ul>	<ul style="list-style-type: none"> <li>Support up to 2 double-width GPU/FPGA to accelerate AI workloads</li> <li>Storage Optimized 4-Way Server</li> </ul>	<ul style="list-style-type: none"> <li>up to 26 PCIe expansion provides scalability as business grows</li> <li>Support up to 12 double-width GPU/FPGA to accelerate AI workloads</li> </ul>
Serverboard	SUPER® X13QE+	SUPER® X13QE+	SUPER® X13OEI-CPU
Chipset	Intel® C741	Intel® C741	Intel® C741
System Memory (Max.)	64 DIMM slots UP to 16TB: 64x 256GB DRAM UP to 24TB: 32x 256GB DRAM and 32x 512GB Intel® Optane™ Persistent Memory	64 DIMM slots UP to 16TB: 64x 256GB DRAM UP to 24TB: 32x 256GB DRAM and 32x 512GB Intel® Optane™ Persistent Memory	128 DIMM slots UP to 32TB: 128x 256GB DRAM UP to 48TB: 64x 512GB Intel® Optane™ Persistent Memory and 64x 256GB DRAM
Expansion Slots	2 PCIe 5.0 x8 FHFL slot(s) 2 PCIe 5.0 x16 FHFL slot(s) 2 PCIe 5.0 x16 FHHL slot(s) 2 PCIe 4.0/5 x8 LP optional slot(s) 2 PCIe 4.0/5 x16 LP optional slot(s) PCIe 5.0 x16 AIOM slot(s) PCIe 5.0 x8 (x16 slot) AIOM slot(s) 2 M.2 SATA3/NVMe3 slot(s)	2 PCIe 5.0 x8 FHFL slot(s) 2 PCIe 5.0 x16 FHFL slot(s) 2 PCIe 5.0 x16 FHHL slot(s) PCIe 5.0 x16 AIOM slot(s) PCIe 5.0 x8 (x16 slot) AIOM slot(s) 2 M.2 SATA3/NVMe3 slot(s)	12 PCIe 5.0 x16 FHFL slot(s) 12 PCIe 5.0 x16 FHHL optional slot(s) 2 PCIe 5.0 x16 LP internal optional slot(s) 2 M.2 SATA3/NVMe3 slot(s)
Onboard Storage Controller	Intel® SATA	Intel® SATA	Intel® SATA
Connectivity	via AIOM	via AIOM	1x 1GbE RJ45 port(s)
VGA/Audio	1 VGA port(s), 1 DisplayPort(s)	1 VGA port(s), 1 DisplayPort(s)	1 VGA port(s), 1 DisplayPort(s)
Management	Intel® Node Manager; IPMI 2.0; NMI; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; NMI; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	Intel® Node Manager; IPMI 2.0; NMI; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	8x 2.5" hot-swap NVMe/SAS3/SATA3 drive bays; Optional RAID support via RAID controller AOC	24x 2.5" hot-swap NVMe/SAS3/SATA3 drive bays; 24x 2.5" NVMe hybrid; Optional RAID support via RAID controller AOC	24x 2.5" hot-swap NVMe/SAS3/SATA3 drive bays; 24x 2.5" NVMe hybrid; Optional RAID support via RAID controller AOC
Peripheral Bays	None	None	None
Power Supply	Redundant 2700W Titanium level (96%)	Redundant 1600W Titanium level (96%)	Redundant 2600W Titanium level (96%)
Cooling System	3x 8cm and 2x 6cm heavy duty fan(s)	6x 6cm heavy duty fan(s)	10x 8cm heavy duty fan(s)
Form Factor	2U Rackmount Enclosure: 438.4 x 87.9 x 812.9mm (17.3" x 3.5" x 32") Package: 672 x 250 x 1100mm (26.5" x 9.75" x 43.5")	2U Rackmount Enclosure: 438.4 x 87.9 x 849.3mm (17.3" x 3.5" x 33.4") Package: 672 x 250 x 1100mm (26.5" x 9.75" x 43.5")	6U Rackmount Enclosure: 449 x 265 x 841mm (17.68" x 10.4" x 33.1") Package: 720 x 922 x 1080mm (28.34" x 36.3" x 42.5")



# X13 MAINSTREAM

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SYS-621P-TR SYS-621P-TRT	SYS-221P-C9R SYS-221P-C9RT
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors up to 300W	Dual 5th/4th Gen Intel® Xeon® Scalable processors up to 300W
Key Applications	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Compute Intensive Applications</li> <li>Application and data serving</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Compute Intensive Applications</li> <li>Application and data serving</li> <li>Enterprise Server</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Cost effective all-purpose 2U rackmount server</li> </ul>	<ul style="list-style-type: none"> <li>Cost effective all-purpose 2U rackmount server</li> </ul>
Serverboard	-TR: SUPERMICRO X13DEI -TRT: SUPERMICRO X13DEI-T	-C9R: SUPERMICRO X13DEI -C9RT: SUPERMICRO X13DEI-T
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; Up to 4TB DDR5-5600MT/s	16 DIMM slots; Up to 4TB DDR5-5600MT/s
Expansion Slots	2 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots	1 PCIe 5.0 x8 LP slots 4 PCIe 5.0 x16 LP slots
Connectivity	-TR: 2 1GbE ports -TRT: 2 10GbE ports	-C9R: 2 1GbE ports -C9RT: 2 10GbE ports
VGA/Audio	1 VGA port	1 VGA port
Management	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; Supermicro Out of Band (OOB) License	Intel® Node Manager; IPMI2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; Supermicro Out of Band (OOB) License
Drive Bays	8 hot-swap 3.5" SATA drive bays (optional SAS/NVMe)	16 hot-swap 2.5" SATA drive bays (optional 8 SAS/4 NVMe)
Peripheral Bays	1x slim DVD (optional)	1x (slim or 5.25") DVD (optional)
Power Supply	Redundant 1200W Titanium level (96%)	Redundant 1200W Titanium level (96%)
Cooling System	3 center mounted 8cm fans	3 heavy duty 8cm fans
Form Factor	2U Rackmount Enclosure: 437 x 89 x 647mm (17.2" x 3.5" x 25.5") Package: 678 x 290 x 876mm (26.7" x 11.4" x 34.5")	2U Rackmount Enclosure: 437 x 89 x 630mm (17.2" x 3.5" x 24.8") Package: 737 x 279 x 983mm (29" x 11" x 38.7")

# X13 MAINSTREAM

**NEW!**

5th/4th Gen  
Intel® Xeon®  
Scalable  
processors  
Supported



MODEL	SYS-741P-TR	SYS-741P-TRT
Processor Support	Dual 5th/4th Gen Intel® Xeon® Scalable processors up to 300W	Dual 5th/4th Gen Intel® Xeon® Scalable processors up to 300W
Key Applications	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Compute Intensive Applications</li> <li>Application and data serving</li> <li>Enterprise Server</li> </ul>	<ul style="list-style-type: none"> <li>Virtualization</li> <li>Compute Intensive Applications</li> <li>Application and data serving</li> <li>Enterprise Server</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>Cost-effective general purpose tower/4U rackmount server</li> </ul>	<ul style="list-style-type: none"> <li>Cost-effective general purpose tower/4U rackmount server</li> </ul>
Serverboard	SUPER® X13DEI-T (10GbE) SUPER® X13DEI-T (1GbE)	SUPER® X13DEI-T (10GbE) SUPER® X13DEI-T (1GbE)
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots; Up to 4TB DDR5-5600MT/s	16 DIMM slots; Up to 4TB DDR5-5600MT/s
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
Onboard Storage Controller	Intel® C741	Intel® C741
Connectivity	2 1GbE ports	2 10GbE ports
VGA/Audio	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)	IPMI 2.0; KVM with dedicated LAN ; Redfish API; Super Diagnostics Offline ; SuperDoctor® 5; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Update Manager (SUM)
Drive Bays	8 hot-swap 3.5" SATA drive bays (optional 8 SAS/4 NVMe)	8 hot-swap 3.5" SATA drive bays (optional 8 SAS/4 NVMe)
Peripheral Bays	3x 5.25" DVD (optional)	3x 5.25" DVD (optional)
Power Supply		
Cooling System	2 rear/3 middle fans	2 rear/3 middle fans
Form Factor	Tower/4U Rackmount Enclosure: 178 x 452 x 647mm (7" x 17.8" x 25.5") Package: 356 x 625 x 795mm (14" x 24.6" x 31.3")	Tower/4U Rackmount Enclosure: 178 x 452 x 647mm (7" x 17.8" x 25.5") Package: 356 x 625 x 795mm (14" x 24.6" x 31.3")

# X13 WORKSTATIONS

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported



DP Workstation



UP Workstation



UP Workstation



MODEL	SYS-751A-I	SYS-531A-I	SYS-551A-T
Processor Support	5th/4th Gen Intel® Xeon® Scalable Processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI	Intel® Xeon® W-2400 processors Single Socket LGA4677 (Socket E) supported TDP up to 250W	Intel® Xeon® W-3400 processors Single Socket LGA4677 (Socket E) supported TDP up to 350W
Key Applications	<ul style="list-style-type: none"> <li>Engineering/scientific research</li> <li>Multimedia/Digital Content creation</li> <li>CAD</li> <li>Rendering</li> </ul>	<ul style="list-style-type: none"> <li>VR Content Development</li> <li>2D/3D Content Creation</li> </ul>	<ul style="list-style-type: none"> <li>Product Design and Engineering Simulation</li> </ul>
Outstanding Features	<ul style="list-style-type: none"> <li>PCIe 5.0 supporting up to 2 double width active GPU cards</li> <li>Dual PCIe Gen5 M.2 expansion slots</li> <li>Up to 4 PCIe Gen5 NVMe U.2 drives with optional cables and converter trays</li> <li>IPMI support</li> <li>Dual 10Gbps Ethernet ports</li> </ul>	<ul style="list-style-type: none"> <li>Supports Xeon® W-2400 Processors</li> <li>3 PCIe 5.0 x16 slots</li> <li>1x 10GBase-T and 1x 1GbE</li> <li>1200W Platinum power supply</li> </ul>	<ul style="list-style-type: none"> <li>Supports Xeon® W-3400 Processors with TDP up to 350W</li> <li>Supports optional closed-loop liquid cooling module</li> <li>6 PCIe 5.0 x16 slots</li> <li>2000W Platinum power supply</li> <li>1x 10GBase-T and 1x 1GbE</li> </ul>
Serverboard	SUPER® X13DAI-T	SUPER® X13SRA-TF	SUPER® X13SWA-TF
Chipset	Intel® C741	Intel® W790	Intel® W790
System Memory (Max.)	16 DIMM slots Up to 2TB: 16x 128GB DRAM	8 DIMM slots Up to 1TB: 8x 128GB DRAM	16 DIMM slots Up to 2TB: 16x 128GB DRAM
Expansion Slots	1 PCIe 5.0 x8 FHHL slot(s) 5 PCIe 5.0 x16 FHFL slot(s)	PCIe 3.0 x4 FHFL slot(s) 3 PCIe 3.0 x16 FHFL slot(s)	6 PCIe 3.0 x16 FHFL slot(s)
Onboard Storage Controller	Intel® SATA	Intel® W790	Intel® W790
Connectivity	2x 10GbE port(s)	1x 10GbE RJ45 port(s) with Marvell AQC113 1x 1GbE RJ45 port(s) with Intel® Ethernet Controller I210-AT	1x 10GbE RJ45 port(s) with Marvell AQC113 1x 1GbE RJ45 port(s) with Intel® Ethernet Controller I210-AT
VGA/Audio	1 VGA port	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN; NMI; Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	IPMI 2.0; SPM; SUM; SuperDoctor 5; Watch Dog	IPMI 2.0; SPM; SUM; SuperDoctor 5; Watch Dog
Drive Bays	4x 3.5" SATA/NVMe drive bays; 4x 2.5" NVMe hybrid; Optional RAID support via RAID controller AOC	4x 3.5" SATA drive bays;	2x 2.5" SATA drive bays;
Peripheral Bays	2x 5.25" (optional)	2x 5.25"	2x 5.25"
Power Supply	2000W Platinum level (92%)	1200W Platinum level (92%)	2000W Platinum level (92%)
Cooling System	3x 12cm heavy duty fan(s)	2x 12cm heavy duty fan(s)	2x 120mm 2200 RPM Front intake fans; 1x 120mm 2200 RPM rear exhaust fan
Form Factor	Tower or 5U Rackmount Enclosure: 221 x 536 x 574mm (8.7" x 21.1" x 22.6") Package: 371 x 701 x 711mm (14.6" x 27.6" x 28")	Mid-Tower Rackmount Enclosure: 193 x 424 x 525.3mm (7.6" x 16.7" x 20.68") Package: 304 x 543 x 642mm (11.97" x 21.38" x 25.28")	5U/Full Tower Rackmount Enclosure: 222 x 535 x 573mm (8.74" x 21.06" x 22.56") Package: 372 x 708 x 724mm (14.6" x 27.8" x 28.5")

# X13 DP SERVERBOARDS

**NEW!**

5th/4th Gen Intel® Xeon® Scalable processors Supported

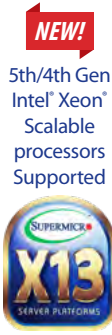


MODEL	X13DAI-T	X13DEI	X13DEI-T
Processor	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP
Chipset	Intel® C741	Intel® C741	Intel® C741
Form Factor	EATX, 12.1" x 13.1" (30.734cm x 33.274cm)	EATX, 12.1" x 13.05" (30.74cm x 33.15cm)	EATX, 12.1" x 13.05" (30.74cm x 33.15cm)
Memory Capacity & Slots	Up to 4TB 3DS ECC RDIMM, DDR5-5600MT/s, in 16 DIMM slots	Up to 4TB 3DS ECC RDIMM, DDR5-5600MT/s, in 16 DIMM slots	Up to 4TB 3DS ECC RDIMM, DDR5-5600MT/s, in 16 DIMM slots
Expansion Slots	1 PCIe 5.0 x8, 5 PCIe 5.0 x16 4 PCIe 5.0 x4 NVMe <b>M.2 Interface:</b> 2 PCIe 5.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 5.0 x8, 4 PCIe 5.0 x16 <b>M.2 Interface:</b> 2 PCIe 4.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 5.0 x8, 4 PCIe 5.0 x16 <b>M.2 Interface:</b> 2 PCIe 4.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key
Onboard RAID Controller	Intel® C741 controller for 8 SATA3 ports; RAID N/A; via SlimSAS Intel® C741 controller for 2 SATA3 ports; RAID N/A; Internal Port(s)	Intel® C741 controller for 8 SATA3 ports; via SlimSAS Intel® C741 controller for 2 SATA3 ports; Internal Port(s)	Intel® C741 controller for 8 SATA3 ports; via SlimSAS Intel® C741 controller for 2 SATA3 ports; Internal Port(s)
Onboard LAN	Dual LAN with Broadcom BCM57416 10GBase-T	Dual LAN with Broadcom BCM5720 10GBase-T Single LAN with Realtek RTL8211F PHY	Dual LAN with Broadcom BCM57416 10GBase-T Single LAN with Realtek RTL8211F PHY
Onboard VGA	1 VGA D-Sub Connector port(s)	1 VGA D-Sub Connector port(s)	1 VGA D-Sub Connector port(s)
USB Ports	2 USB 2.0 port(s) (2 via header) 6 USB 3.0 port(s) (4 rear type A; 2 via header) 1 USB 3.1 Gen2 port(s) (1 via header)	6 USB 3.2 Gen1 port(s) (2 via header; 4 rear) 3 USB 2 port(s) (1 Type A; 2 via header)	6 USB 3.2 Gen1 port(s) (2 via header; 4 rear) 3 USB 2 port(s) (1 Type A; 2 via header)
Other Onboard I/O Devices	Onboard TPM and TPM header 2 MCI0 PCIe 5.0 x8 1x Realtek ALC888S 7.1 HD Audio port(s)Realtek ALC888S 7.1 HD Audio	2 COM Port(s) (1 header; 1 rear) TPM header 3 MCI0 PCIe 5.0 x8	2 COM Port(s) (1 header; 1 rear) TPM header 3 MCI0 PCIe 5.0 x8
Manageability	SPM, SUM, SSM, IPMI (Intelligent Platform Management Interface) v2.0 with KVM support, Watchdog, SMCIPIITool, Trusted Platform Module (TPM), CPU thermal trip support for processor protection, Wake-on-LAN	SPM, SUM, SSM, IPMI (Intelligent Platform Management Interface) v2.0 with KVM support, Watchdog, SMCIPIITool, Trusted Platform Module (TPM), CPU thermal trip support for processor protection, Wake-on-LAN	SPM, SUM, SSM, IPMI (Intelligent Platform Management Interface) v2.0 with KVM support, Watchdog, SMCIPIITool, Trusted Platform Module (TPM), CPU thermal trip support for processor protection, Wake-on-LAN
PC Health Monitoring	System temperature, PCH temperature, Memory temperature, CPU temperature, +5V standby, +5V, +3.3V, +12V, CPU thermal trip support, +3.3V standby, Vcore, Vmem, Peripheral temperature, Platform Environment Control Interface (PECI)/(TSI)	System temperature, PCH temperature, Memory temperature, CPU temperature, +5V standby, +5V, +3.3V, +12V, CPU thermal trip support, +3.3V standby, Veore, Vmem, Peripheral temperature, Platform Environment Control Interface (PECI)/(TSI)	System temperature, PCH temperature, Memory temperature, CPU temperature, +5V standby, +5V, +3.3V, +12V, CPU thermal trip support, +3.3V standby, Veore, Vmem, Peripheral temperature, Platform Environment Control Interface (PECI)/(TSI)
Thermal Control	13x 4-pin fan headers (up to 13 fans) Fan speed control, Overheat LED indication, CPU thermal trip support, 13x fans with tachometer monitoring, Thermal Monitor 2 (TM2) support, PECI, Monitoring for CPU and chassis environment	8x 4-pin fan headers (up to 8 fans) Fan speed control Overheat LED indication 8x fans with tachometer monitoring	8x 4-pin fan headers (up to 8 fans) Fan speed control Overheat LED indication 8x fans with tachometer monitoring
Other Features	Node Manager Support M.2 NGFF connector Control of power-on for recovery from AC power loss Chassis intrusion detection ACPI power management	UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management
BIOS	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI

# X13 UP SERVERBOARDS

HPC, All PCIe 5.0 slots

HPC, All PCIe 5.0 slots



MODEL	X13SEI-F	X13SEI-TF
Processor	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP
Chipset	Intel® C741	Intel® C741
Form Factor	EATX, 12.3" x 10.3" (31.24cm x 26.16cm)	EATX, 12.3" x 10.3" (31.24cm x 26.16cm)
Memory Capacity & Slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots
Expansion Slots	2 PCIe 5.0 x16, 3 PCIe 5.0 x8, 2 PCIe 5.0 x8 PCIe5.0 MCIO connector <b>M.2 Interface:</b> 2 PCIe 5.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 5.0 x16, 3 PCIe 5.0 x8, 2 PCIe 5.0 x8 PCIe5.0 MCIO connector <b>M.2 Interface:</b> 2 PCIe 5.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key
Onboard RAID Controller	Intel® C741 controller for 10 SATA3 (6 Gbps) ports	Intel® C741 controller for 10 SATA3 (6 Gbps) ports
Onboard LAN	Dual LAN with 1GbE with Intel® I210	Dual LAN with 10GBase-T with Intel® X550
Onboard VGA	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)
USB Ports	2 USB 2 port(s) (2 rear) 4 USB 3.2 Gen1 port(s) (2 rear; 1 type A; 1 via header)	2 USB 2 port(s) (2 rear) 4 USB 3.2 Gen1 port(s) (2 rear; 1 type A; 1 via header)
Other Onboard I/O Devices	1 COM Port(s) (1 header) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header	1 COM Port(s) (1 header) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header
Manageability	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection
PC Health Monitoring	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages
Thermal Control	7x 4-pin fan headers (up to 7 fans) Fan speed control Overheat LED indication 7 fans with tachometer status monitoring	7x 4-pin fan headers (up to 7 fans) Fan speed control Overheat LED indication 7 fans with tachometer status monitoring
Other Features	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management
BIOS	AMI UEFI	AMI UEFI

# X13 UP SERVERBOARDS



WIO, 1U/3AOC



WIO, 1U/3AOC



HP Embedded SVR

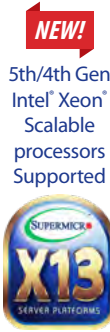


HP Embedded SVR



MODEL	X13SEW-F	X13SEW-TF	X13SEM-F	X13SEM-TF
Processor	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP	5th/4th Gen Intel® Xeon® Scalable processors Single Socket LGA-4677 (Socket E) supported, CPU TDP supports Up to 350W TDP
Chipset	Intel® C741	Intel® C741	Intel® C741	Intel® C741
Form Factor	Proprietary WIO, 8" x 13" (20.32cm x 33.02cm)	Proprietary WIO, 8" x 13" (20.32cm x 33.02cm)	microATX, 9.6" x 9.6" (24.38cm x 24.38cm)	microATX, 9.6" x 9.6" (24.38cm x 24.38cm)
Memory Capacity & Slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots	Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s, in 8 DIMM slots
Expansion Slots	1 PCIe 5.0 x8 Right Riser (in x16) slot, 1 PCIe 5.0 x32 Left Riser Slot, 5 PCIe 5.0 x8 PCIe5.0 MCIO connector <b>M.2 Interface:</b> 1 PCIe 3.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	1 PCIe 5.0 x8 Right Riser (in x16) slot, 1 PCIe 5.0 x32 Left Riser Slot, 5 PCIe 5.0 x8 PCIe5.0 MCIO connector <b>M.2 Interface:</b> 1 PCIe 3.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 5.0 x16, 1 PCIe 5.0 x8 2 PCIe 3.0 x4 NVMe Internal Port(s) 4 PCIe 5.0 x8 MCIO connectors <b>M.2 Interface:</b> 2 PCIe 4.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 5.0 x16, 1 PCIe 5.0 x8 2 PCIe 3.0 x4 NVMe Internal Port(s) 4 PCIe 5.0 x8 MCIO connectors <b>M.2 Interface:</b> 2 PCIe 4.0 x2 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key
Onboard RAID Controller	Intel® C741 controller for 10 SATA3 (6 Gbps) ports	Intel® C741 controller for 10 SATA3 (6 Gbps) ports	Intel® C741 controller for 10 SATA3 (6 Gbps) ports	Intel® C741 controller for 10 SATA3 (6 Gbps) ports
Onboard LAN	Dual LAN with 1GbE with Intel® I210	Dual LAN with 10GBase-T with Intel® X550	Dual LAN with 1GbE with Intel® I350	Dual LAN with 10GBase-T with Intel® X550
Onboard VGA	1 VGA D-Sub Connector port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)
USB Ports	5 USB 2 port(s) (2 via header; 2 rear; 1 Type A) 4 USB 3.2 Gen1 port(s) (2 via header; 2 rear)	5 USB 2 port(s) (2 via header; 2 rear; 1 Type A) 4 USB 3.2 Gen1 port(s) (2 via header; 2 rear)	6 USB 2 port(s) (2 rear; 4 via header) 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)	6 USB 2 port(s) (2 rear; 4 via header) 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)
Other Onboard I/O Devices	2 COM Port(s) (1 header; 1 rear) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header	2 COM Port(s) (1 header; 1 rear) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header	1 COM Port(s) (1 rear) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header	1 COM Port(s) (1 rear) 2 SATA DOM (Disk on Module) power connector support TPM 2 Header
Manageability	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection	SuperDoctor® 5, SPM, SUM, SSM, IPMICFG, IPMIView for Linux/Windows, SMCIPMITool, Trusted Platform Module (TPM), Chassis Intrusion Detection
PC Health Monitoring	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages 6x 4-pin fan headers (up to 6 fans)	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages 6x 4-pin fan headers (up to 6 fans)	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 5 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages 5x 4-pin fan headers (up to 5 fans)	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 5 -fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages 5x 4-pin fan headers (up to 5 fans)
Thermal Control	Fan speed control 6 fans with tachometer status monitoring Overheat LED indication	Fan speed control 6 fans with tachometer status monitoring Overheat LED indication	Fan speed control 5 fans with tachometer status monitoring Overheat LED indication	Fan speed control 5 fans with tachometer status monitoring Overheat LED indication
Other Features	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	WOL, UID, Node Manager Support, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management
BIOS	AMI UEFI	AMI UEFI	AMI UEFI	AMI UEFI

# X13 UP SERVERBOARDS

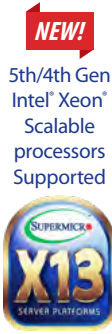


5th/4th Gen Intel® Xeon® Scalable processors Supported



MODEL	X13SCH-F	X13SCH-LN4F	X13SCD-F
Processor	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T
Chipset	Intel® C266	Intel® C266	Intel® C266
Form Factor	microATX, 9.6" x 9.6" (24.38cm x 24.38cm)	microATX, 9.6" x 9.6" (24.38cm x 24.38cm)	Proprietary, 4.75" x 15.69" (12.07cm x 39.85cm)
Memory Capacity & Slots	Up to 128GB Unbuffered ECC UDIMM, DDR5-4400MHz, in 4 DIMM slots	Up to 128GB Unbuffered ECC UDIMM, DDR5-4400MHz, in 4 DIMM slots	Up to 128GB Unbuffered ECC UDIMM, DDR5-4400MHz, in 4 DIMM slots
Expansion Slots	1 PCIe 5.0 x16, 2 PCIe 4.0 x4 (in x8 slot) <b>M.2 Interface:</b> 2 PCIe 4.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	1 PCIe 5.0 x16, 2 PCIe 4.0 x4 (in x8 slot) <b>M.2 Interface:</b> 2 PCIe 4.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	1 PCIe 5.0 x8 (Low Profile), 1 PCIe 4.0 x8 (Micro Low Profile) 2 PCIe 4.0 x4 NVMe <b>M.2 Interface:</b> 2 SATA/PCIe 4.0 x4 <b>Form Factor:</b> 2242/2280/22110 <b>M.2 Key:</b> M-Key
Onboard RAID Controller	Intel® C266 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10; via SlimSAS	Intel® C266 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10; via SlimSAS	Intel® C266 controller for 2 SATA3 (6 Gbps) ports; RAID 0,1
Onboard LAN	Dual LAN with 1GbE with Intel® I210	Quad LAN with 1GbE with Intel® I210	N/A
Onboard VGA	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA port(s) Via KVM connector
USB Ports	6 USB 2.0 port(s) (4 via header; 2 rear) 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)	6 USB 2.0 port(s) (4 via header; 2 rear) 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)	1 USB 3.2 Gen2 port(s) (1 type C) 2 USB 2 port(s) (2 rear Via KVM connector)
Other Onboard I/O Devices	2 COM Port(s) (1 header; 1 rear) TPM 2 Header	2 COM Port(s) (1 header; 1 rear) TPM 2 Header	1 COM Port(s) (1 Serial Port Via KVM connector) TPM 2 Header & Chip both
Manageability	N/A	N/A	N/A
PC Health Monitoring	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V, Memory Voltages, 7-fan status, +3.3V standby	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V, Memory Voltages, 7-fan status, +3.3V standby	VBAT, Memory temperature, CPU temperature, 3.3V standby, +5V standby, +5V, +3.3V, +12V, VRM temperature, CPU thermal trip support, 1.8V standby, 1-fan status
Thermal Control	7x 4-pin fan headers (up to 7 fans) Fan speed control Overheat LED indication 7 fans with tachometer status monitoring	7x 4-pin fan headers (up to 7 fans) Fan speed control Overheat LED indication 7 fans with tachometer status monitoring	Fan speed control
Other Features	WOL, UID, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion header, ACPI power management	WOL, UID, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion header, ACPI power management	N/A
BIOS	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI

# X13 UP SERVERBOARDS



MODEL	X13SCW-F	X13SCL-F	X13SCL-IF
Processor	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T	Intel® Xeon® E-2400/Pentium® Processor Single Socket LGA-1700 (Socket V0) supported, CPU TDP supports Up to 95W TDP *Pentium® G7400 and G7400T
Chipset	Intel® C266	Intel® C262	Intel® C262
Form Factor	Proprietary WIO, 8" x 13" (20.32cm x 33.02cm)	microATX, 9.6" x 9.6" (24.38cm x 24.38cm)	Mini-ITX, 6.7" x 6.7" (17.02cm x 17.02cm)
Memory Capacity & Slots	Up to 128GB Unbuffered ECC UDIMM, DDR5-4400MHz, in 4 DIMM slots	Up to 128GB Unbuffered ECC UDIMM, DDR5-4400MHz, in 4 DIMM slots	Up to 64GB Unbuffered ECC UDIMM, DDR5-4800MHz, in 2 DIMM slots
Expansion Slots	1 PCIe 5.0 x16 Left Riser Slot, 1 PCIe 4.0 x4 Right Riser (in x16) slot 2 PCIe 4.0 x4 NVMe M.2 Internal Port(s) <b>M.2 Interface:</b> 2 PCIe 4.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	2 PCIe 4.0 x4 (in x8 slot), 1 PCIe 5.0 x8, 1 PCIe 5.0 x8 (in x16 slot) <b>M.2 Interface:</b> 1 PCIe 4.0 x4 <b>Form Factor:</b> 2280/22110 <b>M.2 Key:</b> M-Key	1 PCIe 5.0 x16, 1 PCIe 4.0 x4 SlimSAS, 2 PCIe 4.0x4 or 1 PCIe 4.0x4 & 4 SATA <b>M.2 Interface:</b> 1 PCIe 4.0 x4 <b>Form Factor:</b> 2280 <b>M.2 Key:</b> M-Key
Onboard RAID Controller	Intel® C266 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10; via SlimSAS	Intel® C262 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10	Intel® C262 controller for 6 SATA3 (6 Gbps) ports; RAID 0,1,5,10
Onboard LAN	Dual LAN with 1GbE with Intel® I210	Dual LAN with 1GbE with Intel® I210	Dual LAN with 1GbE with Intel® I210
Onboard VGA	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)	1 VGA D-Sub Connector port(s) 1 Aspeed AST2600 BMC port(s)
USB Ports	4 USB 2.0 port(s) (2 rear; 2 via header) 2 USB 3.2 Gen1 port(s) (2 via header) 3 USB 3.2 Gen2 port(s) (2 rear; 1 type A)	6 USB 2.0 port(s) (4 via header; 2 rear) 5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)	2 USB 2.0 port(s) (2 rear) 4 USB 3.2 Gen1 port(s) (2 via header; 2 rear)
Other Onboard I/O Devices	2 COM Port(s) (1 header; 1 rear) TPM 2 Header	2 COM Port(s) (1 header; 1 rear) TPM 2 Header	1 COM Port(s) (1 rear) TPM 2 Header
Manageability	N/A	N/A	N/A
PC Health Monitoring	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 6-fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages, +3.3V standby	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V, Memory Voltages, 7-fan status, +3.3V standby	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, 4-fan status, +5V standby, +5V, +3.3V, +12V, Memory Voltages, +3.3V standby
Thermal Control	6x 4-pin fan headers (up to 6 fans) Fan speed control 6 fans with tachometer status monitoring Overheat LED indication	7x 4-pin fan headers (up to 7 fans) Fan speed control Overheat LED indication 7 fans with tachometer status monitoring	4x 4-pin fan headers (up to 4 fans) Fan speed control 4 fans with tachometer monitoring Overheat LED indication
Other Features	WOL, UID, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion detection, ACPI power management	WOL, UID, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion header, ACPI power management	WOL, UID, M.2 NGFF connector, Control of power-on for recovery from AC power loss, Chassis intrusion header, ACPI power management
BIOS	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI	AMI 32MB AMI UEFI



# SYSTEM MANAGEMENT SOFTWARE

## Leverage Supermicro's Management Software Suite to Meet Your IT Infrastructure Challenges

With a comprehensive range of high-end software solutions, Supermicro gives IT administrators the tools to optimize the management of IT systems and increase the utilization of computing and storage infrastructure. Whether you are looking to manage individual systems, optimize server lifecycle processes, or streamline operations for an entire data center, Supermicro has the right software to help you accomplish your goals.



- Obtain valuable insights in your infrastructure
- Monitor the health of servers and critical components
- Get proactive alerts



- Maintain system uptime to meet SLAs
- Early symptom detection to prevent component failure
- Remote management and troubleshooting



- Protect your IT infrastructure from external threats
- Centralized patch and BIOS management
- Extensive security features

## System Management Software Suite Bundles

Supermicro's System Management Software Suite consists of a set of specialized applications. These are available in the following bundles.

Suite Bundle	Standard	Basic	Advanced	Enterprise
<b>Description</b>	Covers all core functionality to effectively set up, manage, and monitor your Supermicro systems. These features are available to all Supermicro users.	Extends the core functionality and makes system management easier with additional features, such as remote BIOS management and system updates.	Delivers a broad set of tools to help administrators improve the performance, up-time, and monitoring of Supermicro systems.	Offers an extensive platform to manage large data centers and coordinate automated lifecycle management, software-defined infrastructure, and more in a single pane of glass.
<b>License</b>	<ul style="list-style-type: none"> <li>• No license required</li> </ul>	<ul style="list-style-type: none"> <li>• SFT-OOB-LIC</li> </ul>	<ul style="list-style-type: none"> <li>• SFT-DCMS-SINGLE</li> </ul>	<ul style="list-style-type: none"> <li>• SFT-DCMS-SINGLE +</li> <li>• SFT-SDDC-SINGLE</li> </ul>
<b>Key Features*</b>	<ul style="list-style-type: none"> <li>• Secure remote console (KVM/HTML5)</li> <li>• System temperature monitoring</li> <li>• System power thresholds &amp; alerts</li> <li>• Component monitoring</li> <li>• Email alerting</li> <li>• Remote configuration</li> <li>• Offline diagnostics</li> <li>• Crash dump</li> <li>• License management</li> </ul>	<ul style="list-style-type: none"> <li>• Remote BMC management</li> <li>• Remote BIOS management</li> <li>• Out-of-Band systems checks</li> <li>• TPM Provisioning</li> <li>• Mount/Unmount ISO images from Samba/HTTP</li> <li>• Basic Redfish APIs</li> <li>• CIM management</li> <li>• SysLog</li> </ul>	<ul style="list-style-type: none"> <li>• Remote OS deployment</li> <li>• Auto-discovery</li> <li>• Power capping</li> <li>• RAID monitoring and configuration</li> <li>• HDD monitoring</li> <li>• Advanced Redfish APIs</li> <li>• FW update policy</li> <li>• System lock down</li> <li>• Crash screen/video capture</li> </ul>	<ul style="list-style-type: none"> <li>• 3rd Party vendor support</li> <li>• POD &amp; Rack-level management</li> <li>• SDI Lifecycle management</li> <li>• Manage Composable Dissagregated Infrastructure</li> <li>• Zero-touch provisioning for network configuration</li> <li>• Single pane of glass for data center deployment</li> <li>• Rich analytics &amp; telemetry</li> <li>• User defined role-based access control</li> </ul>

\* For detailed information, please check with your Supermicro sales representative or refer to Supermicro website: <https://www.supermicro.com/en/solutions/management-software>

# World Class Total IT Solutions

## Rack Plug and Play

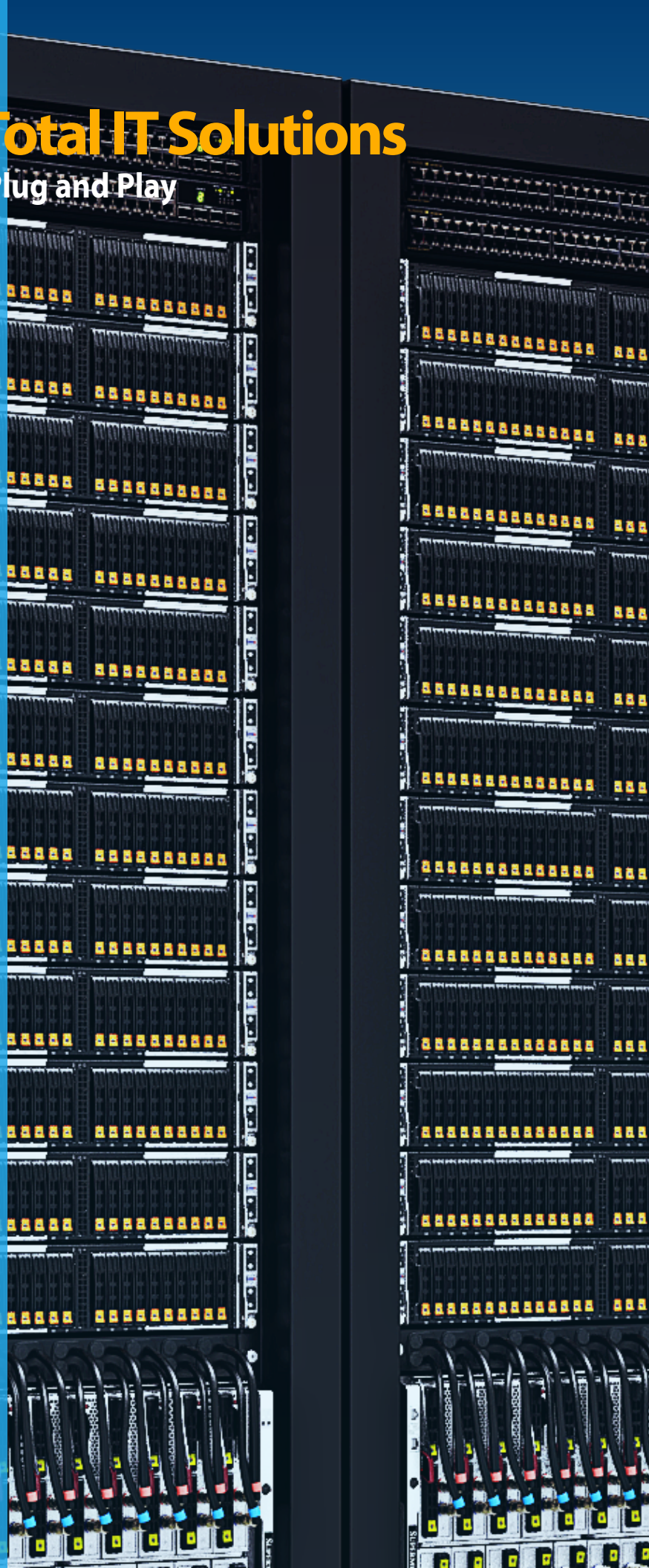
*Rack Scale Solutions/ Design/  
Production/Validation/  
Logistics and Service, The  
capacity of 3000 Integrated  
Rack Solutions per month,  
including up to 1000 Liquid  
Cooled Racks per month*

*Flexible AC Power  
(120/208/230/480VAC,  
Single/3-phase)  
48VDC Power*

*10/25/40/100/200/400 Gb/s  
Network Testing  
Environments*

*Air Cooling/Free Air Cooling/  
Liquid Cooling*

*Turnkey Data Center  
Solutions within two weeks*





# Global Expansion

Providing Greater Economies of Scale and Accelerated Support to Data Center, Cloud Computing, AI, Enterprise IT, HPC, 5G, Hyperscale, and Embedded Solutions Customers Worldwide



**Worldwide Headquarters**  
San Jose, California, USA



**America**

- Supermicro's Headquarters expansion: Over 1.5 million square foot **Green Computing Park** in San Jose, California signals the company's increasing leadership in the IT industry
- One of the largest high-tech R&D, manufacturing, and business hubs in Silicon Valley
- East Coast Sales and Service Office



**APAC**

Supermicro's **Asia Science and Technology Park** is a key milestone in the company's growth as a true global leader in the development of advanced, power saving computing technologies



**Silicon Valley**

Expanded manufacturing, command center



**EMEA**

Supermicro's system integration facility and services in The Netherlands serves the dynamic, rapidly growing EMEA market with localized supply and time-to-market advantages

## Supermicro Worldwide

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Fax: +82-2-554-0146  
Sales Inquiry: [Sales-Asia@supermicro.com](mailto:Sales-Asia@supermicro.com)

# Better

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# Greener

Reduced Environmental  
Impact and Lower TCO



## Worldwide Headquarters

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