

X13 HYPER AND HYPER-E

Best-in-class Performance and Flexibility Rackmount Server



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

32 DIMM slots per node supporting DDR5-4800MHz and Intel® Optane™ Persistent Memory 300 Series

NVMe SSD support with up to 24 drives in 2U

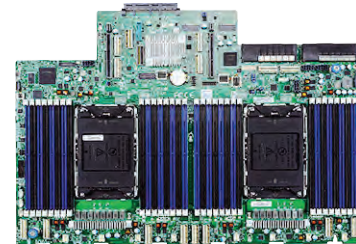
Optional 2.5"/E1.S SSD hybrid configuration

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

2U Hyper-E
Optimized for 5G and Telco



X13DEM



SYS-221HE-FTNRD

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
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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

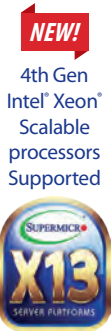
- 5G Core and Edge
- Telco Micro Data Center
- Enterprise Server
- Cloud Computing
- Big Data Analytics
- Hyperconverged Storage
- AI Inference and Machine Learning
- Network Function Virtualization



X13 HYPER

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

2U Hyper
Optimized for Storage Performance

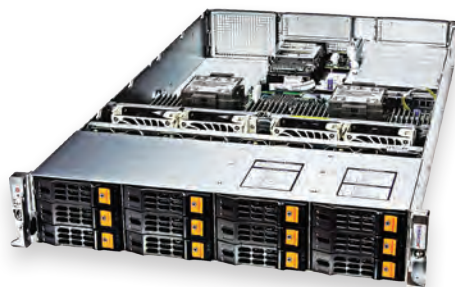


MODEL	SYS-221H-TNR	SYS-221H-TN24R
Processor Support	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI
Key Applications	<ul style="list-style-type: none"> • Software-defined Storage • Virtualization • Enterprise Server • Cloud Computing • AI Inference and Machine Learning • Tool-less system design for easy maintenance 	<ul style="list-style-type: none"> • Software-defined Storage • Virtualization • Enterprise Server • Cloud Computing • AI Inference and Machine Learning
Outstanding Features	<ul style="list-style-type: none"> • Storage configurations up to 16x 2.5" hot-swap NVMe/SATA/SAS drive bays • Flexible networking options with AIOM/OCP NIC 3.0 support 	<ul style="list-style-type: none"> • Tool-less system design for easy maintenance • Flexible networking options with AIOM/OCP NIC 3.0 support • 24x 2.5" hot-swap NVMe/SATA/SAS drive bays
Serverboard	SUPERMICRO® X13DEM	SUPERMICRO® X13DEM
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	32 DIMM slots UP to 8TB: 32x 256GB DRAM	32 DIMM slots UP to 8TB: 32x 256GB DRAM
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	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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	8x 2.5" hot-swap NVMe/SATA/SAS drive bays; Optional RAID support via RAID Controller AOC	24x 2.5" hot-swap 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	4x 8cm heavy duty fan(s)	4x 8cm heavy duty fan(s)
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

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Compute & Storage Powerhouse
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Outstanding Features	<ul style="list-style-type: none"> • Tool-less system design for easy maintenance • Flexible networking options with AIOM/OCP NIC 3.0 support • 12x 3.5"/2.5" hot-swap NVMe/SATA/SAS drive bays 	<ul style="list-style-type: none"> • Tool-less system design for easy maintenance • Storage configurations up to 12x 2.5" hot-swap NVMe/SATA/SAS drive bays • Flexible networking options with AIOM/OCP NIC 3.0 support
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Onboard Storage Controller	Intel® SATA	Intel® SATA
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Peripheral Bays	None	None
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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")