

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 4th Gen Intel® Xeon® Scalable processors

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

16 DIMM slots per node supporting DDR5-4800MHz

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®



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 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 BIGTWIN®

2U 2-Node

2U 2-Node



MODEL	SYS-621BT-DNTR	SYS-621BT-DNC8R
Processor Support	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 300W	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 300W
Key Applications	<ul style="list-style-type: none"> • Back-up & Recovery • Scale-Out Object Storage • Hyperconverged Infrastructure 	<ul style="list-style-type: none"> • Back-up & Recovery • Scale-Out Object Storage • Hyperconverged Infrastructure
Outstanding Features	<ul style="list-style-type: none"> • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP • Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SATA per node (Drive Bays) • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP • Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays) • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives
Serverboard	SUPERMICRO® X13DET-B	SUPERMICRO® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots UP to 4TB: 16x 256GB DRAM
Expansion Slots	2 M.2 (22x110mm) slot(s) for boot drive or caching PCIe 5.0 x16 LP slot 2 PCIe x8 LP slot(s)	2 M.2 (22x110mm) slot(s) for boot drive or caching PCIe 5.0 x16 LP slot 2 PCIe x8 LP slot(s)
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	6x 3.5" hot-swap NVMe/SATA drive bays; RAID support via Intel® PCH	6x 3.5" hot-swap 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	4x 14.9K RPM Heavy Duty 8cm Fan(s)	4x 14.9K RPM Heavy Duty 8cm Fan(s)
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



MODEL	SYS-221BT-DNC8R	SYS-221BT-DNTR
Processor Support	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 350W	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"> All-Flash Object Storage All-Flash Storage Area Network All-Flash Hyperconverged Infrastructure 	<ul style="list-style-type: none"> Big Data Analytics and AI Scale Out All-Flash NVMe Storage Diskless HPC Clusters High-Performance File System
Outstanding Features	<ul style="list-style-type: none"> Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 10x PCIe 4.0 NVMe/SAS per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 10x PCIe 4.0 NVMe/SATA per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives
Serverboard	SUPER® X13DET-B	SUPER® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots UP to 4TB: 16x 256GB DRAM
Expansion Slots	2 M.2 (22x110mm) slot(s) for boot drive or caching PCIe 5.0 x16 LP slot 2 PCIe x8 LP slot(s)	2 M.2 (22x110mm) slot(s) for boot drive or caching PCIe 5.0 x16 LP slot 2 PCIe x8 LP slot(s)
Onboard Storage Controller	Broadcom® 3816	Intel® SATA
Connectivity	via AIOM	via AIOM
VGA/Audio	1 onboard VGA port	1 I/O module 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	12x 2.5" hot-swap NVMe/SAS drive bays; Optional HBA support via SAS3816 AOC	12x 2.5" hot-swap NVMe/SATA drive bays; RAID support via Intel® PCH
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	4x 16.5K RPM Heavy Duty 8cm Fan(s)	4x 16.5K RPM Heavy Duty 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



NEW!

4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-621BT-HNC8R	SYS-621BT-HNTR
Processor Support	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 185W	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 185W
Key Applications	<ul style="list-style-type: none"> • Container Storage • Scale-Out File Storage • Hyperconverged Infrastructure 	<ul style="list-style-type: none"> • Scale-Out File Server • Container Storage • Hyperconverged Infrastructure
Outstanding Features	<ul style="list-style-type: none"> • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP • Supports 2x PCIe 5.0 NVMe and 1x PCIe 4.0 NVMe/SAS per node (Drive Bays) • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP • Supports 2x PCIe 5.0 NVMe and 1x PCIe 4.0 NVMe/SATA per node (Drive Bays) • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives
Serverboard	SUPERMICRO® X13DET-B	SUPERMICRO® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots UP to 4TB: 16x 256GB DRAM
Expansion Slots	2 M.2 (22x110mm) slot(s) for boot drive or caching 2 PCIe 5.0 x16 LP slot(s)	2 M.2 (22x110mm) slot(s) for boot drive or caching 2 PCIe 5.0 x16 LP slot(s)
Onboard Storage Controller	Broadcom® 3808	Intel® SATA
Connectivity	via AIOM	via AIOM
VGA/Audio	1 I/O module 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	3x 3.5" hot-swap NVMe/SAS drive bays; HBA support via SAS3808 Adapter	3x 3.5" hot-swap NVMe/SATA drive bays; RAID support via Intel® PCH
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 14.9K RPM Heavy Duty 8cm Fan(s)	4x 14.9K RPM Heavy Duty 8cm Fan(s)
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!

4th Gen Intel® Xeon® Scalable processors Supported



MODEL	SYS-221 BT-HNC8R	SYS-221 BT-HNC9R
Processor Support	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 205W	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 205W
Key Applications	<ul style="list-style-type: none"> All-Flash Hyperconverged Infrastructure Diskless HPC Clusters Container-as-a-Service; Application Accelerator Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> High-Density Storage RAID Array Virtualized Big Data Analytics Mission Critical HPC Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives
Outstanding Features	<ul style="list-style-type: none"> All-Flash Hyperconverged Infrastructure Diskless HPC Clusters Container-as-a-Service; Application Accelerator Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> High-Density Storage RAID Array Virtualized Big Data Analytics Mission Critical HPC Tool-less support for swapping AOC cards Supports Liquid Cooling up to 350W TDP Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SAS per node (Drive Bays) Optional TPM 1.2 or 2.0 module HW Boot Controller for NVMe M.2 drives
Serverboard	SUPERMICRO® X13DET-B	SUPERMICRO® X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots UP to 4TB: 16x 256GB DRAM
Expansion Slots	2 M.2 (22x110mm) slot(s) for boot drive or caching 2 PCIe 5.0 x16 LP slot(s)	2 M.2 (22x110mm) slot(s) for boot drive or caching 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	6x 2.5" hot-swap NVMe/SAS drive bays; HBA support via SAS3808 Adapter	6x 2.5" hot-swap 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	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 205W	4th Gen Intel® Xeon® Scalable processors Dual Socket LGA 4677 (Socket E) supported TDP up to 205W
Key Applications	<ul style="list-style-type: none"> • Diskless HPC Clusters • High-Performance File System • Container-as-a-Service; Application Accelerator • All-Flash NVMe Hyperconverged Infrastructure • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP 	<ul style="list-style-type: none"> • Diskless HPC Clusters • High-Performance File System • Container-as-a-Service; Application Accelerator • All-Flash NVMe Hyperconverged Infrastructure • Tool-less support for swapping AOC cards • Supports Liquid Cooling up to 350W TDP
Outstanding Features	<ul style="list-style-type: none"> • Supports 2x PCIe 5.0 NVMe and 4x PCIe 4.0 NVMe/SATA per node (Drive Bays) • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives 	<ul style="list-style-type: none"> • Optional TPM 1.2 or 2.0 module • HW Boot Controller for NVMe M.2 drives • All NVMe PCIe 5.0 Flash
Serverboard	SUPERMICRO X13DET-B	SUPERMICRO X13DET-B
Chipset	Intel® C741	Intel® C741
System Memory (Max.)	16 DIMM slots UP to 4TB: 16x 256GB DRAM	16 DIMM slots UP to 4TB: 16x 256GB DRAM
Expansion Slots	2 M.2 (22x110mm) slot(s) for boot drive or caching 2 PCIe 5.0 x16 LP slot(s)	2 M.2 (22x110mm) slot(s) for boot drive or caching 2 PCIe 5.0 x16 LP slot(s)
Onboard Storage Controller	Intel® SATA	
Connectivity	via AIOM	via AIOM
VGA/Audio	1 I/O module 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	6x 2.5" hot-swap NVMe/SATA drive bays; RAID support via Intel® PCH	6x 2.5" hot-swap NVMe 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	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")