

X14 Hyper

Best-in-class Performance and Flexibility Rackmount Server



Flagship Performance 1U and 2U Rackmount Systems

- Single and dual socket Intel® Xeon® 6700/6500 series processors with P-cores or 6700 series with E-cores
- Free-air and liquid cooling options for maximum performance and efficiency
- 32 DIMM slots supporting DDR5-6400 and MRDIMMs up to 8000MT/s (P-core only)
- NVMe SSD support with up to 24 drives in 2U
- Up to 3 PCIe 5.0 slots in 1U or 8 PCI-E 5.0 slots in 2U
- PCIe 5.0 AIOM slots supporting up to 400G networking
- Tool-less system for simplified maintenance
- Up to 18x performance increase and 7.3x better performance-per-watt for CDN video-on-demand workloads vs X11¹

Ultimate Configurability for Enterprise Applications

The new X14 Hyper series brings flagship performance to Supernova'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. With up to 8 PCIe 5.0 expansion slots in a 2U chassis that can accommodate up to 4 double-width GPUs, Hyper represents the ultimate in flexibility and configurability for tomorrow's data centers.

Designed for Enterprise Applications

Supernova X14 Hyper servers deliver the power to handle cloud and scale-out workloads, with a high core, memory, and storage density and flexible expansion for add-on and accelerator cards to allow custom configurations for almost any application.

- Cloud computing
- Content Delivery Networks (CDNs)
- Enterprise applications including database, customer relationship management, and enterprise resource planning

New Single Socket Architectures

New for X14 are Hyper UP architectures, which deliver the flagship flexibility and storage capacities of Hyper in more efficient single-socket configurations designed to reduce deployment and operating costs while still providing sufficient performance for a wide range of cloud workloads. The new Intel® Xeon® 6 processors provide a higher core count per socket than previous generations, meaning some workloads which previously required two processors can now be handled by a single-socket server.

Powered by Intel® Xeon® 6 Processors

New Intel Xeon 6700 and 6500 series processors are available with performance-per-core optimized P-cores or performance-per-watt E-cores, enabling precise matching of CPU compute requirements with the highly flexible X14 rackmount server range for maximum workload optimization and efficiency in either UP or DP X14 Hyper configurations. Intel Xeon 6 processors also include several built-in Intel Accelerator Engines such as Intel DSA, Intel QAT, and Intel AMX to offload common tasks, freeing up compute cores for essential workload processing.

¹Performance increase based on Supernova and Intel testing using X14 Hyper SYS-212H-TN with Intel Xeon 6710E processor vs SYS-1019P-WTR with Intel Xeon Gold 6252N processor. For configuration details please visit



Hyper	SYS-222H-TN	SYS-122H-TN
Processor Support	Dual Intel® Xeon® 6700/6500 series processors with P-cores Dual Intel® Xeon® 6700 series processors with E-cores Up to 330W TDP (air cooled) [†] Up to 330W TDP (liquid cooled) [†]	Dual Intel® Xeon® 6700/6500 series processors with P-cores Dual Intel® Xeon® 6700 series processors with E-cores Up to 330W TDP (air cooled) [†] Up to 330W TDP (liquid cooled) [†]
Memory Slots & Capacity	32 DIMM slots; Up to 2TB DDR5-6400MT/s Support for MRDIMMs up to 8000MT/s (P-core only)	32 DIMM slots; Up to 2TB DDR5-6400MT/s Support for MRDIMMs up to 8000MT/s (P-core only)
GPU Support	Up to 4 double-width or 4 single-width GPUs	Up to 1 double-width or 3 single-width GPUs
Motherboard	X14DBM-SP	X14DBM-SP
Form Factor	2U Rackmount Enclosure: 438 x 88.9 x 755mm (17.3" x 3.5" x 29.73") Package: 605 x 257 x 946mm (23.8" x 10.12" x 37.28")	1U Rackmount Enclosure: 438 x 43.6 x 743mm (17.3" x 1.71" x 29.27") Package: 605 x 203 x 946mm (23.8" x 7.99" x 37.28")
Expansion Slots	Option A 4 PCIe 5.0 x16 FH/10.5"L double-width slots 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) 1 PCIe 5.0 x8 AIOM slot (OCP 3.0 compatible) Option B 8 PCIe 5.0 x8 (in x16) FH/10.5"L slots 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible) 1 PCIe 5.0 x8 AIOM slot (OCP 3.0 compatible)	1 PCIe 5.0 x16 FHHL slot 2 PCIe 5.0 x16 FH/10.5"L slots 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)
Drive Bays	Default 8 front hot-swap 2.5" NVMe/SAS/SATA drive bays Option A 16 front hot-swap 2.5" NVMe/SAS/SATA drive bays Option B 24 front hot-swap 2.5" NVMe/SAS/SATA drive bays	Default 8 front hot-swap 2.5" NVMe/SAS/SATA drive bays Option A 12 front hot-swap 2.5" NVMe/SAS/SATA drive bays
Cooling	4 heavy duty 8cm fans	8 counter-rotating 4cm fans
Power Supply	Redundant 1200/1600/2000/2600W Titanium Level (96%)	Redundant 1200/1600/2000/2600W Titanium Level (96%)

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



Hyper	SYS-212H-TN	SYS-112H-TN
Processor Support	Dual Intel® Xeon® 6700/6500 series processors with P-cores Single Intel® Xeon® 6700 series processors with E-cores Up to 330W TDP (air cooled) [†]	Dual Intel® Xeon® 6700/6500 series processors with P-cores Single Intel® Xeon® 6700 series processors with E-cores Up to 330W TDP (air cooled) [†]
Memory Slots & Capacity	16 DIMM slots; Up to 1TB DDR5-6500MT/s Support for MRDIMMs up to 8000MT/s (P-core only)	16 DIMM slots; Up to 1TB DDR5-6500MT/s Support for MRDIMMs up to 8000MT/s (P-core only)
GPU Support	Up to 1 double-width or 2 single-width GPUs	Up to 1 double-width or 2 single-width GPU(s)
Motherboard	X14SBH	X14SBH
Form Factor	2U Rackmount Enclosure: 437 x 88.9 x 806mm (17.2" x 3.5" x 31.74") Package: 672 x 253 x 1107mm (26.46" x 9.96" x 43.6")	1U Rackmount Enclosure: 437 x 43.2 x 778.7mm (17.2" x 1.7" x 30.66") Package: 672 x 224 x 1100mm (26.46" x 8.82" x 43.31")
Expansion Slots	Option A 1 PCIe 5.0 x16 FHFL double-width slot 1 PCIe 5.0 x16 FH/10.5"L double-width slot 1 PCIe 5.0 x16 AIOM slot (OCP 3.0) Option B 1 PCIe 5.0 x16 FHFL double-width slot 2 PCIe 5.0 x8 FH/10.5"L slots 1 PCIe 5.0 x16 AIOM slot (OCP 3.0)	1 PCIe 5.0 x16 FHFL slots 1 PCIe 5.0 x16 FHFL double-width slot 1 PCIe 5.0 x16 AIOM slot (OCP 3.0 compatible)
Drive Bays	Default 8 front hot-swap 2.5" NVMe/SAS/SATA drive bays Option A 8 front hot-swap 2.5" PCIe 5.0 x4 NVMe drive bays 8 front hot-swap 2.5" SAS/SATA drive bays Option B 16 front hot-swap 2.5" SAS/SATA drive bays Option C 24 front hot-swap 2.5" SAS/SATA drive bays	Default 8 front hot-swap 2.5" NVMe/SAS/SATA drive bays Option A 8 front hot-swap 2.5" NVMe/SAS/SATA drive bays 4 front hot-swap 2.5" SAS/SATA drive bays
Cooling	6 counter-rotating 6cm fans	8 counter-rotating 8cm fans
Power Supply	Redundant 1200/1300/1600/2000/2600W Titanium level (96%)	Redundant 1200/1300/1600W Titanium Level (96%)

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