

# X13 MULTI-PROCESSOR SYSTEMS

Highest Performance and Flexibility for Enterprise Applications



## 2U 4-Way Compute-Optimized Hyper

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

Compute and hybrid storage-optimized configurations

Large memory footprint with up 64 DIMMs in 2U and 128 DIMMs in 8U supporting DDR5-4800MHz and Intel® Optane™ Persistent Memory 300 Series



SYS-241H-TNRTTP

AIOM  
Ready

2U 4-way Compute-Optimized Hyper



SYS-241H-TNRTTP

64 DIMM/12 PCIe 5.0 (7x16 + 5x8)/8 NVMe hybrid

2U 4-way Storage-Optimized Hyper



SYS-241E-TNRTTP

64 DIMM/8 PCIe 5.0 (54x16 + 3x8)/24 NVMe hybrid

6U 8-way GPU-Optimized



SYS-681E-TR

128 DIMM/26 PCIe 5.0 x16/24 NVMe hybrid

## 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 Intel® Optane™ persistent memory to enable even the most memory-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 chassis. Flexible networking is available via an AIOM slot supporting OCP 3.0 NIC devices.

## Key Applications

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



# X13 MP SYSTEMS

**NEW!**

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-TNRTTP	SYS-241E-TNRTTP	SYS-681E-TR
Processor Support	4th Gen Intel® Xeon® Scalable processors Quad Socket LGA-4677 (Socket E) supported TDP up to 350W; 3 UPI up to 16GT/s <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>	4th Gen Intel® Xeon® Scalable processors Quad Socket LGA-4677 (Socket E) supported TDP up to 250W; 3 UPI up to 16GT/s <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>	4th Gen Intel® Xeon® Scalable processors Octa Socket LGA-4677 (Socket E) supported TDP up to 350W; 4 UPI up to 16GT/s <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><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>
Key Applications			
Outstanding Features	Support up to 2 double-width GPU/FPGA to accelerate AI workloads Compute Optimized 4-Way Server	Support up to 2 double-width GPU/FPGA to accelerate AI workloads Storage Optimized 4-Way Server	
Serverboard	SUPERMICRO® X13QE+H	SUPERMICRO® X13QE+	SUPERMICRO® 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 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)	64 DIMM slots UP to 16TB: 64x 256GB DRAM UP to 24TB: 32x 256GB DRAM and 32x 512GB Intel® Optane™ Persistent Memory 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)	128 DIMM slots UP to 32TB: 128x 256GB DRAM UP to 48TB: 64x 512GB Intel® Optane™ Persistent Memory and 64x 256GB DRAM 12 PCIe 5.0 x16 FHFL slot(s) 12 PCIe 5.0 x16 FHFL optional slot(s) 2 PCIe 5.0 x16 LP internal optional slot(s) 2 M.2 SATA3/NVMe3 slot(s)
Expansion Slots			
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")