

H15 Hyper Systems

Industry-Leading, Flexible, Efficient, and High-IOPS Rackmount Servers



AS -1127H7-N



AS -2127H7-N

Enterprise-focused platform designed for ultimate performance and flexibility

Gain high performance, flexibility, scalability and serviceability for demanding IT environments, and power mission-critical enterprise workloads.

- Dual AMD EPYC 9006 Series processors
- 32 DIMMs for up to 8 TB of memory using DDR5-8000 RDIMM or DDR5-12800 MRDIMM¹
- New modular, flexible storage configurations
- Configurable PCIe 6.0 expansion capabilities with CXL 3.1 memory expansion and pooling
- Open Compute Project (OCP) 3.0 AIOM slot
- Titanium-Level efficiency DC power supplies

¹ Capacity is calculated based on 256GB Memory DIMM

You can't successfully run an enterprise data center with one-off servers dedicated to specific purposes, where inconsistencies, oversights, or configuration errors can imperil application availability. Our H15 Hyper DP servers are dedicated to delivering a hyper level of performance and storage I/O operations per second (IOPS), with even more flexibility gained from a modular disk subsystem. Both 1U and 2U systems are based on the same motherboard, firmware, and have the same operating system support. Let your servers be hyper, while you relax with a simpler and more easily managed data center.

Introducing H15 Hyper Systems

Our H15 Hyper systems are your flagship data center systems, certified to run the major enterprise applications while affording you a flexible range of computing, networking, storage, and I/O expansion capabilities. A new modular storage drive design offers greater flexibility, enabling you to configure the system with the storage options that best meet your specific needs. Our 1U AS -1127H7-N server supports up to three modules that support up to 12 2.5", 12 E3.S 1T, or 12 E1.S drives, or up to 4 E3.S 2T (CXL) drives with support for CXL3.1 memory expansion. Our 2U AS -2127H7-N server supports up to three modules that support up to 16 2.5", 16x E3.S 1T, or 12 E1.S drives, or up to 4 E3.S 2T (CXL) drives with memory extension. With 4 lanes of PCIe 6.0 bandwidth to each storage drive, the modular configuration opens the door to support other PCIe 6.0-connected devices in

the future. Externally, a pair of M.2 drives typically hold operating system and application images. For networking, use one of the generous supply of PCIe slots or an Open Compute Project (OCP) 3.0 add-in module (AIOM) for consistent and standard networking capabilities across all of your server deployments.

Every one of our H15 Hyper systems is based on the same motherboard with two AMD EPYC™ 9006 Series CPUs. Equip these servers with up to 32 DDR5-8000 RDIMMs or DDR5-12800 MRDIMMs for up to 8 TB¹ of main memory. Consistency means you have only one set of firmware, BIOS settings, and operating system patches to manage. Every system built on this motherboard is designed for reliability, availability and serviceability so that if a problem occurs, your applications can be back up and running quickly.

Best of all, H15 Hyper systems support 6th Gen AMD EPYC processors, offering up to 256 cores per CPU. With a consistent set of features across the product line, you choose the number of cores and the clock frequency your applications need, and the rest comes at no additional expense. The CPU's 96 lanes of PCIe 6.0 bandwidth enables massive amounts of parallel I/O in the system, and 16 memory channels means that system configurations are available to meet just about any application need.



¹ Capacity is calculated based on 256GB Memory DIMM

Designed for Enterprise Applications

With the H15 Hyper systems, the flexible selection of density and storage capacity gives you a high-performance server for every purpose, including:

- Artificial intelligence and machine learning
- Virtualization and cloud, including virtual desktop infrastructure with GPU acceleration
- High performance computing clusters

Consistent Deployment

You get consistent, tool-less deployment and maintenance of both the motherboard and the systems themselves. And our versatile motherboard powers all of our H15 Hyper systems. Each system has configuration options that enable varying numbers of expansion slots and disk drives, simply by ordering or swapping

in the appropriate kits. This means that you can have systems tailored to application needs but with complete architectural consistency. This helps to reduce the chance of errors that can cause downtime, and ease the need for staff to train on multiple server types. With H15 Hyper systems, they are all based on the same infrastructure.

Open Management

In addition to a dedicated IPMI port, and a Web IPMI interface, our management tools include Supermicro® [SuperCloud Composer](#)®, [Supermicro Server Manager \(SSM\)](#), [Super Diagnostics Online \(SDO\)](#), [Supermicro Thin-Agent Service \(TAS\)](#), [SuperServer Automation Assistant \(SAA\)](#), and [plug-ins for third-party software](#). In addition, your DevOps teams can create their own tools using industry-standard Redfish® APIs for deployment and management to exactly meet the needs of your organization.

H15 Generation	Dual-Socket AS -1127H7-N	Dual Socket AS -2127H7-N
Form Factor	• 1U rackmount	• 2U rackmount
Processor Support	• Dual SP7 sockets for two AMD EPYC 9006 Series CPUs • Up to 512 cores, up to 600W TDP¹	
Memory Slots & Capacity	• 16-channel DDR5 memory support • 32 DIMM slots for up to 8 TB² ECC DDR5-8000 RDIMMs or DDR5-12800 MRDIMMs	
On-Board Devices	• System on Chip • Hardware root of trust • IPMI 2.0 with virtual-media-over-LAN and KVM-over-LAN support • ASPEED AST2700 BMC graphics	
I/O Ports	• 2x USB3.0 (Rear) • 1x GbE Dedicated BMC LAN port • 1x VGA • 1x AIOM (OCP3.0)	
Drive Bays	• Up to 12x 2.5" or 12x E3.S 1T or 12x E1.S or 4x E3.S 2T (CXL) • 2 internal M.2 NVMe drives (optional hot-swappable)	• Up to 16x 2.5" or 16x E3.S 1T or 12x E1.S or 4x E3.S 2T (CXL) • 2 internal M.2 NVMe drives (optional hot-swappable)
Expansion Slots	• 1 PCIe 6.0 x16 (FHHL) slots • 2 PCIe 6.0 x16 (FHFL) slots	• Up to 4 PCIe 6.0 x16 (FHFL) slots • or 2 PCIe 6.0 x16 plus 4 PCIe 6.0 x8
Networking	• 1 PCIe 6.0 x16 AIOM/OCP 3.0 network interface slot	
BIOS	• AMI Code Base 64 MB SPI flash EEPROM	
Front Panel	• Power On/Off and System Reset buttons • Power status, HDD activity, network activity, system overheat, fan failure, and UID LEDs	
System Management	• Built-in server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port • Redfish APIs and plug-ins for third-party management software • Supermicro SuperCloud Composer, Supermicro Server Manager (SSM), Super Diagnostics Online (SDO), Supermicro Thin-Agent Service (TAS), SuperServer Automation Assistant (SAA).	
System Cooling	• 8 cooler-routing 40x40x56mm PWM fans	• 6 cooler-routing 60x60x56mm PWM fans
Power Supply	• Up to 2x High-efficiency power supply (Titanium Level 96%) • 1600W/2000W/2600W/3200W (Full redundancy based on configuration and application load)	

1. Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical Support for additional information about specialized system optimization *Optional parts are required for NVMe/SAS/SATA configurations.

2. Capacity is calculated based on 256GB Memory DIMM.