SUPERMICR

# H14 Hyper Systems

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



2U A+ Server 2126HS-TN (NVMe/SAS/SATA)

## 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-Socket AMD EPYC 9004/9005 Series processors
- 24 DIMMs for up to 9 TB of DDR5-6000 memory
- Flexible NVMe, SAS, and SATA3 drive options
- Configurable PCIe 5.0 expansion capabilities with CXL 2.0 memory expansion and pooling
- Open Compute Project (OCP) 3.0 AIOM slots
- Titanium-Level efficiency power supplies with AC and DC options

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 second-generation H14 Hyper DP servers are dedicated to delivering a hyper level of performance and storage I/O operations per second (IOPS), with even more flexibility. Bot 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 H14 Hyper Systems**

Our H14 Hyper systems are your new 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. Choose NVMe, SATA, or SAS storage to achieve the number of I/O operations per second (IOPS) your applications need to perform at their best. And use Open Compute Project (OCP) 3.0 add-in modules (AIOMs) for consistent and standard networking capabilities across all of your server deployments.

Every one of our H14 Hyper systems is based on the same motherboard with two AMD EPYC<sup>™</sup> 9005 or 9004 Series CPUs. Equip these servers with up to 24 of the fastest DDR5-6000 DIMMs for up to 9 TB 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, H14 Hyper systems support both 4th and 5th Gen AMD EPYC processors, offering up to 192 cores per CPU (EPYC 9005 Series) or 128 cores per CPU (EPYC 9004 Series). 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 128 lanes of PCIe 5.0 bandwidth enables massive amounts of parallel I/O in the system, and system configurations are available to meet just about any storage need.

#### **Designed for Enterprise Applications**

With the H14 Hyper systems, the flexible selection of density and storage capacity gives you a high-performance server for every purpose, including:

- Virtualization and cloud, including virtual desktop infrastructure with GPU acceleration
- Scale-out, clustered software-defined storage

- Hyperconverged infrastructure
- Enterprise applications including database, customer relationship management, and enterprise resource planning
- 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 three of our H14 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 H14 Hyper systems, they are all based on the same infrastructure.

#### **Open Management**

Our open management APIs and tools are ready to support you. In addition to a dedicated IPMI port, and a Web IPMI interface, Supermicro® SuperCloud Composer software helps you configure, maintain, and monitor all of your systems using singlepane-of-glass management. If your DevOps teams prefer to use their own tools, industry-standard Redfish® APIs provide access to higher-level tools and scripting languages.

1	

Form Factor     • 1U rackmount     • 2U rackmount	
<ul> <li>Two SP5 sockets for two AMD EPYC 9005 Series CPUs and EPYC 9004 Series CPUs including those with AMD 3D V-Cache™ technology</li> <li>Up to 192 cores, up to 500W TDP<sup>1</sup></li> <li>Two SP5 sockets for two AMD EPYC 9005 Series CPUs and those with AMD 3D V-Cache technology</li> <li>Up to 192 cores, up to 500W TDP<sup>1</sup></li> </ul>	nd EPYC 9004 Series CPUs including
Memory Slots & one of the second part o	ith EPYC 9005 Series CPUs
On-Board <ul> <li>System on Chip</li> <li>Hardware root of trust</li> <li>Hardware root of trust</li> <li>IPMI 2.0 with virtual-media-over-LAN and</li> <li>KVM-over-LAN support</li> <li>ASPEED AST2600 BMC graphics</li> </ul> <ul> <li>System on Chip</li> <li>Hardware root of trust</li> <li>IPMI 2.0 with virtual-media-over-LAN and</li> <li>KVM-over-LAN support</li> <li>ASPEED AST2600 BMC graphics</li> </ul> <ul> <li>ASPEED AST2600 BMC graphics</li> </ul>	
<ul> <li>Integrated IPMI 2.0 plus KVM with dedicated LAN</li> <li>3 USB 3.0 ports (2 rear, 1 front)</li> <li>2 USB 3.0 ports</li> <li>1 VGA port</li> <li>1 VGA port</li> <li>1 TPM 2.0 header</li> <li>ASPEED AST2600 BMC graphics</li> <li>ASPEED AST2600 BMC graphics</li> </ul>	
• 8 hot-swap 2.5" NVMe/SAS/SATA drives1 (optional 12-drive configuration))       • Up to 24 hot-swap 2.5" NVMe/SATA drives1         • 2 M.2 NVMe boot drives       • 2 M.2 NVMe boot drives	
Expansion Slots          • 1 PCle 5.0 x16 full-height slot (6.6")         • 2 PCle 5.0 x16 full-height slots (10.5")         • 8 PCle 5.0 x8 full-height, full-length slots	
Networking         • 1 PCIe 5.0 x16 AIOM/OCP 3.0 network interface slot         • 1 AIOM/OCP 3.0 network interface slot	
BIOS • AMI Code Base 256 Mb (32 MB) SPI EEPROM	
<ul> <li>Front Panel</li> <li>Power On/Off and System Reset buttons</li> <li>Power status, HDD activity, network activity, system overheat, fan failure, and UID LEDs</li> </ul>	
<ul> <li>Built-in server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port</li> <li>Redfish APIs</li> <li>Supermicro SuperCloud Composer</li> <li>Supermicro Server Manager (SSM) and Supermicro Update Manager (SUM)</li> </ul>	
Power & Cooling       • 1200W/1600W/2000W Redundant AC Power Supplies (Titanium Level) <sup>2</sup> • 1600W/2000W/2600W Redundant AC Power Supplies         • 1300W/2000W Redundant DC power suplies       • 1600W/2000W Redundant DC power suplies	(Titanium Level) <sup>2</sup>

<sup>†</sup>Certain CPUs with high TDP may be supported only under specific conditions. Please contact Supermicro Technical Support for additional information about specialized system optimization

1. Optional parts are required for NVMe/SAS/SATA configurations

2. Full power supply redundancy is based on configuration and application load

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