H14 GrandTwin System

Leading Multi-Node Architecture with Front I/O

A+ Server 2126GT-HNTF (with front I/O)

(rear view)

Designed for maximum density, the GrandTwin™ server is built on Supermicro's multi-node architecture to maximize the performance of 4th and 5th Gen AMD EPYC processors for high single-CPU performance. The H14 GrandTwin design includes the capability to support up to 160 cores in EPYC 9005 Series processors, higher thermal capability, and an optional PCIe 5.0 x16 AIOM slot. The GrandTwin system delivers high performance in a modular design that can be optimized for a wide range of options, with the capability to add or remove components as needed to match data center needs.

Modular Multi-node System with Front I/O

This Supermicro multi-node system is designed for applications that need a large number of discrete servers with high-speed interconnects for networked or clustered operations. They are ideal for virtualized and nonvirtualized applications including:

- **Hyperconverged infrastructure and scale-out storage applications** where a balanced set of resources is key
- **High-performance computing** including EDA simulation, computational fluid dynamics, and weather modeling
- **Content-delivery networks** where a large number of network streams need to run in parallel
- **Back-end infrastructure** for mobile devices including gaming, voice recognition, and mapping services

2U, 4-Node-Per-Chassis Flexible Architecture

Maximize resource savings through shared power and cooling

- AMD EPYC™ 9005 or 9004 Series processor with up to 6 TB of DDR5 memory per node
- Up to four 2.5" NVMe or SATA drives per node
- Front I/O configuration enables field service from cold aisle to help reduce downtime
- Flexible networking options with PCIe 5.0 OCP 3.0 interfaces
- Redundant Titanium level shared power supplies

- **Cloud computing** where a large number of cores are needed to deliver high performance to each virtual machines
- **Big data analytics** that combine scale-out storage with the need for high compute capacity for data analysis

These 2U servers optimize compute, memory, and I/O resources to deliver unparalleled density—four single-socket nodes in only two rack units. In this front-I/O system, all storage, networking, and node trays are accessible from the cold aisle, simplifying installation and servicing in space-constrained environments.

Each of the four nodes host a single AMD EPYC 9005 or 9004 Series CPU with up to 160 cores, up to 16 DIMMs for a total of 6 TB of DDR5-5200 memory (with EPYC 9005 Series), up to four U.2 NVMe or SATA drives with PCIe 5.0 connectivity, two M.2 slots for boot drives, and a range of networking options to keep data flowing freely through these powerful servers. Dual redundant 2200W power supplies economize on power and cooling.

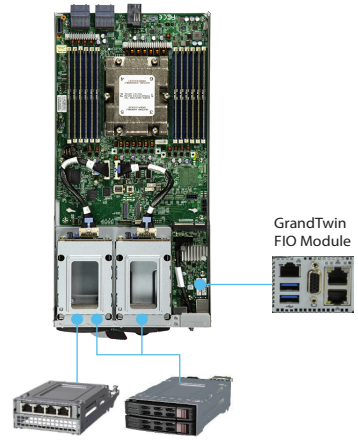
GrandTwin Front I/O Node

The A+ Server 2116GT-HNTF has all storage and I/O accessible from the front panel. Each node supports up to four U.2 NVMe or SATA drives and a front I/O card with options including dual 10 or 25 Gigabit Ethernet, or single 100 Gigabit Ethernet interfaces.

For even more demanding network needs, the left pair of drive bays can be interchanged for a Supermicro Advanced I/O Module (AIOM) cage that supports OCP 3.0 interfaces.

Open Management

Regardless of your data center's management approach, our open management APIs and tools are ready to support you. In addition to a dedicated IPMI port, and a Web IPMI interface per node, Supermicro® SuperCloud Composer software helps you configure, maintain, and monitor all of your systems using single-pane-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.



H14 Generation	Single-Socket AS -2126GT-HNTF GrandTwin Front I/O Node
Processor Support	• Single SP5 socket for one AMD EPYC™ 9004 or 9005 Series processor including EPYC 9004 Series CPUs with AMD 3D V-Cache™ technology • Up to 160 cores, up to 400W TDP per socket†
Memory Slots & Capacity	• 8-channel DDR5 memory support • 16 DIMM slots for up to 6 TB ECC DDR5-5200 RDIMM with EPYC 9005 Series CPUs and 1 DIMM per channel; DDR5-4400 with 2 DIMMs per channel
On-Board Devices	• System on Chip • NVMe and SATA3 storage interfaces via AMD EPYC processor • IPMI 2.0 with virtual-media-over-LAN and KVM-over-LAN support • ASPEED AST2600 BMC graphics • 1 TPM 2.0 header
I/O Ports	GrandTwin Front I/O module with dedicated RJ45 IPMI LAN port, 2x USB 3.0, VGA connector plus optional LAN module: • Dual RJ45 1/10 GbE Ports (AOC-GTG-I2T) • Dual SFP28 25 GbE Ports (AOC-G25G-M2S)
Drive Bays	• Up to 4 hot-pluggable 2.5" drive bays for U.2 NVMe or SATA3 drives with internal RAID option • 2 M.2 NVMe/SATA3 2280 slots
Expansion Slots	• Left drive cage can be swapped out for an optional PCIe 5.0 x16 OCP 3.0 AIOM card bay
BIOS	• AMI 256 Mb (32 MB) SPI Flash ROM
System Management	• Built-in server management tool (IPMI 2.0, KVM/media over LAN) with dedicated LAN port • Redfish APIs • Supermicro SuperCloud Composer • Supermicro Server Manager (SSM) and Supermicro Update Manager (SUM)
Chassis	
Form Factor	• 2U rackmount
Front Panel	• On/off and Universal Information (UID) buttons • Power status and UID LEDs
Shared Power & Cooling	• 2 heavy duty 8 cm PWM fans • Redundant 2200W Titanium Level power supplies

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