



A+ Server Solutions

World's Most Versatile Portfolio of AMD Processor-Based Systems
Supporting AMD EPYC™ & Ryzen™ Series Processors



SUPERMICRO® H13 AND H12 GENERATION A+ SERVERS

The Most Comprehensive Portfolio of AMD Processor-Based Systems, now with AMD EPYC™ 9004 Series and Ryzen™ 7000 Series Processors, Including Servers, Storage, GPU-Optimized, Blade, and Multi-Node Solutions to Exactly Match System Requirements to Your Workload



September 2023



INTRODUCING H13 GENERATION A+ SERVERS



AMD EPYC™ 9004 SERIES PROCESSORS

- Up to 128 "Zen 4C" cores or 96 "Zen 4" cores per socket with AMD 3D V-Cache™ technology
- Up to 6TB of memory of 12-channel DDR5 with ECC 4800MHz and Advanced Memory Device Correction (AMDC) and now supports 2 DIMMs per channel (2DPC) with single socket
- PCIe 5.0 up to 160 lanes (4U GPU system)
- Next Generation Reliability, Availability, and Serviceability (RAS)

WORKLOAD OPTIMIZED SYSTEMS WITH OPEN ARCHITECTURES

- Vast I/O, storage, networking and expansion slot options for maximum versatility
- Flexible networking options with Advanced I/O Modules (AIOMs), up to 400Gbps throughput per card and OCP 3.0 support
- Market-leading GPU optimized servers for large scale AI/ML and HPC workloads
- Compute Express Link (CXL 1.1+) peripheral support including memory expansion through PCIe 5.0 lanes

INCREASED OPERATIONAL EFFICIENCY

- Tool-less chassis design
- Rear and Front I/O options
- Hot-swappable nodes with shared power for multi-node system
- Titanium level redundant power supplies
- Efficient resource-saving multi-node designs with shared power and cooling.

H13 GPU OPTIMIZED SYSTEM

Maximum Acceleration for AI/Deep Learning and HPC



H13 GRANDTWIN™ SYSTEM

Leading Multi-Node Architecture with Front or Rear I/O



H13 FLASH STORAGE SYSTEM

Purpose-built All-Flash E3.S Petascale Storage Solution



H13 WIO SYSTEM

Excellent Density and Energy Efficiency for Intelligent Edge



H13 HYPER SYSTEM

Industry Leading IOPS Servers with Energy Efficiency and Flexibility



H13 SHORT DEPTH FRONT I/O

Compact Front I/O design optimized for Telco deployments



H13 CLOUDDC SYSTEM

All-in-One Servers with Flexible I/O Options for Cloud Scale Data Centers



H13 WORKSTATION SYSTEM

Server-Grade Workstations for High Compute and Graphic Workloads



H13 GPU-OPTIMIZED SYSTEMS

Maximum Acceleration for AI/Deep Learning and HPC

High performance AI/Deep Learning and HPC-optimized systems

Dual AMD EPYC™ 9004 Series Processors including CPUs with AMD 3D V-Cache™ technology

Double the CPU to GPU throughput with PCIe 5.0

Powered by NVIDIA HGX H100 8-GPU SXM or up to 10 FHFL double-width PCIe GPUs including NVIDIA H100 PCIe and AMD Instinct MI210 PCIe GPUs



AS-4125GS-TNRT1



AS-8125GS-TNHR

8U dual processors system with NVIDIA HGX H100 8-GPU, supports PCIe 5.0 with 1:1 networking at 400G to the 8 GPUs and up to 16 NVMe and 2 SATA SSD drives



AS-4125GS-TNRT

4U dual processors, direct attached GPU system, supporting 8 PCIe 5.0 GPUs, AMD Instinct, NVIDIA Enterprise level GPUs



AS-4125GS-TNRT1

4U dual processors, single-root GPU system with PLX, supporting 10 PCIe 5.0 GPUs, AMD Instinct, NVIDIA Enterprise level GPUs



AS-4125GS-TNRT2

4U dual processors, dual-root GPU system with PLX, supporting 10 PCIe 5.0 GPUs, AMD Instinct, NVIDIA Enterprise level GPUs

MAXIMUM ACCELERATION A+ GPU SYSTEMS

Optimized for AI, Deep Learning, and HPC, providing maximum acceleration, flexibility, high-performance and balanced solutions, Supermicro GPU-optimized systems support PCIe 5.0 and HGX accelerators and deliver a multitude of performance gains compared to previous generations.

The H13 GPU-optimized servers deliver unprecedented acceleration at every scale to power the world's highest performing data centers for AI, data analytics, and HPC applications.

Key Applications

- AI/ML
- Deep Learning
- High Performance Computing (HPC)
- Research Laboratory/National Laboratory
- Molecular Dynamics Simulation
- Astrophysics Simulation
- Chemistry Simulation



H13 GRANDTWIN™ SYSTEMS

Leading Multi-node Architecture with Front or Rear I/O

2U 4-node system optimized for single processor per node performance

Configurable up to six 2.5" drive bays supporting NVMe or SATA per node

Field serviceable from front/cold aisle to reduce downtime for higher availability

Flexible networking options with AIOM / OCP 3.0 support



AS-2115GT-HNTF

2U 4-Node Rear I/O GrandTwin



AS-2115GT-HNTR

2U system with up to 6 U.2 NVMe/SATA drives per node

2U 4-Node Front I/O GrandTwin



AS-2115GT-HNTF

2U system with up to 4 U.2 NVMe/SATA drives per node

Highly Configurable Single Processor System with Front or Rear I/O

GrandTwin™ is an all-new multi-node architecture purpose-built for single-processor performance. The design maximizes compute, memory and efficiency to deliver maximum density. Powered by AMD EPYC™ 9004 Series Processors now with AMD 3D V-Cache™ technology, GrandTwin's flexible modular design can be easily adapted for a wide range of applications, with the ability to add or remove components as required, reducing cost.

For front I/O configurations, all I/O and node trays are fully accessible from the cold aisle, simplifying installation and servicing in space-constrained environments. Flexible storage and networking options are available via front AIOM modules, allowing countless custom configurations.

Key Applications

- HCI
- HPC
- CDN
- Technical Computing (EDA, CFD, FEA)
- Cloud Computing
- Big Data Analytics
- Scale-Out Storage



H13 HYPER SYSTEMS

Industry Leading IOPS Rackmount Servers with Energy Efficiency and Flexibility

Dual AMD EPYC™ 9004 Series Processors

3 PCIe 5.0 x16 slots (1U), or up to 4 PCIe 5.0 x16 slots/ 8 PCIe 5.0 x8 slots (2U) and CXL 1.1+ support

Up to 2 AIOM networking slots with OCP 3.0 support

Flexible NVMe and SATA hot-swap drive options

Tool-less design for easy deployment and maintenance



AS-1125HS-TNR

1U Hyper



AS-1125HS-TNR

1U dual processor server with 24 DIMMs and up to 12 hot-swap 2.5" NVMe/SATA drives

2U Hyper



AS-2025HS-TNR

2U dual processor server with 24 DIMMs and 12 hot-swap 3.5" NVMe/SATA drives

2U Hyper



AS-2125HS-TN

2U dual processor server with 24 DIMMs and 24 hot-swap 2.5" NVMe/SATA drives

Highest Performance A+ Hyper Servers

The new H13 Hyper series brings next-generation versatility and performance to Supermicro's range of rackmount servers, built to take on the most demanding workloads along with the storage & I/O flexibility that provide customer fit for a wide range of application needs.

- Uncompromised performance design with 2 CPU sockets and 24 DIMMs optimized for supporting the highest processor TDP
- Best-in-class server features including all NVMe, hybrid storage and low latency optimizations
- Fast PCIe 5.0 expansion slots for accelerators, AIOM/OCP 3.0 networking, and CXL 1.1+ peripheral support including memory expansion.

Key Applications

- Enterprise Server
- Hyperconverged Storage
- Virtualization
- AI Training/Inferencing
- Big Data Analytics
- Cloud Computing
- CDN
- In-Memory Database



H13 HYPER-U SYSTEMS

Enterprise-Focused Servers delivering Memory Density, Flexibility, and Power Efficiency

Single AMD EPYC™ 9004 Series Processor with up to 128 cores

Up to 12-channel 24 DIMMs (2 DIMMs per channel) for up to 6 TB of DDR5 memory in a single-socket platform

Flexible NVMe, SAS, and SATA3 drive options

Configurable PCIe 5.0 expansion capabilities for GPUs and CXL 1.1+ support



AS-1115HS-TNR

1U Hyper-U



AS-1115HS-TNR

1U single processor server, supports 8 hot-swap 2.5" NVMe/SATA/SAS drives

2U Hyper-U



AS-2015HS-TNR

2U single processor server, supports 12 hot-swap 3.5" NVMe/SATA/SAS drives

2U Hyper-U



AS-2115HS-TNR

2U single processor server, supports 24 hot-swap 2.5" NVMe/SATA/SAS drives

Designed for Enterprise and Cloud Native Workloads

Supermicro H13 Hyper-U series are the ultimate single processor servers that can offer more cores than most 2 socket servers can, ideal for cloud native workloads, such as virtualization and HCI.

The 1U and 2U Hyper-U systems offer high-performance, density, and power efficiency on the latest AMD processors supporting up to 128 cores and up to 12 channels of DDR5 in 24 DIMMs slots. Additionally, the systems have configurable expansion capabilities such as CLX 1.1+ memory expansion devices, and GPU to support AI inferencing and other accelerated workloads.

Key Applications

- Enterprise Server
- Cloud Computing
- Virtualization
- AI Inference and Machine Learning
- Software-Defined Storage



H13 CLOUDDC SYSTEMS

All-in-One Servers with Flexible I/O Options for Cloud-Scale Data Centers

Single AMD EPYC™ 9004 Series Processor

Up to 12 hot-swap NVMe/SATA drives

2 PCIe 5.0 x16 slots (1U) or
up to 4 PCIe 5.0 x16 slots (2U)

Flexible networking options with AIOM/
OCP 3.0 support

Best-in-class serviceability features with
tool-less chassis design



AS-1115CS-TNR

CloudDC - 1U



AS-1015CS-TNR

1U single processor server with
12 DIMMs, supports dual AIOM and
4 hot-swap 3.5" NVMe/SATA drives

CloudDC - 1U



AS-1115CS-TNR

1U single processor server with
12 DIMMs, supports dual AIOM and
10 hot-swap 2.5" NVMe/SATA drives

CloudDC - 2U



AS-2015CS-TNR

2U single processor server with
12 DIMMs, supports 2 double-width PCIe GPUs, dual
AIOM and 12 hot-swap 3.5" NVMe/SATA drives

Cost Optimized Versatile Solutions for Rapid Cloud Deployment and Easy Maintenance

Ultimate flexibility on I/O and storage with 2 to 4 PCIe 5.0 slots and dual AIOM slots (PCIe 5.0; OCP 3.0 compliant) for maximum data throughput. Supermicro H13 CloudDC systems offer convenient serviceability with tool-less brackets, hot-swap drive trays and redundant power supplies that ensure a rapid deployment and more efficient maintenance in data centers.

The H13 CloudDC servers are designed for cost-effective service delivery in cloud computing environments, including Internet infrastructure such as web hosting, email services, public and private cloud computing, and content-delivery networks (CDNs).

Key Applications

- Cloud Computing
- Web Server
- Hyper-converged Storage
- Virtualization, File Servers
- Head-node Computing
- Telcom Security Server
- CDN



H13 WIO SYSTEMS

Excellent Density and Energy Efficiency for Intelligent Edge

Single AMD EPYC™ 8004 Series Processor

6 DIMM slots; Up to 576GB DDR5-4800

Up to 10 SATA/NVMe/SAS (1U)

Up to 12 SATA/SAS or 6 NVMe and SATA/SAS (2U)

Redundant titanium level power supply

Up to 2 PCIe 5.0 x16 FHFL slots and

1 PCIe 5.0 x16 LP (1U), 2 PCIe 5.0 x8 LP (2U)



AS-1115SV-WTNR

WIO-1U



AS-1015SV-WTNR

1U single processor server with 6 DIMMs, supports 4 hot-swap 3.5"/2.5" SATA/NVMe/SAS drives

WIO-1U



AS-1115SV-WTNR

1U single processor server with 6 DIMMs, supports 10 hot-swap 2.5" SATA/NVMe/SAS drives

WIO-2U



AS-2015SV-WTNR

2U single processor server with 6 DIMMs, supports 12 hot-swap 3.5"/2.5" SATA/NVMe/SAS drives

Cost and Energy Efficient for Intelligent Edge and Data Center Application

The Supermicro WIO systems are energy-efficient single socket (SP6) servers that lower the operating costs for data center, enterprise edge, cloud computing and network security applications. The Supermicro WIO with AMD EPYC™ 8004 series processor are designed for impressive performance balanced with cost, power, and flexible I/O options.

Key Applications

- Cloud Services
- Enterprise Edge
- Virtualization
- Database Storage
- Web Server
- DNS and Gateway Server



H13 SHORT DEPTH FRONT I/O

Compact Front I/O design optimized for Telco deployments

Single AMD EPYC™ 8004 Series Processor

6 DIMM slots; Up to 576GB DDR5-4800

Up to 2 2.5" Internal Drives

2 PCIe 5.0 x16 FHFL Slots

Both AC and DC Power Supply Options Available



AS-1115S-FWTRT

Short Depth - AC



AS-1115S-FWTRT

1U Single Processor with 6 DIMM supporting up to 3 PCIe5.0 and up to 2 2.5" Internal Drives

Short Depth - DC



AS-1115S-FDWTRT

1U Single Processor with 6 DIMM supporting up to 3 PCIe 5.0 and up to 2 2.5" Internal Drives

NEBS Compliant Design Optimized for Edge and Telco Application

The short-depth front I/O system is a compact form factor solutions quieter than traditional servers, ideal for Telco and Edge deployments with space and thermal limitations. Powered by AMD EPYC 8004 series processor supporting operating temperatures of up to 40~55°, depending on the processor core count. The new systems use Platinum power supplies for increased energy efficiency, resulting in higher performance per watt. The H13 Short depth front I/O system offers AC and DC options and features NEBS compliant design required for telco related operations.

Key Applications

- Virtualization
- Edge Cloud AI Computing
- vRAN/O-RAN/NEBS environment
- Telco 5G
- CDN/vCDN/Cloud CDN



H13 MICROCLOUD SYSTEM

High Density Multi-Node System for Cloud and Dedicated Hosting

8 nodes in 3U system

Supporting single AMD Ryzen™ 7000 series processor per node

Up to 128GB ECC/non ECC UDIMM;
DDR5 5200MHz, in 4 DIMM sockets per node

Single 8-lane PCIe 5.0 low profile slot
per node (can be used for GPU accelerator)

8 sets of 2 front NVMe U.2/ SAS/ SATA3
drives w/ optional kits



AS-3015MR-H8TNR

3U MicroCloud



AS-3015MR-H8TNR

AMD Ryzen 7000 Series,

8 single processor server nodes with 2 NVMe U.2 SAS/SATA drives

3U 8-Nodes Flexible Architecture for Dedicated Hosting

Supermicro H13 MicroCloud is a 3U, multi-node server powered by AMD Ryzen™ 7000 series processors with 8 single-processor nodes delivering excellent density and power efficiency.

The MicroCloud system is designed for applications that require large numbers of discrete servers, offering 8 nodes containing up to two front-accessible NVMe U.2, as well as a single 8 lane PCIe 5.0 low profile slot that can be used for GPU accelerators for Web Hosting, Cloud Gaming, Content Creation, and Virtual Private Servers.

Key Applications

- Cloud Computing
- Web Cache, CDN, Video Streaming
- Web Colocation Services
- Social Networking Downloads
- Corporate -WINS, DNS, Print, Login



H13 MAINSTREAM 1U SYSTEM

Powerful and Economical Server for SMB

Supporting single AMD Ryzen 7000 series processor

Cost-Optimized for SMB

Up to 192GB DDR5 5200MHz

1x PCIe 5.0 x16 (FHHL) slot

668W Platinum certified power supply



AS-1015A-MT

Mainstream-1U



AS-1015A-MT

AMD Ryzen 7000 Series,
1U single processor with 1x 3.5" SATA drive

Ryzen™ 7000 powered server for Web Hosting and SMB applications

Supermicro H13 1U system offers versatile storage options with 2 PCIe Gen5 M.2 slots and flexible configurations, effortlessly adapting to your growing business needs. This economical server is designed for small and medium businesses, remote offices, and branch offices, delivering unparalleled performance

Key Applications

- Cloud Computing
- Web Hosting, CDN, Video Streaming
- SMB Application
- Email/ Firewall/ Application Server



H13 MINI TOWER SYSTEM

Flexible Tower Workstation Optimized for Content Creation

Single AMD Ryzen 7000 series processor

4x DIMM up to 128GB, 4x 32GB DRAM

Up to 192GB DDR5-5200 memory

2x PCIe 5.0 x16 Slots (x16/NA or x8/x8)

668W Platinum level shared power supplies



AS-3015A-I

Mini Tower



AS-3015A-I

Versatile mini-tower system that can be deployed as a server, workstation or as a desktop

Versatile Workstation Solutions for Content Creation and Entry Level Server Applications

Designed with versatility in mind, the latest mini-tower system based on AMD Ryzen 7000 series processor offers versatile storage options with 2 PCIe Gen5 M.2 slots and a flexible configuration, ensuring it seamlessly adapts to your evolving business requirements.

With remote management features via IPMI, this system can be deployed as an entry level server, workstation or as a desktop. No more settling for one-size-fits-all solutions - this system is ready to be tailored to elevate your IT infrastructure.

Key Applications

- 2D/3D Content Creation
- SMB Application
- Email/ Firewall/ Application Server



H13 ALL-FLASH EDSFF SYSTEM

All-Flash EDSFF Petascale for Software-Defined Data Center Workloads

Single 4th Generation AMD EPYC 9004 Scalable processor

24 DIMMs slots; up to 6TB DDR5 4800MHz

Two PCIe 5.0 x16 FHHL Slots, two PCIe 5.0 x16 AIOM Slots (OCP 3.0 SFF compliant)

16 hot-swap EDSFF E3.S (7.5mm) NVMe drive bays

Optional configuration supports 8 E3.S drives and 4 CXL devices in E3.S 2T form factor for memory expansion in 1U



ASG-1115S-NE316R

1U High Capacity All-Flash



ASG-1115S-NE316R
16 EDSFF (E3 7.5mm NVMe SSD)

2U High-Capacity All-Flash



ASG-2115S-NE332R
32 EDSFF (E3 7.5mm NVMe SSD)

Extreme Density, High-Performance All-Flash Servers

Supermicro H13 All-Flash NVMe storage systems powered by AMD EPYC 9004 series processors are designed with the latest EDSFF and CXL technologies allowing unprecedented capacity and performance to enable today's data hungry workloads supporting latest software-defined storage and NVMe over fabrics solutions, as well as in-memory databases.

The new all-flash petascale servers take advantage of 128 PCIe 5.0 lanes, supporting up to 32 E3.S (x2) in 2U, and 16 E3.S drives (x4) in 1U, or configured with 8 E3.S (x4) drives and 4 CXL devices in E3.S 2T (x8) form factor allowing memory expansion.

Key Applications

- Software-Defined Storage
- Data Intensive HPC
- Private and Hybrid Cloud
- NVMe Over Fabrics Solution
- In-Memory Computing



H12 UNIVERSAL GPU SYSTEM

Modular Platform for HPC Applications and Advanced Data Center AI Infrastructure

Dual AMD EPYC™ 7003 series processors

Supports the new AMD Instinct MI250 OAM Accelerator

32 DIMM slots per node supporting DDR4-3200MHz

Flexible Storage configuration with 10 hot-swap 2.5" U.2 NVMe drives

4U with optional 1U extension for a 5U system providing PCIe slots expansion with Supermicro AIOM support.

Supports next-generation GPUs in a variety of form factors

Universal GPU server OCP standards-based design

Modular design for flexibility/future-proofing

Optimized thermal capability for 500W/700W GPUs

4U 4-GPU



5U 4-GPU



AS-4124GQ-TNMI

OPEN, MODULAR, STANDARDS BASED UNIVERSAL GPU SYSTEM

Supermicro A+ Universal GPU systems are open, modular, standards-based servers which provide superior performance and serviceability with dual AMD EPYC™ 7003 series processors, supporting AMD Instinct™ MI250 OAM Accelerator and various GPU and accelerator form factors, and featuring a hot-swappable, tool-less design. The system's "future proofed" design allows to standardize on one GPU platforms with multiple configurations for all data center needs with optimized thermal management.

Key Applications

- AI/ML
- HPC
- Vertical Markets (thermal modeling and other parallel-processing intensive tasks)
- Big Data Analytics



H12 TWIN SYSTEMS

Leading Multi-node Architectures

Highly configurable 2U 4-node systems

2-socket with 16 DIMMs or
1-socket with 8 DIMMs per node

Flexible storage and I/O options
including NVMe/SATA3 and SIOM
networking



A+ BigTwin® (2U4N)

BigTwin® - 2U 4 DP Nodes



AS-2124BT-HNTR

2U System with 4 hot-pluggable
Dual-Processor Server Nodes with U.2 NVMe

BigTwin® - 2U 4 DP Nodes



AS-2124BT-HTR

2U System with 4 hot-pluggable
Dual-Processor Server Nodes with SATA

TwinPro® - 2U 4 UP Nodes



AS-2014TP-HTR

2U System with 4 hot-pluggable
Single-Processor Server Nodes

NO-COMPROMISE 2U 4-NODE ARCHITECTURE

BigTwin is the 5th generation in the Supermicro® Twin Family with a multitude of innovations and engineering breakthroughs.

TwinPro systems are designed for simplified deployment and maintenance, and assembled with the highest quality to ensure continuous operation even at maximum capacity.

With AMD EPYC™ 7003 Series Processors with AMD 3D V-Cache™ Technology, customers in high-end enterprise, data center, HPC and Cloud Computing environments receive the greatest competitive advantage from data center resources with the Supermicro® TwinPro.

Key Applications

- HCI
- HPC
- CDN
- 5G UPF
- Technical Computing (EDA, CFD, FEA)
- Cloud Computing
- Big Data Analytics
- Back-up and Recovery
- Scale-Out Storage



H12 ULTRA SYSTEMS

Industry Leading IOPS, Energy Efficiency, and Flexibility

Optimized for highest processor TDPs

Up to 24x Hybrid NVMe/SAS/SATA drive bays

Up to 3 double width GPUs



AS-2124US-TNRP

1U Ultra, 12 NVMe



AS-1124US-TNRP

1U Dual-Processor Server with 32 DIMMs and 12x hot-swap 2.5" U.2 NVMe drives

1U Ultra, 8TB DDR4



AS-1024US-TRT

1U Dual-Processor Server with 32 DIMMs and 4x hot-swap 3.5" SATA/NVMe drives

2U Ultra, 8TB DDR4



AS-2124US-TNRP

2U Dual-Processor Server with 32 DIMMs and 24x hot-swap 2.5" U.2 NVMe drives

2U Ultra, 8TB DDR4



AS-2024US-TRT

2U Dual-Processor Server with 32 DIMMs and 12x hot-swap 3.5" SATA/NVMe drives

HIGHEST PERFORMANCE A+ ULTRA SERVERS

Supermicro® A+ Ultra system are designed to deliver the highest performance, flexibility, scalability and serviceability to demanding IT environments, and to power mission-critical Enterprise workloads, including support for dual AMD EPYC™ 7003/7002 Series Processors* and 32 DIMMs of DDR4-3200MHz memory for up to 8TB of capacity.

- Uncompromised performance design with 2 CPU sockets and 32 DIMMs optimized for supporting the highest processor TDPs
- Best-in-class server features including all NVMe, hybrid storage and low latency optimizations
- Vast networking and expansion possibilities with Ultra Riser cards

* AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer.

Key Applications

- Enterprise Server
- Hyperconverged Storage
- Virtualization
- AI Training/Inferencing
- Big Data Analytics
- Cloud Computing
- CDN
- In-Memory Database



H12 FATTWIN®

Advanced 4U Twin Architecture with 8 and 4 Nodes

Highly modular multi-node (4U 8-Node or 4U 4-Node) systems with tool-less design and independent backplanes built-in per node to eliminate a single point of failure

Front or Rear I/O accessible service design depending on data center environments

All-hybrid drive bays
- NVMe, SAS, or SATA



AS-F1114S-FT

FatTwin® - Front I/O 8 UP Nodes



AS-F1114S-FT

4U Front I/O System with 8 Hot-pluggable Single-Processor Server Nodes with 2-4x 2.5" SATA3/NVMe drives per node

FatTwin® - Rear I/O 4 UP Nodes



AS-F2014S-RNTR

4U Rear I/O System with 4 Hot-pluggable Single-Processor Server Nodes with 8x 3.5" drives and 4x M.2 per node

FatTwin® - Rear I/O 8 UP Nodes



AS-F1114S-RNTR

4U Rear I/O System with 8 Hot-pluggable Single-Processor Server Nodes with 6x 2.5" drives and 4x M.2 per node

FRONT OR REAR I/O TWIN ARCHITECTURE TO MAXIMIZE SERVICEABILITY AND RELIABILITY

The innovative FatTwin architecture provides flexibility and system accessibility for unique datacenter requirements with front or rear I/O, as well as electrically isolated, modularized left/right nodes with redundant power supplies for maximum reliability.

- Single AMD EPYC™ 7003/7002 Series Processor* (TDP up to 280W) per node
- Flexible AIOM networking
- Electrically isolated Redundant Titanium Level power supplies per side (2 left, 2 right)

Key Applications

- Hyperscale / Hyperconverged
- HPC and Big Data
- Data Center Enterprise Applications
- Scale Out Storage
- Telco Data Center & Virtualization Server



H12 SUPERBLADE®

Performance and Density Optimized Resource Saving Architecture

Up to 20 hot-pluggable nodes in 8U

Highest density GPU platform for AI and Deep Learning

Integrated HPC network fabrics for up to 200G HDR InfiniBand with 100% non-blocking switch



SBE-820C/H/L/J (Front View)

Up to 20 Single Processor Nodes in 8U with 8 DIMMs and mezzanine card for advanced networking



SBA-4114S-T2N
SATA/NVMe Model (AIOM module)



SBA-4114S-C2N
SAS/SATA/NVMe Model (AIOM module)



SBA-4119SG
GPU Model with 2 GPUs, M.2 NVMe

RESOURCE SAVING ARCHITECTURE

SuperBlade with AMD EPYC™ 7003 Series Processors with AMD 3D V-Cache is an ideal choice for modern technical computing workloads including EDA.

The system can contain up to 20 CPUs in an 8U chassis, including a network switch built into the chassis. A shared cooling, power and networking infrastructure is key to the high density and server efficiency offered by blade solutions. Supermicro's high performance, density optimized, and energy-efficient SuperBlade® can significantly reduce initial capital and operational expenses for many organizations.

In particular, Supermicro's new generation blade product portfolio has been designed to optimize the TCO of key components for today's datacenters, such as free-air cooling, power efficiency, node density and networking management.

Key Applications

- EDA
- HPC
- AI/ML/DL
- Hybrid Cloud
- Virtualization
- Health
- Financial Services



* AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer.

H12 WIO SERVERS

Industry's Widest Variety of I/O Optimized Servers

Cost saving single-socket I/O configurability with up to 64 cores, 8 or 16 DIMMs

Up to 10x (1U) or 24x (2U) U.2 NVMe and dual onboard 10G

Redundant high-efficiency 750W Platinum Level or 1200W Titanium power supplies



AS-1114S-WN10RT

1U WIO



AS-1014S-WTRT

1U Single-Processor Server with 8 DIMMs, 4x 3.5" SATA drives, 2x M.2, optional 4x U.2 NVMe and 2x NVIDIA T4 GPUs

1U WIO



AS-1114S-WTRT

1U Single-Processor Server with 8 DIMMs, 10x 2.5" SATA, 2x M.2, optional 2x U.2 NVMe drives and 2 NVIDIA T4 GPUs

1U WIO



AS-1114S-WN10RT

1U Single-Processor Server with 16 DIMMs and 10x 2.5" U.2 NVMe drives

2U WIO



AS-2114S-WN24RT

2U Single-Processor Server with 16 DIMMs and 24x U.2 NVMe drives

COST AND ENERGY EFFICIENCY FOR DATA CENTER ENVIRONMENTS

Supermicro® A+ WIO systems offer a wide range of I/O options to deliver truly optimized systems for specific requirements. Users can optimize the storage and networking alternatives to accelerate performance, increase efficiency and find the perfect fit for their applications.

In addition to enabling customizable configurations and optimization for multiple application requirements, A+ WIO servers also provide attractive cost advantages and investment protection.

Key Applications

- Enterprise Mission-critical Applications
- Data Center Cloud Computing
- Virtualization
- Big Data
- Financial Analysis



H12 MAINSTREAM & TOWER

Versatile Entry Level and Volume Servers for Enterprise Server Applications

Highly versatile servers to enable a wide variety of enterprise server applications

Choices of multiple form factors including rackmount, short-depth rackmount and tower

A rich selection of storage options, AOCs, CPU TDP and memory speed support



SuperWorkstation
5U Rackmountable/Tower
AS-5014A-TT



AS-2014S-TR
2U Single-Processor Server
with 8 DIMMs



AS-2024S-TR
2U Dual-Processor
with 16 DIMMs



AS-3014TS-i
Mid-Tower Single-Processor Server
with 8 DIMMs, up to 3 GPUs



SuperWorkstation
AS-5014A-TT
AMD Ryzen™ Threadripper™ PRO
3000WX Series Processor with 8 DIMMs,
6 PCIe x16 and dual 10GbE

MAINSTREAM APPLICATION OPTIMIZED

The A+ H12 Mainstream Application Optimized product family from Supermicro® is a series of servers designed for entry level or volume selections. Enterprise IT managers can choose the exact model for their applications, with a precise set of integrated features needed for their applications.

These powerful yet cost-effective systems provide excellent flexibility and value at entry-level price points.

Key Applications

- SMB
- Virtualization
- Web Server
- AI – Inferencing
- Cloud Computing
- Head-node Computing



H13 GPU-OPTIMIZED

(For Complete System Only)

8U Universal GPU

4U 8-GPU with PCIe

4U 10-GPU with PCIe

4U 10-GPU with PCIe



MODEL	AS -8125GS-TNHR	AS -4125GS-TNRT	AS -4125GS-TNRT1	AS -4125GS-TNRT2
Processor Support	AMD EPYC™ 9004 Series Processors Dual Socket (Socket SP5)	AMD EPYC™ 9004 Series Processors Dual Socket (Socket SP5)	AMD EPYC™ 9004 Series Processors Dual Socket (Socket SP5)	AMD EPYC™ 9004 Series Processors Dual Socket (Socket SP5)
Key Applications	<ul style="list-style-type: none"> AI/Deep Learning Training High Performance Computing 	<ul style="list-style-type: none"> AI/Deep Learning High Performance Computing (HPC) Rendering/VDI Molecular Dynamics Simulation 	<ul style="list-style-type: none"> AI/Deep Learning High Performance Computing (HPC) Rendering/VDI Molecular Dynamics Simulation 	<ul style="list-style-type: none"> AI/Deep Learning High Performance Computing (HPC) Rendering/VDI Molecular Dynamics Simulation
Outstanding Features	<ul style="list-style-type: none"> High density 8U system with NVIDIA® HGX™ H100 8-GPU Highest performance GPU communication using NVIDIA® NVLINK™ + NVIDIA® NVSwitch™ 8 NIC for GPU direct RDMA (1:1 GPU Ratio) 8 NVMe for GPU direct storage 1 M.2 NVMe for boot drive 	<ul style="list-style-type: none"> Drive configurations for 2x 2.5" hot-swap SATA and up to 4x 2.5" hot-swap NVMe bays Up to 10 PCIe 5.0 slots for up to 8 direct-attached double-width, full length, enterprise-level GPUs Flexible GPU support: active and passive GPUs Dual onboard 10GbE ports with up to 1 AIOM/OCF 3.0 slot 1 M.2 slot onboard 8 hot-swap cooling fans 	<ul style="list-style-type: none"> Drive configurations for 2x 2.5" hot-swap SATA and up to 8x 2.5" hot-swap NVMe bays Single root architecture with PCIe switch for up to 10 double width, full length enterprise-level GPUs Flexible GPU support: active and passive GPUs Dual onboard 10GbE ports with up to 1 AIOM/OCF 3.0 slot 1 M.2 slot onboard 8 hot-swap cooling fans 	<ul style="list-style-type: none"> Drive configurations for 2x 2.5" hot-swap SATA and up to 8x 2.5" hot-swap NVMe bays Dual root architecture with PCIe switch for up to 10 double width, full length enterprise-level GPUs Flexible GPU support: active and passive GPUs Dual onboard 10GbE ports with up to 1 AIOM/OCF 3.0 slot 1 M.2 slot onboard 8 hot-swap cooling fans
Serverboard	SUPER● H13DSG-O-CPU-D	SUPER● H13DSG-O-CPU	SUPER● H13DSG-O-CPU	SUPER● H13DSG-O-CPU
Chipset	System on Chip	System on Chip	System on Chip	System on Chip
System Memory (Max.)	Up to 6TB 3DS ECC RDIMM DDR5-4800 MHz in 24 DIMMs	Up to 6TB 3DS ECC RDIMM DDR5-4800 MHz in 24 DIMMs	Up to 6TB 3DS ECC RDIMM DDR5-4800 MHz in 24 DIMMs	Up to 6TB 3DS ECC RDIMM DDR5-4800 MHz in 24 DIMMs
Expansion Slots	8 PCIe 5.0 x16 LP, 2 FHFL PCIe 5.0 x16 Slots	9 PCIe 5.0 X16 Slots	12 PCIe 5.0 X16 Slots	12 PCIe 5.0 X16 Slots
Onboard Storage Controller	AMD SP5	AMD SP5	AMD SP5	AMD SP5
Connectivity	Optional FHFL x16 NIC for node management	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710	2x 10GbE RJ45 port(s) with Intel® Ethernet Controller X710
VGA/Audio	1 VGA port	1 VGA port	1 VGA port	1 VGA port
Management	IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog	IPMI 2.0; KVM with dedicated LAN; NMI; OOB Management Package (SFT-OOB-LIC); Redfish API; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog
Drive Bays	14x 2.5" hot-swap NVMe/SATA drive bays (12x 2.5" NVMe, 2x 2.5" SATA)	24x 2.5" hot-swap drive bays (up to 4x 2.5" NVMe dedicated)	24x 2.5" hot-swap drive bays (up to 8x 2.5" NVMe dedicated)	24x 2.5" hot-swap drive bays (up to 8x 2.5" NVMe dedicated)
Power Supply	Redundant 9000W Titanium level (96%) with option to increase to 12KW redundant power	Redundant 4000W Titanium level (96%)	Redundant 4000W Titanium level (96%)	Redundant 4000W Titanium level (96%)
Cooling System	10 heavy duty fan(s)	8 heavy duty fan(s)	8 heavy duty fan(s)	8 heavy duty fan(s)
Form Factor	8U Rackmount Enclosure: 437 x 355.6 x 843.28mm (17.2" x 14" x 33.2") Package: 698 x 750 x 1300mm (27.5" x 29.5" x 51.2")	4U Rackmount Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: (27" x 26.57" x 41")	4U Rackmount Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: (27" x 26.57" x 41")	4U Rackmount Enclosure: 437 x 178 x 737mm (17.2" x 7" x 29") Package: (27" x 26.57" x 41")

H12 GPU-OPTIMIZED

(For Complete System Only)

4U 8-GPU with PCIe



2U 2-Node, 4-GPU with PCIe



4U 8-GPU with HGX



2U 4-GPU with HGX



MODEL	AS -4124GS-TNR+	AS -2114GT-DNR	AS -4124GO-NART	AS -2124GQ-NART
Processor Support	Dual AMD EPYC™ 7003/7002 Series Processors*	Single AMD EPYC™ 7003/7002 Series Processor*	Dual AMD EPYC™ 7003/7002 Series Processors*	Dual AMD EPYC™ 7003/7002 Series Processors*
Key Applications	<ul style="list-style-type: none"> HPC AI/ML Cloud Gaming Research & Academia 	<ul style="list-style-type: none"> Cloud Gaming Media/Video Streaming Gaming AI Inference and Machine Learning 	<ul style="list-style-type: none"> AI Compute / Model Training / Deep Learning HPC System for All AI Workload 	<ul style="list-style-type: none"> AI Compute / Model Training / Deep Learning HPC
Outstanding Features	<ul style="list-style-type: none"> 160 PCIe lanes 8 direct attached GPUs PCIe 4.0 Flexible architecture AIOM support 	<ul style="list-style-type: none"> 4 NVMe for GPUDirect Storage Up to 8 DIMMs per node M.2 Support Supports 6 PCIe and 1 Mezzanine card 	<ul style="list-style-type: none"> Highest 8 GPU communication using NVIDIA NVLink and NVSwitch Up to 8 NICs for GPUDirect RDMA (1:1 GPU Ratio) Up to 8 NVMe for GPUDirect Storage with optional backplane 	<ul style="list-style-type: none"> High-density 2U with 4 GPU peer-to-peer communication Directly attached GPUs for low latency 4 NICs for GPUDirect RDMA (1:1 GPU Ratio)
Serverboard	SUPER● H12DSG-O-CPU	SUPER● H12SSG-AN6	SUPER● H12DGO-6	SUPER● H12DSG-Q-CPU6
System Memory (Max.)	Up to 8TB ECC DDR4 3200MHz SDRAM in 32 DIMMs	Up to 2TB ECC DDR4 3200MHz SDRAM in 8 DIMMs	Up to 8TB ECC DDR4 3200MHz SDRAM in 32 DIMMs	Up to 8TB ECC DDR4 3200MHz SDRAM in 32 DIMMs
Expansion Slots	9 PCIe 4.0 x16 (Option: 10 PCIe 4.0 x16 slots without NVMe devices)	6 PCIe 4.0 x16 (4 Internal and 2 external); 1 AIOM card support; 2 M.2 PCIe 4.0 x4 slots 2280/22110; M-key	8 PCIe 4.0 x16 (LP) slots from PCIe Switch; 1 PCIe 4.0 x16 (LP); 1 PCIe 4.0 x8 slot from CPUs	4 PCIe 4.0 x16 (LP) slots; 1 PCIe 4.0 x8 (LP) slot
Onboard Storage Controller	2x 2.5" SATA in RAID 1 via onboard Marvell 9230	AMD SP3	SATA3, PCIe 4.0 U.2 NVMe and PCIe 4.0 M.2 NVMe	SATA/NVMe Hybrid or SAS with optional HBA
Connectivity	2 GbE LAN ports (rear)	AIOM Network Card For Flexible Networking Options (not included)	OCP 3.0 / AIOM NIC	Dual RJ45 10GbE-aggregate host LAN, RJ45 1GbE IPMI
VGA/Audio	Aspeed AST2500 BMC	Aspeed AST2600 BMC	Aspeed AST2600 BMC	Aspeed AST2600 BMC
Management	IPMI 2.0 with virtual media over LAN and KVM-over-LAN support	IPMI2.0; KVM with dedicated LAN; SPM; SSM; SUM; SuperDoctor® 5; Watchdog	IPMI 2.0 with Virtual Media over LAN and KVM-over-LAN support. Dedicated IPMI LAN port	IPMI 2.0 with Virtual Media over LAN and KVM-over-LAN support. Dedicated IPMI LAN port
Drive Bays	Up to 24x 2.5" SAS/SATA drive bays	2 Front Hot-swap U.2 NVMe Gen4 drive bays per node	6x hot-swap 2.5" drive bays (SATA/ NVMe Hybrid or SAS with optional HBA) Up to 10x hot-swap 2.5" drive bays with optional backplane, 2 NVMe M.2 (Internal)	4x hot-swap 2.5" drive bays (SATA/ NVMe Hybrid or SAS with optional HBA)
Power Supply	2000W (2+2) Redundant Titanium Level (96%+) power supplies	Redundant 1 + 1 2600W Titanium Level (96%) (Full redundancy based on configuration and application load)	Four 2200W high-efficiency Platinum Level power supplies	Two 2200W high-efficiency Platinum Level power supplies
Cooling System	8x hot-swap heavy duty PWM fans	4x 80mm heavy duty PWM fans	4x hot-swap heavy duty PWM fans	4x hot-swap heavy duty PWM fans
Form Factor	4U Rackmount 178 x 437 x 737mm (7.0" x 17.2" x 29")	2U (2-node) Rackmount 447 x 88 x 760mm (17.6" x 3.47" x 29.9")	4U Rackmount 446 x 174 x 900mm (17.6" x 6.9" x 35.4")	2U Rackmount 437 x 89 x 823mm (17.2" x 3.5" x 32.4")

* AMD EPYC™ 7003 Series Processor with AMD 3D V-Cache™ Technology requires BIOS version 2.3 or newer.

** Can be sold as barebone system

H13 GrandTwin™

(For Complete System Only)

2U 4-Node Rear I/O



2U 4-Node Front I/O



MODEL	AS -2115GT-HNTR	AS -2115GT-HNTF
Processor Support	AMD EPYC™ 9004 Series Processors Single Socket (Socket SP5)	AMD EPYC™ 9004 Series Processors Single Socket (Socket SP5)
Key Applications	<ul style="list-style-type: none"> • HPC • Mission Critical Web Applications • EDA (Electric Design Automation) • Telco Edge Cloud • High-availability Cache Cluster • Multi-Purpose CDN • MEC (Multi-Access Edge Computing) • Cloud Gaming 	<ul style="list-style-type: none"> • HPC • Mission Critical Web Applications • EDA (Electric Design Automation) • Telco Edge Cloud • High-availability Cache Cluster • Multi-Purpose CDN • MEC (Multi-Access Edge Computing) • Cloud Gaming • Flexible front slots to configure storage or AIOM/OCP 3.0 cards
Outstanding Features	<ul style="list-style-type: none"> • Up to 6 2.5" hot-swap NVMe/SATA drives per node • 2x AIOM / OCP 3.0 slots per node • 2x M.2 NVMe/SATA slots per node • Front access node trays for easy serviceability and maintenance 	<ul style="list-style-type: none"> • up to 4 2.5" hot-swap NVMe/SATA drives per node or • up to 1x AIOM / OCP 3.0 slots per node • 2x M.2 NVMe/SATA slots per node • GrandTwin I/O for flexible networking options • Front access node trays for easy serviceability and maintenance
Serverboard	SUPER● H13SST-G	SUPER● H13SST-G
Chipset	System on Chip	System on Chip
System Memory (Max.)	Up to 3TB 3DS ECC RDIMM DDR5-4800MHz in 12 DIMMs	Up to 3TB 3DS ECC RDIMM DDR5-4800MHz in 12 DIMMs
Expansion Slots	2 AIOM/OCP 3.0 slots per node	1 PCIe 4.0 x16 LP slot optional, internal only
Onboard Storage Controller	AMD SP5	AMD SP5
Connectivity	via AIOM and onboard dedicated BMC port	via AIOM and GrandTwin I/O Module
VGA/Audio	1 VGA port	1 VGA port
Management	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)	SuperCloud Composer; SuperDoctor® 5 (SD5); Supermicro Diagnostics Offline (SDO); Supermicro Intelligent Mgmt (BMC Resources); Supermicro IPMI Utilities; Supermicro Power Manager (SPM); Supermicro Server Manager (SSM); Supermicro Server Mgmt (Redfish® API); Supermicro Thin-Agent Service (TAS); Supermicro Update Manager (SUM)
Drive Bays	6x 2.5" hot-swap NVMe/SATA drive bays	4x 2.5" hot-swap NVMe/SATA drive bays
Power Supply	Redundant 2200W Titanium level (96%)	Redundant 2200W Titanium level (96%)
Cooling System	2x 8cm heavy duty fans	2x 8cm heavy duty fans
Form Factor	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")	2U Rackmount Enclosure: 449 x 88 x 711.2mm (17.67" x 3.46" x 28") Package: 626 x 248 x 1150mm (24.65" x 9.76" x 45.28")

H13 MicroCloud

(For Complete System Only)

H13 Mainstream

(For Complete System Only)



MODEL	AS -3015MR-H8TNR	AS -1015A-MT	AS -3015A-I
Processor Support	AMD Ryzen™ Zen4 7000 series Processors Single Socket LGA-1718 (Socket AM5) supported TDP up to 170W	Single Socket supported	Single Socket supported
Key Applications	<ul style="list-style-type: none"> Corporate - WINS, DNS, Print, Login Social Networking, Downloads Web Cache, CDN, Video Streaming Web/Collocation Services Cloud Computing 	<ul style="list-style-type: none"> Designed for small and medium businesses Email/Firewall/Application Server Web/Hosting Application 	<ul style="list-style-type: none"> Designed for small and medium businesses Email/Firewall/Application Server 2D/3D Content Creation
Outstanding Features	<ul style="list-style-type: none"> Up to 8x hot-pluggable node in 3U chassis UID LED Hot-swappable SAS/SATA3(Limited Support) HDDs High density, Enterprise performance, Cost effective, Multi-node UP server 1+1 Redundant 2200W Titanium Level high-efficiency power supplies 1 PCIe 5.0 (x8) Low-profile expansion slot per node 	.	<ul style="list-style-type: none"> Remote management via IPMI with dedicated IPMI LAN port
Serverboard	SUPER● H13SRD-F	SUPER● H13SAE-MF	SUPER● H13SAE-MF
Chipset	AMD Knoll - Integrated I/O Controller Hub	AMD B650	AMD B650
System Memory (Max.)	4 DIMM slots Up to 128 ECC UDIMM, DDR5-5200MHz	4 DIMM slots Up to 192GB: 4x 48GBGB DRAM	4 DIMM slots Up to 128GB: 4x 32GB DRAM
Expansion Slots	PCIe 5.0 x16 LP slot(s) PCIe 5.0 x8 MLP slot(s)	PCIe 5.0 x16 slot(s)	2 PCIe 5.0 x16 slot(s)
Onboard Storage Controller	AMD AM5		
Connectivity	PCIe 5.0 MicroLP interfaces	1x 1GbE RJ45 port(s) with Realtek RTL8211F PHY (dedicated IPMI) 2x 1GbE RJ45 port(s) with Intel® Ethernet Controller I210-AT	1x 1GbE RJ45 port(s) with Realtek RTL8211F PHY (dedicated IPMI) 2x 1GbE RJ45 port(s) with Intel® Ethernet Controller I210-AT
VGA/Audio	1 VGA port	1 VGA port	1 VGA port
Management	Intel Node Manager; IPMI 2.0; KVM with dedicated LAN; SPM; SSM; SUM; SuperDoctor® 5; Watch Dog		
Drive Bays	2x 3.5" hot-swap NVMe/SAS/SATA drive bays;	1x 3.5" SATA drive bays;	4x 3.5" SATA drive bays;
Power Supply	Redundant 2200W Titanium level (80%)		1000W Redundant Power Supplies with PMBus
Cooling System	4x 8cm heavy duty fan(s)	6x 40mmcm heavy duty fan(s)	2x 9cm heavy duty fan(s)
Form Factor	3U Rackmount Enclosure: 438 x 132 x 589mm (17.26" x 5.21" x 23.2") Package: 667 x 295.91 x 863.6mm (26.26" x 11.65" x 34")	1U Rackmount Enclosure: 437 x 43 x 429mm (17.2" x 1.7" x 16.9") Package: 686 x 203 x 610mm (27" x 8" x 24")	Mini-Tower Rackmount Enclosure: 184 x 362 x 425mm (7.25" x 14.25" x 16.75") Package: 279 x 508 x 533mm (11" x 20" x 21")