# 

SUPERMICR

# H13 WIO Systems

# Cost-Efficient, Power-Optimized Computing Systems



AS -2015SV-WTNRT

If reducing cost and increasing flexibility and scalability are on your list of objectives, check them off with our H13 WIO systems. Designed for cost and energy efficiency, its AMD EPYC 8004 Series CPUs use less than competitive systems, and easier cooling makes a more quiet installation—at the core, cloud, or edge.

## **Cost-Optimized Single-Socket Systems**

Supermicro H13 WIO systems are single-socket servers designed around the efficient and performant AMD EPYC<sup>™</sup> 8004 Series processors. These servers support from 8 to 64 cores and are ready to work in a wide range of environments including edge locations with challenging thermal conditions. Cost optimization makes our WIO servers excellent choices for budget-sensitive organizations, and their energy efficiency puts you on a path toward greater sustainability.

The processor's 96 lanes of PCIe 5.0 bandwidth provide a wide I/O path that supports a flexible range of configuration choices. Up to ten front-panel NVMe drives are directly connected to the CPU through PCIe connections, and up to 12 SATA drives use the AMD EPYC system-on-chip's built-in controllers, saving the cost and ongoing power consumption of on-board devices. If combining all drives into a single RAID configuration is your goal, an optional controller supports RAID 1, 5, 6, 10, 50, and 60. The servers offer space for two full-height, full-length x16 PCIe cards with power budget for one GPU accelerator, plus a single

# Single-Socket 1U and 2U Options

Designed to deliver high performance per watt and per dollar in data center, cloud/edge, and networksecurity solutions

- Built around the compact and efficient AMD EPYC<sup>™</sup> 8004 Series processors from 8 to 64 cores
- Cost-optimized servers with wide I/O capabilities
- Up to 576 GB of memory with 6 DDR5-4800 DIMMs
- 2.5" and 3.5" NVMe, SAS, and SATA drive options to meet virtually any workload storage requirements
- Two full-height, full-length PCIe 5.0 x16 slots for add-on cards and GPU expansion
- One to two low-profile PCIe 5.0 slot
- Redundant Titanium-level power supplies

low-profile card slot with x16 connectivity depending on the server. Built-in networking gives you two 10 Gigabit Ethernet connections to your data center network.

## **Key Applications**

H13 WIO systems are designed to accelerate workloads including the following:

- Internet infrastructure including firewalls, Web hosting, name, and email services
- Telco enterprise edge solutions
- Virtualization and cloud computing
- Public and private cloud
- Content-delivery networks (CDNs) and storage servers
- AI inferencing in edge locations

## **Designed for the AMD EPYC 8004 Series**

AMD's hybrid, multi-chip architecture makes it straightforward to develop CPUs with a wide range of characteristics so you can choose the family and the processor that best meets your needs. The 'Zen 4c' processor core used in the AMD EPYC 8004

Series is optimized for density and efficiency. Packing up to 64 cores into an SP6 form factor enables compact, single-socket servers with the best performance



per watt, the best performance per dollar, and low total cost of ownership.

The system-on-chip nature of the processor eliminates the need for external chip sets that contribute to design complexity and power consumption. Best of all, you only need to purchase and power a single processor that can handle a wide range of workloads.

#### **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, 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.

H13 Generation	AS -1015SV-WTNRT <sup>1</sup>	AS -1115SV-WTNRT <sup>I</sup>	AS -2015SV-WTNRT <sup>1</sup>
Form Factor	• 1U rackmount	• 1U rackmount	• 2U rackmount
Processor Support	<ul> <li>Single SP6 socket for AMD EPYC<sup>™</sup> 8004 Series processors, up to 64 cores, up to 225W TDP<sup>2</sup></li> </ul>	<ul> <li>Single SP6 socket for AMD EPYC<sup>™</sup> 8004 Series processors, up to 64 cores, up to 225W TDP<sup>2</sup></li> </ul>	<ul> <li>Single SP6 socket for AMD EPYC<sup>™</sup> 8004 Series processors, up to 64 cores, up to 225W TDP<sup>2</sup></li> </ul>
Memory Slots & Capacity	<ul> <li>6-channel DDR5 memory support</li> <li>6 DIMM slots for up to 576 GB (up to 96 GB per DIMM) ECC DDR5-4800 RDIMM</li> </ul>	<ul> <li>6-channel DDR5 memory support</li> <li>6 DIMM slots for up to 576 GB (up to 96 GB per DIMM) ECC DDR5-4800 RDIMM</li> </ul>	<ul> <li>6-channel DDR5 memory support</li> <li>6 DIMM slots for up to 576 GB (up to 96 GB per DIMM) ECC DDR5-4800 RDIMM</li> </ul>
Expansion Slots	<ul> <li>2 PCIe 5.0 x16 FHFL slots</li> <li>1 PCIe 5.0 x16 LP slot</li> </ul>	<ul> <li>2 PCIe 5.0 x16 FHFL slots</li> <li>1 PCIe 5.0 x16 LP slot</li> </ul>	<ul> <li>2 PCIe 5.0 x16 FHFL slots</li> <li>2 PCIe 5.0 x8 LP slot</li> </ul>
Storage	<ul> <li>4 Hot-swap 3.5/2.5" NVMe/SAS/SATA drives<sup>3</sup></li> <li>2 M.2 NVMe PCle 3.0 x4; optional SATA M.2 with M.2 AOC carrier</li> </ul>	<ul> <li>10 hot-swap 2.5" NVMe/SAS/SATA drives<sup>3</sup></li> <li>Optional 6 NVMe/SATA plus 4 SATA drives<sup>3</sup></li> <li>2 M.2 NVMe PCle 3.0 x4; optional SATA M.2 with M.2 AOC carrier</li> </ul>	<ul> <li>12 hot-swap 3.5/2.5" drives: up to 12 SATA drives or 6 NVMe/SATA drives plus 6 SATA drives<sup>3</sup></li> <li>2 M.2 NVMe PCIe 3.0 x4; optional SATA M.2 with M.2 AOC carrier</li> </ul>
Networking	• 2 10GBASE-T RJ45 LAN with BCM57416	• 2 10GBASE-T RJ45 LAN with BCM57416	• 2 10GBASE-T RJ45 LAN with BCM57416
I/O Ports	<ul> <li>4 USB 3.0 ports (rear)</li> <li>1 VGA, 1 COM</li> <li>ASPEED AST2600 BMC controller</li> </ul>	<ul> <li>6 USB 3.0 ports (2 front, 4 rear)</li> <li>1 VGA, 1 COM</li> <li>ASPEED AST2600 BMC controller</li> </ul>	<ul> <li>4 USB 3.0 ports (rear)</li> <li>1 VGA, 1 COM</li> <li>ASPEED AST2600 BMC controller</li> </ul>
Security	<ul><li> TPM 2.0 header</li><li>Hardware root of trust</li></ul>	<ul><li> TPM 2.0 header</li><li> Hardware root of trust</li></ul>	<ul><li> TPM 2.0 header</li><li> Hardware root of trust</li></ul>
System Management	<ul> <li>Built-in server management tool (IPMI 2.0, KVM/media over LAN) with dedicated GbE LAN port</li> <li>Redfish APIs</li> <li>Supermicro SuperCloud Composer</li> <li>Supermicro SuperDoctor® 5</li> <li>Supermicro Server Manager (SSM) and Supermicro Update Manager (SUM)</li> </ul>		
System Cooling	• 6 Counter-rotating 40x40x56mm PWM fans	• 6 Counter-rotating 40x40x56mm PWM fans	• 3x 80x80x38mm middle cooling fans
Power Supply	Redundant 860W Titanium PSUs <sup>4</sup>	Redundant 860W Titanium PSUs <sup>4</sup>	Redundant 800W Titanium PSUs <sup>4</sup>

1. Sold only as a completely assembled system

2. 225W TDP air-cooled support limited to specific configurations

3. Optional parts are required for NVMe/SAS configurations

4. Full redundancy based on configuration and application load.

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