



**ABC SYSTEMS AG**

APPLIED BRAINWARE & COMPUTER SYSTEMS

# Supermicro Rackmount Servers

## Best Performance, Cost and Efficiency



Transform Your Data Center TCO  
with Supermicro servers based on  
the 2<sup>nd</sup> generation Intel® Xeon® Scalable processors

[SAN@abcsystems.ch](mailto:SAN@abcsystems.ch) +41 43 4336 433

## All-NVMe Ultra

FLAGSHIP PERFORMANCE FOR THE MOST DEMANDING WORKLOADS



High density all-NVMe storage in 1U and 2U

Dual 2nd gen Intel® Xeon® Scalable processors

24 DIMM slots, Intel® Optane™ DCPMM support

Up to 20 NVMe (7mm z-height) in 1U / 24 NVMe in 2U

Onboard networking options up to 25G Ethernet

[Learn more on page 8](#)

## Hyper-Speed Ultra

OPTIMIZED FOR EXTREME LOW-LATENCY APPLICATIONS



Latency optimized components and firmware

Up to dual 2nd gen Intel® Xeon® Gold 6254 processors

16 DDR4 DIMM slots, Intel® Optane™ DCPMM support

8 hot-swap 2.5" SAS3 and 2 NVMe drives

Onboard 4x 1G Ethernet networking

[Learn more on page 10](#)

## 1U Ultra

PERFORMANCE AND RELIABILITY FOR ENTERPRISE APPLICATIONS



Up to 10x 2.5" or 4x 3.5" hot-swap drives

Dual 2nd generation Intel® Xeon® Scalable processors, up to 205W TDP

24 DDR4 DIMM slots (up to 6TB memory with 256GB DIMMs), Intel® Optane™ DCPMM support

SATA3, SAS3, NVMe hybrid storage configurations

Onboard 4x 1G, 2x 10G, 4x 10G, 2x 25G Ethernet networking options

[Learn more on page 12](#)

## 2U Ultra

MORE I/O EXPANSION FOR HIGHER FLEXIBILITY



Up to 24x 2.5" or 12x 3.5" hot-swap drives

Dual 2nd generation Intel® Xeon® Scalable processors, up to 205W TDP

24 DDR4 DIMM slots (up to 6TB memory with 256GB DIMMs), Intel® Optane™ DCPMM support

SATA3, SAS3, NVMe hybrid storage configurations

Onboard 4x 1G, 2x 10G, 4x 10G, 2x 25G Ethernet networking options

[Learn more on page 14](#)

# Max IO

APPLICATION OPTIMIZED AND I/O MAXIMIZED  
FOR SPACE-CONSTRAINED APPLICATIONS



# Mainstream

OPTIMAL PERFORMANCE, COST AND ENERGY  
EFFICIENCY FOR MAINSTREAM APPLICATIONS



# WIO

THE INDUSTRY'S WIDEST VARIETY OF I/O  
OPTIMIZED SERVERS



# DCO

ENTRY LEVEL AND VOLUME SERVERS  
FOR EVERY DATA CENTER



Dual 2nd gen Intel® Xeon® Scalable processors, up to 205W

Single or dual 2nd gen Intel® Xeon® Scalable processors, up to 205W

Single or dual 2nd gen Intel® Xeon® Scalable processors, up to 205W

Dual 2nd gen Intel® Xeon® Scalable processors, up to 140W

16 DDR4 DIMM slots, Intel® Optane™ DCPMM support

Up to 16 DDR4 DIMM slots, Intel® Optane™ DCPMM support

Up to 12 DDR4 DIMM slots, Intel® Optane™ DCPMM support

8 DDR4 DIMM slots

2.5" or 3.5" SATA3 storage, up to 11 PCI-E slots

2.5" SAS3/SATA3 or 3.5" SATA3 storage

2.5" or 3.5" NVMe/SATA3 storage, up to 6 PCI-E slots

2.5" or 3.5" SATA3 storage

Onboard networking up to 2x 10G Ethernet

Onboard networking up to 2x 10G Ethernet

Onboard networking up to 2x 10G Ethernet

Onboard networking 2x 1G Ethernet



Learn more on page 16  
or scan the QR code



Learn more on page 18  
or scan the QR code



Learn more on page 20  
or scan the QR code



Learn more on page 22  
or scan the QR code

# Supermicro Ultra SuperServer®

Supermicro Ultra SuperServers 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 the 2nd generation Intel® Xeon® Scalable processors and a new class of big, affordable memory - Intel® Optane™ DC persistent memory. The Intel® Ultra Path Interconnect (UPI) and Cross Bar technologies which provide direct communication between two CPUs in a dual socket server to catapult performance and dramatically reduce latency.

Available in 1U and 2U form factors, Ultra SuperServers support up to: 6TB DDR4-2933MHz memory in 24 DIMMs; SATA3 with optional SAS3 and NVMe support for increased storage bandwidth; a variety of Ultra Riser options, including built-in 1G, 10G and 25G Ethernet options; support for add-on SAS3 HW/SW RAID controllers and additional PCI-E 3.0 slots. The range is the perfect fit for diverse workloads and applications and can be easily reconfigured for multiple Enterprise and Data Center applications in Virtualization, Big Data, Analytics and Cloud Computing.



1U 12 U.2 NVMe



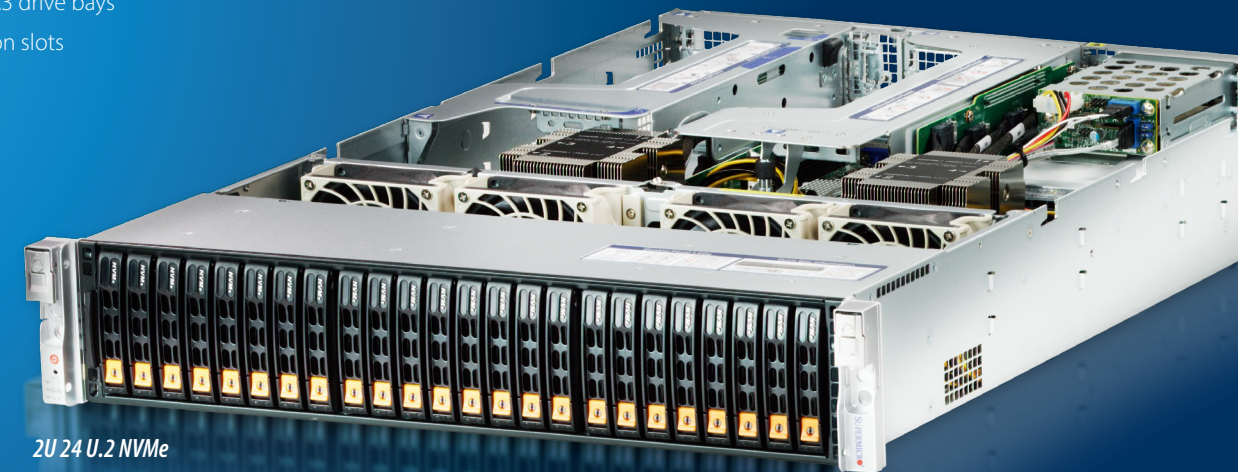
1U 20 U.2 NVMe (7mm z-height)



More details are  
available on the web

## HIGHEST PERFORMANCE AND FLEXIBILITY FOR ENTERPRISE APPLICATIONS

- **NEW!** Support for Dual, 2nd generation Intel® Xeon® Scalable processors up to 205W TDP
- **NEW!** Support for Intel® Optane™ DC persistent memory modules (DCPMM)
- Up to 6TB DDR4-2933MHz memory in 24 DIMM slots
- Redundant Titanium Level (96%+) power supplies
- Hot-swap NVMe/SAS3/SATA3 drive bays
- Up to 8/4 PCI-E 3.0 expansion slots
- 25/10G Ethernet

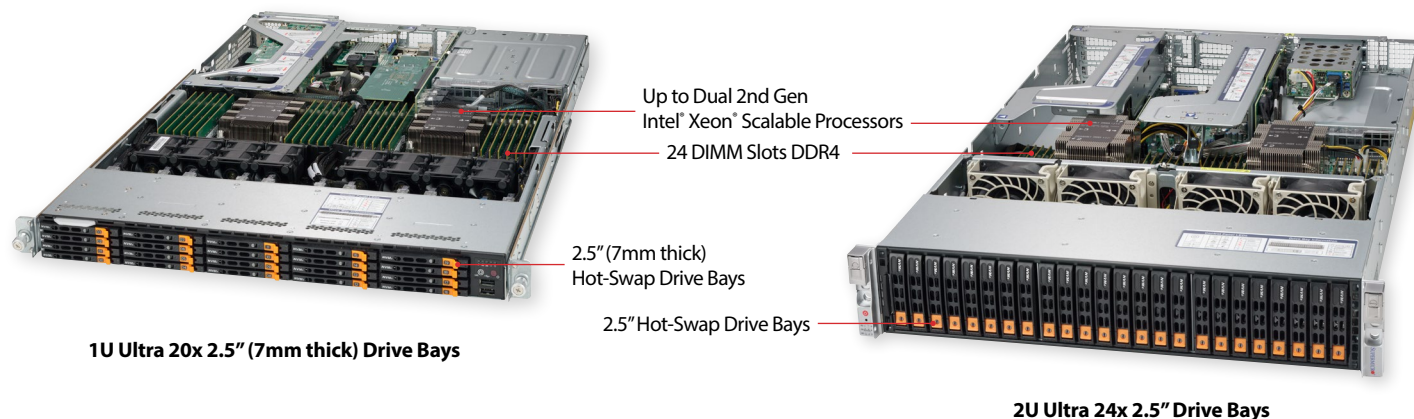


2U 24 U.2 NVMe

# Ultra All-NVMe Series

FLAGSHIP PERFORMANCE FOR THE MOST DEMANDING WORKLOADS

1U/2U systems supporting dual processors with 24 DIMM slots  
All-NVMe storage design to support up to 24x 2.5" or 4x 3.5" U.2 drives  
Up to dual 25G Ethernet and rich PCI-E expansion options



10x 2.5" Drive Bays



12x 2.5" Drive Bays



4x 3.5" Drive Bays



## 1U/2U Rackmount

Up to 12x 2.5" or 4x 3.5" drive bays in 1U;  
Up to 24x 2.5" or 12x 3.5" drive bays in 2U



## 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP



## 24 DIMM Slots

Up to 6TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



## NVMe/SAS3/SATA3

SAS3 support via AOC\*



## Input/Output

Flexible networking via Ultra Riser adapters\* with dedicated IPMI LAN port



## Titanium Level

Up to redundant 1600W high-efficiency digital power supplies

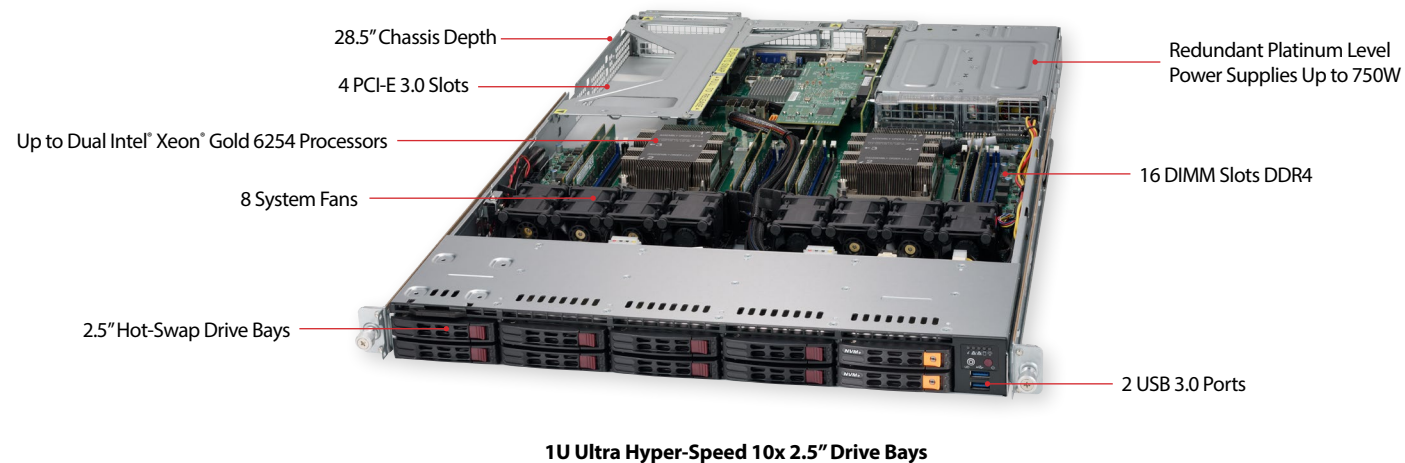
# Ultra Hyper-Speed Series

OPTIMIZED FOR EXTREME LOW-LATENCY APPLICATIONS

5th gen Hyper-Speed & HyperTurbo Technologies for Extreme Low-Latency Trading

1U systems supporting dual processors with 16 DIMM slots

Hot-swap 12x 2.5" drive bays supporting NVMe and SAS3 options



**10x 2.5" Drive Bays**



**Rear View**



**1U Rackmount**  
10x 2.5" hot-swap drive bays



**2-Socket**  
Dual 2nd gen Intel® Xeon® Gold  
6244/6246/6254 processors included



**16 DIMM Slots**  
Up to 2TB ECC memory DDR4-2933;  
12x 16GB DDR4-2933 included



**NVMe/SAS3/SATA3**  
Optional U.2 and M.2 NVMe support;  
SAS3 support via integrated SAS3108



**Input/Output**  
2 PCI-E 3.0 x16 (FH, 10.5"/10"L) and 1  
PCI-E 3.0 x8 (LP) slots; Quad GbE with  
dedicated IPMI LAN ports

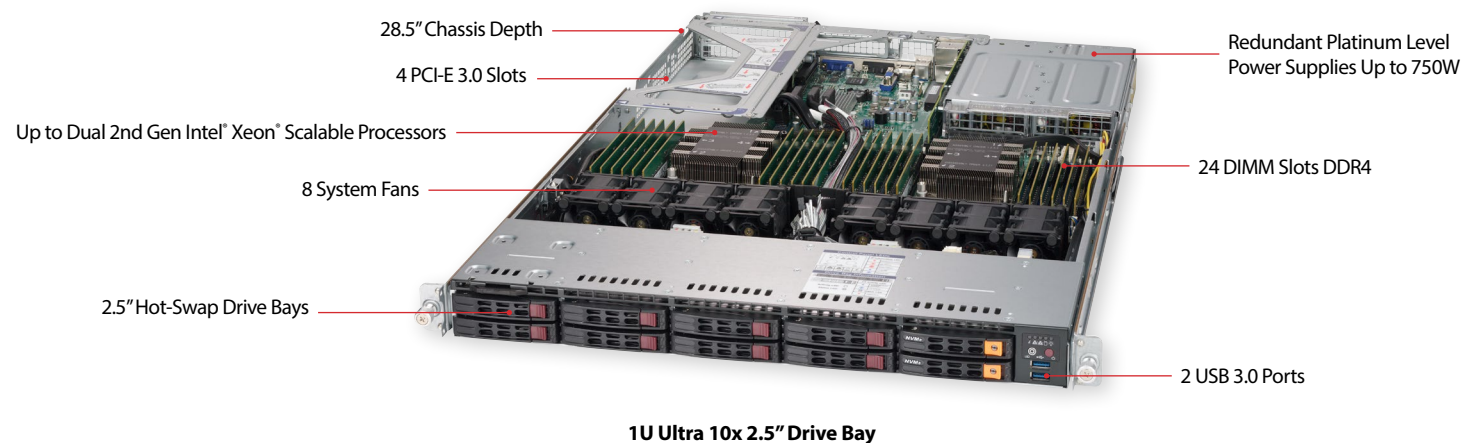


**Platinum Level**  
Up to redundant 750W high-efficiency  
digital power supplies

# Ultra 1U Series

PERFORMANCE AND RELIABILITY FOR ENTERPRISE APPLICATIONS

1U systems supporting dual processors with 24 DIMM slots  
Versatile storage options with up to 12x 2.5" or 4x 3.5" drives  
Up to dual 25G Ethernet and extraordinary PCI-E expansion capabilities



4x 3.5" Drive Bays



10x 2.5" Drive Bays



1U  
FORM-FACTOR

## 1U Rackmount

Up to 10x 2.5" or 4x 3.5" hot-swap drive bays



2-Socket  
CPU

## 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP



24 DIMM Slots  
MEMORY

## 24 DIMM Slots

Up to 6TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



NVMe/SAS3/SATA3  
STORAGE

## NVMe/SAS3/SATA3

Optional U.2 and M.2 NVMe support\*; SAS3 support via AOC\*\*



Input/Output  
I/O

## Input/Output

Flexible networking up to dual 25GbE via Ultra Riser adapters with dedicated IPMI LAN port; Rich PCI-E expansion options including double-wide GPU support;



Platinum Level  
POWER SUPPLY

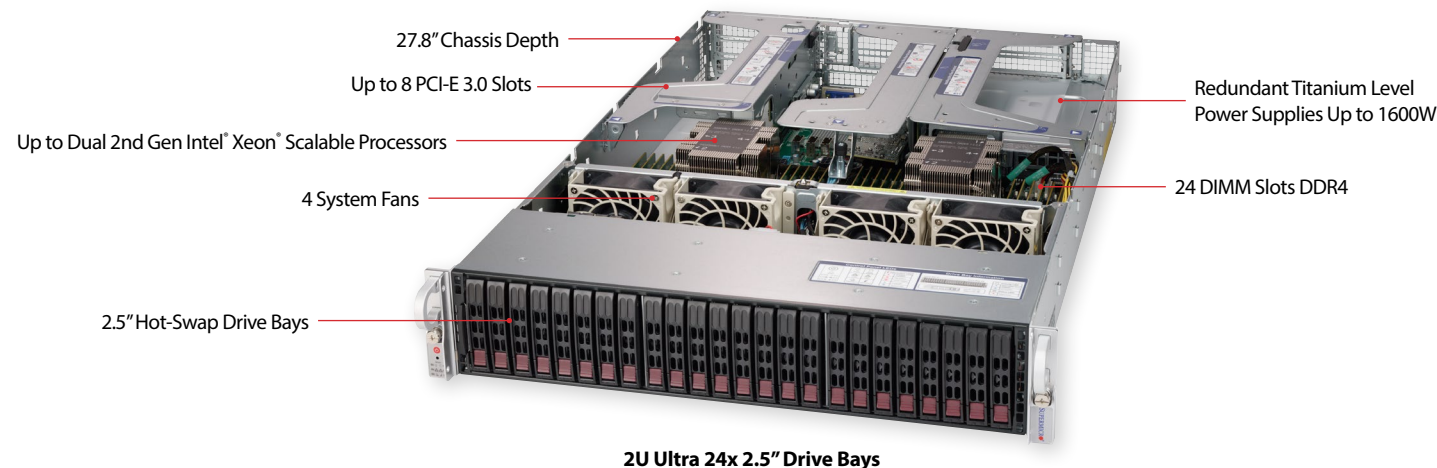
## Platinum Level

Up to redundant 750W high-efficiency digital power supplies

# Ultra 2U Series

MORE I/O EXPANSION FOR HIGHER FLEXIBILITY

2U systems supporting dual processors with 24 DIMM slots  
Versatile storage options with up to 24x 2.5" or 12x 3.5" drives  
Up to dual 25G Ethernet and extraordinary PCI-E expansion capabilities



12x 3.5" Drive Bays



24x 2.5" Drive Bays



FORM-FACTOR

## 2U Rackmount

Up to 24x 2.5" or 12x 3.5" hot-swap drive bays



CPU

## 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP



MEMORY

## 24 DIMM Slots

Up to 6TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



STORAGE

## NVMe/SAS3/SATA3

Optional U.2 and M.2 NVMe support\*; SAS3 support via AOC\*\*



I/O

## Input/Output

Flexible networking up to dual 25GbE via Ultra Riser adapters with dedicated IPMI LAN port; Rich PCI-E expansion options including double-wide GPU support;



POWER SUPPLY

## Titanium Level

Up to redundant 1600W high-efficiency digital power supplies

# Max IO SuperServer®

APPLICATION OPTIMIZED AND I/O MAXIMIZED FOR SPACE-CONSTRAINED APPLICATIONS

Supermicro Max IO solutions are resource optimized, cost-effective and ideal for space-constrained applications. Supermicro's highly dense yet compact server designs provide excellent compute, networking, storage and I/O expansion. These servers utilize Supermicro optimized thermal designs to save energy, operate at lower decibels and minimize system

power consumption. Several models provide redundant power and cooling options and run at an extended temperature range. Supermicro's high quality assures reliable, long life and uninterrupted operation.



2U 2-Socket 16x 2.5" Drive Bays



3U 2-Socket 8x 3.5" Drive Bays

2U and 3U systems supporting dual processors and 16 DIMM slots  
Highest I/O expansion capability with up to 11 PCI-E 3.0 slots  
Hot-swappable 2.5 and 3.5" drive bays and up to two 5.25" peripheral bays



2U 11 PCI-E 3.0 Low-Profile Slots



3U 11 PCI-E 3.0 Slots



FORM-FACTOR



CPU



MEMORY

## Rackmount

16x 2.5" drive bays and 1x 5.25" peripheral bay in 2U; 8x 3.5" drive bays and 2x 5.25" peripheral bays in 3U

## 1 or 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP

## 16 DIMM Slots

Up to 4TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



STORAGE



I/O



POWER SUPPLY

## SAS3/SATA3

SAS3 support via AOC\*; 1 PCI-E 3.0 x4 M.2 slot

## Input/Output

Dual 10GbE with dedicated IPMI LAN port; 2 PCI-E 3.0 x16 slots, 2 PCI-E 3.0 x16 slots (or 4 PCI-E 3.0 x8), 4 PCI-E 3.0 x8 slots, 1 PCI-E 3.0 x4 (in x8 slot)

## Up to Titanium Level

Up to redundant 1000W high-efficiency digital power supplies

# Mainstream SuperServer®

BEST PERFORMANCE, COST AND ENERGY EFFICIENCY FOR MAINSTREAM APPLICATIONS

1U, 2U and 4U tower systems supporting single or dual processors  
1-socket and 2-socket models for optimal efficiency and performance  
Hot-swappable 2.5" and 3.5" SAS3/SATA3 storage options

The Mainstream Application Optimized SuperServer® 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.



1U 1-Socket 4x 3.5" Drive Bays



2U 2-Socket 8x 3.5" Drive Bays



Tower 2-Socket 8x 3.5" Drive Bays



4x 3.5" Drive Bays



16x 2.5" Drive Bays



8x 3.5" Drive Bays



FORM-FACTOR

## Rackmount and Tower

4x 3.5" drive bays in 1U; 16x 2.5" or 8x 3.5" drive bays in 2U; 8x 3.5" and 2x 5.25" drive bays in 4U tower



CPU

## 1 or 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP



MEMORY

## 16 DIMM Slots

Up to 4TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



STORAGE

## NVMe/SAS3/SATA3

Up to 8x 2.5" SAS3 drives via Broadcom 3108 in 2U; PCI-E M.2 support available



I/O

## Input/Output

Dual 10GbE with dedicated IPMI LAN port; Up to 6 PCI-E 3.0 slots



POWER SUPPLY

## Up to Titanium Level

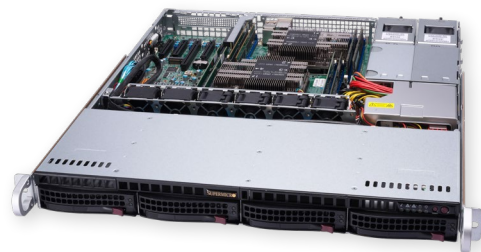
Up to redundant 1280W high-efficiency digital power supplies

# DCO SuperServer®

## ENTRY LEVEL AND VOLUME SERVERS FOR EVERY DATA CENTER

The new generation X11 Supermicro Data Center Optimized SuperServer® product family is designed to deliver the best performance-per-watt and per-dollar to the modern data center. Improved thermal architecture that utilizes power efficient components, offset processor placement to help

eliminate CPU preheating, and highest-efficiency power supplies to allow higher operating temperatures, enable this product line to perfectly align with complex requirements and complement energy efficiency data center design in order to achieve lower Total Cost of Ownership (TCO).



1U 2-Socket 4x 3.5" Drive Bays



1U 2-Socket 8x 2.5" Drive Bays



4x 3.5" Drive Bays



8x 2.5" Drive Bays



FORM-FACTOR

### Short-Depth Chassis

Choice of 8x 2.5" or 4x 3.5" hot-swap drive bays



CPU

### 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 140W TDP



MEMORY

### 8 DIMM Slots

Up to 2TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz



STORAGE

### SATA3 Storage

Optional PCI-E/SATA M.2 support; SAS3 support via AOC\*



I/O

### Input/Output

Dual Gigabit Ethernet RJ45 LAN ports with dedicated IPMI RJ45 LAN port; 1 PCI-E 3.0 x8 (FHHL) slot



POWER SUPPLY

### Platinum Level

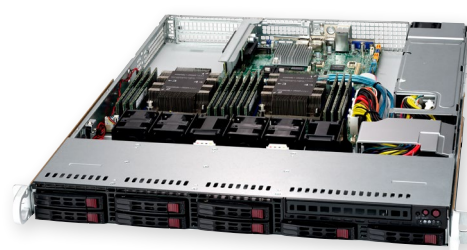
Up to redundant 800W high-efficiency digital power supplies

# WIO SuperServer®

THE INDUSTRY'S WIDEST VARIETY OF I/O OPTIMIZED SERVERS

Supermicro WIO SuperServer® 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

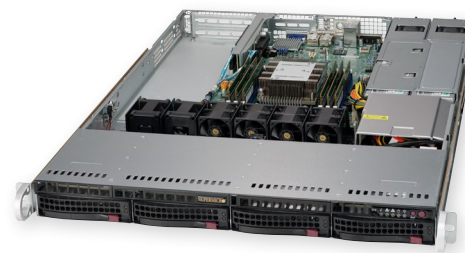
applications. In addition to enabling customizable configurations and optimization for multiple application requirements, Supermicro WIO SuperServers also provide attractive cost advantages and investment protection.



1U 2-Socket 8x 2.5" Drive Bays



1U 2-Socket 8x 3.5" Drive Bays



1U 1-Socket 4x 3.5" Drive Bays



8x 2.5" Drive Bays



4x 3.5" Drive Bays



8x 3.5" Drive Bays



FORM-FACTOR



CPU



MEMORY

## Front and Top-loading

Up to 10x 2.5" or 8x 3.5" hot-swap drive bays in 1U; Up to 12x 3.5" hot-swap drive bays in 2U

## 1 or 2-Socket

Up to 2nd gen Intel® Xeon® Scalable processors; up to 205W TDP

## Up to 12 DIMM Slots

Up to 3TB ECC memory with 256GB DIMMs, up to DDR4-2933MHz; Intel® Optane™ DCPMM support available



STORAGE



I/O



POWER SUPPLY

## NVMe/SAS3/SATA3

Hybrid backplane supporting SAS3 via optional AOM and 2 hybrid NVMe/SATA3 ports; 1 PCI-E 3.0 x4 M.2 slot

## Input/Output

Dual 10GbE RJ45 LAN ports with dedicated IPMI LAN port; Up to 3 PCI-E 3.0 slots in 1U and 6 slots in 2U, dedicated AOM slot for SAS support

## Up to Titanium Level

Up to redundant 1200W high-efficiency digital power supplies

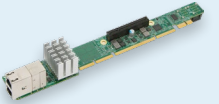
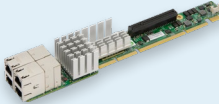
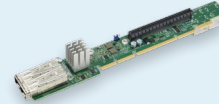
# Ultra Riser NETWORKING OPTIONS

The Ultra Riser add-on cards are designed for Supermicro® Ultra SuperServer® family, that increase cost savings and flexibility to select networking options from 1G to 25G Ethernet through a Supermicro optimized form factor that is easy to scale, service and manage.

Ultra Riser add-on cards are available only when purchased with a system, please contact your Supermicro sales representative for more details.

For more product information and technical specifications, please visit [supermicro.com](http://supermicro.com) or scan the QR code to retrieve the complete list of options and system compatibility.



|    | 4x GbE RJ45                                                                                        | 2x 10GbE RJ45                                                                                       | 4x 10GbE                                                                                             | 2x 10GbE SFP+                                                                                         | 2x 25GbE RJ45                                                                                         |
|----|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1U | <br>AOC-UR-i4G    | <br>AOC-URN2-i2XT  | <br>AOC-UR-i4XT     | <br>AOC-URN2-i2XS  | <br>AOC-URN4-m2TS  |
| 2U | <br>AOC-2UR68-i4G | <br>AOC-2UR68-i2XT | <br>AOC-2UR6N4-i4XT | <br>AOC-2UR68-i2XS | <br>AOC-2UR68-m2TS |

# SAS3 Storage HBA AND RAID ADAPTERS

Supermicro SAS3 add-on cards feature up to 16 internal SAS ports for high-performance storage applications. It addresses the growing demand for increased data throughput and scalability requirement across the enterprise-class server platforms and delivers cost effective storage solutions using SATA3 drives and maximum performance and reliability with SAS3 drives.

Mini-SAS cables may be required to purchase separately. For more product information and technical specifications, please visit [supermicro.com](http://supermicro.com) or scan the QR code on the right to retrieve the complete list of options and verify your system compatibility.



| SAS3 Host Bus Adapters in IT Mode                                                   |                                                                                     |                                                                                     | SAS3 RAID Adapters                                                                  |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |  |  |  |  |
| AOC-S3616L-L16iT                                                                    | AOC-S3216L-L16iT                                                                    | AOC-S3008L-L8e                                                                      | AOC-S3108L-H8iR-16DD                                                                | AOC-S3108L-H8iR                                                                     | AOC-S3008L-L8i                                                                      |
| Broadcom® SAS 3616                                                                  | Broadcom® SAS 3216                                                                  | Broadcom® SAS 3008                                                                  | Broadcom® SAS 3108                                                                  | Broadcom® SAS 3108                                                                  | Broadcom® SAS 3008                                                                  |
| 16 ports, 12Gb/s per port, 16 Internal, Low Profile, 1024 SATA/SAS Drives           | 16 ports, 12Gb/s per port, 16 Internal, Low Profile, 1024 SATA/SAS Drives           | 8 ports, 12Gb/s per port, 8 Internal, Low Profile, 122 SATA/SAS Drives              | 8 ports, 12Gb/s per port, 8 Internal, Low Profile, 16 SATA/SAS Drives               | 8 ports, 12Gb/s per port, 8 Internal, Low Profile, 240 SATA/SAS Drives              | 8 ports, 12Gb/s per port, 8 Internal, Low Profile, 63 SATA/SAS Drives               |

# Supermicro Worldwide

## Better. Faster. Greener.

Expect Better Data Center Performance, TCO & Impact on the Environment



### AMERICA

Over 1.5 million sq ft Green Computing Park in San Jose, California signals the company's increasing leadership in the IT industry. One of the largest high-tech R&D, manufacturing, and business hubs in Silicon Valley.



### APAC

Supermicro's Asia Science and Technology Park is a key milestone in the company's growth as a true global leader in the development of advanced, power saving computing technologies.



### EMEA

Supermicro's system integration facility and services in The Netherlands serves the dynamic, rapidly growing EMEA market with localized supply and time-to-market advantages.



### Systems featuring 2<sup>nd</sup> generation Intel® Xeon® Scalable processors

Supermicro offers the broadest and deepest portfolio of advanced technology server and storage systems in the IT industry. This offers several advantages to our customers.

First, customers can readily select the most optimized solutions to satisfy their business requirements, helping them to reduce their costs and improve the quality and time-to-

market (TTM) of their offerings. Additionally, the breadth and depth of Supermicro's product line provides the efficiency, cost, and reduced complexity advantages of one-stop shopping.

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Supermicro®, the leading innovator in high-performance, high-efficiency server technology is a premier provider of advanced server Building Block Solutions® for Data Center, Cloud Computing, Enterprise IT, Hadoop/Big Data, HPC and Embedded Systems worldwide. Supermicro is committed to protecting the environment through its "We Keep IT Green™" initiative and provides customers with the most energy-efficient, environmentally-friendly solutions available on the market.

Learn more at [www.supermicro.com](http://www.supermicro.com)

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