Supermicro Rackmount Servers

Best Performance, Cost and Efficiency

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

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

Learn more on page 14

Max IO

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

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

16 DDR4 DIMM slots, Intel® Optane™ DCPMM support

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

Onboard networking up to 2x 10G Ethernet

Learn more on page 16 or scan the QR code

Mainstream

OPTIMAL PERFORMANCE, COST AND ENERGY EFFICIENCY FOR MAINSTREAM APPLICATIONS

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

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

2.5" SAS3/SATA3 or 3.5" SATA3 storage

Onboard networking up to 2x 10G Ethernet

Learn more on page 18 or scan the QR code

WIO

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

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

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

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

Onboard networking up to 2x 10G Ethernet

Learn more on page 20 or scan the QR code

DCO

ENTRY LEVEL AND VOLUME SERVERS FOR EVERY DATA CENTER

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

8 DDR4 DIMM slots

2.5" or 3.5" SATA3 storage

Onboard networking 2x 1G Ethernet

Learn more on page 22 or scan the QR code

Supermicro Ultra SuperServer®

HIGHEST PERFORMANCE AND FLEXIBILITY FOR ENTERPRISE APPLICATIONS

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

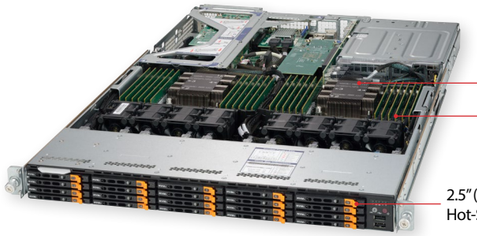
- ***NEW!*** Support for Dual, 2nd generation Intel® Xeon® Scalable processors up to 205W TDP
- ***NEW!*** Support for Intel® Optane™ DC persistent memory modules (DCPMM)
- Up to 6TB DDR4-2933MHz memory in 24 DIMM slots
- Redundant Titanium Level (96%+) power supplies
- Hot-swap NVMe/SAS3/SATA3 drive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

2U 24 U.2 NVMe

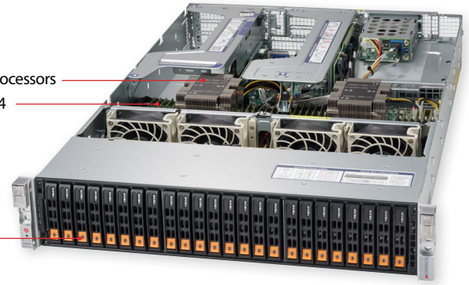
Ultra All-NVMe Series

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



1U Ultra 20x 2.5" (7mm thick) Drive Bays



2U Ultra 24x 2.5" Drive Bays

10x 2.5" Drive Bays

12x 2.5" Drive Bays

4x 3.5" Drive Bays

1U/2U
FORM-FACTOR

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

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
SAS3 support via AOC*

I/O

Input/Output
Flexible networking via Ultra Riser adapters* with dedicated IPMI LAN port

POWER SUPPLY

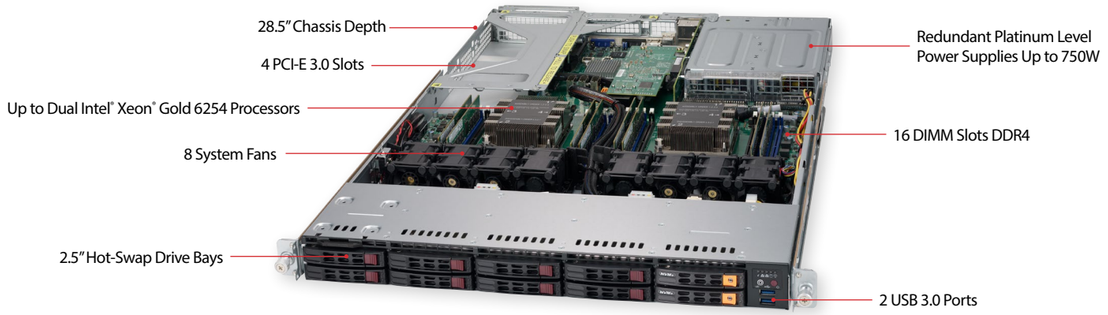
Titanium Level
Up to redundant 1600W high-efficiency digital power supplies

** For SAS AOC (add-on card) options , please refer to page 25*

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



1U Ultra Hyper-Speed 10x 2.5" Drive Bays

10x 2.5" Drive Bays

Rear View

1U FORM-FACTOR

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

STORAGE

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

CPU

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

I/O

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

MEMORY

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

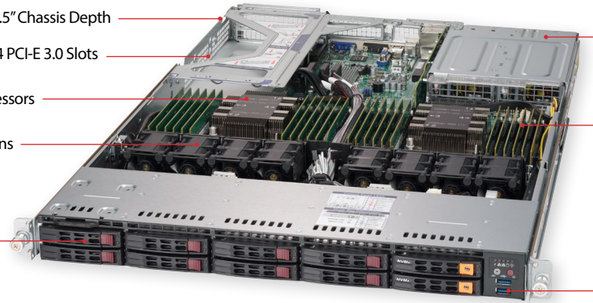
POWER SUPPLY

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



1U Ultra 10x 2.5" Drive Bay

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

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

Platinum Level

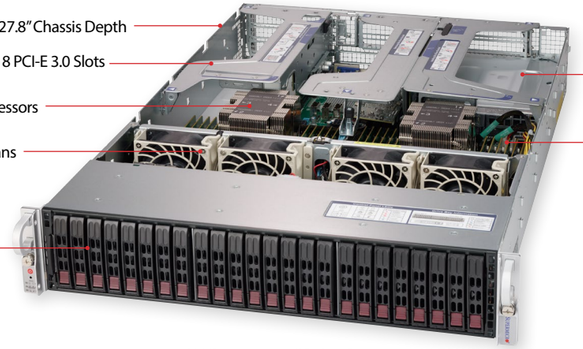
Up to redundant 750W high-efficiency digital power supplies

** All drive bays support SATA3 interface; NVMe and SAS3 support are optional and may require the purchase of additional kit to enable*
*** For SAS AOC (add-on card) options , please refer to page 25*

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



2U Ultra 24x 2.5" Drive Bays

12x 3.5" Drive Bays

24x 2.5" Drive Bays

2U
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

** All drive bays support SATA3 interface; NVMe and SAS3 support are optional and may require the purchase of additional kit to enable*
*** For SAS AOC (add-on card) options , please refer to page 25*

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

2U/3U
FORM-FACTOR

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

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

SAS3/SATA3

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

I/O

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)

POWER SUPPLY

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

Multi

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

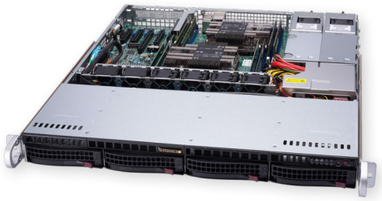
Up to Titanium Level

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

1U systems supporting dual processors with 8 DIMM slots
Hot-swappable 2.5" or 3.5" SATA3 storage options
Onboard dual Gigabit Ethernet for optimized cost effectiveness

4x 3.5" Drive Bays

8x 2.5" Drive Bays

1U
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

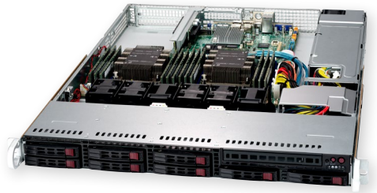
Up to redundant 800W high-efficiency digital power supplies

** For SAS AOC (add-on card) options , please refer to page 25*

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

Cost-effective systems supporting up to 3/6 PCI-E devices in 1U/2U

Hot-swappable 2.5" or 3.5" SATA3 storage with AOM slot for SAS3 support

Onboard networking options for up to dual 10 Gigabit Ethernet

8x 2.5" Drive Bays

4x 3.5" Drive Bays

8x 3.5" Drive Bays

1U/2U

FORM-FACTOR

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

CPU

1 or 2-Socket

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

MEMORY

Up to 12 DIMM Slots

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

STORAGE

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

I/O

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

POWER SUPPLY

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 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	 AOC-UR-i4G	 AOC-URN2-i2XT	 AOC-UR-i4XT	 AOC-URN2-i2XS	 AOC-URN4-m2TS
2U	 AOC-2UR68-i4G	 AOC-2UR68-i2XT	 AOC-2UR6N4-i4XT	 AOC-2UR68-i2XS	 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 or scan the QR code on the right to retrieve the complete list of options and verify your system compatibility.

12Gb/s Serial Attached SCSI

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

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

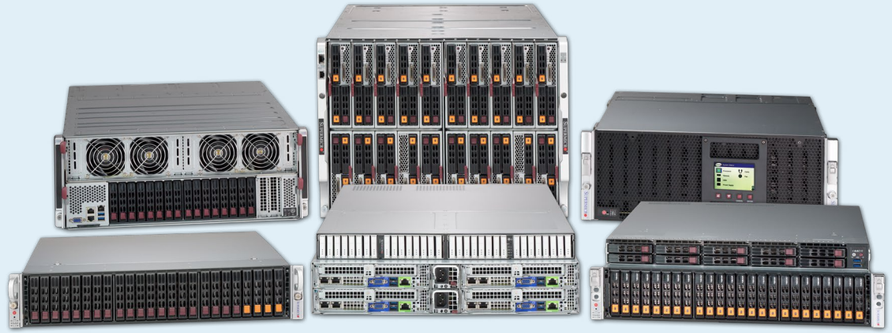
Supermicro's Asia Science and Technology Park is a key milestone in the company's growth as a true global leader in the development of advanced, power saving computing technologies.

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.

Better. Faster. Greener.

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



Systems featuring 2nd 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.

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

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