



SuperBlade® / MicroBlade™

Resource Saving Architecture: Save Money & the Earth



4U SuperBlade®
Up to **14x2S** Blade Servers



6U SuperBlade®
Up to **14x1S/2S** Blade Servers



3U MicroBlade™
Up to **28x1S** or **14x2S** Nodes



Battery Backup Power



8U SuperBlade®
Up to **20x1S/2S** or **10x4S** Blade Servers



6U MicroBlade™
Up to **56x1S** or **28x2S** Nodes

Advantages

- New 2nd Generation Intel® Xeon® Scalable processors supported
- New Intel® Xeon® W-2100/W-2200, E-2100/E-2200, and D-2100 series processors supported
- 2-socket(2S), 4-socket (4S) and 1-socket (1S) blade servers
- Up to 280 nodes per rack, up to 200 GPUs per rack
- Hot-plug U.2 **NVMe** SSD supported, up to 8 drives per blade server
- 100G EDR InfiniBand, 100G Intel® Omni-Path, and 25G/10G/1G Ethernet switches
- Redundant AC/DC power supplies and Battery Backup Power (BBP®) modules
- Supermicro RSD and Redfish RESTful APIs supported
- Free-air cooling designs deliver lowest PUE



8U SuperBlade®

Designed for High-Performance Computing and Most Demanding Enterprise Workloads



An 8U SuperBlade® system supports up to 20x 1-socket or 2-socket blade servers, or 10x 4-socket servers. As well, it can support 1x 100G Intel® Omni-Path or 100G EDR InfiniBand switch and 2x 10G/1G Ethernet switches optimized for HPC use cases, or 2x 10G/1G and 2x 25G Ethernet switches for enterprise applications. SuperBlade also offers an open industry standard remote management software for servers, storage and networking.

The enclosures support optional Battery Backup Power (BBP®) modules for enhanced reliability and data protection and may replace expensive datacenter UPS systems.

8U SuperBlade® Servers

Up to 20x 1S nodes per enclosure

1-Socket, Intel® Xeon® E-2100/E-2200
GPU, M.2 NVMe/SATA3



NEW!

SBI-4119MG-X

Up to 20x 2S nodes per enclosure

2-Socket, 2nd Gen Intel® Xeon® Scalable
100G, NVMe/SAS3/SATA3



SBI-4129P-C2N/T3N

Up to 10x 4S nodes per enclosure

4-Socket, 2nd Gen Intel® Xeon® Scalable
100G, NVMe/SAS3/SATA3



SBI-8149P-C4N/T8N

6U SuperBlade®

Innovative Disaggregated Resource Saving Server Architecture for Optimal TCO

Up to 10 Blade Servers in 6U

Intel® Xeon® W-2200

1 Socket
8 DIMM slots



NEW!

2nd Gen Intel® Xeon® Scalable Processors

1-Socket
12 DIMM slots



2-Socket
24 DIMM slots, 25GbE



SBI-6119R-C3N/T3N

SBI-6119P-C3N/T3N

SBI-6129P-C3N/T3N



6U SuperBlade with 10 Blade Servers

Up to 14 Blade Servers in 6U

2nd Gen Intel® Xeon® Scalable Processors

1-Socket
12 DIMM slots, 10GbE



SBI-6419P-C3N/T3N

2-Socket
24 DIMM slots, 10GbE



SBI-6429P-C3N/T3N

The new 6U SuperBlade® design builds on a disaggregated server architecture that enables the independent upgrade of compute modules without replacing the rest of the enclosure including networking, storage, fans and power supplies. With up to 14 blade servers in a 6U enclosure, the blade servers support 2nd Gen Intel® Xeon® Scalable processors with 24 DIMM slots (2-socket blade) and 12 DIMM slots (1-socket blade), up to 3 drive bays, and dual 25G/10G Ethernet networking.

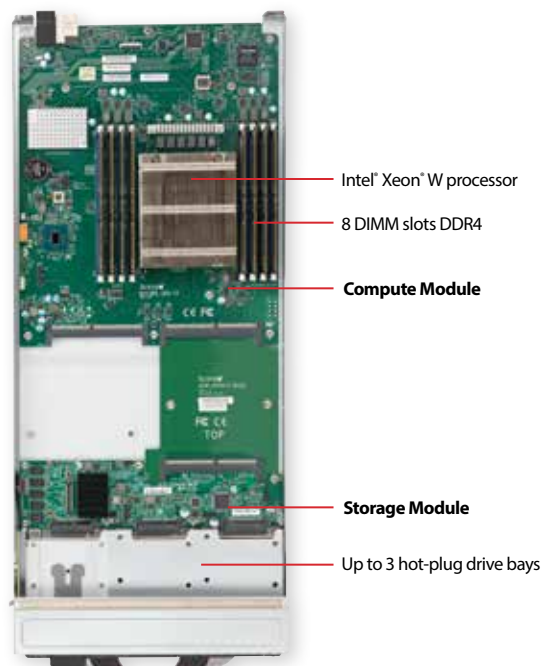


6U SuperBlade with 14 Blade Servers

6U SuperBlade® Server Technical Specifications

Single Intel® Xeon® W-2200 Series Processor

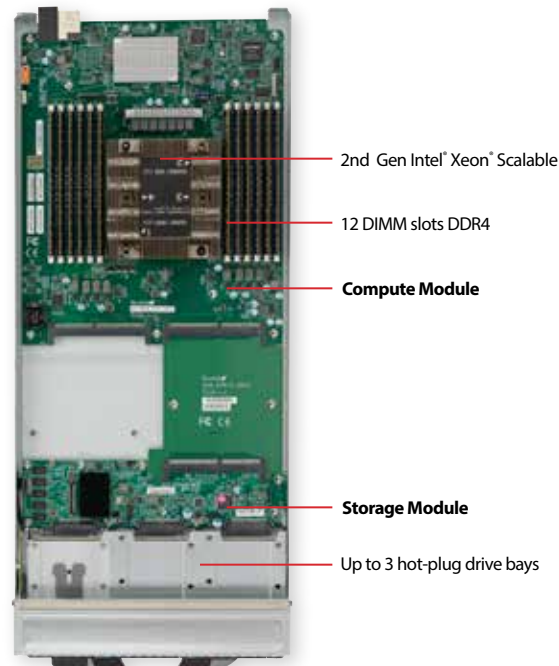
NEW! Intel® Xeon® W Processor



SBI-6119R

Single 2nd Gen Intel® Xeon® Scalable Processors

Intel® Xeon® Scalable Processor



SBI-6119P or SBI-6419P

Model	SBI-6119R-C3N/T3N	SBI-6119P-C3N/T3N	SBI-6419P-C3N/T3N
Server Nodes/6U	10	10	14
Processor	Single Intel® Xeon® W-2200 Series processor	2nd Generation Intel® Xeon® Scalable processors (Cascade Lake-SP)	2nd Generation Intel® Xeon® Scalable processors (Cascade Lake-SP)
Chipset	Intel® C422	Intel® C620 series	Intel® C620 series
Memory Support	8 DDR4-2933 DIMM slots	12 DDR4-2933 DIMM slots	12 DDR4-2933 VLP DIMM slots
Max Memory	512GB	1.5TB	384GB
Expansion & Drive Bays	-C3N: • 2 hot-plug 2.5" <i>NVMe</i> and 1 SAS3/SATA3 drive bays or 3 SAS3/SATA3 drive bays -T3N: • 3 hot-plug 2.5" <i>NVMe</i> /SATA3 drive bays		
Storage RAID	-C3N: • Broadcom® 3108 RAID 0,1,5 -T3N: • Intel® PCH SATA3 RAID 0,1,5		
InfiniBand / Intel® OPA	N/A	N/A	N/A
Ethernet Interface	• Dual 10G Ethernet	• Dual 10G Ethernet	• Dual 10G Ethernet
Management	• IPMI 2.0 • KVM over IP • Virtual Media over LAN • Supermicro RSD	• IPMI 2.0 • KVM over IP • Virtual Media over LAN • Supermicro RSD	• IPMI 2.0 • KVM over IP • Virtual Media over LAN • Supermicro RSD
LED Indicators	• Fault LED • Network Activity LED • Power LED • UID / KVM LED	• Fault LED • Network Activity LED • Power LED • UID / KVM LED	• Fault LED • Network Activity LED • Power LED • UID / KVM LED
Dimensions (H x W x D)	1.75" x 9.75" x 23.5"	1.75" x 9.75" x 23.5"	1.2" x 9.75" x 23.5"
Chassis	6U: <ul style="list-style-type: none"> • SBE-610J-822 • SBE-610J-422 • SBE-610J-622 • SBE-610JB-422 	6U: <ul style="list-style-type: none"> • SBE-610J-822 • SBE-610J-622 <ul style="list-style-type: none"> • SBE-610J-422 • SBE-610JB-422 	6U: <ul style="list-style-type: none"> • SBE-614E-822 • SBE-614E-622 <ul style="list-style-type: none"> • SBE-614E-422 • SBE-614EB-422

MicroBlade™

- Best density and power efficiency with up to 56x 1-socket or 28x 2-socket nodes
 - U.2/M.2 **NVMe** SSD and HW SAS3 RAID support
 - Ethernet switches supporting 1G, 2.5G and 10G downlinks
- Redundant 2200W Titanium Level (96%+ efficiency) AC power supplies
 - Battery Backup Power (BBP) modules



6U MicroBlade™



3U MicroBlade™

MicroBlade™ Servers

Intel® Xeon® Processor E5-2600 v4/v3

2S with 4x 1G



MBI-6128R-T2

2S with 2x 10G



MBI-6128R-T2X

Intel® Xeon® Processor E-2100/E-2200

1S with 2 NVMe



MBI-6119M-T2N

1S with 2 SAS3



MBI-6119M-C2

Intel® Xeon® processor D-2100

2x 1S (8-core)



MBI-6219B-T41N

2x 1S (12-core)



MBI-6219B-T63N

2x 1S (16-core)



MBI-6219B-T83N

Intel® Xeon® Processor E3-1200 v6/v5

1S with 2 SAS3



MBI-6119G-C2

1S with 4 SAS3



MBI-6119G-C4

1S with 4 SATA3



MBI-6119G-T4

2x 1S with 2 SATA3



MBI-6219G-T

Intel® Xeon® processor D-1500

2x 1S with 2x 10G



MBI-6218G

1S with 2x 10G



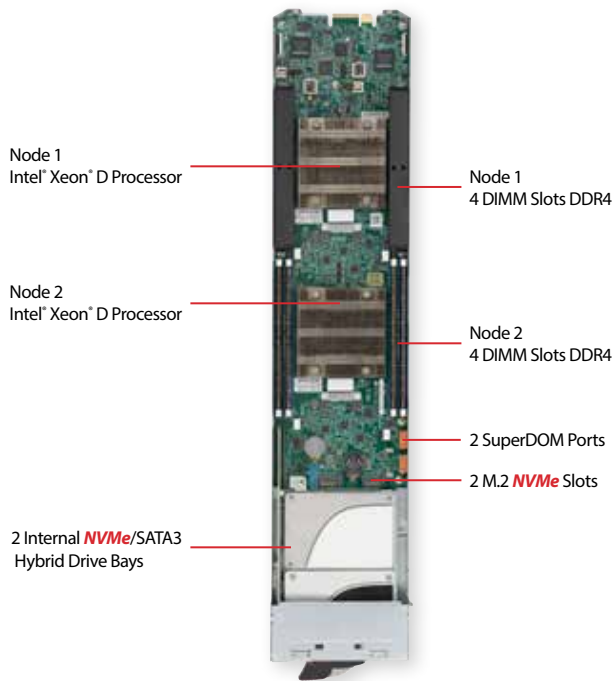
MBI-6118G



MicroBlade™ X11 Server Technical Specifications

Intel® Xeon® Processor D-2100 Series Processor Supported

NEW! Dual-node 1S with Dual 10G Ethernet



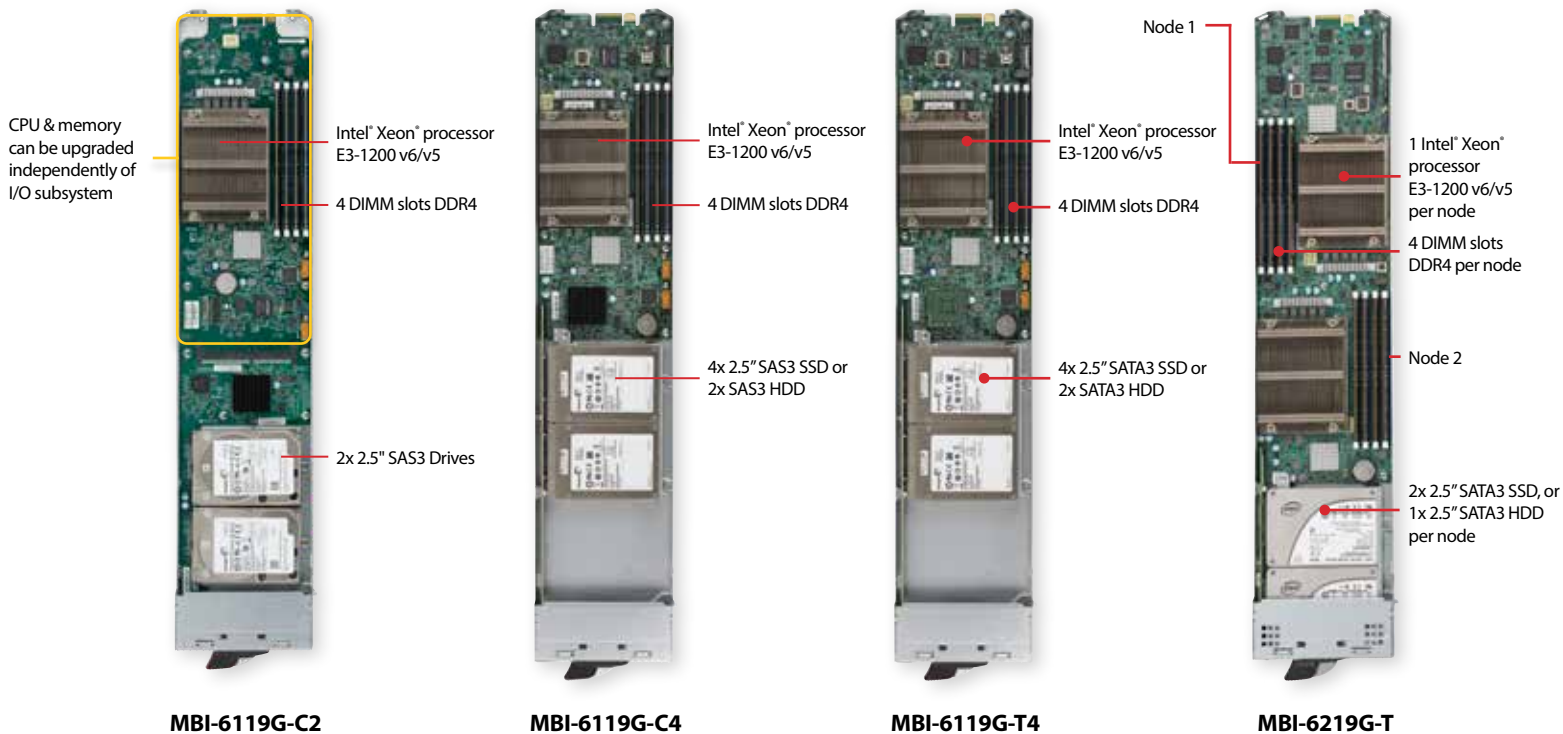
MBI-6219B

Model	MBI-6219B-T41N/T63N/T83N
Server Nodes/42U Rack	392
Processor	- T41N : Intel® Xeon® Processor D-2141I, 8 cores, 65W per node - T63N : Intel® Xeon® Processor D-2163IT, 12 cores, 75W per node - T83N : Intel® Xeon® Processor D-2183IT, 16 cores, 100W per node
Chipset	System-on-Chip
Memory Support	4 DDR4-2133/2400 VLP DIMM slots per node
Max Memory	128 GB per node
Expansion & Drive Bays	<ul style="list-style-type: none"> • 1x 2.5" NVMe/SATA3 internal drive bay per node • 1x M.2 NVMe slot per node (up to 110mm) • 1x SuperDOM port per node
Storage RAID	N/A
Ethernet Interface	Dual 10G Ethernet per node
Management	<ul style="list-style-type: none"> • IPMI 2.0 • KVM over IP • Virtual Media over LAN
LED Indicators	<ul style="list-style-type: none"> • Power LED • UID / KVM LED • Network Activity LED • Fault LED
Dimensions (H x W x D)	1.2" (30.48mm) x 4.94" (125.48mm) x 23.2" (489.28mm)
Chassis	6U: <ul style="list-style-type: none"> • MBE-628E-416 • MBE-628E-816 • MBE-628EB-422 • MBE-628EB-822 3U: <ul style="list-style-type: none"> • MBE-314E-420(D) • MBE-314E-416 • MBE-628E-420 • MBE-628E-820(D) • MBE-628EB-622 • MBE-314E-220(D) • MBE-314E-422/222

MicroBlade™ X11 Server Technical Specifications

Intel® Xeon® Processor E3-1200 v6/v5 Product Families Supported

Single-node 1S with 2 SAS3 Single-node 1S with 4 SAS3 Single-node 1S with 4 SATA3 Dual-node 1S with 2 SATA3



Model	MBI-6119G-C2/C4		MBI-6119G-T4	MBI-6219G-T
Server Nodes/42U Rack	196		196	392
Processor	Intel® Xeon® processor E3-1200 v6/v5 product families		Intel® Xeon® processor E3-1200 v6/v5 product families	Intel® Xeon® processor E3-1200 v6/v5 product families per node
Chipset	Intel® C236		Intel® C236	Intel® C236
Memory Support	4 DDR4-2400 VLP DIMM slots		4 DDR4-2400 VLP DIMM slots	4 DDR4-2400 VLP DIMM slots per node
Max Memory	64GB		64GB	64GB per node
Expansion & Drive Bays	-C2: <ul style="list-style-type: none"> • 2x 2.5" SAS3 Drives • 2x SuperDOM Port 	-C4: <ul style="list-style-type: none"> • 2x 2.5" SAS3 HDD or 4x 2.5" SAS3 SSD • 2x SuperDOM Port 	-T4: <ul style="list-style-type: none"> • 2x 2.5" SATA3 HDD or 4x 2.5" SATA3 SSD • 2x SuperDOM Port 	-T: <ul style="list-style-type: none"> • 1x 2.5" SATA3 HDD or 2x 2.5" SATA3 SSD per node
Storage RAID	Broadcom® 3008 SAS3/SATA3 RAID 0,1	Broadcom® 3008 SAS3/SATA3 RAID 0,1,1E,10	Intel® PCH SATA3 RAID 0,1,5,10	Intel® PCH SATA3 RAID 0,1
Ethernet Interface	Dual 1G Ethernet		Dual 1G Ethernet	Dual 1G Ethernet
Management	IPMI 2.0, KVM over IP, Virtual Media over LAN		IPMI 2.0, KVM over IP, Virtual Media over LAN	IPMI 2.0, KVM over IP, Virtual Media over LAN
LED Indicators	<ul style="list-style-type: none"> • Power LED • Fault LED • Network Activity LED • UID / KVM LED 		<ul style="list-style-type: none"> • Power LED • Fault LED • Network Activity LED • UID / KVM LED 	<ul style="list-style-type: none"> • Power LED • Fault LED • Network Activity LED • UID / KVM LED
Dimensions (H x W x D)	1.2" (30.48mm) x 4.94" (125.48mm) x 23.2" (589.28mm)		1.2" (30.48mm) x 4.94" (125.48mm) x 23.2" (589.28mm)	1.2" (30.48mm) x 4.94" (125.48mm) x 23.2" (589.28mm)
Chassis	6U: <ul style="list-style-type: none"> • MBE-628E-416 • MBE-628E-816 • MBE-628EB-422 • MBE-628EB-822 3U: <ul style="list-style-type: none"> • MBE-314E-420(D) • MBE-314E-416 		<ul style="list-style-type: none"> • MBE-628E-420 • MBE-628E-820(D) • MBE-628EB-622 3U: <ul style="list-style-type: none"> • MBE-314E-220(D) 	<ul style="list-style-type: none"> • MBE-628E-416 • MBE-628E-816 • MBE-628EB-422 • MBE-628EB-822 3U: <ul style="list-style-type: none"> • MBE-314E-420(D) • MBE-314E-416

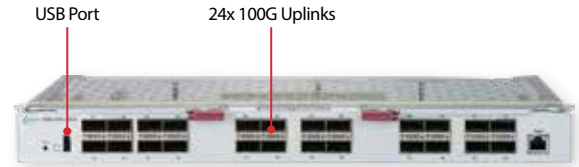
100G Switches

100G EDR InfiniBand Switch



SBM-IBS-E3616

100G Intel® Omni-Path Switch

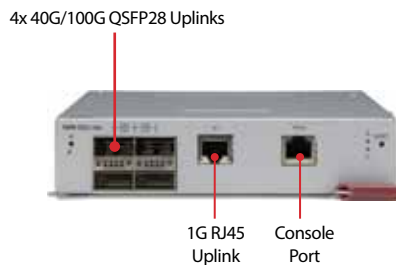


SBM-OPA-C4020

Model	SBM-IBS-E3616	SBM-OPA-C4020
General Specifications	<ul style="list-style-type: none"> • 20x 100G EDR InfiniBand downlinks • 16x 100G EDR InfiniBand uplinks 	<ul style="list-style-type: none"> • 20x 100G Intel® Omni-Path downlinks • 24x 100G Intel® Omni-Path uplinks • 1x USB port
Switching Capacity	7.62Tbps	9.6Tbps
Physical Layer Features	100G optical/copper QSFP28	100G optical/copper QSFP28
System Management	Unmanaged mode	Unmanaged mode

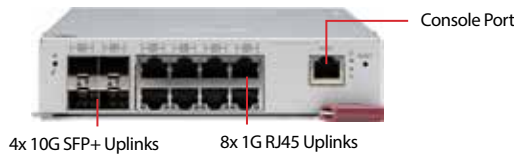
25G Ethernet Switch

25G Ethernet Switch with MLAG



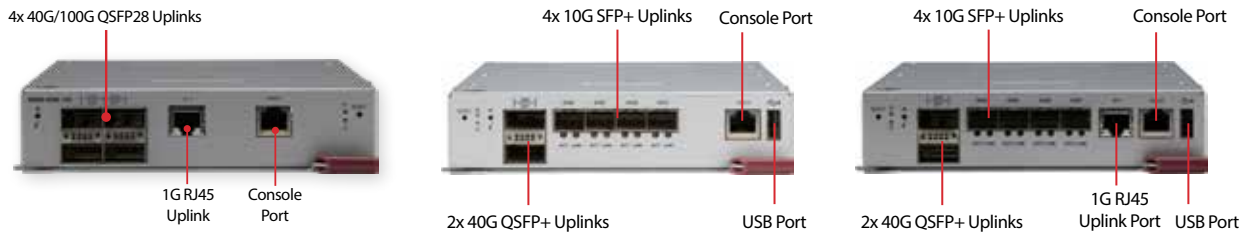
Model	SBM-25G-100	
General Specifications	<ul style="list-style-type: none"> • 20x 25G Ethernet downlink (backward compatible to 20x10G) • 4x 100G/40G Ethernet uplinks, each can split into 4x 25G or 4x 10G uplinks with optional fan-out cables • 1x Gigabit Ethernet uplink • 1x console port 	
Switching Capacity	• 1802Gbps	
Physical Layer Features	<ul style="list-style-type: none"> • 100G/40G optical/copper QSFP28 • Gigabit Ethernet copper RJ45 	
Layer 2 Features	<ul style="list-style-type: none"> • 4K VLANs • Spanning Tree Protocol (802.1D) • Rapid Spanning Tree Protocol (802.1w) • IEEE 802.1Q VLANs/ port-based VLANs • Multiple Spanning Tree Protocol (802.1s) 	<ul style="list-style-type: none"> • Jumbo frames up to 9KB • IEEE 802.1AX LAG • IEEE 802.3ac VLAN tagging • IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
Advanced Layer 2 Features	<ul style="list-style-type: none"> • Storm control • Flow control • Port mirroring • Uplink Failure Detection (UFD) • MLAG 	<ul style="list-style-type: none"> • RDMA over Converged Ethernet (RoCE) • Data Center Bridging Extensions (DCBx) • Per-Priority Flow Control [PFC] (802.1Qbb) • Enhanced Transmission Selection [ETS] – (802.1Qaz)
Security Features	<ul style="list-style-type: none"> • Switch access password protection • RADIUS and TACACS+ Authentication 	<ul style="list-style-type: none"> • Access Control Lists • SSH, SSL Encryption
System Management	<ul style="list-style-type: none"> • Industry Standard CLI • Web-based management interface – HTTP/HTTPS • Syslog 	<ul style="list-style-type: none"> • SSH • SNMP v1/v2/v3 • NTP • Content-sensitive “Help”
Multicast	<ul style="list-style-type: none"> • IGMP Snooping 	<ul style="list-style-type: none"> • Auto Command completion • TFTP Client • DHCP (Client) • RESTCONF
		<ul style="list-style-type: none"> • Zero Touch Provisioning • Blade Network Manager (BNM)

1G Ethernet Switch



Model	MBM-GEM-004	
General Specifications	<ul style="list-style-type: none"> • 40x 1G Ethernet downlinks • 8x1G Ethernet RJ45 and 4x10G Uplinks • 1x console port 	
Switching Capacity	<ul style="list-style-type: none"> • 176Gbps 	
Physical Layer Features	<ul style="list-style-type: none"> • 10G Ethernet Optical/copper SFP+ • 1 Gigabit Ethernet copper RJ45 	
Layer 2 Features	<ul style="list-style-type: none"> • 4K VLANs, Jumbo frames up to 9KB • IEEE 802.1AB Link Layer Discovery Protocol (LLDP) 	<ul style="list-style-type: none"> • Multi-Chassis Link Aggregation (MLAG) • IEEE 802.1Q VLANs • IEEE 802.3ad with LACP
Layer 3 Features	<ul style="list-style-type: none"> • N/A 	
Advanced Layer 2 Features	<ul style="list-style-type: none"> • Storm control • Port mirroring • Flow control 	<ul style="list-style-type: none"> • Uplink Failure • Detection • MLAG • QoS
System Management	<ul style="list-style-type: none"> • Industry Standard CLI • Web-based management interface – HTTP/HTTPS • RMON • DHCP (Client) • SNMP v1/v2/v3 • Zero Touch Provisioning 	<ul style="list-style-type: none"> • NTP • SSH • Syslog • RESTCONF • Ansible • Blade Network Manager (BNM)
Security Features	<ul style="list-style-type: none"> • Switch access password protection • RADIUS and TACACS+ Authentication • Access Control Lists 	<ul style="list-style-type: none"> • SSH, SSL Encryption • Protected Ports
Multicast	IGMP Snooping	

10G Ethernet Switches



Model	MBM-XEM-100	MBM-XEM-002	MBM-XEM-002+
General Specifications	<ul style="list-style-type: none"> • 56x 10G Ethernet downlink • 4x 100G/40G Ethernet uplinks, each can split into 4x 25G or 4x 10G uplinks with optional fan-out cables • 1x Gigabit Ethernet uplink • 1x console port 	<ul style="list-style-type: none"> • 56x 10G/2.5G/1G Ethernet downlinks • 2x 40G Ethernet QSFP+ or, 1x 40G and 4x 10G Ethernet uplinks • 1x console port • 1x USB port 	<ul style="list-style-type: none"> • 56x 10G/2.5G/1G Ethernet downlinks • 2x 40G Ethernet QSFP+ or, 1x 40G and 4x 10G Ethernet uplinks • 1x console port • 1x USB port • 1G port
Switching Capacity	<ul style="list-style-type: none"> • 1922Gbps 		
Physical Layer Features	<ul style="list-style-type: none"> • 100G/40G optical/copper QSFP28 • Gigabit Ethernet copper RJ45 		
Layer 2 Features	<ul style="list-style-type: none"> • 4K VLANs, Jumbo frames up to 9KB • IEEE 802.1AB Link Layer Discovery Protocol (LLDP) • Multi-Chassis Link Aggregation (MLAG) • Multi-Chassis Link Aggregation (MLAG) 		
Advanced Layer 2 Features	<ul style="list-style-type: none"> • Storm control • Flow control • Port mirroring • Uplink Failure Detection (UFD) • MLAG • QoS • RDMA over Converged Ethernet (RoCE) <ul style="list-style-type: none"> - Data Center Bridging Extensions (DCBx) - Per-Priority Flow Control [PFC] (8021Qbb) - Enhanced Transmission Selection [ETS] – (8021Qaz) 	<ul style="list-style-type: none"> • Storm control • Flow control • Port mirroring • MLAG • QoS 	
Security Features	<ul style="list-style-type: none"> • Switch access password protection • RADIUS and TACACS+ Authentication • Access Control Lists • SSH, SSL Encryption 	<ul style="list-style-type: none"> • Switch access password protection • RADIUS and TACACS+ Authentication • Access Control Lists • SSH, SSL Encryption • DHCP Snooping 	<ul style="list-style-type: none"> • Spanning Tree Protocol (802.1D) • Multiple Spanning Tree Protocol (802.1s) • Rapid Spanning Tree Protocol (802.1W)
System management	<ul style="list-style-type: none"> • Industry Standard CLI • Web-based management interface – HTTP/HTTPS • Syslog • SSH • SNMP v1/v2/v3 • NTP • Content-sensitive "Help" 	<ul style="list-style-type: none"> • Auto Command completion • TFTP Client • DHCP (Client) • RESTCONF • Zero Touch Provisioning • Ansible • Blade Network Manager (BNM) 	<ul style="list-style-type: none"> • Content-sensitive "Help" • Auto Command completion • TFTP Client • RMON • DHCP (Client) • Zero Touch Provisioning • Ansible
Multicast	IGMP Snooping		

Switch and Enclosure Compatibility Matrix

SuperBlade® and MicroBlade®

Enclosures		SBM-IBS-E3616	SBM-OPA-C4020	SBM-25G-100	MBM-XEM-100	MBM-XEM-002/ MBM-XEM-002+	MBM-GEM-004
		EDR InfiniBand	Intel® Omni-Path	Ethernet			
		100G	100G	25G	10G	10G	1G
8U	SBE-820C(B)	● Up to 1	● Up to 1	● Up to 2 (10G)	● Up to 2	● Up to 2	● Up to 2
	SBE-820J(B)	-	-	● Up to 2	● Up to 2	● Up to 4	● Up to 4
6U	SBE-610J	-	-	● Up to 2	● Up to 2	● Up to 4	● Up to 4
	SBE-614E(B)	-	-	● Up to 2 (10G)	● Up to 2	● Up to 2	● Up to 2
	MBE-628E	-	-	-	-	● Up to 2	-
	MBE-628EB	-	-	-	-	● Up to 2	● Up to 2*
	MBE-628L	-	-	-	-	● Up to 4	-
4U	SBE-414E(B)	-	-	● Up to 2 (10G)	● Up to 2	● Up to 2	● Up to 2
3U	MBE-314E	-	-	-	-	● Up to 2	● Up to 2

In some configurations, up to 2 different switch models can be installed on a single enclosure. Due to the complexity of switch configuration and compatibility, please confirm with your Supermicro sales representative.

* Single node blade servers only.

SuperBlade® Networking Mezzanine Card

Flexible Networking Options

The new generation of SuperBlades can be further customized to accommodate current and future needs. Networking mezzanine cards include options for 100G EDR InfiniBand, 100G Intel Omni-Path, and Dual Port 25G Ethernet. These cards, paired with the appropriate switch, result in a blade server tuned for high-performance.

100G EDR InfiniBand



AOC-IBH-X4E5
Compatible with SBE-820C

100G Intel® Omni-Path



AOC-OPH-WFR
Compatible with SBE-820C

Dual-Port 25G Ethernet



AOC-B25G-X4D
Compatible with SBE-820J

Dual-Port 25G Ethernet





AOC-B25G-6X4D
Compatible with SBE-610J

Cabling Options for Blade Switches


For more details and pricing information, visit store.supermicro.com/cable/networking.html




Ethernet

	Type	Part Number	Description
	SFP+ Cable	CBL-SFP+AOC-10M	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,10M
	SFP+ Cable	CBL-SFP+AOC-1M-1	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,1M
	SFP+ Cable	CBL-SFP+AOC-3M-1	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,3M
	SFP+ Cable	CBL-SFP+AOC-3M-1-ORG	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,3M,Orange
	SFP+ Cable	CBL-SFP+AOC-5M-1	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,5M
	SFP+ Cable	CBL-SFP+AOC-5M-1-ORG	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,5M,Orange
	SFP+ Cable	CBL-SFP+AOC-7M-1-ORG	ETHERNET,SFP+,10GbE,FIBER,ACTIVE,PULL,7M,Orange
	QSFP Cable	CBL-NTWK-0417-01	ETHERNET, QSFP, 40GbE, PASSIVE, 1M
	QSFP Cable	CBL-NTWK-0325-02	ETHERNET, QSFP, 40GbE, PASSIVE, 2M
	QSFP Cable	CBL-NTWK-0446-01	ETHERNET, QSFP, 40GbE, PASSIVE, 3M
	QSFP Cable	CBL-NTWK-0422-01	ETHERNET, QSFP, 40GbE, PASSIVE, 5M
	QSFP Cable	CBL-QSFP+AOC-1M	ETHERNET, QSFP, QDR, 40GbE, FIBER, ACTIVE, PULL, 1M
	QSFP Cable	CBL-QSFP+AOC-5M-1	ETHERNET, QSFP, QDR, 40GbE, FIBER, ACTIVE, PULL, 5M
	QSFP Cable	CBL-QSFP+AOC-10M-1	ETHERNET, QSFP, QDR, 40GbE, FIBER, ACTIVE, PULL, 10M
	QSFP Cable	CBL-NTWK-0719	ETHERNET, 40GbE/QSFP+ to 4x 10GbE/SFP+, PASSIVE, 1M, Mellanox
	QSFP Cable	CBL-NTWK-0720	ETHERNET, 40GbE/QSFP+ to 4x 10GbE/SFP+, PASSIVE, 3M, Mellanox
	QSFP Cable	CBL-NTWK-0721	ETHERNET, 40GbE/QSFP+ to 4x 10GbE/SFP+, PASSIVE, 5M, Mellanox

InfiniBand

	Type	Part Number	Description
	InfiniBand	CBL-NTWK-0942-MQ28E10M	InfiniBand, EDR, QSFP28, 100GbE, PASSIVE, LSZH, 1M, Mellanox
	InfiniBand	CBL-NTWK-0942-MQ28E15M	InfiniBand, EDR, QSFP28, 100GbE, PASSIVE, LSZH, 1.5M, Mellanox
	InfiniBand	CBL-NTWK-0942-MQ28E20M	InfiniBand, EDR, QSFP28, 100GbE, PASSIVE, LSZH, 2M, Mellanox
	InfiniBand	CBL-NTWK-0942-MQ28E30M	InfiniBand, EDR, QSFP28, 100GbE, PASSIVE, LSZH, 3M, Mellanox

Intel® Omni-Path

	Type	Part Number	Description
	Omni-Path	CBL-NTWK-0892-OPC05	Intel Omni-Path Passive Copper Cable QSFP28, 0.5M
	Omni-Path	CBL-NTWK-0892-OPC10	Intel Omni-Path Passive Copper Cable QSFP28, 1M
	Omni-Path	CBL-NTWK-0892-OPC15	Intel Omni-Path Passive Copper Cable QSFP28, 1.5M
	Omni-Path	CBL-NTWK-0892-OPC20	Intel Omni-Path Passive Copper Cable QSFP28, 2M
	Omni-Path	CBL-NTWK-0892-OPC30	Intel Omni-Path Passive Copper Cable QSFP28, 3M
	Omni-Path	CBL-NTWK-0892-OPF30L	Intel Omni-Path Active Fiber Cable QSFP28, 3M
	Omni-Path	CBL-NTWK-0892-OPF50L	Intel Omni-Path Active Fiber Cable QSFP28, 5M
	Omni-Path	CBL-NTWK-0892-OPF100L	Intel Omni-Path Active Fiber Cable QSFP28, 10M
	Omni-Path	CBL-NTWK-0892-OPF150L	Intel Omni-Path Active Fiber Cable QSFP28, 15M
	Omni-Path	CBL-NTWK-0892-OPF200L	Intel Omni-Path Active Fiber Cable QSFP28, 20M
	Omni-Path	CBL-NTWK-0892-OPF300L	Intel Omni-Path Active Fiber Cable QSFP28, 30M
	Omni-Path	CBL-NTWK-0892-OPF400L	Intel Omni-Path Active Fiber Cable QSFP28, 40M
	Omni-Path	CBL-NTWK-0892-OPF500L	Intel Omni-Path Active Fiber Cable QSFP28, 50M
	Omni-Path	CBL-NTWK-0892-OPF600L	Intel Omni-Path Active Fiber Cable QSFP28, 60M

Chassis Management Modules (CMM)

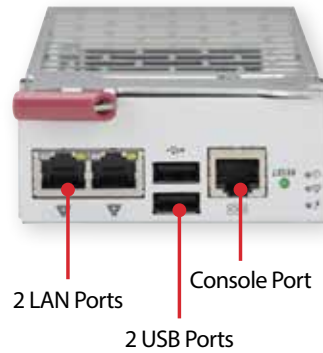
Supporting MicroBlade and New Generation SuperBlade

- Centralized remote management
 - Server Blades, Power Supplies, Cooling Fans, Switches
- Management tools
 - **IPMView**: CLI, Web-based GUI
 - **CMM**: Enclosure Monitoring
 - **SSM**: Blade Enclosure and Rack
 - **Utilities**: SMCIPMITOOL for CMM and IPMICFG for IPMI
- Redundancy and Fail-over
- IPMI 2.0 and Redfish compliant, with KVM over LAN / KVM over IP
- Virtual Media Over LAN (Virtual USB Floppy/CD and Drive Redirection)
- LAN Alert-SNMP Trap
- Event Log
- Hardware Health Monitor
- Supports RMCP & RMCP+ Protocols



MBM-CMM-FIO

Support Front I/O Ports on Enclosures



Power Supply Modules

Supporting MicroBlade™ and New Generation SuperBlade®



Model	PWS-2K21A-BR	PWS-2K01A-BR	PWS-2K02D-BR
Output	2200W/2090W/1980W/1800W/1200W	2000W/1980W/1800W/1000W	1600W/2000W
Type	Redundant Module (N+1 or N+N)	Redundant Module (N+1 or N+N)	Redundant Module (N+1 or N+N)
+12V	<ul style="list-style-type: none"> • 183.33A(2200W) • 174.17A (2090W) • 165A (1980W) • 150A (1800W) • 100A (1200W) 	<ul style="list-style-type: none"> • 166.7A (2000W) • 165A (1980W) • 150A (1800W) • 83.3A (1000W) 	<ul style="list-style-type: none"> • 166.7A (2000W) • 133.3A (1600W)
12V _{SB}	2A	4.2A	4.2A
PFC	Yes	Yes	No
Peak Efficiency	Titanium Level (96%+ efficiency)	Titanium Level (96%+ efficiency)	92%+ efficiency
Input Range	<ul style="list-style-type: none"> • 100-127V (1200W) • 200-220V (1800W) • 220-230V (1980W) • 230-240V (2090W) • 200-220V (2090W for UL & cUL) • 220-240V (2200W for UL & cUL) 	<ul style="list-style-type: none"> • 100-127V (1000W) • 200-220V (1800W) • 220-230V (1980W) • 230-240V (2000W) • 200-240V (2000W for UL & cUL) 	<ul style="list-style-type: none"> • -40 to -44Vdc (1600W) • -44 to -66Vdc (2000W)
Operating Conditions	<ul style="list-style-type: none"> • Temp: 0 to 50°C • Humidity: 5 to 95% RH 	<ul style="list-style-type: none"> • Temp: 0 to 50°C • Humidity: 5 to 95% RH 	<ul style="list-style-type: none"> • Temp: 0 to 50°C • Humidity: 5 to 95% RH



Long-Life Power Supply and Fan Modules

Optimized for Resource Savings and Longevity

- Resource-saving Architecture for reduced TCO and TCE
- Conformal coating to protect from environment impact
- Rigorous component selection process for the highest quality
- MTBF of fans and power supplies are at least 2 million hours (at 30°C ambient temperature)
- Flexible warranty options: standard warranty 8, 8, 1 (labor, parts, advance parts replacement) or extended warranty 12, 12, 1 is available

Model	PWS-2K22P-BR
Output	2200W/2090W/1980W/1800W/1200W
Type	Redundant Module (N+1 or N+N)
+12V	<ul style="list-style-type: none"> • 183.33A (2200W) • 174.17A (2090W) • 165A (1980W) • 150A (1800W) • 100A (1200W)
12V _{SB}	2A
PFC	Yes
Peak Efficiency	Platinum Level (94% efficiency)
Input Range	<ul style="list-style-type: none"> • 100-127V (1200W) • 200-220V (1800W) • 220-230V (1980W) • 230-240V (2090W) • 200-220V (2090W for UL & cUL) • 220-240V (2200W for UL & cUL)
Operating Conditions	<ul style="list-style-type: none"> • Temp: 0 to 50°C • Humidity: 5 to 95% RH



NEW! PWS-2K22P-BR
2200W Long-Life Power Supply



NEW! PWS-DF008-LF
Long-Life Fan Module

Optimized SuperBlade/MicroBlade Enclosures

- SBE-820L-622S
- SBE-820C-622S
- SBE-820J-622S
- SBE-610J-622S
- SBE-414E-422S
- MBE-628E-622S

Battery Backup Power (BBP®) Modules

Supporting MicroBlade™ and New Generation SuperBlade®

Chassis Compatible with BBP®

Model	Output Power	Capacity	8U		6U	4U
			SBE-820CB-422	SBE-820JB-422	MBE-628EB-422	SBE-414EB-422
PWS-1K20B-BR	1200W	68Whr	● 4 modules	● 4 modules	● 4 modules	● 2 modules

Specifications

Model	PWS-1K20B-BR
Total Output Power	1200W
Input	11.2 to 12.9V _{DC}
Output	12V, 12V _{SB}
Battery Cell Capacity	68Whr
Redundant	N+1 / N+N
PC Remote Monitoring	FRU/Smart battery I ² C
+12V output	100A
12V _{SB} output	2.5A
Efficiency	Online mode battery power consumption less than 5W
Discharge Duration	1200W for 35 seconds
Cell Chemistry	Lithium-ion
Cooling	Internal 80 x 80mm cooling fan
Operating Temperature	5°C - 50°C

Estimated Runtime

Power Load	Installed BBP Modules	Discharge Duration
1000W	4	180 seconds
2000W	4	120 seconds
3000W	4	60 seconds
4000W	4	35 seconds
4800W	4	35 seconds

Under typical conditions, above is the Estimated Runtime of PWS-1K20B-BR. Runtime can be extended by adding additional BBP® modules to a system.



PWS-1K20B-BR
1200W BBP Module

7U SuperBlade®

Industry's Most Versatile Blade Portfolio for Enterprise, Data Center, HPC and Cloud Computing

7U GPU/Intel® Xeon Phi™ Coprocessor Blade

Up to 20 GPU/Intel® Xeon Phi™ coprocessor or 40 PCI-E cards, or 90 SSD drives



7U TwinBlade®
Double Density



7U DataCenter Blade®
NVMe



7U StorageBlade®
NVMe

7U SuperBlade® Servers

Dual Intel® Xeon® Processor E5-2600 v4/v3

2 GPU/Xeon Phi™



SBI-7128RG-X/F/F2

2x 2S with 10GbE/FDR



SBI-7228R-T2F/T2F2/T2X

6 SAS and NVMe



SBI-7128R-C6(N)

3 SAS and NVMe



SBI-7428R-T3/C3(N)

7U SuperBlade® Enclosures and Cabinet

Best Density

- Up to 20x 25 Nodes (Intel® Xeon® Processor E5-2600 v4/v3)
- Up to 10x 45 Nodes (Intel® Xeon® Processor E5-4600 or Intel® Xeon® Processor E5-4600 v2 product families)

High Efficiency Power for Earth-Friendly Operations

- Platinum Level (94%+) 3000W and 2500W power supplies with N+N or N+1 redundancy
- Flexibility: 1620W, 2500W, or 3000W options



Model	SBE-714/E Series
Blade Server	Up to 14 hot-pluggable blade servers
InfiniBand Switch	714Q: Up to 2 hot-pluggable FDR/QDR IB switches
Ethernet Switch	<ul style="list-style-type: none"> • Single (714D) or up to 2 (714E/Q) hot-pluggable Gigabit Ethernet switches • 714E: Up to 2x 10G pass-through modules • 714Q: Up to 2 hot-pluggable 10G Ethernet switches
Management	Single (714D) or up to 2 (714E/Q) hot-pluggable management modules providing remote KVM and IPMI 2.0 functionalities
Power Supply	Hot-pluggable 1620W (714D/E) or 1620W/2500W (714Q) power supplies, N+1 redundancy
Cooling Design	Front to back
LED Indicators	Power LED, Fault LED
Rack Unit	7U
Dimensions (H x W x D)	12.2" (309.88mm) x 17.6" (447.04mm) x 29" (736.6mm)



Personal Supercomputing Mini-Rack Cabinet

Model	SBE-720/E/F Series
Blade Server	Up to 10 hot-pluggable blade servers
InfiniBand Switch	<ul style="list-style-type: none"> • 720F: Up to 2 hot-pluggable FDR 56G InfiniBand switches • 720E: Up to 2 hot-pluggable FDR-10/QDR InfiniBand switches
Ethernet Switch	Up to 2 hot-pluggable Gigabit Ethernet switches or pass-through module
Management	Single hot-pluggable management module providing remote KVM and IPMI 2.0 functionalities
Power Supply	Hot-pluggable 2500W/3000W Platinum Level (94%) power supplies, N+1 redundancy
Cooling Design	Front to back
LED Indicators	Power LED, Fault LED
Rack Unit	7U
Dimensions (H x W x D)	12.2" (309.88mm) x 17.6" (447.04mm) x 29" (736.6mm)



CSE-RACK14U

Mobility, Protection and Security - Ideal for Office Application/Environment or Personal Supercomputing

** Not recommended for SBI-7227R-T2, SBI-7127RG/RG-E, and 7228R-T2F/T2X*

Key Features

- Mobile 14U Rack Space
- Ideal for Office Environments - The same height as standard office furniture (30.64"H)
- Upgradeable - Rear frame mounting
- Mobile - casters for easy mobility

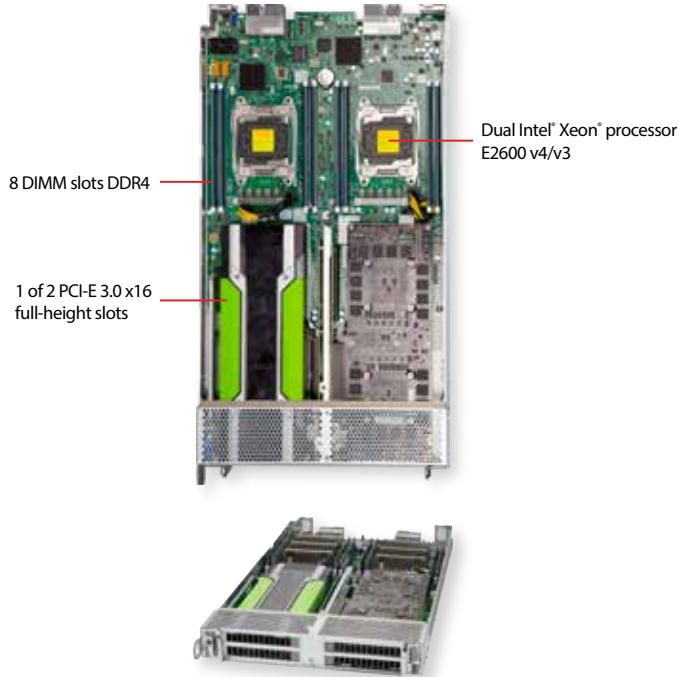
Specifications

- 14U cabinet
- Dimensions (W x D x H): 21.65" (549.91mm) x 34.65" (880.11mm) x 30.64" (778.256mm)
- Supports standard 19" rackmount servers with standard mounting holes
- Front door lock, casters with brakes
- Stability support
- Optional air filter

7U SuperBlade® X10 Server Technical Specifications

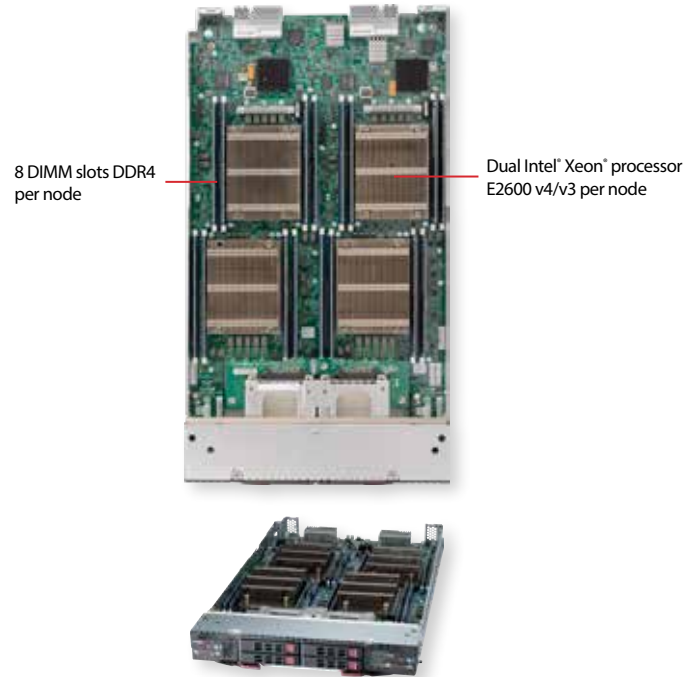
Dual Intel® Xeon® Processor E5-2600 v4/v3 Product Families Supported

2 GPUs or 4 PCI-E 3.0 x8 Cards



2 GPU/Intel® Xeon Phi™ coprocessors Blade

Dual-node 2S with 10G Ethernet or FDR InfiniBand



TwinBlade®

Model	SBI-7128RG-X/F/F2	SBI-7228R-T2F/T2F2/T2X
Server Nodes/42U Rack	60 (+120 GPU/Intel® Xeon Phi™ coprocessor cards)	120
Processor	Dual Intel® Xeon® processor E5-2600 v4/3 product families with QPI up to 9.6 GT/s	Dual Intel® Xeon® processor E5-2600 v4/3 product families with QPI up to 9.6 GT/s per node
Chipset	Intel® C612	Intel® C612
Memory Support	8 DDR4-2400 DIMM slots	8 DDR4-2400 DIMM slots per node
Max Memory	1TB	1TB per node
Expansion & Drive Bays	<ul style="list-style-type: none"> Up to 2 PCI-E 3.0 x16 (full-height) cards optimized for Intel® Xeon Phi™ coprocessors or NVIDIA® Tesla® K80, M40/M60 or 4x PCI-E 3.0 x8 cards 2 SuperDOM Ports or 1 SATA3 SSD or Up to 8x 2.5 SATA3 Drives + 1x 2.5" SSD** 	<ul style="list-style-type: none"> 2 hot-plug 2.5" SATA3 drive bays per node 1 SuperDOM Port per node
Storage RAID	Intel® PCH SATA3 RAID 0,1	Intel® PCH SATA3 RAID 0,1
InfiniBand/10G Option	<ul style="list-style-type: none"> -X: Onboard dual-port 10G Ethernet -F: Onboard single-port FDR InfiniBand* -F2: Onboard dual-port FDR InfiniBand* 	<ul style="list-style-type: none"> -T2X: Onboard dual-port 10G Ethernet per node -T2F: Onboard single-port FDR InfiniBand* per node -T2F2: Onboard dual-port FDR InfiniBand* per node
Ethernet Interface	Dual-port Gigabit	Dual-port Gigabit per node
Management	<ul style="list-style-type: none"> IPMI 2.0 KVM over IP Virtual Media over LAN Supermicro RSD 	<ul style="list-style-type: none"> IPMI 2.0 KVM over IP Virtual Media over LAN Supermicro RSD
LED Indicators	Fault LED, Network Activity LED, Power LED, UID / KVM LED	Fault LED, Network Activity LED, Power LED, UID / KVM LED per node
Dimensions (H x W x D)	1.67" (42.42mm) x 11.32" (287.53mm) x 20.5" (520.7mm)	1.67" (42.42mm) x 11.32" (287.53mm) x 20.5" (520.7mm)
Chassis	7U: <ul style="list-style-type: none"> SBE-720F SBE-720E SBE-710Q 	7U: <ul style="list-style-type: none"> SBE-720F SBE-720E

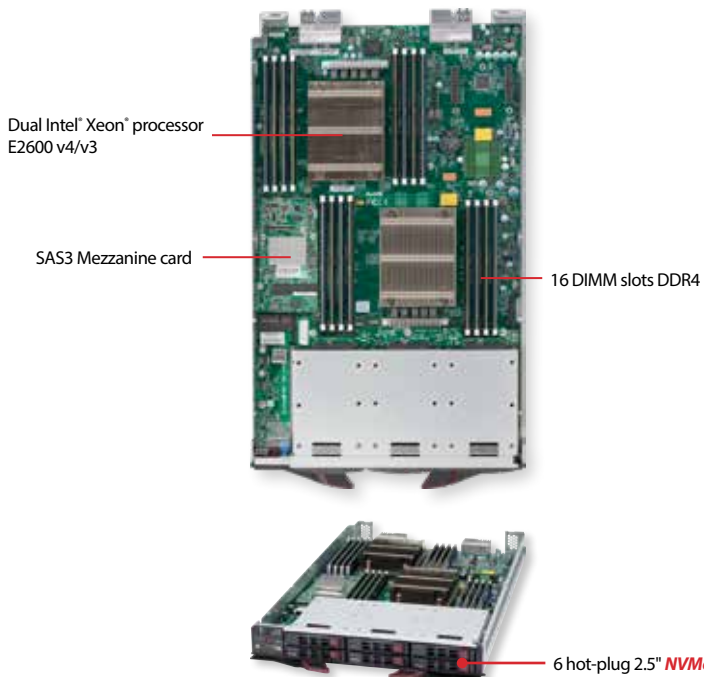
* -X/T2X: Dual 10G Ethernet ports on-board
 -F/T2F: Single InfiniBand port on-board
 -F2/T2F2: Dual InfiniBand ports onboard

** If no GPU/Intel® Xeon Phi™ is installed

7U SuperBlade® X10 Server Technical Specifications

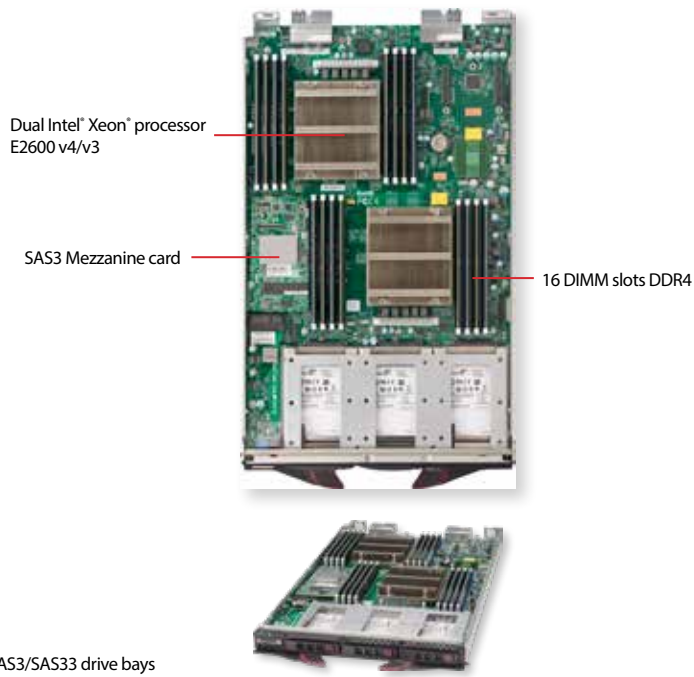
Dual Intel® Xeon® Processor E5-2600 v4/v3 Product Families Supported

SAS 3.0 12Gbps and NVMe



StorageBlade®





SAS 3.0 12Gbps and NVMe






DatacenterBlade®

Model	SBI-7128R-C6(N)	SBI-7428R-T3(N)/C3(N)
Server Nodes/42U Rack	60	84
Processor	Dual Intel® Xeon® processor E5-2600 v4/3 product families with QPI up to 9.6 GT/s	Dual Intel® Xeon® processor E5-2600 v4/3 product families with QPI up to 9.6 GT/s
Chipset	Intel® C612	Intel® C612
Memory Support	16 DDR4-2400 DIMM slots	16 DDR4-2400 VLP DIMM slots
Max Memory	2TB	512GB
Expansion & Drive Bays	<ul style="list-style-type: none"> -C6: 6 hot-plug 2.5" SAS3/SATA3 drive bays -C6N: 3 hot-plug 2.5" SAS3/SATA3 drive bays and 3 hot-plug 2.5" NVMe drive bays • 2 SuperDOM Ports 	<ul style="list-style-type: none"> -C3: 3 hot-plug 2.5" SAS3/SATA3 drive bays -T3: 3 hot-plug 2.5" SATA3 drive bays -T3N/-C3N: 3 hot-plug 2.5" NVMe/SATA3/SAS3(-C3N) drive bays • 2 SuperDOM Ports
Storage RAID	Broadcom® 3108 with 2G Cache HW RAID 0,1,5,6,10,50 (Optional SuperCap for battery backup)	-T3/-T3N: Intel PCH SATA3 RAID 0,1,5 -C3/C3N: Broadcom® 3108 with 2G Cache HW RAID 0,1,5
InfiniBand/10G Option	<ul style="list-style-type: none"> • FDR-10/QDR InfiniBand or • 10GbE/FCoE mezzanine HCA 	<ul style="list-style-type: none"> • FDR-10/QDR InfiniBand or • 10GbE/FCoE mezzanine HCA
Ethernet Interface	Dual-port Gigabit	Dual-port Gigabit
Management	<ul style="list-style-type: none"> • IPMI 2.0 • KVM over IP • Virtual Media over LAN • Supermicro RSD 	<ul style="list-style-type: none"> • IPMI 2.0 • KVM over IP • Virtual Media over LAN • Supermicro RSD
LED Indicators	Fault LED, Network Activity LED, Power LED, UID / KVM LED	Fault LED, Network Activity LED, Power LED, UID / KVM LED per node
Dimensions (H x W x D)	1.67" (42.42mm) x 11.32" (287.53mm) x 20.5" (520.7mm)	1.19" (30.23mm) x 11.32" (287.53mm) x 18.9" (480.06mm)
Chassis	7U: <ul style="list-style-type: none"> • SBE-720F • SBE-720D • SBE-710Q • SBE-720E • SBE-710E 	7U: <ul style="list-style-type: none"> • SBE-714Q • SBE-714D • SBE-714E





7U SuperBlade® Networking Solutions

	1G Ethernet		10G Ethernet and Converged Network	
				
Model	SBM-GEM-001	SBM-GEM-X45	SBM-XEM-X85M*	SBM-XEM-F8X45M*
Type	Layer 2 Gigabit Ethernet Switch	Layer 2 Gigabit Ethernet Switch	Layer 2/3 10G Ethernet Switch	Data Center Converged Switch with FCoE
Downlinks	14x Gigabit Ethernet Downlinks	20 x 1G downlinks, 4x 10G SFP+ and 4x 1G RJ45	10 (10 Blade)/14 (14 Blade)/20 (Twin Blade) 10G ports	10/20x 10G Downlinks to ports on mezzanine cards, support DCB, FCoE
Uplinks	10x 1G Ethernet RJ45 Uplinks	3x 10G Ethernet SFP+ and 4x 1G Ethernet RJ45 Uplinks	4 (Twin Blade)/8(10 or 14 Blade) 10G SFP+ ports, 1 x 1G RJ45 port, Jumbo Frame up to 9KB	-Ethernet: 4x 10G Ethernet SFP+ Uplinks** -Fibre Channel: 6x Fibre Channel N_Port Uplinks, support 2/4/8G
Stacking	N/A	N/A	N/A	N/A
Trunking	Static Link aggregation support (802.3ad)	Full Link aggregation support (802.3ad) MLAG	Full Link aggregation support (802.3ad) MLAG	Full Link aggregation support (802.3ad) MLAG
Jumbo Frame	Up to 9k bytes	Up to 16k bytes (10G) or 9K bytes (1G)	Up to 16K bytes (10G) or 9K bytes (1G)	Up to 12K bytes (10G) or 2112 bytes (FC)
Remote Management	Browser-based management	Browser-based management/CLI	Browser-based management/CLI	Browser-based management/CLI
Layer 2 Features	VLANs, STP, RSTP, 802.1x	20 x 1G downlinks, 4x 10G SFP+ and 4x 1G RJ45 uplinks	4K VLANs, STP, RSTP, MSTP	4K VLANs, STP, RSTP, MSTP, IGMP snooping, 802.1x
Layer 3 Features	N/A	N/A	ACL, DHCP, VRRP, RIP, OSPF, BGP, IPv6, RIPng, OSPFv3, QoS	ACL, DHCP, VRRP, RIP, OSPF, BGP, IPv6, RIPng, OSPFv3, IGMP, PIM, DVMRP, QoS
OS	Software upgradeable	Software upgradeable	Software upgradeable	Software upgradeable

*"M" version supports Mini-CMM (BMB-CMM-002) ** SBE-710 series enclosure only

	Ethernet Pass-Through		InfiniBand
			
Model	SBM-GEP-T20	SBM-GEM-002	SBM-IBS-F3616(M)*
Type	Ethernet pass-through module for TwinBlade SBE-720D and SBE-720E enclosures	Ethernet pass-through module for 10-Blade and 14-Blade enclosures	4x FDR InfiniBand Switch
Downlinks	20x 1G Ethernet Downlinks	14x 1G Ethernet Downlinks	20 4x FDR Downlinks
Uplinks	20x 1G Ethernet RJ45 Uplinks	14x 1G Ethernet RJ45 Uplinks (Speed fixed at 1G - no auto negotiation)	16 4x FDR QSFP+ Uplinks

*"M" version supports Mini-CMM (BMB-CMM-002)

	InfiniBand/10G Ethernet/FCoE Mezzanine HCA			
				
Model	AOC-XEH-IN2	AOC-XEH-B25	AOC-IBH-X3QD	AOC-IBH-X3QS
Chipset	Intel® 82599 (Niantic)	Broadcom 57402 (Cumulus)	Mellanox ConnectX3	Mellanox ConnectX3
Ports	Dual-port 10G Ethernet (FCoE support)	Dual-port 10G Ethernet (NPAR support)	Dual-port 4x FDR InfiniBand or 10G Ethernet	Single-port 4x FDR InfiniBand or 10G Ethernet

Optional Parts List				
Type	Part Number	Description	Part Number	Description
SFP+ Cable	CBL-0347L	39.37" (100cm) 10GbE SFP+ TO SFP+, Twinax copper cable	CBL-0348L	118.11" (300cm) 10GbE SFP+ TO SFP+, Twinax copper cable
SFP+ Cable	CBL-0456L	78.74" (200cm) 10GbE SFP+ TO SFP+, Twinax copper cable	CBL-0349L	196.85" (500cm) 10GbE SFP+ TO SFP+, Twinax copper cable
QSFP Cable	CBL-NTWK-0417-01	1M INFINIBAND QSFP TO QSFP QDR with EEPROM. 30AWG	CBL-NTWK-0446-01	3M INFINIBAND QSFP TO QSFP QDR with EEPROM. 28AWG
QSFP Cable	CBL-NTWK-0325-02	2M INFINIBAND QSFP TO QSFP QDR with EEPROM. 26AWG	CBL-NTWK-0422-01	5M INFINIBAND QSFP TO QSFP QDR with EEPROM. 26AWG
SFP Transceiver	AOC-TFC8-FS	8G FC SFP Transceiver for Fiber Channel	AOC-E10GSFPSR	10GbE SFP+ Transceiver
SFP Transceiver	AOC-E10GSFLR	10GbE SFP+ Transceiver for long range		

7U SuperBlade® Chassis Management Modules

Key Features

- Remotely manage and monitor server blades, power supplies, cooling fans, and networking switches
- IPMI 2.0 compliant, with KVM over LAN / KVM-over-IP
- Serial over LAN (SOL)
- Virtual Media Over LAN (Virtual USB Floppy/CD and Drive Redirection)
- LAN Alert-SNMP Trap
- Event Log
- OS Independent
- Hardware Health Monitor
- Remote Power Control
- Management Tools - IPMIView, CLI (Command Line Interface)
- Supports RMCP & RMCP+ Protocols
- Batch patching and BIOS/IPMI update

Specifications

- VGA port, 2x USB ports
- Remote Management Processor and sub-system
- 1x LAN port
- Video ADC, Video Compress FPGA
- IPMI Management
- Hot-pluggable Capable
- GBX Backplane Connector



SBM-CMM-003
TwinBlade® CMM
Module



BMB-CMM-002
Mini CMM Installs in SBM-XEM-002M,
SBM-IBS-Q3616M, SBM-IBS-Q3618M
SBM-XEM-X10SM, SBM-IBS-F3616M
and SBM-XEM-F8X4SM
CMM (Chassis Management Module)

7U SuperBlade® Power Supply and Power Cable Guide

Key Advantages of Supermicro High-Efficiency SuperBlade® Power Supplies

Availability - Non-stop power with N+1 redundant power supply modules

Cost Saving - With 94% Platinum Level efficiency, power consumption is significantly reduced, providing a real-world advantage for our environment

Investment Protection - Power capacity headroom for future generation processors

Easy Installation - Snap-in installation from the back of the chassis, hot-pluggable in operation

Intelligent Power Infrastructure - Each power enclosure includes a power management module that monitors the power supplies and the power enclosure that connects to the blade management



Model	PWS-1K62-BR
Output	1620W
Type	Redundant Module (N+1)
+12V	132A (200~240VAC input) 100A (100-140 VAC input)
5VSB	16A
PFC	Yes
Peak Efficiency	93%+
Input AC Range	100~240VAC
Operating Conditions	Temp: -5 to 50 C Humidity: 5 to 95% RH
Fan Type	2x 90mm fans

At the current time, the Supermicro® SuperBlade® is shipping with power supplies of 1620W, 2500W, and 3000W. Although the Power Distribution Unit that is recommended by Supermicro supports up to four power connections, only two connections should be made to each PDU. The PDU has a NEMA L6 connector that can plug into a NEMA L6 or equivalent socket. Each PDU, supporting two power supplies, must be plugged into a separate circuit that provides 30 Amps of power and a voltage ranging from 200-240V. Table 1 below illustrates the various Power Supplies offered by Supermicro. This table shows the maximum power requirement of each model.

Power Supply Amperage Draw

Model	Watts	Low Volts	High Volts	Low Amps	10% Reserve	High Amps	10% Reserve	Max Amps
PWS-1K62-BR	1620	200	240	8.3	0.9	9.8	1.0	10.8
PWS-1K62-BR	1200	100	134	10.5	1.0	14.0	1.4	15.4

Power Supply Cable Options

Country	Australia	China	Isreal	India / S. Africa	Italy/S. America	Euro	UK	US	US
Model	CBL-0238L (2500W/3000W)	CBL-0239L (2500W/3000W)	CBL-0243L (2500W/3000W)	CBL-0245L (2500W/3000W)	CBL-0244L (2500W/3000W)	CBL-0240L (2500W/3000W)	CBL-0241L (2500W)	CBL-0247L (2500W/3000W)	CBL-0250L (1620W)
Length	2.5m	2.5m	2.5m	2.5m	2.5m	2.5m	2.5m	2.5m	6ft
Inlet	AS 3112	GB-2099-1-1996	SI32	BS 546	CEI 23-16	"Schuko" CEE 7/7	BS 1363	NEMA 6-20P or equivalent	NEMA 5-20P
Equip Outset	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C19	IEC-60320-C13
Certificate	SAA	CCEE	SII	SABS	VDE, HAR	VDE, KEMA, CEBEC, NEMKO, DEMKO, SETI, OVE, SEV	BSI	UL	UL/CUL
Current	15A	16A	16A	16A	16A	15A	15A	20A	15A
Voltage	250V	250V	250V	250V	250V	250V	250V	250V	250V



Global Expansion

Providing Greater Economies of Scale and Accelerated Support to Data Center, Cloud Computing, AI, Enterprise IT, Hadoop/Big Data, HPC, 5G, Hyperscale, and Embedded Solutions Customers Worldwide

Worldwide Headquarters

San Jose, California, USA



America

- Supermicro's Headquarters expansion: Over 1.5 million square foot **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
- East coast sales and service office



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

Supermicro Worldwide

Worldwide Headquarters

Super Micro Computer, Inc.
980 Rock Avenue, San Jose, CA 95131 USA
Tel: +1-408-503-8000
Fax: +1-408-503-8008
General Info: Marketing@Supermicro.com
Tech Support: Support@Supermicro.com
Webmaster: Webmaster@Supermicro.com

European Branch

Super Micro Computer, B.V.
Het Sterrenbeeld 28, 5215 ML,
's-Hertogenbosch, The Netherlands
Tel: +31-73-640-0390
Fax: +31-73-641-6525
General Info: Sales@Supermicro.nl
Support: [Support@supermicro.com](mailto:Support_Europe@supermicro.com)

Taiwan Office

Super Micro Computer, Inc.
3F., No.150, Jian 1st Rd., Zhonghe Dist.,
New Taipei City 235, Taiwan (R.O.C.)
Tel: +886-2-8226-3990
Fax: +886-2-8226-3992
Support: Support@Supermicro.com.tw

Beijing, China Office

Super Micro Computer, Inc.
Suite 1208 JiaHua Building D
Shangdi, Haidian District,
Beijing, China 100085
Tel: +86-10-62969165
E-mail: Sales-CN@supermicro.com

Japan Office

Supermicro Japan
5-7F N.E.S Bldg., 22-14,
Sakuragaoka-cho, Shibuya-Ku,
Tokyo, 150-0031 Japan
Tel: +81-3-5728-5196
FAX: +81-3-5728-5197
Support: japanservice@supermicro.com

U.S. East Coast Office

Super Micro Computer, Inc.
525 Washington Blvd, 20th Floor
Jersey City, NJ 07310 USA
General Info: Marketing@Supermicro.com

U.K. Sales Office

Super Micro Computer, B.V.
195 Wardour Street
London, W1F 8ZG
Tel: +31-73-640-0390 Ext. 2800
General Info: Sales@Supermicro.nl
Support: [Support@supermicro.com](mailto:Support_Europe@supermicro.com)

Supermicro Science & Technology Park

Super Micro Computer, Inc.
No.1899, Xingfeng Rd., Bade Dist.,
Taoyuan City 334, Taiwan (R.O.C.)
Tel: +886-2-8226-3990
Fax: +886-3-362-8266
Support: Support@Supermicro.com.tw

Shanghai, China Office

Super Micro Computer, Inc.
Room 1604, No 398, North Caoxi Road,
HuiZhi Building, Xuhui District,
Shanghai, China 200030
Tel: +86-21-61152558
Tech Support: +86-21-61152556
E-mail: Sales-CN@supermicro.com
Support: support-cn@supermicro.com

Resource-Saving Technologies



BigTwin™
4/2 DP Nodes in 2U, 3 UPI
24x 2.5" NVMe/SAS3/SATA3 drives



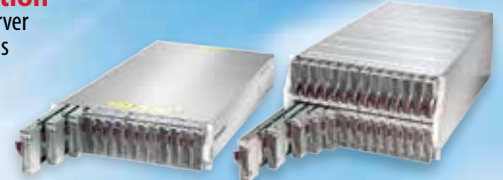
Outdoor 5G & Edge Solution
Optimized High-Performance Server
for Extreme Outdoor Conditions



8U/6U/4U SuperBlade®
Up to 20 DP/10 MP Nodes



GPU/Coprocessor Supercomputing
Multi TeraFLOPS Servers/Workstations/Blades



3U/6U MicroBlade
0.05/0.1/0.2U MicroBlade Servers in 3U/6U



1U 36/32 EDSFF/ NF1/U.2 NVMe Servers and JBOF
Petabyte Scale All-Flash NVMe Storage



60/45x 3.5"
Top-Loading Drives in 4U

26" Depth



FatTwin™
8/4 Nodes in 4U
Front or Rear I/O



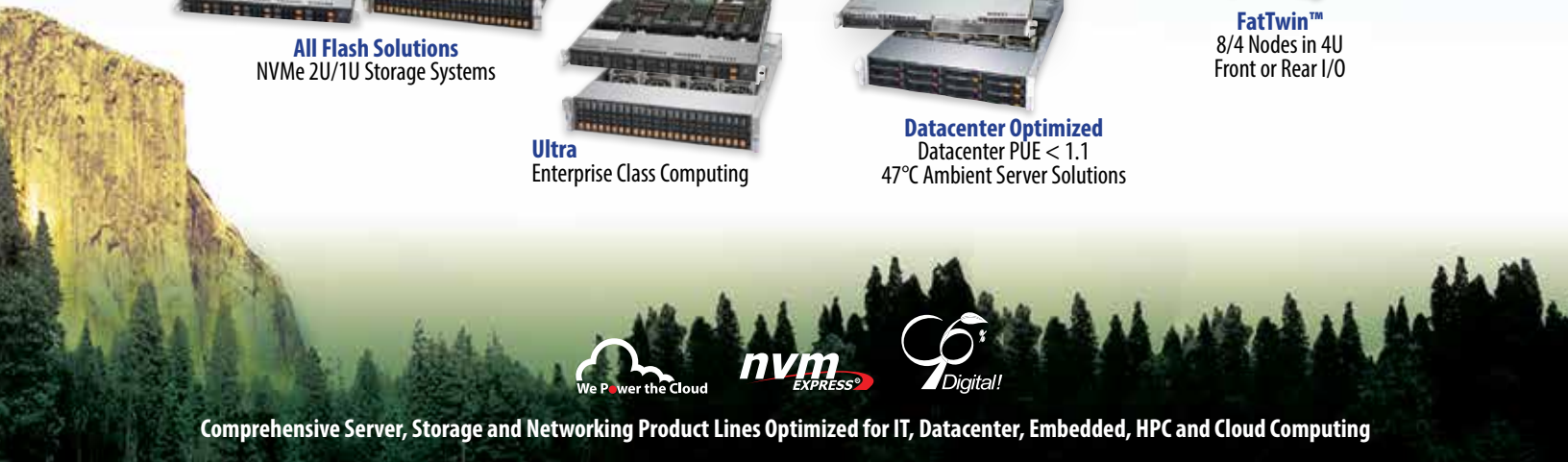
All Flash Solutions
NVMe 2U/1U Storage Systems



Ultra
Enterprise Class Computing



Datacenter Optimized
Datacenter PUE < 1.1
47°C Ambient Server Solutions



Comprehensive Server, Storage and Networking Product Lines Optimized for IT, Datacenter, Embedded, HPC and Cloud Computing



Worldwide Headquarters

Super Micro Computer, Inc.
980 Rock Ave.
San Jose, CA 95131, USA
Tel: +1-408-503-8000
Fax: +1-408-503-8008
E-mail: Marketing@Supermicro.com

EMEA Headquarters

Super Micro Computer, B.V.
Het Sterrenbeeld 28, 5215 ML,
's-Hertogenbosch, The Netherlands
Tel: +31-73-640-0390
Fax: +31-73-641-6525
E-mail: Marketing@Supermicro.nl

APAC Headquarters

Super Micro Computer, Taiwan Inc.
3F, No. 150, Jian 1st Rd., Zhonghe Dist.,
New Taipei City 235, Taiwan
Tel: +886-2-8226-3990
Fax: +886-2-8226-3991
E-mail: Marketing@Supermicro.com.tw

www.Supermicro.com

©Super Micro Computer, Inc. Specifications subject to change without notice. All other brands and names are the property of their respective owners. All logos, brand names, campaign statements and product images contained herein are copyrighted and may not be reprinted and/or reproduced, in whole or in part, without express written permission by Supermicro Corporate Marketing.

02_Blade_200503_Rev12



Please Recycle