SUPERMICRO®

SuperBlade®

Double Density TwinBlade®

4-way Blade

GPU SuperBlade®

DatacenterBlade®

Highest Performance per Watt

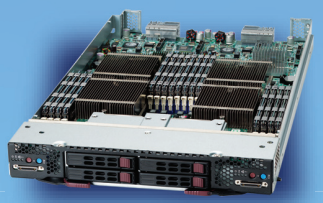
Up to 40 Processors (640 cores) per 7U Enclosure

Industry-Leading 94%+ Efficiency Platinum Level Power Supply

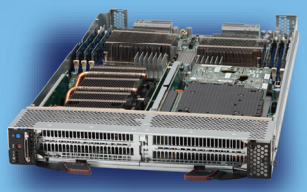
- Six-Core Intel® Xeon® and Sixteen-Core AMD Opteron™
- Up to 20 server nodes per 7U
- Up to 20 GPUs + 20 CPUs per 7U
- Six enclosures per 42U standard rack
- High Efficiency N+1 redundant power supplies (100~240VAC Option)
- Chassis management modules
- 10GbE/1GbE Layer 2/3 switch modules
- 40Gb/20Gb InfiniBand switch modules

Application-Optimized for:

Enterprises, Financial Services, Databases, Datacenters, Research Labs, High Performance Computing & Offices



Intel & AMD DP TwinBlade



GPU Blade w/
Two Tesla M-series GPUs

Intel DP Blade w/
Six 6Gbps SAS2 HDDs

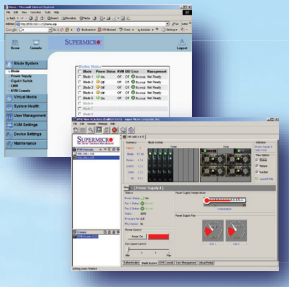
4-way AMD Processor Blade

Intel DP Blade w/
PCI-E 2.0 x16 Expansion Slot

Layer 3 10GbE switch

40Gb InfiniBand switch

Chassis Management Module
Web-based GUI



CMM IPMI View

June, 2011

MKT-0007-0611-1.0

Why SuperBlade®?

Best Density
Up to 40 processors (640 cores) per 7U enclosure
Supports current and next generation processors
Supports up to 20 GPUs per 7U enclosure

Highest Memory Expansion Capability in the Industry
Up to 2.56TB memory per 7U enclosure

Fastest and Most Cost-Effective Networking Solution
20Gbps 4x DDR InfiniBand switch
40Gbps 4x QDR InfiniBand switch
10GbE switch
1/10GbE switch - layer 2/3 switch with three 10GbE and two 1GbE uplinks
1GbE switch - layer 2 switch with 10 external uplink ports
1GbE and 10GbE pass-through modules
FCoE module coming soon

High Efficiency Power for Earth-Friendly Operations
94%+ Platinum Level efficiency 2500W power supply modules
N+1 redundant high efficiency power supplies in - 1620W, 2000W or 2500W options

Outstanding Storage Flexibility
Hot-plug 6Gb/s SAS2 or 3Gb/s SATA2
Two 3.5" SATA hard drive support
Up to six 2.5" SAS(2)/SATA hard drive support
RAID 0, 1, 5, 10 (SBI-7126T-S6)

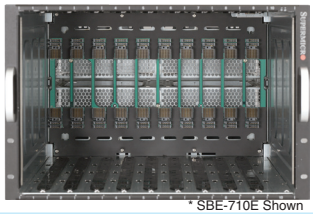
Peace of Mind via Remote Management
Standard with a chassis management module (CMM) for IPMI 2.0 remote server management, Virtual media over LAN and KVM over IP capabilities

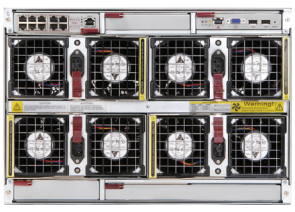
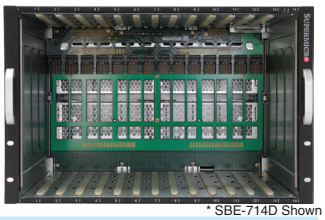
Lower TCO
Modular design reduces deployment costs
High computational density reduces facility costs
High efficiency power supply reduces electrical costs
Cable reduction reduces cable count and can save thousands of dollars
Remote management reduces maintenance cost

The Award-winning TwinBlade!

The Best Blade-based Solution
- 2010 Blade System Insight

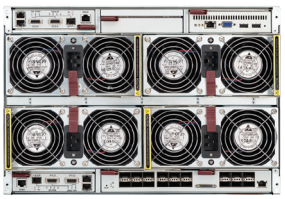
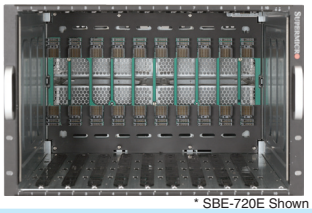
SuperBlade® Enclosures and Cabinet



* SBE-710E Shown



* SBE-714D Shown

Part ID	SBE-710E/Q Series	SBE-714D/E Series
Server Blade	Up to 10 hot-plug server blades	Up to 14 hot-plug server blades
Module Support	Supports both Intel and AMD based blades	Supports Intel based blades
LED	Power LED, Fault LED	Power LED, Fault LED
InfiniBand Switch	One hot-plug 4x DDR IB switch (710E) or up to two hot-plug 4x QDR IB switches (710Q)	One hot-plug 4x DDR IB switch (714E only)
Gigabit Ethernet Switch	Up to two hot-plug Gigabit Ethernet switches or pass-through modules Up to two 10G pass-through modules (710E)	One (714D) or up to two (714E) hot-plug Gigabit Ethernet switches. Two 10-Gigabit pass-through module (714E only)
Management Module	Up to two hot-plug management modules providing remote KVM and IPMI 2.0 functionalities	One (714D) or up to two (714E) hot-plug management modules providing remote KVM and IPMI 2.0 functionalities
Power Supply	Hot-swap 1620W/2000W (710E) or 1620W/2500W (710Q) power supplies, N+1 redundant	Hot-swap 1620W power supplies, N+1 redundant
Cooling Design	Front to back	Front to back
Dimensions (HxWxD)	12.2" x 17.6" x 29"	12.2" x 17.6" x 29"

TwinBlade Enclosure



* SBE-720E Shown

Part ID	SBE-720D/E Series
Server Blade	Up to 10 hot-plug server blades and TwinBlade
Module Support	Supports both Intel and AMD based blades
LED	Power LED, Fault LED
InfiniBand Switch	Up to two hot-plug 4x QDR IB switches (720E only)
Gigabit Ethernet Switch	Up to two hot-plug layer 3 Gigabit Ethernet switches and pass-through
Management Module	One hot-plug management modules providing remote KVM and IPMI 2.0 functionalities
Power Supply	Hot-swap 2500W power supplies, N+1 redundant
Cooling Design	Front to back
Dimensions (HxWxD)	12.2" x 17.6" x 29"

Personal Supercomputing Mini Rack Cabinet - CSE-RACK14U

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

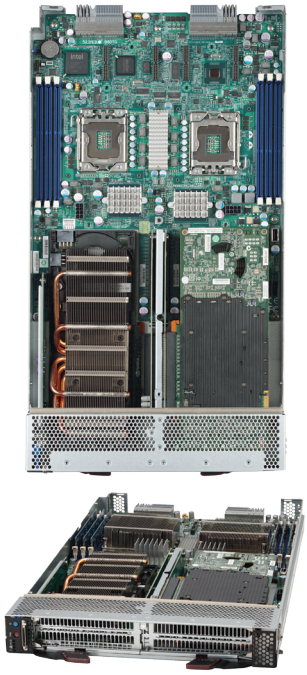
Key Features
- Mobile 14U Rack Space
- Ideal for Office Environments - The same height as standard office furniture (30.64"H)
- Upgradeable - Rear frame mounting
- Mobile - casters for easy mobility

Specifications
- 14U height; 21.65" W x 34.65"D x 30.64"H
- Supports standard 19" rackmount servers with standard mounting holes
- Front door lock, casters with brakes
- Stability support
- Optional air filter

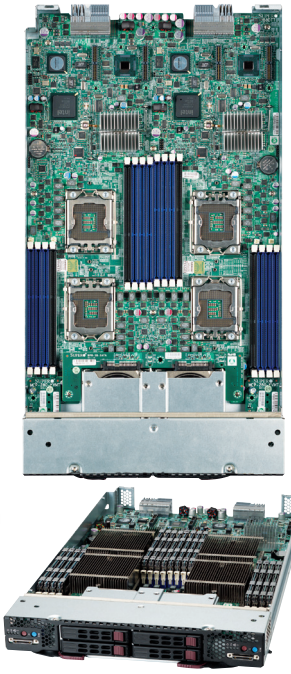
The innovative SuperBlade® features enhanced system computing density leveraged from years of rackmount server design experience. Applying Supermicro's application-optimized engineering philosophy, each SuperBlade® module delivers true server functionality including up to two Six-Core Intel® Xeon® or Sixteen-Core AMD® Opteron™ processors, optional InfiniBand or 10G mezzanine HCA, optional PCI-E 2.0 expansion card, and support for up to 6 SATA or SAS2 hard drives. For more compute-intensive applications, the SuperBlade also offers 4-way Opteron blades (48 cores per blade).

Supermicro also offers low-noise blade solutions that are optimized for offices and SMB. The OfficeBlade™ is ideal for SMB as well as personal supercomputing applications. With acoustically optimized thermal and cooling technologies it achieves < 50dB with 10 DP server blades and features 100-240VAC, Platinum Level high-efficiency (94%+), N+1 redundant power supplies.

NEW! GPU Blade 2 GPUs + 2 CPUs in 1 Blade

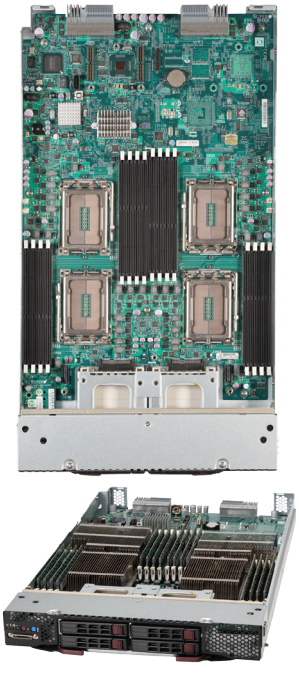


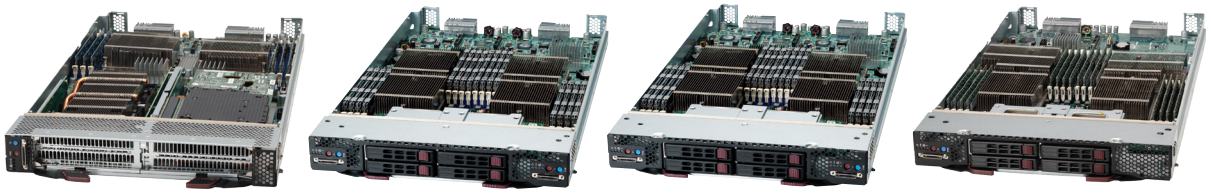
NEW! Westmere TwinBlade 2 DP Nodes in 1 Blade



NEW! AMD G34 TwinBlade 2 DP Nodes in 1 Blade

NEW! G34 4-way Opteron Blade for HPC & Enterprise





Model	SBI-7126TG	SBI-7226T-T2 (two nodes)	SBA-7222G-T2 (two nodes)	SBA-7142G-T4
Processors	Two Six/Quad/Dual-Core Xeon 5600/5500 Series per node	Two Six/Quad/Dual-Core Xeon 5600/5500 Series per node	Two AMD Sixteen/Twelve/Eight-Core Opteron™ 6000 Series per node	Four AMD Sixteen/Twelve/Eight-Core Opteron™ 6000 Series per node
CPUs per 42U Rack	120 (+ 120 GPUs)	240	240	240
Chipset	Intel 5500 with QPI	Intel 5500 with QPI	AMD SR5650/SP5100	AMD SR5650/SP5100
Memory Support	RDIMM or UDIMM DDR3 1333/1066/800 in 6 slots per node	RDIMM or UDIMM DDR3 1333/1066/800 in 8 slots per node	RDIMM or UDIMM DDR3 1600/1333/1066 in 8 slots per node	RDIMM or UDIMM DDR3 1600/1333/1066 in 16 slots
Max Memory	96GB (RDIMM)/ 24GB (UDIMM)	128GB(RDIMM)/32GB(UDIMM) per node	128GB(RDIMM)/32GB(UDIMM) per node	256GB(RDIMM)/64GB(UDIMM)
Expansion & Hard Disk Drive	Up to two PCI-E x16 (FH/HL) or Up to four PCI-E x8 (FH/HL) Support 2 Tesla M2070/2050	Two hot-plug 2.5" SATA hard disk drives per node	Two hot-plug 2.5" SATA hard disk drives per node	Four hot-plug 2.5" SATA hard disk drives
Max Storage	1 SATA DOM	1TB SATA per node	1TB SATA per node	2TB SATA
Storage RAID	N/A	Intel ICH10R SATA RAID 0, 1	AMD SP5100 SATA RAID 0, 1	AMD SP5100 SATA RAID 0, 1
InfiniBand/10GbE Option	Dual 4X QDR InfiniBand or 10GbE mezzanine HCA	4X QDR (40Gb) InfiniBand or 10GbE mezzanine HCA per node	4X QDR (40Gb) InfiniBand or 10GbE mezzanine HCA per node	4X QDR (40Gb) InfiniBand or 10GbE mezzanine HCA per node
Ethernet Interface	Intel 82576 dual-port Gigabit Ethernet controller per node	Intel 82576 dual-port Gigabit Ethernet controller per node	Intel 82576 dual-port Gigabit Ethernet controller per node	Intel 82576 dual-port Gigabit Ethernet controller per node
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	IPMI 2.0, KVM over IP, Virtual Media over LAN
Graphics	Matrox G200eW	Matrox G200eW	Matrox G200eW	Matrox G200eW
LED Indicators	Power LED, UID/KVM LED, Network LED, Fault LED per node	Power LED, UID/KVM LED, Networking LED, Fault LED per node	Power LED, UID/KVM LED, Networking LED, Fault LED per node	Power LED, UID/KVM LED, Networking LED, Fault LED
Operating Temp.	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing

+ VLP (very low-profile) memory modules

Space Optimization

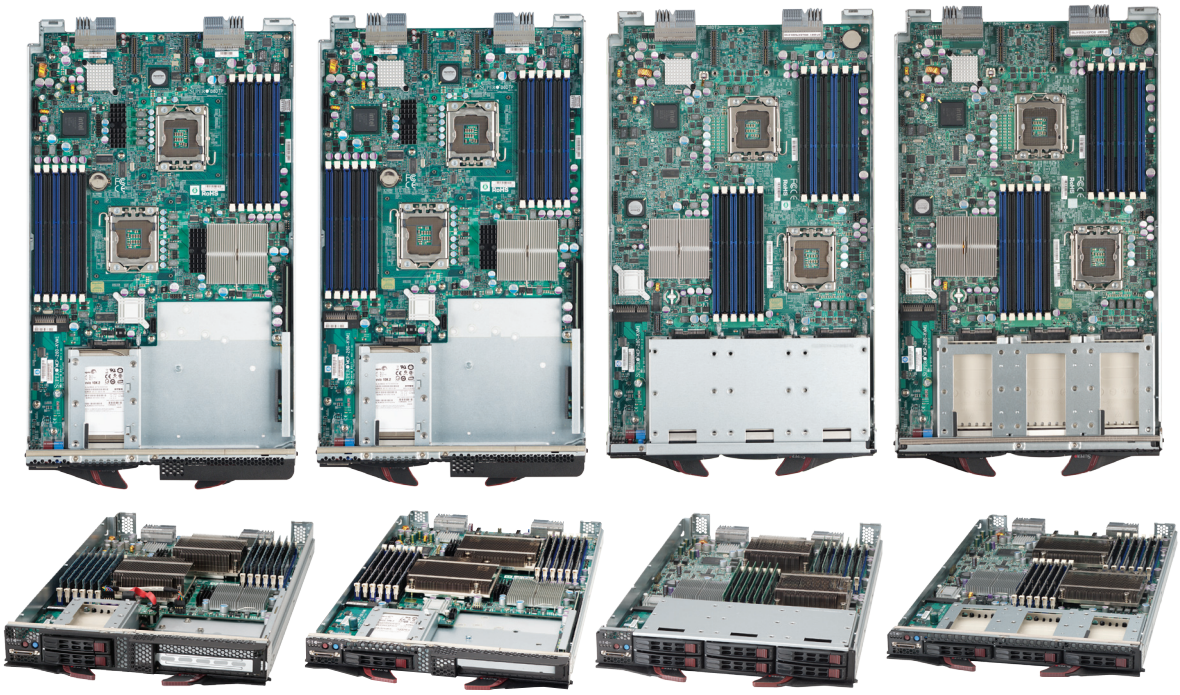
When housed within a 19" EIA-310D industry-standard 42U rack, SuperBlade® servers reduce server footprint in the datacenter. Power, cooling and networking devices are removed from each individual server and positioned to the rear of the chassis thereby reducing the required amount of space while increasing flexibility to meet changing business demands. Up to twenty DP blade nodes can be installed in a 7U chassis. Compared to the rack space required by twenty individual 1U servers, the SuperBlade® provides over 65% space savings.

PCI-E 2.0 x16 Expansion Slot Workstation Blade

PCI-E 2.0 x16 Expansion Slot

Tylersburg/Westmere Storage Blade w/ 6 SAS2.0 HDD Support and QDR InfiniBand

Tylersburg/Westmere DatacenterBlade™ with SAS2.0



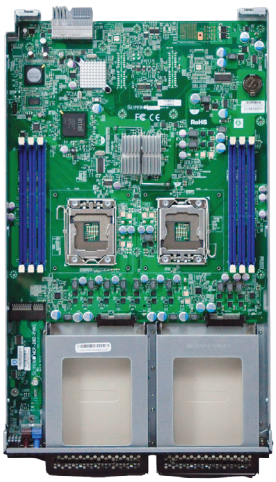
Model	SBI-7126T-SH	SBI-7426T-SH	SBI-7126T-S6	SBI-7426T-S3/T3
Processors	Two Six/Quad/Dual-Core Xeon 5600/5500 Series	Two Six/Quad/Dual-Core Xeon 5600/5500 Series	Two Six/Quad/Dual-Core Xeon 5600/5500 Series	Two Six/Quad/Dual-Core Xeon 5600/5500 Series
CPUs per 42U Rack	120	168	120	168
Chipset	Intel 5500 with QPI	Intel 5500 with QPI	Intel 5500 with QPI	Intel 5500 with QPI
Memory Support	RDIMM or UDIMM DDR3 1333/1066/800 in 12 slots	RDIMM or UDIMM DDR3 1333/1066/800 in 12 slots+	RDIMM or UDIMM DDR3 1333/1066/800 in 12 slots	RDIMM DDR3 1333/1066/800 in 12 slots+
Max Memory	192GB(RDIMM)/48GB(UDIMM)	96GB(RDIMM)+	192GB(RDIMM)/48GB(UDIMM)	96GB (RDIMM)+
Hard Disk Drive	One PCI-E 2.0 x16 (FH/HL) Two hot-plug 2.5" SAS2/SATA	One PCI-E 2.0 x16 (FH/HL) One hot-plug 2.5" SAS2/SATA	Six hot-plug 2.5" SAS2/SATA hard disk drives	Three hot-plug 2.5" SAS2/SATA** hard disk drives
Max Storage	1.2TB SAS2 / 1TB SATA	600GB SAS2 / 500GB SATA	3.6TB SAS2 / 3TB SATA	1.8TB SAS2* / 1.5TB SATA
Storage RAID	LSI SAS 2008 RAID 0, 1	N/A	LSI SAS 2008 RAID 0, 1, 10 Optional RAID 5	LSI SAS 2008* RAID 0, 1 Optional RAID 5*
InfiniBand/10GbE Option	4X QDR/DDR (40Gb/20Gb) InfiniBand or 10GbE mezzanine HCA	4X DDR (20Gb) InfiniBand or 10GbE mezzanine HCA	4X QDR/DDR (40Gb/20Gb) InfiniBand or 10GbE mezzanine HCA	4X DDR (20Gb) InfiniBand or 10GbE mezzanine HCA
Ethernet Interface	Intel 82576 dual-port Gigabit Ethernet controller	Intel 82576 dual-port Gigabit Ethernet controller	Intel 82576 dual-port Gigabit Ethernet controller	Intel 82576 dual-port Gigabit Ethernet controller
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	IPMI 2.0, KVM over IP, Virtual Media over LAN
Graphics	Matrox G200eW	Matrox G200eW	Matrox G200eW	Matrox G200eW
LED Indicators	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED
Operating Temp.	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing
Dimensions	11.32" x 1.67" x 18.9"	11.32" x 1.19" x 18.9"	11.32" x 1.67" x 18.9"	11.32" x 1.19" x 18.9"

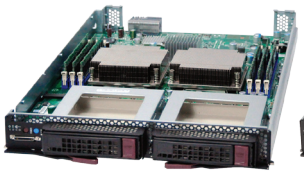
* SAS and optional RAID 5 function for S3 and S3E version only
** SATA HDD only for T3 version
+ VLP (very low-profile) memory modules

Cable Reduction

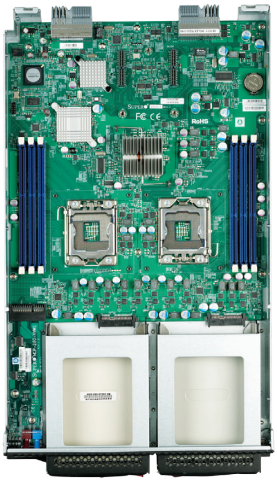
The SuperBlade® chassis greatly simplifies the cabling process by aggregating the cabling of ten/fourteen/twenty servers. Up to 93% of the network, power, and KVM cabling required for ten/fourteen/twenty 1U servers is eliminated by moving to blade servers in a single chassis. These cabling reductions continue across networking, SAN connectivity, and management controllers. Reducing the number of cables speeds up the deployment of servers and helps reduce troubleshooting issues by presenting fewer physical connections to the servers.

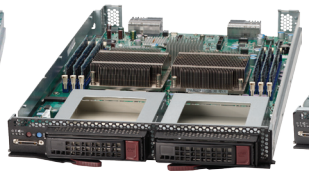
Tylersburg Cost-effective Blade





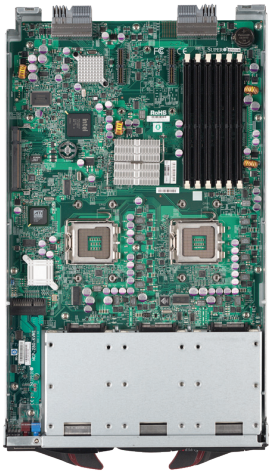
Tylersburg Cost-effective Blade with Dual GBX and InfiniBand

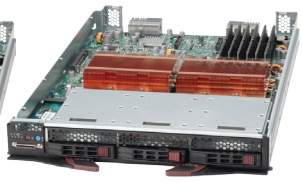




S3 version photo shown

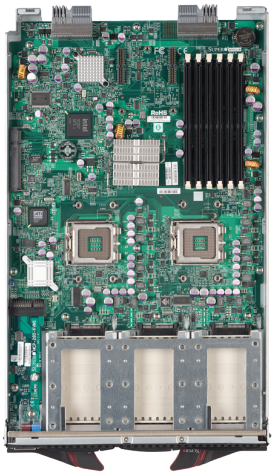
Power Saving, San Clemente 50dB OfficeBlade™

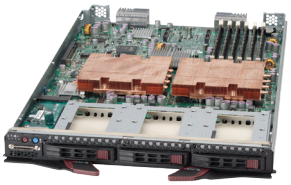




S3E version photo shown

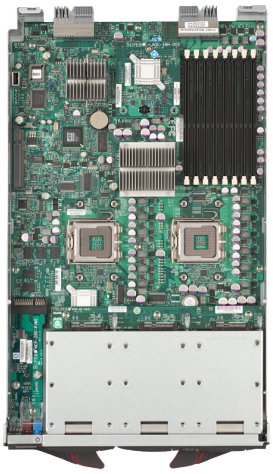
Power Saving, San Clemente DatacenterBlade™

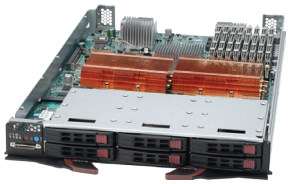




S3E version photo shown

Storage Blade 6 Hard Drives





SBI-7126T-T1L	SBI-7126T-T1E	SBI-7125C-S3/S3E/T3	SBI-7425C-S3/S3E/T3	SBI-7125W-S6
Two Six/Quad/Dual-Core Xeon 5600/5500 Series	Two Six/Quad/Dual-Core Xeon 5600/5500 Series	Two Quad/Dual-Core Xeon 5400/ 5300/5200/5100 Series	Two Quad/Dual-Core Xeon 5400/5300/5200/5100 Series	Two Quad/Dual-Core Xeon 5400/5300/5200/5100 Series
120	120	120	168	120
Intel 5500 with QPI	Intel 5500 with QPI	Intel 5100	Intel 5100	Intel 5400 (1600MHz FSB)
RDIMM or UDIMM DDR3 1333/1066/800 in 6 slots	RDIMM or UDIMM DDR3 1333/1066/800 in 6 slots	ECC Registered DDR2 667/533 in 6 slots	ECC Registered DDR2 667/533 in 6 slots+	Fully Buffered DIMM DDR2 800/667 in 8 DIMM slots
96GB(RDIMM)/24GB(UDIMM)	96GB(RDIMM)/24GB(UDIMM)	48GB	24GB+	64GB
Two hot-plug 3.5” SATA hard disk drives	Two hot-plug 3.5” SATA hard disk drives	Three hot-plug 2.5” SAS/SATA** hard disk drives	Three hot-plug 2.5” SAS/SATA** hard disk drives	Six hot-plug 2.5” SAS/SATA hard disk drives
4TB SATA	4TB SATA	1.8TB SAS* / 1.5TB SATA	1.8TB SAS* / 1.5TB SATA	3.6TB SAS / 3TB SATA
Intel ICH10R SATA RAID 0, 1	Intel ICH10R SATA RAID 0, 1	LSI SAS 1068E* RAID 0, 1 Optional RAID 5*	LSI SAS 1068E* RAID 0, 1 Optional RAID 5*	LSI SAS 1078 RAID 0, 1, 5, 6, 10, 50
N/A	4X QDR/DDR (40Gb/20Gb) InfiniBand or 10GbE mezzanine HCA	4X DDR (20Gb) InfiniBand or 10GbE mezzanine HCA (S3E version only)	4X DDR (20Gb) InfiniBand or 10GbE mezzanine HCA (S3E version only)	4X DDR (20Gb) InfiniBand or 10GbE mezzanine HCA
Intel 82576 dual-port Gigabit Ethernet controller	Intel 82576 dual-port Gigabit Ethernet controller	Intel 82575EB dual-port Gigabit Ethernet controller	Intel 82575EB dual-port Gigabit Ethernet controller	Intel (ESB2) 82563EB dual-port Gigabit Ethernet controller
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	IPMI 2.0, KVM over IP, Virtual Media over LAN	IPMI 2.0, KVM over IP, Virtual Media over LAN
Matrox G200eW	Matrox G200eW	ATI ES1000 with 32MB SDRAM	ATI ES1000 with 32MB SDRAM	ATI ES1000 with 16MB SDRAM
Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED	Power LED, UID/KVM LED, Networking LED, Fault LED
10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing	10-35° C non-condensing
11.32” x 1.67” x 18.9”	11.32” x 1.67” x 18.9”	11.32” x 1.67” x 18.9”	11.32” x 1.19” x 18.9”	11.32” x 1.67” x 18.9”

SuperBlade® Networking

Ethernet Switch Solutions

NEW!
10Gb!



Part ID	SBM-XEM-X10SM	SBM-GEM-001	SBM-GEM-X2C+
Internal Ports	Ten/Twenty internal 10Gbps links to ports on 10Gbps mezzanine cards	Fourteen 1-Gbps downlink ports for LAN interfaces of the server blades	Fourteen/Twenty(+ version) 1-Gbps downlink ports for LAN interfaces of server blades
External Uplink Ports	Ten/Four 10Gbps ports with SFP+ connectors	Ten 1-Gbps uplink RJ-45 ports	Three 10-Gbps and two 1-Gbps uplink ports, stackable (Two CX4 & One SFP+) Two 1-Gbps RJ-45 uplink ports
Type	Layer 2/3 Ethernet Switch	Layer-2 Ethernet switch	Layer-2/3 Ethernet switch
Bandwidth	480Gbps	Up to 24 Gbps non-blocking	Up to 46 Gbps non-blocking
Trunking	Link aggregation support - full (802.3ad)	Link aggregation support - static (802.3ad)	Link aggregation support - full (802.3ad)
Jumbo Frame	Up to 16K bytes (10G) or 9K bytes (1G)	Up to 9k bytes	Up to 16k bytes (10G) or 9K bytes (1G)
Remote Manage-ment	Browser Based GUI and/or CL) Supports optional mini-CMM (BMB-CMM-002)	Browser-based management	Browser-based management/CLI
Layer 2 Capabilities	4K VLANs, STP, RSTP, MSTP, IGMP snooping, 802.1x	STP, RSTP, 802.1x	STP, RSTP, MSTP, IGMP snooping, 802.1x
Layer 3 Capabilities	BGP, DVMRP, IGMP, IPv6, OSPF, PIM, RIP		BGP, DVMRP, IGMP, IPv6, OSPF, PIM, RIP
OS	Firmware upgradeable	Firmware upgradeable	Firmware upgradeable

Ethernet Pass-Through Solutions

NEW!



Part ID	SBM-GEP-T20	SBM-GEM-002	SBM-XEM-002M
Internal Ports	Twenty 1-Gbps downlink ports for LAN interfaces of TwinBlade server blades	Fourteen 1-Gbps downlink ports for LAN interfaces of server blades	Fourteen 10-Gbps downlink XAUI ports
External Uplink Ports	Twenty 1-Gbps uplink RJ45 ports	Fourteen 1-Gbps uplink RJ-45 ports (speed fixed at 1-Gbps - no auto negotiation)	Fourteen 10-Gbps uplink SFP+ ports (speed fixed at 10-Gbps - no auto negotiation)
Type	Ethernet pass-through module for TwinBlade (SBE-720E) enclosure	Ethernet pass-through module for 10-Blade and 14-Blade enclosure	10G Ethernet pass-through module for 10-Blade (SBE-710E) and 14-Blade (SBE-714E) enclosure "M" version supports BMB-CMM-002 Mini CMM

InfiniBand Switch Solutions

40Gb!



Part ID	SBM-IBS-Q3618/Q3616(M)	SBM-IBS-001	SBM-IBP-D14
Internal Ports	18/20 4x QDR downlink ports	14 internal ports: 4x DDR	14 internal 4x DDR Ports (20Gbps)
External Uplinks	18/16 4x QDR QSFP uplink ports	10 external ports: 4x DDR - copper	14 external 4x DDR copper ports (20Gbps - CX-4 Connectors)
Type	4x QDR InfiniBand switch	4x DDR InfiniBand switch	4x DDR InfiniBand pass-through module
Bandwidth	4X QDR (40Gbps) non-blocking architecture 2.88Tbps total switch bandwidth (36-port) "M" version supports BMB-CMM-002 Mini CMM	4X DDR (20Gbps) non-blocking architecture 960Gbps total switch bandwidth (24-port)	

InfiniBand/10GbE Mezzanine HCA

NEW!






Part ID	AOC-XEH-iN2	AOC-IBH-XQD	AOC-IBH-XQS	AOC-IBH-XDD	AOC-IBH-XDS	AOC-IBH-002
Chipset	Intel 82599 (Niantic)	Mellanox ConnectX IB QDR	Mellanox ConnectX IB QDR	Mellanox ConnectX IB DDR	Mellanox ConnectX IB DDR	Mellanox InfiniHost III Lx DDR
Ports	Dual port 10Gbps Ethernet	Dual port 4x QDR/DDR IB or 10GbE	Single port 4x QDR/DDR IB or 10GbE	Dual port 4x DDR IB or 10GbE	Single port 4x DDR IB or 10GbE	Single port 4x DDR IB

SuperBlade® Management

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

Specifications

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

NEW!

SBM-CMM-003
TwinBlade CMM Module

SBM-CMM-001

NEW!

BMB-CMM-002
Mini CMM Installs in SBM-XEM-002M, SBM-IBS-Q3616M and SBM-XEM-X10SM

CMM (Chassis Management Module)

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 an 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-swappable 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.

Part ID	PWS-1K62-BR	PWS-2K01-BR	PWS-2K53-BR
Output	1620W	2000W	2500W
Type	Redundant Module (N+1)	Redundant Module (N+1)	Redundant Module (N+1)
+12V	132A (200~240VAC input) 100A (100-140 VAC input)	167A	208A
5VSB	16A	16A	16A
PFC	Yes	Yes	Yes
Peak Efficiency	93%+	90%	94%+
Input AC Range	100~240VAC	200~240VAC	200~240VAC
Operating Conditions	Temp: -5 to 50° C Humidity: 5 to 95% RH	Temp: -5 to 50° C Humidity: 5 to 95% RH	Temp: -5 to 50° C Humidity: 5 to 95% RH
Fan Type	2x 90mm fans - PFC0912DE-6L38 (8000 RPM with PWM)	4x 90mm fans - PFB0912DHE-6X39 (8000 RPM) - QFR0912UHE-6F78 (8300 RPM)	4x 90mm fans - PFC0912DE-9E69 (8000 RPM) - QFR0912UHE-9E70 (8800 RPM)

At the current time, the Supermicro® SuperBlade® is shipping with power supplies of 1400 Watts, 1620 Watts, 2000 Watts and 2500W. Although the Power Distribution Unit (Figure 3) 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.

SKU	Watts	Low Volts	High Volts	Low Amps	10% Reserve	High Amps	10% Reserve	Max Amps
PWS-2K53-BR	2500	200	240	12.9	1.3	15.4	1.5	17
PWS-2K01-BR	2000	200	240	10.3	1.0	12.3	1.2	13.6
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

Table 1 - Power Supply Amperage Draw

Figure 1 - CBL-0223L 2000W/2500W Extension Cord

Figure 2 - CBL-0248L 1400W/1620W Extension Cord

Figure 3 - MCP-520-00036-0N optional Power Distribution Unit (PDU) with NEMA L6 plug

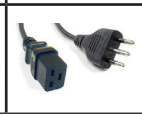
As an example, the 2000 Watt power supply can draw up to 13.6 Amps. Thus, for a single 30 Amp circuit supplying a PDU, no more than 2 power supplies may be connected to the PDU.

The Supermicro SuperBlade® product includes a power extension cord CBL-0223L for 2000W/2500W (Figure 1) or CBL-0248L for 1400W/1620W (Figure 2) power supplies. The power cord connects the power supply to a Power Distribution Unit (Figure 3 - optional PDU) in an IT room. The PDU should supply input voltage ranging from 200V to 240V AC. As stated above, the circuit that the PDU plugs into should provide 30 Amps that is not shared by any other device.

Before beginning receptacle installation, consider the following:

- Observe all local electrical codes and practices.
- Ensure that the AC power receptacle is wired to the site AC power via conductors routed through flexible metal conduit or via approved AC power cable before installation.
- Ensure that AC power cord is properly sized, service rated, temperature rated, and complies with all applicable codes and regulations.
- Ensure that the conductors in conduit are properly sized, service rated, temperature rated, color coded, and comply with all applicable codes and regulations.
- Ensure that the AC power cord or conduit is long enough to reach from the site AC power junction box to a location within the distance required for the connection.
- Ensure that the number of power supplies connected to one circuit do not exceed the rated amperage of the circuit.

Please see table below which lists some examples of international power cords that are compatible with Supermicro.

Country	Australia	China	Isreal	India / S. Africa	Italy/S. America	Euro	UK	US	US
Part Number	CBL-0238L (2000W/2500W)	CBL-0239L (2000W/2500W)	CBL-0243L (2000W/2500W)	CBL-0245L (2000W/2500W)	CBL-0244L (2000W/2500W)	CBL-0240L (2000W/2500W)	CBL-0241L (2000W/2500W)	CBL-0247L (2000W/2500W)	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
Image									

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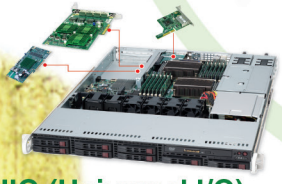
TwinBlade™



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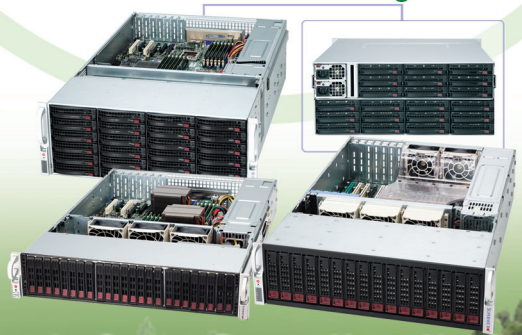

Twin Family
4DP Nodes in 2U
6x 3.5" HDDs per Node & 1U

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United States / Canada	FCC - Emissions (US) Verification
Europe	EN55022 - Emissions EN55024 - Immunity EN61000-3-2 - Harmonics EN61000-3-3 - Voltage Flicker CE- EMC Directive 89/336/EEC

Safety Compliance

United States / Canada	UL60950-1 - CSA/CUL 60950-1
Europe	TUV, EN60950-1, CE- Low Voltage Directive 73/23/EEE

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